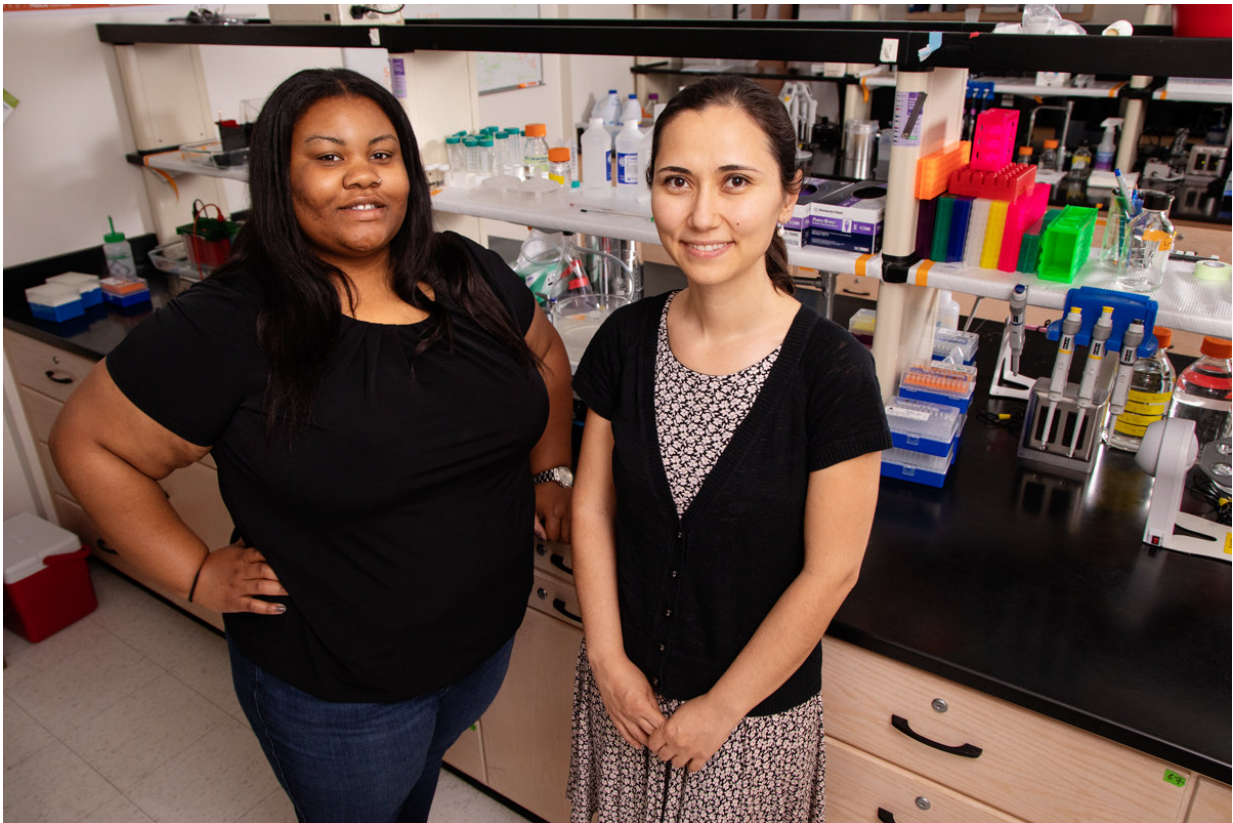


Study links neighborhood factors, breast cancer rates in African-American women

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Racial disparities in breast cancer diagnosis and survival rates may have more to do with women's living environments than their races, suggests a new meta-analysis of recent research on the topic by, from left, graduate student Brandi Patrice Smith and professor Zeynep Madak-Erdogan, both in the department of food science and human nutrition at the University of Illinois. Credit: L. Brian Stauffer

Neighborhood characteristics such as racial composition and poverty rates are associated with increased risks of late-stage breast cancer diagnoses and higher mortality rates among urban black women, a new analysis of recent breast cancer research shows.

Even African-American [women](#) living in low-income neighborhoods that are undergoing gentrification and economic improvement may be at significantly greater risk of having distant metastases at the time they are diagnosed with [breast](#) cancer, said lead author Brandi Patrice Smith, a graduate student in food science and human nutrition at the University of Illinois.

"This is enlightening, because an increase in overall neighborhood socioeconomic status should result in better health for residents, not worse health," Smith said. "But because these neighborhoods were still low-income, they didn't have as many resources," such as health care facilities and access to mammography and follow-up care.

The study, which was published recently in the journal *Hormones and Cancer*, comprised a sample of more than 93,600 black women living in various large cities and urban areas across the U.S.

The dataset included patient information from state breast cancer registries in California, Georgia, Illinois, New York, North Carolina and Texas. Patients who ranged in age from 19 to 91 were tracked for an average of eight years.

Despite thousands of studies on breast cancer that have shown racial disparities in diagnosis and survival rates, only a small number of researchers have explored how these disparities might be related to various factors in women's living environments, Smith said.

Nearly half of African-American women in the U.S. live in urban areas

and about 25 percent reside in low-income neighborhoods, according to the study.

Smith and co-author Zeynep Madak-Erdogan, a professor in the same department, conducted a systematic review of recent [breast cancer research](#) to explore possible associations between characteristics of urban neighborhoods and breast cancer rates among African-American women. Among the factors they examined were neighborhood racial composition/segregation, poverty rates and access to mammography.

Residential segregation – which was defined as living in a neighborhood with a predominantly African-American population – significantly increased African-American women's rates of late-stage diagnosis and doubled their chances of dying from breast [cancer](#), the analysis showed.

Comparable [mortality rates](#) were found among white women who also lived in predominantly African-American neighborhoods, the researchers found.

"This suggests that the environmental conditions associated with low-income neighborhoods – rather than race itself – increases women's risks of dying from [breast cancer](#)," Smith said.

Mortality rates and risks of late-stage diagnosis were significantly greater in low-income [neighborhoods](#) where women of any race had limited access to mammograms and follow-up care with physicians, Smith said.

More information: Brandi Patrice Smith et al. Urban Neighborhood and Residential Factors Associated with Breast Cancer in African American Women: a Systematic Review, *Hormones and Cancer* (2018). [DOI: 10.1007/s12672-018-0325-x](https://doi.org/10.1007/s12672-018-0325-x)

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