Unpacking Our History Article Packet

Slavery's Legacy In Health and Medicine

Motherhood, Birth, Racial Disparities

THURSDAY, APRIL 11
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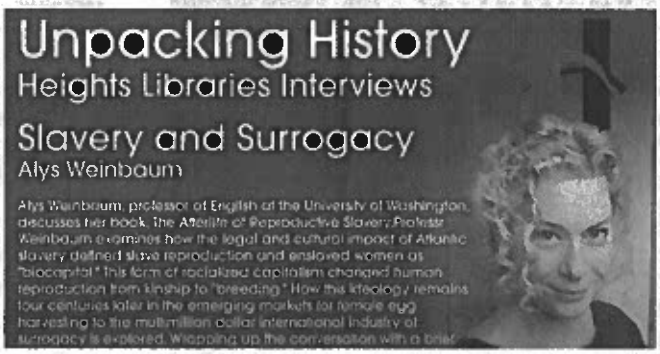

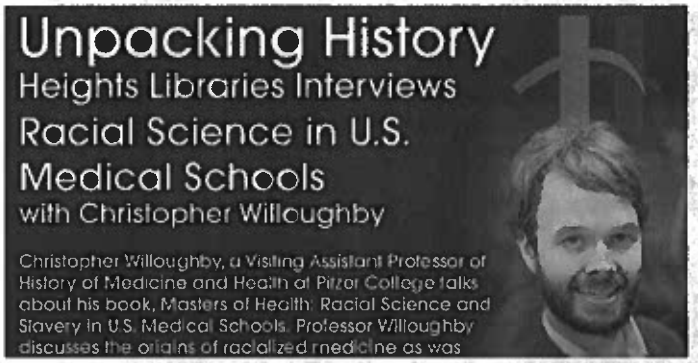

Unpacking Our History Lecture Series:

Eugenics After Slavery

with Rana Hogarth

Eugenicists' study of mixed race people with Black and white ancestry did not emerge in a vacuum. Slavery not only gave rise to myths about mixed race people's bodies that eugenicists would later study, but it also left behind an elaborate systems that eugenicists would rely on to classify mixed race people for years to come. This talk highlights slavery's little studied role in the development of eugenicists' opinions about the fitness of mixed race people with Black and white ancestry in the Americas.

The 1619 Project

Heights Libraries Interviews

Rana Hogarth

University of Illinois at Urbana Champaign

Rana Hogarth is associate professor of history at the University of Illinois at Urbana Champaign. She holds a Ph.D. in History, with a concentration in History of Science/History of Medicine from Yale University; an M.H.S. in Health Policy from the Johns Hopkins Bloomberg School of Public Health. Her research highlights how the professionalization of medicine and the production of scientific knowledge in the

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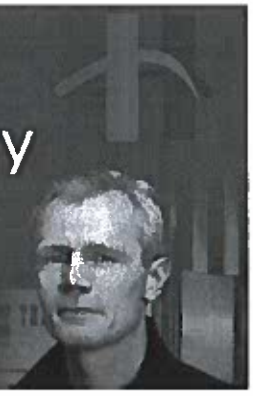

Slave Hospitals

with Stephen Kenny

Black Maternal and Infant Health: Historical Legacies of Slavery

The legacies of slavery today are seen in structural racism that has resulted in disproportionate maternal and infant death among African Americans.

The deep roots of these patterns of disparity in maternal and infant health lie with the commodification of enslaved Black women's childbearing and physicians' investment in serving the interests of slaveowners. Even certain medical specializations, such as obstetrics and gynecology, owe a debt to enslaved women who became experimental subjects in the development of the field.

Public health initiatives must acknowledge these historical legacies by addressing institutionalized racism and implicit bias in medicine while promoting programs that remedy socially embedded health disparities. (*Am J Public Health.* 2019;109:1342–1345. doi:10.2105/AJPH.2019.305243)

Deirdre Cooper Owens, PhD, and Sharla M. Fett, PhD

See also Brown, p. 1309.

