

PRESS RELEASE No. 323

28 November 2022

Socioeconomic inequalities in cancer mortality between and within countries in Europe: a population-based study

Lyon, France, 28 November 2022 – A new study, led by scientists from the International Agency for Research on Cancer (IARC) in collaboration with researchers at the Erasmus Medical Center (Netherlands) and other international partners (including Imperial College London, University College London, and the United States National Cancer Institute Center for Global Health), investigated socioeconomic inequalities in cancer mortality in Europe.

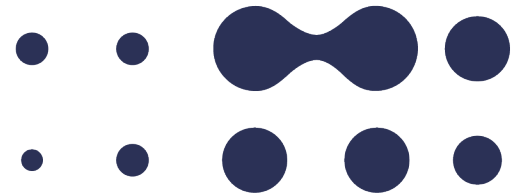
This research fills a major gap in the current knowledge and mapping of socioeconomic inequalities in cancer in European countries, by providing a comprehensive and comparative assessment of several aspects of cancer inequalities between and within countries.

The study, published today in *The Lancet Regional Health – Europe*,¹ is based on the linkage of cancer mortality data with information on socioeconomic status, as measured by education level derived from the census. The data were compared across 18 European countries during 1990–2015, in adults aged 40–79 years. For most of the countries included in the study, information was available for the entire national population.

“We found that socioeconomic inequalities in cancer mortality are large and exist everywhere in Europe and for most cancer types,” says Dr Salvatore Vaccarella, the IARC scientist who led the study. “However, the magnitude of these inequalities varies dramatically across countries. This variation is predominantly due to the remarkable between-country differences in cancer mortality rates among individuals with lower socioeconomic status. In contrast, cancer mortality rates among individuals with higher socioeconomic status are more homogeneous across countries, and the levels are lower.”

Few studies exist that compare socioeconomic inequalities in cancer for so many countries and at such a large scale. The results reported in this study highlight the importance of socioeconomic factors in explaining cancer patterns and differences between and within countries. They also show that cancer mortality in Europe is driven largely by levels and trends of cancer mortality rates among the groups with the lowest socioeconomic status.

¹ Vaccarella S, Georges D, Bray F, Ginsburg O, Charvat H, Martikainen P, et al. (2022). Socioeconomic inequalities in cancer mortality between and within countries in Europe: a population-based study. *Lancet Reg Health Eur*. Published online 28 November 2022. <https://doi.org/10.1016/j.lanepe.2022.100551>



A substantial fraction of cancer deaths in Europe – about 32% in men and 16% in women overall, and up to 46% in men and 24% in women in Baltic, central, and eastern European countries – were associated with educational inequalities. Although general decreases in mortality rates were observed for several cancer types, the trends were consistently less favourable among individuals with lower education levels. An important finding of this study is that socioeconomic inequalities in cancer mortality are increasing rapidly among women, particularly for lung cancer (and other cancer types related to tobacco use and alcohol consumption) and even in countries with a long-established tradition of equitable welfare and social justice policies, such as the Nordic countries.

“The most advantaged individuals in societies seem to be relatively protected against cancer mortality, independent of where in Europe they live. However, for the least advantaged individuals the country of residence is of great importance with respect to cancer mortality,” says Dr Vaccarella. “The immediate implication is that the reduction of cancer mortality rates among the most disadvantaged groups is a crucial step to lower national average cancer mortality rates and the overall burden of cancer. The results of this study call for systematic measurement, monitoring, and action on the substantial socioeconomic inequalities in cancer in Europe.”

Note to Editors

This study is funded by the Institut National du Cancer (INCa), France.

For more information, please contact

Véronique Terrasse, Communications Team, at +33 (0)6 45 28 49 52 or terrassev@iarc.fr
or IARC Communications, at com@iarc.fr

The International Agency for Research on Cancer (IARC) is part of the World Health Organization. Its mission is to coordinate and conduct research on the causes of human cancer, the mechanisms of carcinogenesis, and to develop scientific strategies for cancer control. The Agency is involved in both epidemiological and laboratory research and disseminates scientific information through publications, meetings, courses, and fellowships. If you wish your name to be removed from our press release emailing list, please write to com@iarc.fr.