Place—a confluence of the social, economic, political, physical, and built environments—is fundamental to our understanding of health and health inequities among marginalized racial groups in the United States. Moreover, racism, defined as a system of structuring opportunity and assigning value based on the social interpretation of how one looks (i.e., race), has shaped the places people live in North Carolina. This problem is deeply imbedded in all of our systems, from housing to health care, affecting the ability of every resident of the state to flourish and thrive.

The Greek physician and philosopher Hippocrates, from whom medical doctors take their Hippocratic Oath, is credited with saying, “Tell me what ails you, and I will tell you where you are from.” Centuries later, renowned sociologist, activist, and writer W.E.B. DuBois combined ethnography, social history, and descriptive statistics in his groundbreaking study, The Philadelphia Negro, to document the stark inequalities in mortality shaped by the neighborhoods in which African Americans lived [1]. As these findings—and many empirical studies since then—have shown, where one lives is a fundamental structural driver of health and health inequities.

In the United States, “place” cannot be understood outside of structural racism. This is particularly true in the South, a region of the country deeply rooted in the history and legacy of slavery, the violent repression and disenfranchisement of African Americans vis-à-vis Jim Crow laws, and racial discrimination embedded in institutions that continues to this day. Thus, any dialogue about place mattering for health must be grounded in a serious conversation about how structural racism has created the places we live, and consider the implications this has for the racial and economic inequities we see in health outcomes. Here, I will focus my comments on how place matters for health at three levels: between regions in the United States, between counties within North Carolina, and between neighborhoods within cities across the state.

Racial Health Inequities in the South

For about 40 years, the Southern United States has been known as the stroke belt—a region of the country with the highest stroke mortality and striking racial inequalities [2]. African Americans between the ages of 45 and 54 die of strokes at a rate three times greater than that of their white counterparts [3]. Similar trends are found for obesity, coronary heart disease, type 2 diabetes, maternal and infant mortality, and a wide range of chronic diseases. For example, infant mortality rates are much higher in the US South, with Mississippi having the highest infant mortality rate: 8.73 per 1,000 live births [4]. This is more than double the rate for Massachusetts, the state with the lowest infant mortality rate (3.66 per 1,000 live births) [4]. North Carolina falls in between with an infant mortality rate of 7.1 per 1,000 live births, which is still significantly higher than the overall infant mortality rate for the country: 5.79 per 1,000 live births [4].

Some researchers erroneously attribute this regional phenomenon to “racial genetics” and poor health behaviors. But the disproportionate burden of disease in the South and the striking racial inequalities that exist cannot be understood without acknowledging the legacy of slavery and Jim Crow, the violent disenfranchisement of African Americans, and the continuation of regressive policies at state and local levels that limit the economic and social mobility of African Americans and other marginalized racial groups [5]. For example, this region of the country suffers from a weak health care safety net because of the decisions of many Southern states to opt out of Medicaid expansion. Of the 13 states in the South, nine have refused to expand Medicaid under the Affordable Care Act. They continue to do so despite the fact that failure to expand Medicaid has resulted in thousands of excess deaths, billions of dollars in lost revenue for states, and closure of rural hospitals, all of which have disproportionately impacted poor communities and communities of color. It’s also worth noting that of these nine Southern states that have turned down Medicaid expansion, five of them—Alabama, Mississippi, South Carolina, Tennessee, Texas—also implemented restrictive
were a tangible symbol of the racial, political, economic, and
that, more than simply being a physical divide, these tracks
went to a set of train tracks that divided the town in two.
One of the long-time pastors and activists told our group
in the city for well over 20 years. Early in the process, we
women who had been on the front lines of local organizing
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of mobilizing data for action. For the project, I was assigned
a five- to six-year difference in life expectancy [8]. There are
entrenched racial inequalities in health was solidified for me
that place is fundamental to our understanding of the deeply
socioeconomic status, access to healthy foods, and employ-
the physical environment (air and water quality, housing
and transit). The lowest-ranking counties (14 out of 25 in the
bottom quartile) are consistently located in the northeast
region of the state [7]. Health behaviors are often cited as
of poor health, but an individual’s behavior is far from the only factor that contributes to poor health
outcomes in the state. Social and structural drivers such as
income, family and social support, community safety), and
the physical environment (air and water quality, housing
and transit). The lowest-ranking counties (14 out of 25 in the
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Drawing from my own personal experiences, the idea
that place is fundamental to our understanding of the deeply
entrenched racial inequalities in health was solidified for me
in the city of Rocky Mount. Some readers may not know that
driving on Highway 64 from Raleigh to Rocky Mount, there is
a five- to six-year difference in life expectancy [8]. There are
also striking inequalities that exist within the city itself. As
a first-year student in the MPH program in the Department
of Health Behavior and Health Education at the University
of North Carolina, I was engaged in an “Action-Oriented
Community Diagnosis,” a process rooted in popular educa-
tion methods that triangulates qualitative data from resi-
dents with local administrative data to identify the strengths
and challenges in local communities, with the ultimate goal
of mobilizing data for action. For the project, I was assigned
to southeast Rocky Mount—a poor, predominantly African
American community—and worked alongside two Black
women who had been on the front lines of local organizing
in the city for over 20 years. Early in the process, we
went to a set of train tracks that divided the town in two.
One of the long-time pastors and activists told our group
that, more than simply being a physical divide, these tracks
were a tangible symbol of the racial, political, economic, and
social divide in the city.