In February 2019, embattled Virginia governor Ralph Northam referred to Virginia's racist past by connecting it to the assumed healing power of medicine. Shortly after conservative political rivals published a racially offensive photo allegedly of Northam and a medical school friend in blackface, the governor responded, "Right now Virginia needs someone who can heal. There's no better person to do that than a doctor."

As a pediatric neurosurgeon, Governor Northam relied on the language of healing and the presumed belief that many Americans have that doctors are committed to curing what ails us all. Surely anti-Black racism, if thought of as a disorder, as Northam suggested, should be cured by neurosurgeons who are charged to rehabilitate disorders affecting the brain. In light of the medical field's racist past, can we trust physicians and surgeons such as Governor Northam with such an important task? More specifically, as historians who work on the effects of racism on Black people's bodies, especially women, we focus much of this commentary on how reproductive justice and birthing justice must be attained by and for Black women systemically.

MEDICINE'S RELATIONSHIP TO US CHATTEL SLAVERY

Any honest examination of racism as a widespread affliction of American medical practice must acknowledge that the medical profession was entangled in the institution of slavery from its beginnings. From the earliest origins of chattel slavery in North America, Europeans with medical training served the interests of slaveowners rather than enslaved patients.

Some transatlantic slave traders hired surgeons for the horrific Middle Passage in hopes of preserving their human "cargo" for maximum profit.[1] In the slave markets of the antebellum South, physicians inspected the bodies of enslaved men, women, and children before signing certificates of "soundness" for buyers or sellers. These distorted priorities were reflected in an 1858 medical journal article by Savannah Medical College professor Juriah Harriss, who declared that the ability to accurately determine the market value of Black bodies was one of the key professional competencies needed by southern doctors. Insurance companies too hired White doctors to examine enslaved men and women before issuing life insurance policies to protect slaveholders' financial well-being.[2]

Finally, Black bodies continued to be disrespected and commodified after death when used as teaching "material" in the form of cadavers and medical specimens in the dissecting rooms and medical museums of White medical schools.[3,4] White physicians in 18th- and 19th-century slave societies built their reputations by "medicalizing Blackness" in their professional writing. Racialized medical thought reached beyond proslavery practitioners and became part of the language of the broader profession.[5] This early history of physicians, slavery, and racial theory belies the notion that medicine is a value-neutral profession devoid of the toxicity of racism.

ENSLAVED WOMEN'S CHILDBEARING

Legal and medical attention to enslaved women's bodies played an especially important role in the entrenchment of American racism and its manifestation as a public health crisis today. As far back as 1662, colonial Virginia legislators made Black women's childbearing a centerpiece of the system of chattel slavery when they passed a law stating that the

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This article was accepted June 14, 2019.

doi: 10.2105/AJPH.2019.305243

status of a child would follow that of his or her mother. This principle, known as *partus sequitur ventrem*, legalized chattel slavery as an inheritable status applied to Africans and their descendants. Seventeenth-century European exploration literature also depicted African women, in comparison with European women, as especially capable of both childbearing and field labor.[6,7] The principle of *partus* thus not only defined legal slavery but also carved out a racial distinction. Continuing up through the Civil War, White women's childbearing built free patriarchal lineages while southern laws forced enslaved Black women to bear children who would build capital for enslavers.

When both Britain and the United States banned the transatlantic slave trade in 1807–1808, cutting off the sources of African captives, slaveholders began to bank their future increasingly on the fertility of enslaved women. Medical journals and planter records in the British West Indies and the United States reveal growing attention paid by White physicians to enslaved women's reproductive lives. Although enslaved midwives and nurses supplied much of the daily plantation health care, slaveowners called upon White physicians for cases such as assisting difficult births with forceps, examining the causes of an enslaved woman's infertility, or investigating cases of infant mortality.[8] Infant mortality in plantation settings remained high, however. In the South, an estimated 50% of enslaved infants were stillborn or died within the first year of life.[9]

Without a well-developed field of pediatrics, White physicians had little to offer. Consequently, they often blamed enslaved mothers and midwives, using harsh gendered and racist language, for infant deaths that were more likely a result of mothers' hard labor and poor nutrition.[10] Beyond these verbal attacks, antebellum US physicians also began to use their access to Black and enslaved bodies to expand their scientific knowledge and build their professional reputations.

