

Why?

UNC researchers look for the reasons behind colon cancer disparities

Are the higher rates of colon cancer among African-Americans and their higher death rates from this disease due to differences in access to care or health information, differences in diet, or even variant tumor characteristics?

Various studies have suggested these reasons and more, but there are no clear-cut answers. “Race is a difficult term to define, and it’s quite likely to be something else—poverty or access to care—that’s really responsible,” says Dr. Robert Sandler, professor of epidemiology at the UNC School of Public Health and Nina C. and John T. Sessions Distinguished Professor of Medicine.



Dr. Robert Sandler

Dr. Paul Godley, adjunct associate professor of epidemiology and biostatistics at the UNC School of Public Health, associate professor of hematology and oncology at the UNC School of Medicine and director of the UNC Program on Ethnicity, Culture and Health Outcomes (ECHO), agrees that as scientists learn more, reasons for health disparities are likely to run the gamut and will be different for various diseases. “It’s going to be everything—from attitudes and beliefs among patients about early detection and screening for a certain cancer, access to screening or prevention programs and access to health care—to the attitudes and beliefs of the physicians taking care of the patients, their ability to either treat patients or refer them for treatment, and racial differences in risk factors for some diseases,” Godley says. ▶▶

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Sandler adds, "There's clearly some evidence suggesting that lack of access to care causes people to do worse." In one study, among veterans, African-Americans and whites had outcomes that were similar. "Veterans have the same access to care, despite race," Sandler notes, indicating that "equal access to care eliminates disparities."

African-Americans may be more likely to get particular tumor types that might cause them to have worse outcomes. Dr. Richard Goldberg, professor of medicine at the UNC School of Medicine, found that African-Americans with colon cancer didn't respond as well to a particular type of chemotherapy. While he couldn't know for sure why racial differences existed, one possibility is that African-Americans (or other racial groups) might get different tumor types or may metabolize chemotherapy drugs differently.

Sandler is helping coordinate two studies seeking to sort out the reasons. He leads the UNC arm of the national CanCORS (Cancer Care Outcomes Research and Surveillance), funded by the National Cancer Institute, which follows 5,000 colon cancer patients from across the country. Researchers are collecting information about factors that might affect patient outcomes, including which hospitals patients visit, the types of health care providers they see, whether they have other diseases and which treatments they receive.

The UNC arm of the study also is collecting samples of tumor tissue from each patient. The researchers will analyze this tissue with special funding from the National Cancer Institute—a Specialized Program in Research Excellence (SPORE) grant in gastrointestinal cancers, led by Dr. Joel Tepper of the UNC School of Medicine.

"Other people have looked at some of the molecular characteristics of tumors, but they didn't have this whole rich data set that we have from the CanCORS project," Sandler says. "And other people have done projects like CanCORS, but they haven't had the tumor tissue. So the power of our study is that we have this rich source of information about the patient, the providers, the health care system, and we also have the tumors."

In their analyses, the researchers will look for clues as to how tumors might differ among people who have worse outcomes. "There are about 20 different markers we're looking at that have to do with different ways ►►

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that cancer can develop,” Sandler says. Examples include DNA repair genes and tumor suppressor genes, which, when mutated, don’t perform their normal function of suppressing cancer.

“So if you have a certain pattern of mutations, for example, is your prognosis worse? Or do people with certain tumor characteristics respond differently to chemotherapy or to radiation therapy? By taking advantage of the CanCORS data set, we’ll have extensive information on the kinds of chemotherapy patients received and the kinds of radiation that they got,” Sandler says.

The CanCORS study is scheduled to follow the patients for one year, though Sandler and colleagues are seeking additional funding. “We’d really like to be able to follow these people for a long period of time,” he says. Studies like these are among the most important being done because they help researchers answer the many key questions that have plagued us for years, such as, “What difference does it make when a person gets into the health care system or where they are treated? Is income more important than race? Is tumor type the most important factor?” Much hope lies with large, interdisciplinary studies, led by strong teams like CanCORS, to answer these and other questions with credible data.

– *By Angela Spivey*