Rocky Mount is not alone in this. Durham has these
divides. Chapel Hill has these divides. Greensboro has these
divides. Across urban (and even rural) areas in the state,
we see this kind of divide, and we know that it’s not just
about the separation of people, but also the separation of
resources, and the economic disinvestment that has hap-
pened in these communities for decades. This leads me to
the third reason place matters for health and health inequi-
ties: racial residential segregation.

Racial residential segregation in the United States is a
form of structural racism that creates and maintains separate
and unequal residential environments for African Americans
and other marginalized racial groups [9]. Though discrimi-
natory federal, state, and local laws and practices (e.g.,
redlining) that undergirded the creation of residential segre-
gation were outlawed over 50 years ago by the Fair Housing
Act of 1968 [10], together they remain one of the most
pervasive and persistent hallmarks of urban areas across
the United States. Decades of disinvestment in racially seg-
regated neighborhoods have resulted in the clustering of a
wide array of adverse exposures in these settings, including
limited access to economic and educational opportunities,
limited access to health-promoting resources, and exposure
to a host of poor social conditions that predispose individu-
als to many behavioral, biological, and psychosocial precur-
sors to poor health outcomes [11-13]. For example, this can
be seen in the city of Durham, where the southeast corner
of the city, where Lincoln Health System is located, remains
disinvested to this day [14].

Suffice it to say that our dialogue around neighborhoods
cannot be ahistorical; we cannot deny the ways in which
institutional and structural racism have created separate and
unequal living conditions for folks in our state and around
the country. With all this in mind, I couch my research and
the work that I do in a deep understanding of racial residen-
tial segregation. We cannot understand how place shapes
health and health inequalities without understanding the
ways in which federal, state, and local policies created the
neighborhood environments in which we live today.

Finding Equity Through Policy

Understanding how these inequitable environments were
created can help us determine the actions needed to recr
reate them in more equitable ways through policy interven-
tions aimed at helping communities not only survive, but
thrive. Effecting change will require examining existing poli-
cies—both within and outside of the health care system
— that are driving these inequalities.

Change the Environment, Change the Outcomes

One of the symptoms of community disinvestment—
and an important structural risk factor for poor health out-
comes—is lack of access to healthy food. This gets a lot of
policy and media attention, but it is only one of the many
drivers of health that must be addressed at the local, state,
and national levels to move from health disparities to health equity. We must also work toward optimizing health care systems and investing in jobs and public education. We must focus on multisectoral policies that will build up communities in multiple domains in order to truly improve health and eliminate health inequalities.