The impact of racialized science on the field of medicine today is painfully illustrated by the deep linkages that American gynecology has with slavery. Many of the field's most pioneering surgical techniques were developed on the sick bodies of enslaved women who were experimented on until they either were cured or died. A slaveholding surgeon, François Marie Prevost, pioneered cesarean section surgeries on American enslaved women's bodies through repeated experimentation. James Marion Sims, another famed 19th-century gynecologist, created the surgical technique that repaired obstetrical fistula by experimenting on a group of Alabama enslaved women.

That gynecology advanced from American slavery means that Black people have always had a precarious relationship to the field and its practitioners.[11] How does a community learn to trust doctors whose forefathers were interested only in repairing and restoring Black women's reproductive health so that slavery could be perpetuated? How can doctors learn to be more sensitive to the concerns, both personal and cultural, of Black people who still hold secrets about the forced sterilizations that older southern members of their families endured? How does the medical profession unlearn a pattern of dismissing Black women's self-reported pain when that pattern is rooted in centuries-old soil?

CONTEMPORARY MATERNAL AND INFANT MORTALITY

These questions acquire pressing urgency in the face of the continuing disparities in the health and survival of Black mothers and children today. Distressingly, although infant death rates overall have plummeted since the 19th century, the disparity between Black and White infant deaths today is actually greater than it was under antebellum slavery. Historical demographers estimate that, in 1850, enslaved infants died before 1 year of age at a rate 1.6 times higher than that of White infants (340 vs 217 deaths per 1000 live births).[12] In comparison, Centers for Disease Control and Prevention figures from 2016 show that today non-Hispanic Black infant mortality is 2.3 times higher than mortality among non-Hispanic White babies (11.4 deaths and 4.9 deaths, respectively).[13]

In addition, although Black women live longer lives now, the effects of racism have reverberated in their lives and those of their children in damaging and fatal ways. Since 1994, maternal mortality has dropped by almost 50% worldwide. Yet, between 2000 and 2013, high Black maternal death rates placed the United States second worst in maternal mortality among 31 Organisation for Economic Co-operation and Development nations.[14] In the United States, pregnancy-related mortality is three to four times higher among Black women than among White women.[15]

Since the 1990s, research on maternal and infant death disparities has increasingly pointed to structural racism in society at large as a stressor that harms African American women at both physiological and genetic levels.[16,17] Conditions such as hypertension, which have been linked to the stress of living in a racist society, contribute to disparities in pregnancy-related complications such as eclampsia.[18] These detrimental health effects of daily life are then further compounded by racial discrimination and disregard within medical institutions.[19]

Yet, as reproductive justice groups such as the Black Mamas Matter Alliance point out, expecting and new Black mothers often find their self-reports of painful symptoms overlooked or minimized by their practitioners.[20] It seems that, rather than addressing systemic racism in obstetrics and gynecology, medical practitioners have instead to some extent emphasized all of the ways Black women allegedly make themselves prone to being ill during their pregnancies. Black pregnant women and non–gender binary folks are told their fatness, advanced age, dietary choices, and lack of prenatal care have increased their chances of dying during childbirth. Yet, whereas Black pregnant people and mothers are made into culprits and the initiators of their deaths, doctors, nurses, and the hospitals they run are not looked at as critically as they should be.

ANTIRACIST PUBLIC HEALTH INTERVENTIONS

Public health professionals are charged with preventing illness

and injuries before they occur, so how do we use the framework of prevention to eradicate medical racism? Two projects launched in the Civil Rights and Black Power movements of the 1960s and 1970s offer models of community health care informed by antiracist political analyses. The health activists involved in these projects sought to address deep societal inequalities and empower their clientele by transforming the spaces and hierarchies of traditional medicine.

