

Study of neighborhoods points to modifiable factors, not race, in cancer disparities

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While cities have shown considerable racial disparities in cancer survival, those racial disparities virtually disappear among smaller populations, such as neighborhoods within that city. The finding comes from a new analysis published in the May 15, 2009 issue of *CANCER*, a peer-reviewed journal of the American Cancer Society. The study examined breast and prostate cancer survival rates at different geographic levels, and the results suggest that there are significant societal factors at the root of cancer-related racial disparities.

Previous research has shown that considerable health disparities exist relating to race, ethnicity, geographic location, and other factors. While researchers have been striving to understand the causes of such disparities in survival from some cancers, including cancers of the breast and prostate, the potential roles of innate factors, such as genetic differences, versus modifiable factors, such as socioeconomic differences, remain unclear.

Researchers led by Jaymie Meliker, Ph.D. of Stony Brook University investigated if these disparities remained among different population sizes—for example whether disparities seen in counties persisted in cities and even neighborhoods. They studied regions in Michigan, drawing from the Michigan Cancer Surveillance Program, which compiled information from 1985-2002 on 124,218 breast cancer and 120,615 prostate cancer patients.

The team's goal was to conduct an analysis of [racial disparities](#) in [cancer](#)

[survival](#) at different geographic scales. As the geographic scale decreases, the population becomes more homogenous in terms of [socioeconomic status](#) and other characteristics, such as proximity to medical screening facilities. Therefore, the researchers hypothesized that if racial disparities diminished when smaller geographic areas were analyzed, modifiable factors, not biology, may be responsible for the disparity.

The study revealed that whites experienced significantly higher survival rates for prostate and breast cancer compared with blacks throughout much of southern Michigan when large geographic regions were analyzed. However, when the investigators analyzed smaller geographic regions, such as legislative districts and community-defined neighborhoods, disparities diminished or virtually disappeared.

"When racial disparities vanish in small geographic areas, it suggests that modifiable factors are responsible for apparent racial disparities observed at larger geographic scales," the authors write. These modifiable factors could include socioeconomic factors, differences in tumor stage, differences in treatment and the presence of additional health conditions. It is unclear which of these are important, but this study's findings suggest that genetic factors are not likely to play a large role in disparities of survival from prostate and breast cancer.

More information: "Breast and [prostate cancer](#) survival in Michigan: can geographic analyses assist in understanding racial disparities?" Jaymie R. Meliker, Pierre Goovaerts, Geoffrey M. Jacquez, Gillian A. AvRuskin, and Glenn Copeland. *CANCER*; Published Online: April 13, 2009 (DOI: 10.1002/cncr.24251); Print Issue Date: May 15, 2009.

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