For the past six years, I have done work in Jackson, Mississippi, with the Jackson Heart Study, a community-based cohort study examining the determinants of cardiovascular, renal, and respiratory diseases among African Americans. In that work, we use a spatial measure of residential segregation to examine inequalities in the incidence of cardiovascular disease and stroke over a 10-year period. What we have found is that in an all African American sample, there is a two-fold difference in the likelihood of having a stroke or heart attack between the most segregated neighborhoods and the least segregated neighborhoods in the city [15]. This suggests that structural factors rooted in racism, not race or biology, are the major drivers of poor health among African Americans, warranting the need for the kinds of multisectoral policies previously noted.

**Building Healthy Communities**

What does policy change look like in practice? Starting in 2010, the California Endowment launched a Building Healthy Communities Initiative (BHCI) [16]. BHCI focused on the idea that zip code is more important than genetic code in determining health, from a grassroots and community organizing perspective. The initiative has three tenets:

- **Building power in local communities.** BHCI works to arm community members to identify and advocate for the policies necessary to change outcomes. This helps lead not just to capacity, but to power—both economic and political. The changes and the transformation required for equity in health and other areas will necessitate fundamental changes to local communities.

  - **Supporting policy and systems changes.** BHCI helps identify the set of policies, both within the health care system and outside of it, that optimize health in local communities. Expanding Medicaid is one example; creating better health care systems is another. But we must also think about how we are improving education, how we make sure displacement is not the unintended consequence of progress, and how we develop new, better communities where everyone benefits from these changes. This is system change. When thinking about increasing access to healthy foods, for example, we have to think about access as a part of a system. We must imagine how we not only change access to healthy foods, but also the other types of investment necessary in those communities.

- **Improving opportunity environments.** BHCI’s third tenet involves identifying and improving opportunities for children and adults to live the healthiest lives possible. This is where the grassroots work of addressing social drivers of health comes in.

The public health field is getting more comfortable talking about equality, and increasingly equity. Now we must move forward toward liberation, and think hard about how we liberate communities to be able to not only survive, but to thrive. As Dr. Mary Bassett, former commissioner of the New York Health Department, has said: “We must name racism” as a cause of poor health, because how we frame a problem is inextricable from how we solve it [17]. In the state of North Carolina, where I’m happy to have been born and raised, we must address this issue head-on if we’re going to move toward health equity.

**Systemic Racism Requires Systemic Change**

Physician and epidemiologist Camara Phyllis Jones often defines racism as a system that “unfairly disadvantages some individuals and communities, unfairly advantages other individuals and communities, and saps the strength of the whole society through the waste of human resources” [18].

If, as a state, we are going to move toward health equity, we must get over our collective discomfort of the term “racism.” We must acknowledge that it exists, and work toward eradicating it and dismantling it in all of its forms.

Recently, I attended a talk at Greenleaf Christian Church in Goldsboro by Ibram Kendi, author of the book *How to Be an Antiracist*. Dr. Kendi talks about racism in our country and in our state as being a cancer. He said, and I am paraphrasing, “When you find out you have a diagnosis of cancer, you’re scared. You don’t want to deal with it; you really don’t want to confront it. But if you don’t actually deal with the cancer, it will kill you.” That’s what we are seeing in our health outcomes; we’re seeing it in the ways that we are not thriving as a state and as a nation. We must deal with the issue of racism to move the needle toward equity, and toward liberation, to improve the health outcomes of everyone in North Carolina. 

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**References**

1. DuBois WEB. The Philadelphia Negro. Philadelphia, PA: University of Pennsylvania Press; 1899.
2. Howard G, Howard VJ. Twenty years of progress toward understanding the stroke belt. Stroke. 2020;51(3):742-750. doi: 10.1161/STROKEAHA.119.024155
3. Howard G, Moy CS, Howard VJ, et al. Where to focus efforts to reduce the black-white disparity in stroke mortality: incidence versus case fatality? Stroke. 2016;47(7):1893-1898. doi: 10.1161/STROKEAHA.115.012631
4. Kamal R, Hudman J, McDermott D. What do we know about infant mortality in the U.S. and comparable countries? Peterson-KFF Health System Tracker website. https://www.healthsystemtracker.org/chart-collection/infant-mortality-u-s-compare-countries/

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**Acknowledgments**

I would like to thank the other members of the Place Matters panel at the NAM Vital Directions symposium: James Johnson, PhD; Weyling White, MBA, CAPP; Reverend Mac Legerton; as well as panel moderator Mike Waldrum, MD, Msc, MBA.

