

Living in certain neighborhoods increases the chances older men and women will develop cancer

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(PhysOrg.com) -- Older people who live in racially segregated neighborhoods with high crime rates have a much higher chance of developing cancer than do older people with similar health histories and income levels who live in safer, less segregated neighborhoods.

That is one of the key findings of a new study forthcoming in the January 2011 issue of the [American Journal of Public Health](#). The study was conducted by Vicki Freedman, an [epidemiologist](#) at the University of Michigan Institute for Social Research and colleagues at the University of Medicine and Dentistry of New Jersey.

One of a growing number of studies documenting the connection between neighborhood characteristics and chronic health conditions, it is the first to show that living in more highly segregated areas with higher [crime rates](#) is linked with an increased risk of developing cancers of all kinds—for whites as well as Blacks.

The chance of developing cancer is 31 percent higher for older men living in these kinds of [neighborhoods](#), and 25 percent higher for older women.

The study also found that living in low-income neighborhoods increased the chances that older women would develop heart problems by 20 percent. They found no impact on older men.

The researchers based their analysis partly on data from the ISR Health & Retirement Study, a nationally representative, longitudinal survey of more than 20,000 Americans age 50 and over, funded primarily by the National Institute on Aging, part of the National Institutes of Health.

For their analysis, the researchers analyzed detailed measures of self-reported individual health histories, matched with multiple indicators of the social, economic, and physical conditions of the neighborhoods in which individuals lived.

According to the authors, the study's findings point to potentially new pathways through which the neighborhood environment may influence the development of chronic disease. For example, much of the previous research on cancer and the environment has emphasized lifestyle factors such as tobacco use, diet and exercise, and exposure to cancer-causing agents, rather than the social and economic aspects of the environment.

Although the link between racial segregation and health is often cited as a fundamental cause of health and mortality disparities between Blacks and whites, the most common explanation for the link is that segregation influences socioeconomic deprivation and individual socioeconomic attainment. "But we found that segregation and crime increased the chances of developing cancer even after we controlled for socioeconomic resources at both the individual and the neighborhood level," Freedman said.

The researchers also examined levels of exposure to air pollution and other environmental toxins, but found that crime rates and racial segregation levels independently predicted cancer onset.

"The remarkable similarity in the size and strength of this relationship for both men and women is quite surprising given differences in the types of cancer each gender develops," she said. "This suggests that a

nonspecific biological mechanism may be involved, possibly a stress response that interrupts the body's ability to fight the development of [cancer](#) cells."

Freedman and co-authors call for further research into the social and biological mechanisms that underlie this link, noting that the addition of biological measures to the ISR [Health](#) & Retirement Study, the ISR Panel Study of Income Dynamics, and other longitudinal national surveys will make this type of analysis possible in the near future.

Provided by University of Michigan

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