Editorial: Health and Health Care Disparities in Cancer and Cardiovascular Diseases – Learning from One to Improve the Other

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Health and Health Care Disparities

Cancer and cardiovascular diseases are similar in more ways than often appreciated. They are the two leading causes of mortality worldwide and accounted for 26.6 million deaths in 2016, nearly half (48.6%) of all global deaths.[1] They are also important contributors to health loss and years lived with disability.[2] Collectively, cancer and cardiovascular diseases share several major risk factors including tobacco use, physical inactivity, poor diet, obesity, and environmental air pollution.[3-5] Many of these proximal risk factors are rooted in individual behavioral and lifestyle risks as well as more distal social, policy, and environmental determinants of health.[6] For example, it is well-established that cancer and cardiovascular diseases share prominent associations with adverse childhood experiences, lack of social support, low socioeconomic status, social exclusion, and low educational attainment.[6-9]

Importantly, patients with cancer or cardiovascular diseases in the United States also demonstrate pervasive disparities in health and health care access influenced by race, ethnicity, geography, neighborhood, income, socioeconomic status, and educational attainment.[10] Wong et al demonstrated that cardiovascular diseases and cancer contributed the most to educational disparities associated with potential life-years lost between persons with less education and those with more education, even after adjustment for age and sex or age, sex, and race.[11] In fact, they estimated that if ischemic heart disease and lung cancer were eliminated, the educational disparity related to life expectancy would be reduced by 10 months and 6.5 months per person, respectively.[11]

Given these similarities and the association with proximal and distal root causes of health disparities, lessons learned from strategies to address cancer disparities may have relevance for efforts to reduce and eliminate cardiovascular disparities. It is through this lens that cardiovascular specialists and health care professionals interested in cardiovascular disparities would find the articles in this issue of *Ethnicity & Disease* intriguing. The articles address three areas of focus that are highly relevant for, and applicable to, cardiovascular disease: lifestyle behaviors, attitudes, knowledge and perceptions[12-14]; promising interventions[15,16]; and policies and training.[17,18] These are all areas where progress made in our understanding of cancer disparities and the design of effective interventions can have direct benefit for addressing cardiovascular disparities.

For example, racial and ethnic differences in youth risk behavior and personal and parental attitudes toward the use of cigarettes, cigars, cigarillos, little cigars, and modified tobacco products can contribute to disparities in the future burden of both cancer and cardiovascular diseases. Effective interventions based on the observations by Trapl and Koopman Gonzalez[12] will likely benefit disparities reductions for both cardiovascular diseases and cancer. Similarly, the important lesson of properly accounting for demographics in assessing the likelihood of smoking cessation[13] can be invaluable in informing interventions for promoting health and reducing racial and ethnic disparities in cancer and cardiovascular diseases related to tobacco use. Likewise, research that focuses on known drivers of differences in access and preferential

use of technologies such as email and text messaging can inform communication technology-based interventions.[16]

As emphasized in the article by Sheffer et al,[18] challenges in clinical training and workforce preparedness to address tobacco treatment-related disparities remain important barriers to achieving progress in reducing cancer disparities. These challenges have relevance for addressing cardiovascular disparities. In fact, competency-based curricula that use intersectionality as an organizing framework proposed by Sheffer et al will be helpful in framing the approach to skills-building and continuing education in efforts to reduce cardiovascular disparities.[18]

Although the articles in this issue of *Ethnicity & Disease* focus only on the important shared risk of tobacco, the research themes of lifestyle behaviors, attitudes, knowledge, perceptions, promising interventions, policies, and training all have relevance for the other shared risk factors important for cancer and cardiovascular disparities. The articles therefore provide an opportunity for us to learn from tobacco-related cancer disparities to inform research and the design of interventions for addressing cardiovascular disparities.

It is particularly reassuring to know that scientific research and dialogue on cancer disparities continue unabated. One forum for such dialogue, the 2nd National Cancer Institute Symposium on Cancer Health Disparities,[19] will provide an additional opportunity to explore the excess cancer burden in racial and ethnic minority, immigrant, and underserved communities in the United States. The symposium will also address recent advances in the role that risk factors play, in concert with "environmentally induced stress, comorbidities, and ancestry-related risk factors" to perpetuate cancer disparities. We look forward to learning from all the exciting work and advances in cancer disparities to improve our strategies for cardiovascular disparities.

Conflicts of Interest

No conflicts of interest to disclose

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