A 60-year-old, uninsured African American woman from Chicago found a lump in her breast and went to the emergency room. What happened next, researchers say, had much less to do with the woman’s biology than her location. A 2019 case study documented how the local health care system failed the woman at multiple points, from an initial misdiagnosis to a lack of follow-up to a lumpectomy and recommended mastectomy that came without clear communication or a referral to an oncologist.

African American women are roughly 2-fold more likely to die of breast cancer than white women according to the National Cancer Institute. Other significant racial disparities have been documented for melanoma, stomach cancer, colorectal cancer, prostate cancer, and cervical cancer, among others.

Until recently, many researchers viewed race as a biological lens through which the disparities could be explained. Growing partnerships between medical and social scientists are instead strongly suggesting that the predominant risk factors are rooted not in biological differences but rather in deeply ingrained social inequities such as structural racism.

People think of racism as interpersonal, which it can be, or as being unconscious, as it can be,” says David Ansell, MD, MPH, senior vice president for community health equity at Rush University Medical Center in Chicago, Illinois, and a coauthor of the case study. “But what we’re talking about is that it’s structural: It’s actually designed into the way we do our daily work and daily business.”

Chicago’s Center for Community Health Equity, a partnership between Rush University Medical Center and DePaul University, is pairing medical researchers with social scientists to take a more holistic approach to identifying and removing barriers to care. A collaborative approach, Dr. Ansell says, can help to zero in on often invisible but important variables such as differences in the quality of care by race.

In addition, poverty and isolation can knock out critical social supports that help patients to get through medical treatments. “We think place really makes a difference here, so it’s not just poverty, it’s location,” Dr. Ansell says. For minority communities, one key difference is the way in which poverty is concentrated within specific neighborhoods. In Chicago, he says, women who are poor, are minorities, or are on public insurance are 40% less likely to live near a breast-imaging center of excellence than their white counterparts. Instead, hospitals and clinics that serve minority neighborhoods are often underfunded and unable to keep up with advances or new recommendations. Because the patient population is overwhelmingly black, they tend to bear the burden of the “inequality in quality,” Dr. Ansell says.

Multilayer Impacts on Cancer Outcomes
Recent studies have shown that equal access to high-quality care can help to reduce, though not always eliminate, some of the disparities. A preliminary analysis of more than 4500 patients with breast cancer in Kaiser Permanente’s health care system in northern California found that despite equivalent access to care, black patients with breast cancer still fared worse. Study leader Lawrence H. Kushi, ScD, director of science...
How Structural Racism Can Kill Cancer Patients

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—David Ansell, MD, MPH

policy at the Kaiser Permanente Northern California Division of Research in Oakland, says that socioeconomic status seemed to have the biggest effect on disparities in the mortality rates. A separate analysis showed similar disparities for ovarian cancer.

His team is investigating potential differences in disease biology and in the quality of delivered care, such as the possibility that more obese women might be receiving lower quality breast cancer care. For example, because of an older formula that is no longer recommended but is still in use, women with a higher body surface area may receive an inadequate dose of chemotherapy and thus have poorer outcomes. To further explore the role of socioeconomic status, his group is also making use of the California Neighborhoods Data System, a resource that can help researchers to examine the contribution of neighborhood characteristics to cancer incidence and outcomes.

That system has been developed by a team led by Scarlett Lin Gomez, PhD, MPH, a professor of epidemiology and biostatistics at the University of California at San Francisco. One of her recent studies found that patients living in San Francisco neighborhoods with a lower socioeconomic status and larger minority populations had worse outcomes for breast cancer.1 The study revealed both neighborhood-level and racial/ethnic differences in the stage of diagnosis, the molecular subtype of the tumor, survival, and mortality. Compared with other racial/ethnic groups, black women faced the highest disparities in outcomes across the city.

Salma Shariff-Marco, PhD, MPH, an associate professor of epidemiology and biostatistics who works with Dr. Gomez, previously found that racism is a stressor that may exacerbate disparities by shaping some cancer-related health behaviors.2 Based on a question in the 2003 California Health Interview Survey, her study found that participants who reported experiencing more racism were more likely to smoke, binge-drink, and be overweight. In addition, men who reported experiencing more racism in the health care system were less likely to be up to date on their prostate-specific antigen screening for prostate cancer.

Just as studies should report on the race and ethnicity of participants, Dr. Shariff-Marco says, more should be reporting on racism as well. “I think it’s a fundamental cause of health inequities,” she says. “If we don’t measure it, then we can’t really estimate how it’s impacting these health inequities and health disparities.”

An Intentional Push for Solutions

To better understand how structural racism may interact with other multi-level contributors to worsened cancer disparities, the researchers have helped to design a multicenter study of prostate cancer in black men called Research on Prostate Cancer in Men of African Ancestry (RESPOND). The study aims to recruit up to 10,000 patients recently diagnosed with prostate cancer from 7 states. Among its multiple biological and social measures, RESPOND will examine patterns of bias in mortgage lending and redlining, or the systematic refusal to extend loans or insurance to racial or ethnic minorities in certain neighborhoods.

“It’s really these historical forces like redlining and racial bias in mortgage lending that have resulted in segregation of populations,” Dr. Gomez says. That segregation, in turn, may result in fewer available resources within minority communities, just as Dr. Ansell says has happened in Chicago.

The patient whose case Dr. Ansell highlighted saved her breast with the help of an onsite nurse navigator arranged by the nonprofit Metropolitan Chicago Breast Cancer Task Force, now called Equal Hope. A referral to a breast surgical oncologist at an academic medical center led to the correct diagnosis of stage III infiltrating ductal carcinoma and successful treatment without a mastectomy.

Equal Hope, of which Dr. Ansell is board president, coordinated a large data-sharing effort that revealed significant variation in the quality of care within Chicago. To help close the gap, the consortium took multiple steps such as launching performance improvement projects and installing nurse navigators to help women to receive better care. A 2017 study suggests that the combined measures helped to narrow the breast cancer mortality gap between black and white Chicagoans from 62% higher rates for black women in 2005-2007 to 39% higher rates in 2011-2013. Overall, the mortality rate among black women dropped by 14%.4 In 9 other US cities with large African American populations, the mortality gap either grew or remained unchanged.

In San Francisco, Dr. Gomez and Dr. Shariff-Marco helped a multi-agency partnership called the San Francisco Cancer Initiative, or SF CAN, to look at the city’s cancer burden in more detail at the neighborhood level. Project leaders then took that data to community organizations and asked them to suggest how the data could be used for targeted interventions. For breast cancer, the collaboration led to a project that is educating city youth in hotspots for late-stage or triple-negative disease (disease that is negative for estrogen and progesterone receptors and is characterized by excess HER2 protein) about the importance of screening and prevention.

Decades of structural racism and mistrust may have led to countless preventable cancer deaths. However, through intentional and systematic work to dismantle the inequities, Dr. Ansell says, racial and ethnic disparities are no longer inevitable.

References


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