

# THE LANCET Oncology

## Press Release

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### WORLDWIDE GULF IN CANCER SURVIVAL BETWEEN 31 COUNTRIES, AND BETWEEN BLACK AND WHITE PEOPLE IN USA (CONCORD STUDY)

The first study to provide directly comparable data on cancer survival from many countries around the world has revealed huge variations between and within 31 countries\*, including the UK. It also shows a gulf in survival between black and white people in the USA. The CONCORD study, authored by over 100 scientists led by Professor Michel Coleman, Cancer Research UK Cancer Survival Group and London School of Hygiene and Tropical Medicine, is published early **Online** and in the August edition of *The Lancet Oncology*.

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The study used data on almost 2 million cancer patients from 101 population-based registries across the 31 countries on five continents to compare 5-year survival for cancers of the breast (women), colon, rectum and prostate. For 16 of the 31 countries, the data covered the entire national population, and the cancer registries covered a total population of almost 300 million. The patients were diagnosed 1990–94 and followed up to the end of 1999. The data were adjusted for the wide international differences in death rates in the general population, and for age.

The highest survival† recorded in the 31 nations was seen in the USA (breast and prostate cancer) Japan (colon and rectal cancers in men) and France (colon and rectal cancers in women). Survival was also high for most cancers in Canada and Australia. Algeria had by far the lowest survival for all cancers studied in both men and women.

Within the USA, 16 states and metropolitan areas‡ were included. New York City had the lowest survival rates for all cancers studied, except rectal cancer in women, in which Wyoming was worst. Hawaii was the best performing area in all the cancers studied, except rectal cancer in men (Idaho) and prostate (Seattle, WA†). Comparison between black and white populations revealed a gulf in cancer survival of 7–14% in favour of white people, with the biggest difference for breast cancer (14%) and the lowest for prostate cancer (7%). The authors say these variations are most likely due racial differences in stage at diagnosis, access to health care and compliance with treatment.

Europe as a whole had much lower cancer survival in all cancers analysed than America, with the differences ranging from 10% (breast) to 34% for prostate cancer (USA 91.9%; Europe 57.1%). France was the best performing European country for cancers of the rectum and colon, while Sweden had the highest survival for breast cancer (82%) and Austria the highest for prostate cancer. The worst performing countries were in eastern Europe. Poland had the lowest survival rates for all cancers studied except rectal cancer in men and breast cancer, which were both found in Slovakia.

Of the four countries in the UK, Wales had the lowest 5-year survival for all cancers studied, while Northern Ireland had the highest for all except rectal cancer in women and prostate cancer (Scotland). The trend in cancer survival from highest to lowest followed the order Northern Ireland—Scotland—England—Wales, except for rectal cancer in women and prostate cancer. The survival difference between the best and worst performing UK countries ranged from 5.0% in rectal cancer for women (Scotland/Wales) to 11.0% for colon cancer in women (Northern Ireland/Wales). Within England, the Trent region had the lowest survival for all cancers studied. The best performing regions were West Midlands (breast cancer, and colon cancer in men and women); East Anglia (rectal cancer in men), the south west (rectal cancer in women and cancer of the colon and rectum overall in both men and women); and the south Thames region (prostate cancer).

The Australian state of Tasmania had the worst survival rates in the country for all cancers studied except breast and prostate cancers (Northern Territory). The highest survival rates were spread around the rest of the nation for the various cancers, including, surprisingly, Northern Territory, which had the highest survival rates for rectal cancer in women. But variation in survival between states and territories of Australia, and also provinces of Canada, was generally very small, and overall survival was very high, suggesting high standards of health care in most areas. Geographic variation was much wider between the countries of Europe and the states of the USA.

The authors analyse the variations worldwide in a comprehensive discussion section and conclude: "Most of the wide global range in survival is probably attributable to differences in access to diagnostic and treatment services. International variation in survival in Europe has been associated with national levels of economic development, as measured by total national expenditure on health. Survival is positively associated with gross domestic product and the amount of investment in health technology such as CT scanners. Part of the international variation in survival is thus probably attributable to under-investment in health resources." Further analyses are planned in selected countries to assess how much differences in stage at diagnosis and treatment explain the international variation in survival. The authors plan to update the study and extend it to other countries.

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#### Notes to Editors

\*The 31 countries: Algeria, Brazil, Cuba, USA, Japan, Austria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Iceland, Ireland, Italy, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK (with England, Scotland, Northern Ireland, Wales counted as separate countries), Australia.

†Although the figures show Cuba had the highest survival in some cancers, analysis suggests the figures are almost certainly inflated for technical reasons. The survival estimate for prostate cancer in Michigan, USA, (100%) was also deemed unreliable.

‡In the USA, the study included 16 states (California, Colorado, Connecticut, Florida, Hawaii, Idaho, Iowa, Louisiana, Michigan, Nebraska, New Jersey, New Mexico, New York, Rhode Island, Utah and Wyoming) and 6 metropolitan areas (Atlanta GA, Detroit MI, Los Angeles CA, New York City NY, San Francisco CA and Seattle WA).

§The UK was broken into the following regions in the study: Anglia, Mersey, Oxford, South Thames, South West, Trent, West Midlands, Yorkshire, Northern Ireland, Scotland, Wales.