Some Perspective on Black-White Cancer Statistics

Otis W. Brawley, MD

In this issue of CA, Ghafoor and colleagues1 review cancer incidence, mortality, and survival trends of Black or African Americans and compare them with those of White Americans. For more than 30 years, the disparities in cancer statistics between Black and White Americans have been the subject of much study and controversy. What are the reasons for the disparities? What are the real scientific questions surrounding the disparities? What can be done to address them? What should be done to address them?

The data, as presented, more than justify minority health research and cancer control efforts focused on African Americans. Studies such as this help define the right questions and help direct the US agenda for minority health research and cancer control efforts. With the exception of a very few cancers in small racial/ethnic subgroups, African Americans have the highest mortality rates and worst survival of any population. While Asian American, Native American, and Hispanic populations generally have lower incidence and mortality rates than White Americans, there is still a legitimate need to focus on cancer control among all populations. In the future, much of cancer control work will involve the social sciences as health educators and health care providers learn and grow in respect for the importance of culture.

There is some good news in this report in that the data demonstrate some declines in Black American mortality rates over the past 10 years. This being said, the excess mortality of Blacks compared with Whites is still staggering. It is also true that even though there has been a decline in mortality among Blacks, many of the disparities between rates for Blacks and Whites have increased over the past decade. When looking at mortality to incidence ratios, many ratios have worsened for Black Americans. An important trend that is not fully explained is the fact that breast and colon cancer death rates among Whites and Blacks (essentially identical in the 1970s) have grown more disparate every year over the past 20 years.2

The data also require some caveats. First, these incidence and mortality rates are for late in the decade of the 1990s. The population sizes used as the denominator to calculate rates are extrapolations from the 1990 census. These incidence and mortality rates are to be considered estimates and should be used with caution. Dramatic shifts in minority populations are sometimes underestimated late into the decade. This can artifactually increase incidence and mortality rates for small populations and decrease rates for larger populations. Survival rates are unaffected.

WHAT IS THE ROLE OF RACE IN THE DISPARATE STATISTICS?

Some have attributed the differing cancer incidence, mortality, and survival statistics to differing biology between the races; others have noted that race often serves as a surrogate for other factors. The causes of cancer can be simply defined as extrinsic to the patient, intrinsic, or a combination of the two. Extrinsic influences are environmental; they can relate to social conditions and vary with culture. Intrinsic causes are more inherent or genetic. Extrinsic influences
can be changed. In the field of cancer prevention and control, the inherent causes of cancer are immutable until the perfection of genetic therapy. Race can be a surrogate for a number of extrinsic influences on cancer etiology. It is less clear that race is a good surrogate for genetic or inherent risk factors for cancer.

**POPULATION CATEGORIZATION**

Race is a sociopolitical way of categorizing a population. It is not a biological categorization. The US Office of Management and Budget defines the racial and ethnic categories used in the decennial census. These categories are then used by cancer registries to generate the published data. These population categories are not based on biological science or taxonomy. Indeed, these categories are extremely political. Over the past 30 years, native Hawaiians have been considered first Asian/Pacific Islanders, then Native Americans, and are now placed in a category separate from Asians called “Pacific Islanders or Hawaiians.”

While race is a sociopolitical categorization, it can be a surrogate for extrinsic causes of cancer. It is somewhat ironic that this sociopolitical construct is often used in a sort of medical racial profiling for risk of disease. Other more scientific ways of categorizing populations include ethnicity, socioeconomic status, and area of geographic origin.

Ethnicity can relate, to some degree, to extrinsic influences of cancer causation. These influences are often accomplished through cultural differences in diet and other habits. Studies of Asians migrating to the United States demonstrate that acculturation increases risk of cancer of prostate, breast, and colon. There is even evidence of cultural differences in smoking patterns among ethnicities.