Potential conflicts of interest. S.B. reports no conflicts of interest.
infant-mortality-rates-are-relatively-high-in-southern-states. Published October 18, 2019. Accessed April 24, 2020.
5. Barber R, Barber S. Sick and Tired of Being Sick and Tired: Making the Connection Between Disenfranchisement and Disease. Facing South website. https://www.facingsouth.org/2016/10/sick-and-tired-being-sick-and-tired-making-connection-between-disenfranchisement-and-disease. Published October 6, 2016. Accessed April 24, 2020.
6. Tippett R. 2018 County Population Estimates: Race & Ethnicity. Carolina Demography website. https://www.ncdemography.org/2019/12/05/2018-county-population-estimates-race-ethnicity/. Published December 5, 2019. Accessed April 27, 2020.
7. University of Wisconsin Population Health Institute. 2020 County Health Rankings Report. Princeton, NJ: Robert Wood Johnson Foundation; 2020. https://countyhealthrankings.org/sites/default/files/media/document/CHR2020_NC_0.pdf. Accessed April 27, 2020.
8. Virginia Commonwealth University Center on Society and Health. Mapping Life Expectancy: 7 years in Eastern North Carolina. Center on Society and Health website. https://societyhealth.vcu.edu/work/the-projects/mappingnorthcarolina.html. Published November 12, 2015. Accessed April 24, 2020.
9. Bailey ZD, Krieger N, Agénor M, Graves J, Linos N, Bassett MT. Structural racism and health inequities in the USA: evidence and interventions. Lancet. 2017;389(10077):1453-1463. doi: 10.1016/S0140-6736(17)30569-X
10. Rothstein R. The Color of Law: A Forgotten History of How Our Government Segregated America. New York, NY: Liveright Publishing Corporation; 2017.
11. Williams DR, Collins C. Racial residential segregation: a fundamental cause of racial disparities in health. Public Health Rep. 2001;116(3):404-416.
12. Kershaw KN, Albrecht SS. Racial/ethnic residential segregation and cardiovascular disease risk. Curr Cardiovasc Risk Rep. 2015;9(3).
13. Krieger N. Discrimination and health inequities. Int J Health Serv. 2014;44(4):643-710.
14. Michaels W, Stasio F. Mapping Inequality: How Redlining Is Still Affecting Inner Cities. WUNC.org. https://www.wunc.org/post/mapping-inequality-how-redlining-still-affecting-inner-cities. Published June 26, 2014. Accessed April 24, 2020.
15. Barber S, Kershaw K, Wang X, et al. Neighborhood-Level Racial Residential Segregation as a Fundamental Cause of Cardiovascular Disease Incidence in African American Adults: A Prospective Examination in the Jackson Heart Study. Oral presentation at: Epidemiology Section at the 144th Annual American Public Health Association Meeting and Exposition; 2016; Denver, CO.
16. Building Healthy Communities. A New Power Grid: Building Healthy Communities at Year Five. BHC website. http://www.calendow.org/bhcreport/. Accessed April 27, 2020.
17. Bassett M, Dr. Mary Bassett: We Must ‘Name Racism’ As A Cause of Poor Health. HuffPost.com. https://www.huffpost.com/entry/racism-as-cause-of-poor-health_n_581a1376e4b01a82df6406d6. Published February 8, 2017. Accessed April 24, 2020.
18. Jones CP. Toward the science and practice of anti-racism: launching a national campaign against racism. Ethn Dis. 2018;28(suppl 1):231-234.