



RACIAL DISPARITIES IN CANCER: STATISTICS AND SOLUTIONS **DR. CHRISTOPHER M. MASI AND DR. OLUFUNMILAYO I. OLOPADE**

Cancer mortality rates have declined significantly in the U.S. since the early 1990s: over 18% among men and over 10% among women. Breast cancer is no exception, as the death rate among women decreased from 33.1 per 100,000 in 1990 to 24.0 per 100,000 in 2005. At the same time, five-year survival increased from 84.8% in 1990 to 90.5% in 2000.

But hidden within these statistics is a disturbing trend: the black-white mortality gap is growing. Prior to 1980, breast cancer was both more common and more lethal among white women compared to black women. After 1980, breast cancer incidence remained higher among white women, but mortality in this group began to decline. Among black women, the mortality rate did not begin to decline until approximately 1990. While the death rate is now decreasing in both groups, it has fallen faster among white women, resulting in a widening racial gap. A racial difference of 5.0 deaths per 100,000 in 1990 became a difference of 9.5 deaths per 100,000 in 2005.

Such differences are not confined to breast cancer, as mortality rates are higher among blacks for cancers of the lung and bronchus, colon and rectum, liver and bile duct, stomach, prostate, and uterine cervix. In 2005, overall cancer mortality was 37% higher among black males compared to white males and 17% higher among black females compared to white females.

Similar gaps exist for non-cancer deaths as well, including those from heart disease, stroke, diabetes, pneumonia, kidney disease, and sepsis. Considering deaths from all causes, blacks have a 30% higher age-adjusted mortality rate than whites.

In 2000, the Institute of Medicine convened a special panel to examine the underlying causes of racial disparities in health. The resulting book, [Unequal Treatment](#) (2003), concluded that health and mortality disparities result from many factors, including lower quality of care provided to racial minorities. Other factors include lack of familiarity with racially diverse patients at hospitals and clinics, institutional discrimination based upon health insurance status, conscious and unconscious bias among physicians, lack of

cultural competence among health care providers, and mistrust of the health care system as well as language barriers among patients.

Using *Unequal Treatment* as a starting point, oncologists and epidemiologists have further explored racial differences in breast cancer mortality. This research indicates that quality of care differences indeed contribute to mortality disparities. However, other factors play equal, if not greater roles. Among these are reduced access to screening mammography and clinical breast exams, delayed testing following abnormal screening results, more aggressive tumor biology, more advanced disease at the time of diagnosis, delayed treatment initiation, inadequate communication regarding treatment options and side effects, lower rates of definitive therapy, premature discontinuation of therapy, reduced monitoring following treatment, and inadequate survivorship care.

Because of the diversity of these factors, no single intervention will eliminate the racial gap in breast cancer mortality. Nevertheless, a variety of programs have begun to make inroads. At the federal level, the [National Breast and Cervical Cancer Early Detection Program](#) (NBCCEDP) helps uninsured and underinsured women pay for breast and cervical cancer screening and diagnostic testing, while the [Breast and Cervical Cancer Prevention and Treatment Act of 2000](#) (BCCPTA) helps uninsured breast cancer patients obtain treatment by providing Medicaid benefits regardless of income or assets. Unfortunately, because of the low reimbursement rates, most private hospitals will not provide equal access to Medicaid patients.

At the local level, clinics and hospitals have taken a variety of approaches to reducing racial disparities in breast cancer mortality. The majority of these are designed to enhance screening mammography, while others focus on diagnostic testing, and a few address treatment initiation or quality of care. Among screening programs, those which are culturally tailored or address financial or logistical barriers are generally more effective than those which simply remind women they are due for mammography. This is especially true among women with fewer financial resources and those who have never had a mammogram. Among programs designed to facilitate diagnostic testing, case management is more effective than either patient- or physician-directed reminders.

As for treatment interventions, more research is needed to determine the most effective strategies. However, in studies designed to ensure that patients receive clinically indicated care, decision aids which enhance communication between patient and health care providers have proven useful. Also useful are patient navigator programs, which help women negotiate the health care system from the time an abnormal screening test is noted until treatment is underway. Although this approach has proven successful, its biggest challenge has been funding, which is often limited in clinics and hospitals which serve minority populations.

While initiatives at the national and local level are encouraging, it is important to note that the mortality gap has grown, not diminished over the past decade. Expansion of the NBCCEDP, BCCPTA, and provider-based programs has the potential to narrow the gap, but eliminating disparities in mortality due to breast cancer and other common diseases

may require strategies extending beyond screening, diagnosis, and treatment. For example, excess mortality in young African American women due to triple negative breast cancer can only be reduced by developing novel methods for the early detection and treatment of this most aggressive form of breast cancer. Investment in basic research to understand the science of health disparities must remain a national priority.

Research on health disparities over the past two decades has shown that on a population level, health outcomes worsen as one goes down the socioeconomic ladder. This is true even in countries such as the UK, where national health insurance ensures equal access to health care. While adverse health behaviors, such as smoking, explain a portion of the health gradient, the positive association between health and wealth persists after adjusting for unhealthy behaviors. As a result, a consensus is emerging that worse health among those with lower income or education may be related to increased levels of day-to-day stress. The toll this stress takes on the body is termed allostatic load, and an increasing number of researchers are investigating the relationship between allostatic load and common ailments such as cardiovascular disease, diabetes, and cancer.

Our group is investigating the link between chronic stress and several issues related to breast cancer, including age of onset, hormone receptor status, and response to treatment. Establishing links in these areas will add to the growing body of evidence that chronic stress has profound health effects. The policy implications of such findings are not entirely clear, but a case could be made for interventions which reduce stress among at-risk populations, including racial minorities and those with low income or education. Policies which combat racism and discrimination are a good start, but elimination of health disparities may require the U.S. to confront problems it has been loathe to address, including racial disparities in public education and discrimination in housing, employment, and economic opportunity. Positive changes in these areas can enhance perceptions of control, and research has shown that such perceptions go a long way toward avoiding stress or mitigating stress once present.

The statistics regarding the breast cancer mortality gap are sobering. Fortunately, several programs are in place to help minority women overcome barriers to breast cancer screening, diagnosis, and treatment. At the same time, many groups are investigating the impact of chronic stress on breast cancer and other diseases. Such research is beginning to show that the racial mortality gap is as much about social justice as it is about medical care. As a result, health care providers will need help if we hope to eliminate this insidious and shameful problem.

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