Socioeconomic status (SES) is another way of categorizing populations. SES has been correlated with risk of disease and with health outcomes. Poorer populations have higher incidence and mortality from a number of diseases and especially a number of cancers. In population studies of breast cancer patients, poorer White women with low-stage disease have been shown to have a higher likelihood of having poorer pathological factors at diagnosis when compared with middle class and wealthy Whites with the same stage of disease. “How does poverty or socioeconomic status influence cancer pathology?” is an important question in population research. It has been noted that Black women with breast cancer have disproportionately more high-grade disease when compared with White women within the same stage. This is crucial in supporting the statement that the biology of breast cancer is different in Blacks. Black women are disproportionately poorer when compared with White women in the United States. Could the racial differences in tumor biology be due to socioeconomics and not inherent racial biology?

Populations can also be categorized by area of geographic origin. Many genetic influences parallel area of geographic origin. Populations with the sickle cell mutation are from a defined geographic area. The sickle cell mutation is found in persons from populations arising in southern Spain, Italy, Greece, and countries of the Middle East as well as northern and Sub-Saharan Africa. Contrary to common belief, this genetic disease is of higher prevalence in Sub-Saharan Africa, but it is not exclusive to Black Africans. It should also be pointed out that Africans originating from southern Africa do not have the sickle cell mutation.

While race is not a biological categorization, it appears to be good at defining a risk group for certain cancers, especially multiple myeloma and prostate cancer. It is conceivable that there are genetic causes of certain cancers that are more prevalent in populations whose members...
may have partial or full origin from certain geographic areas such as Africa or a part of Africa. As with sickle cell anemia, these genetic factors are unlikely to be exclusive to a sociopolitically defined group.

EQUAL TREATMENT YIELDS EQUAL OUTCOMES; THERE IS NOT EQUAL TREATMENT

Much can be learned from the current body of scientific literature in minority health. Numerous clinical trials have demonstrated the equal efficacy of quality cancer treatment in Blacks when compared with Whites. The message is that equal treatment yields equal outcomes among individuals with equal disease. When there is equal treatment, race is not a factor in outcomes. This lesson has also been demonstrated outside of clinical trials in larger population-based studies. Blacks who are retired from the US military and their spouses have much lower cancer mortality rates and better survival than Blacks in the US population as a whole. This population is also of higher-average socioeconomic status and better educated than the Black American population as a whole. These findings suggest that the provision of high-quality preventive care and high-quality treatment along with its acceptance could significantly reduce the Black-White disparity in cancer mortality. There is evidence that the breast cancer disparity could be reduced by more than 70 percent.

As race is currently defined, the data demonstrate a group that suffers disproportionately. Numerous studies have shown that there is not equal treatment among Black and White patients in the United States. There is growing evidence that poor Whites, poor Hispanics, poor Native Americans, and even poor Asians also have disparate, less-optimal patterns of care once diagnosed.

A PRESCRIPTION FOR MINORITY HEALTH CANCER CONTROL EFFORTS

A greater concern for the disparate effects of cancer among the poor is merited, but it should not diminish our concern for cancer disparities among racially defined populations. Racial categorization does define a population with an unequal burden of cancer. Whether addressing the needs of racial minorities or the impoverished, many of the core messages will be the same.

• To reduce the incidence of cancer, we must stress the need for individual and community education surrounding diet, exercise, and other healthful habits.

• To reduce the number of advanced cancers at presentation to medical care, we must stress the value of seeking medical help as soon as symptoms are realized, and teach what those symptoms are. We must also advocate the use of effective and rigorously-proven screening technologies.

• Cancer control messages and efforts must be respectful of a population’s culture and targeted to that population’s needs and social situation.

The provision of adequate preventive and therapeutic care is the most expeditious way to decrease racial disparities. A focus on biological differences between the races is unlikely to reduce disparities, but the rigorous study of biological differences between well-defined populations may aid in the understanding of genetic causes of cancer. The data in the paper by Ghafoor and colleagues combined with findings from other studies suggest that a major question in minority health research must be “how can we provide adequate and effective preventive care and therapy to all in need?” This is a matter of social justice. The true measure of the character of a nation is how it addresses the needs of all its people.
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