Cardiovascular Disparities Up South: The Intersection of Geography, Social Determinants, and Race

“There’s power in healing work. But it isn’t personal power. It can not satisfy an individual’s craving for self-importance. It’s a real power that has nothing to do with our small selfish dreams. It’s the power to help life create itself.”

Ayi Kwei Armah, The Healers, 1979

As a crescent-shaped bend at New Orleans, Louisiana, 1223 miles south of Minneapolis, Minnesota, the Mississippi River becomes a deep, broad, chaotic swirl of muddy waters. Also, in Louisiana, as in other Southern states, African American (AA) individuals have a high disparate burden of cardiovascular disease (CVD) and mortality, including hypertension, heart failure, stroke, obesity (especially in Black females), type 2 diabetes, chronic kidney disease, premature CVD death, and shorter life expectancy. Race is a social construct and not a true biological or genetic category. The high CVD burden “Down South” reflects a toxic gumbo of unhealthy lifestyles, childhood dietary patterns, limited health care access, suboptimal CVD risk control, and adverse social determinants of health. Historically, the South is known for its legacy of long-standing structural racism, an array of dynamics — historical, cultural, institutional, and interpersonal — for centuries restricting the opportunities for long, healthy lives of Black Americans and other historically disenfranchised groups.

ENDURING ADVERSE CARDIOVASCULAR MORBIDITY AND MORTALITY IN BLACK MEN AND WOMEN

Past is prologue: health disparities are widespread and not new. There is a well-established association between birthplace and CVD mortality. A peer-reviewed publication from 1990 noted Black men in Harlem, New York City (NYC), were less likely to reach the age of 65 years than male residents in rural Bangladesh, one of the lowest-income countries in the world.

Moreover, in 1996, Southern-born Black male NYC residents experienced a sex- and age-matched death rate from coronary heart disease that was 30% higher than that of Northeastern-born Black adults, and four times that of Caribbean-born adults.

Black families migrated to Minneapolis and other northern cities seeking increased economic viability, exemplary public health, and socially progressive programs. However, the promise of a better life pursued by individuals from the Gulf south or Mississippi Delta did not eliminate health disparities or harsh social experiences. In the issue of Mayo Clinic Proceedings, the Minnesota Heart Health Program (MHHP) data reported by Van’t Hof et al. reveal a disparate CVD risk factor burden among AA adults compared with White adults, including physical inactivity, poor diet, hypertension, diabetes, and obesity and approximately double the CVD mortality rate. Community health workers interviewed 644 urban dwelling AA adults in the Minneapolis–Saint Paul area, included sociodemographics, CVD history, and risk factors and beliefs about health and prevention. There was a high prevalence of hypertension (68%), hyperlipidemia (47%), diabetes (34%), and smoking (32% men, 22% women). Overall, 18% self-reported CVD (22% men, 17% women) and included 64% Black women, a group all too often underrepresented in clinical research, despite a disparate sex-matched CVD morbidity and mortality. Although this
study was not a randomized clinical trial, women of all race/ethnicities have been underrepresented in clinical research, limiting sufficient data generation to ensure the safety and efficacy of evolving cardiovascular interventions.4

ADVERSE SOCIAL AND HEALTH ENVIRONMENTS “UP SOUTH”

“Up South,” as a term, reflects an adverse racial/ethnic environment in Northern cities, dispelling the concept of the North as a place of socioeconomic promise and unbridled opportunity for all. Distressingly, a recent public report noted 37.4% of Minneapolis Black residents, as compared with 10.1% in White residents, lived in poverty, experiencing limited affordable housing.5 In addition, considering police misconduct and murder, racial inequality in Minneapolis has been deemed among the worst in the nation.6

Residents of disadvantaged communities, whether in the traditional South or Up South, may experience predictable responses to “chronic arousal” (or stress). After migration or urbanization, stress-prone populations may become estranged from their neighbors, and fueled by poverty, racism, fractured families, and joblessness, an adverse physiological milieu may develop. Basic research examining chronic stress suggests that the sympathetic nervous system and hypothalamic-pituitary-adrenal axis and sensitization and neuroplasticity may facilitate long-term blood pressure elevation and CVD risk.

PRIMORDIAL PREVENTION AND EARLY CHILDHOOD EXPERIENCES

Childhood experiences matter and primordial prevention may be key to decreasing CVD disparities in AAAs. Gerald Berenson’s seminal Bogalusa Heart study starting from 1972 demonstrated the emergence of elevated blood pressure, hyperlipidemia, obesity, and proven post-mortem atherosclerosis in youth in a Louisiana biracial community.7 Health habits and exposures in youth greatly impact adult CVD rates, and health disparities are rooted in early life experiences.

Changing geography is not a solution to complex health issues. The CVD risk factor burden in the Minneapolis sample was similar to that seen in AA individuals in the Jackson Heart Study. The MHHP cohort included 67% attending or graduating from college, and smoking prevalence decreased with increased education level: 9% of college graduates smoked compared with 41% of those with less than a high school degree. Compared with other US Black populations, both the Jackson Heart Study and the MHHP included uniquely educated participants, and may even underestimate the widespread, distressing realities of suboptimal health in more socially disadvantaged AA communities.

SHARED DECISION-MAKING: A PATHWAY TO INCREASING TRUST

Shared decision-making may assist with decreasing health disparities. Empowered patients with adequate health literacy may participate in shared decision-making and may be more likely to adhere to therapeutic lifestyle modification and pharmacotherapeutic regimens.

On the other hand, health care mistrust among AA adults is an unfortunate legacy of mistreatment and racism in care and clinical research.8 However, in the Minnesota sample, 83% noted trust in their providers and there was an almost unanimous opinion that their actions could affect their health (99%). In addition, racial/ethnic concordance between patients and physicians helps build trust and has been associated with several positive factors: longer visits, higher level of engagement, and higher probability of seeking preventive care. Possibly reflecting past positive interactions, the MHHP participants with greater perceived CVD risk had a higher likelihood of prevalent hyperlipidemia, diabetes, and CVD compared with those with lower perceived risk. Overcoming health care mistrust with cultural humility is not only important for controlling CVD risk factors, but also for accepting life-saving vaccination to prevent coronavirus disease 2019 and yearly influenza vaccination.8,9
COMMUNITY-BASED INTERVENTIONS IN AFRICAN AMERICAN POPULATIONS

For the racial/ethnic populations, community-based interventions, such as the Los Angeles barbershop and NYC faith-based approaches to control hypertension, may curtail CVD risk. Similarly, Tulane University has initiated a 7-year church-based, multifaceted cluster-randomized trial (CHERISH), seeking to control or even reverse multiple CVD risks in 42 AA churches by lifestyle changes, enhancing medication adherence, and coordination of health care. Whether in Harlem, Los Angeles, Minneapolis, or New Orleans, clinicians should partner with the AA community to improve trust, raise awareness, facilitate, and change behavior. Using shared decision-making, empathetic clinicians may, in the future, better prevent and control hypertension, diabetes, and other CVD risk factors and fulfill the imperative of health equity. Health disparities should not persist in a just society, causing unnecessary and unacceptable excess suffering, death, and financial costs. In the interim, every clinician, regardless of his or her self-identified race/ethnicity, must apply the best evidence-based care to each patient, regardless of the patient’s sex/gender, socioeconomic status, or geography.

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REFERENCES