

EDITOR'S PAGE



Understanding and Reducing the Social and Environmental Determinants of Health Disparities in Cardio-Oncology



Bonnie Ky, MD, MSCE, *Editor-in-Chief, JACC: CardioOncology*

JACC: *CardioOncology*'s inaugural focus issue on Social and Environmental Determinants of Health and Health Disparities examines the critical determinants of cardiovascular health and health disparities in our patients living with and beyond cancer. This issue, publishing in June in honor of Juneteenth, demonstrates our deep commitment to diversity, equity, and inclusivity.

The desire for this issue originated during our open Editorial Board meeting at ACC.23, as we collaboratively discussed strategic initiatives for *JACC: CardioOncology*. I am deeply grateful to the community for raising this issue, building on prior work published in *JACC: CardioOncology* on this critically important topic.^{1,2} Highlighting health disparities as a special focus issue is consistent with my vision for *JACC: CardioOncology*—that we serve as the go-to clinical and scientific resource in cardio-oncology through the curation of rigorous and impactful science; that we advance medicine, science, and the care of our patients; and that we engage and educate the global community.³

Our patients face critical needs. In my own clinic, my patients share with me the distress they feel every day—how they feel unsafe to walk in their own neighborhoods and are reluctant to engage in physical activity because of this; how they have challenges with transportation and getting to their medical, radiation, surgical, and cardio-oncology appointments; how they have limited access to healthy foods; and how they feel marginalized and discriminated against. They share with me the extraordinary financial stressors, as they cope with both cancer and cardiovascular disease.⁴

Many of the disparities in health outcomes have been described in populations across the globe, but remain poorly understood, particularly in cardio-oncology. Environmental factors contribute significantly to poor health, and disadvantaged populations, including those living in poverty, Black individuals, and non-White groups, experience greater exposure to ambient air pollution.⁵ Sobering statistics suggest that Black Americans with cancer have a 25% increased cardiovascular mortality risk compared with Whites, and have overall decreased life expectancy.¹ Broad and deep racial and ethnic disparities exist with cardiovascular risk factor and disease control. Similar inequities exist in oncology, with marked variability in cancer prevention, early detection, and outcomes according to race and ethnicity. For example, in breast cancer, Black women present with tumors that have worse prognostic factors and have worse survival compared with White women.⁶ Similarly, the incidence of prostate cancer is 64% greater in Black compared with White men and is associated with a marked increase in mortality.⁷ However, the impact of sociologic construct of race and racial inequities on cardiovascular and oncologic outcomes in cardio-oncology remains poorly understood.

As a community, we need to understand *how* the social determinants of health, the conditions within which people are born, live, work, and age,^{8,9} *directly impact* cardiovascular and oncologic health in our patients, and *why and how* cancer patients may be uniquely affected as it pertains to their risk of cardiovascular disease. Emerging data suggest that the chronic stressors related to adverse social

determinants of health result in adverse biologic pathways that activate a proinflammatory state, further promoting both cancer and cardiovascular disease.⁸

As a global cardio-oncology community, we need to continue to innovate and advance. As a field, we have together made tremendous strides. But there is still so much to be done to achieve our primary goal—that our patients live longer, healthier lives through augmented, evidence-based, empathic care.¹⁰ We need to understand *who* is at greatest risk, *why* they are at risk, and *what we can do to mitigate risk and advance health for all*. We need to ensure equitable, inclusive, and high-quality care for all. My sincere

hope is that this issue provides actionable knowledge and informs new science, as we work collaboratively to impactfully and positively effect change and overcome the adverse determinants of health for our patients.

ADDRESS FOR CORRESPONDENCE: Dr Bonnie Ky, Department of Cardiovascular Medicine, Perelman School of Medicine at the University of Pennsylvania, Smilow Center for Translational Research, 3400 Civic Center Boulevard, Philadelphia, Pennsylvania 19104, USA. E-mail: [@penmedicine](mailto:bonnie.ky@penmedicine.upenn.edu).

REFERENCES

- Zhu C, Shi T, Jiang C, et al. Racial and ethnic disparities in all-cause and cardiovascular mortality among cancer patients in the U.S. *J Am Coll Cardiol CardioOnc*. 2023;5(1):55-66. <https://doi.org/10.1016/j.jacc.2022.10.013>
- Ganatra S, Dani S, Kumar A, et al. Impact of social vulnerability on comorbid cancer and cardiovascular disease mortality in the United States. *J Am Coll Cardiol CardioOnc*. 2022;4(3):326-337. <https://doi.org/10.1016/j.jacc.2022.06.005>
- Ky B. My hope for cardio-oncology. *J Am Coll Cardiol CardioOnc*. 2022;4(2):286. <https://doi.org/10.1016/j.jacc.2022.06.001>
- Valero-Elizondo J, Chouairi F, Khera R, et al. Atherosclerotic cardiovascular disease, cancer, and financial toxicity among adults in the United States. *J Am Coll Cardiol CardioOnc*. 2021;3(2):236-246. <https://doi.org/10.1016/j.jacc.2021.02.006>
- Zhu W, Al-Kindi SG, Rajagopalan S, Rao X. Air pollution in cardio-oncology and unraveling the environmental nexus: JACC CardioOncology state-of-the-art review. *J Am Coll Cardiol CardioOnc*. 2024;6(3):347-362.
- Stringer-Reasor EM, Elkhanany A, Khoury K, Simon MA, Newman LA. Disparities in breast cancer associated with African American identity. *Am Soc Clin Oncol Educ Book*. 2021;41:e29-e46. https://doi.org/10.1200/EDBK_319929
- Rebeck TR. Prostate cancer disparities by race and ethnicity: from nucleotide to neighborhood. *Cold Spring Harb Perspect Med*. 2018;8(9):a030387.
- Osei Baah F, Sharda S, Davidow K, et al. Social determinants of health in cardio-oncology: multi-level strategies to overcome disparities in care: JACC: CardioOncology state-of-the-art review. *J Am Coll Cardiol CardioOnc*. <https://doi.org/10.1016/j.jacc.2024.02.009>.
- Brandt E, Tobb K, Cambron J, et al. Assessing and addressing social determinants of cardiovascular health: JACC state-of-the-art review. *J Am Coll Cardiol*. 2023;81(14):1368-1385. <https://doi.org/10.1016/j.jacc.2023.01.042>
- Ky B. Growing, building, and defining the field of cardio-oncology for our patients. *J Am Coll Cardiol CardioOnc*. 2023;5(6):851-852.