The Tufts-Delta Health Center, established in 1965 in the all-Black town of Mound Bayou, Mississippi, offered comprehensive health care funded by federal Office of Economic Opportunity grants. Local leadership on the advisory committee, as well as practitioners, administrators, and outreach workers hired from the local population, helped to overcome the well-justified distrust of medical facilities. In the Mississippi Delta, infant mortality among Black families was three times higher than that among Whites. Local input gathered through many hours of community organizing ensured that women's and children's health would be central to the center's mission. As a result, attention to clean water sources, food security, and safe shelter complemented the center's obstetrics and gynecology services. Still, some radical health activists argued that their local efforts did not truly transform American health care or the inequality endemic in the broader society.[21]

The People's Free Medical Clinics, founded by the Black Panther Party, embraced a more autonomous model of community health as part of their revolutionary politics. Required by 1970 in each local chapter, the Black Panther Party opened clinic spaces in or near their offices that sought to empower patients and demystify both medical procedures and medical authority. As noted by historian Alondra Nelson, the white coat in the clinics became a sign of radical access to health as a human right rather than a dreaded symbol of racist abuse.

Free clinics made up one component of the Black Panther Party's "serve the people" programs that especially attended to mothers' and children's health through free breakfast programs, sickle-cell screening, well-baby checkups, and gynecological exams. Although stretched for funds and space, the clinics became "sites of social change" that supported, celebrated, and empowered Black life.[22] The health activists associated with both the Tufts-Delta Health Center and the People's Free Medical Clinics challenged the idea of race as a causal determinant of poor health outcomes by exposing the impact of racism and poverty on Black health and well-being.

Historical examples such as these can show us possible alternatives, but deeply embedded health disparities today require new frameworks of understanding and systemwide interventions. Given how damaging and violent racism is in the lives of pregnant people and infants, public health investigators must work alongside scholars of race studies and medical personnel to eradicate the structural racism in medicine that is killing Black women and Black people more broadly. In a 2010 article published in this journal, public health and race studies scholars Chandra Ford and Collins Airhihenbuwa argued that the application of critical race theory and racial equity models could move the field toward an "antiracist praxis."[23] Dayna Bowen Matthew, a University of Virginia law professor, complements this perspective by offering an ambitious remedy from the perspective of civil rights law. Matthew calls for critical self-reflection within medical professions and legal reform of Title VI legislation that would create a structure of legal accountability for implicit bias and unconscious racism.[24]

Despite the merit of these incisive proposals, the effects of structural racism on Black lives are still decimating Black communities. We need bold, concrete plans to move forward. Medical professionals know the impact of racism but seem to think it is not fully applicable to the way they manage their hospitals and treat patients. They are aware of the unfair burden placed on medical staff at hospitals who are overworked, sometimes practice lax routines around hygiene and sanitation, do not have sufficient access to continued education and training, and still seem to believe that poorer patients, many of whom are Black, are not trustworthy, are heavy drug users, are ignorant, and are to blame for their illnesses.

It is not surprising, for example, that in Brooklyn, a borough with an overwhelmingly large Black and brown poor population, more Black women and their children die from pregnancy- and delivery-related conditions than anywhere in the state. In fact, they are eight times more likely than White women to die from either pregnancy or delivery. The crisis is so deleterious that, in July 2018, New York City mayor Bill de Blasio launched a four-point plan with an investment of $12.8 million over the subsequent three years. This plan would implement implicit bias training for city public and private health care providers, support more effective data tracking and analysis of maternal mortality and morbidity rates for better prevention, improve maternal health care at city hospitals and other health care locations, and create a partnership with community-based organizations to expand public education on issues of maternal health.[25]

This is one of the most comprehensive and progressive plans that incorporates an antiracist public health model. It recognizes that the system is broken and does not rely on the centuries-old practice of blaming victims. New York officials also looked to California, which took the lead in working to dismantle structural racism in maternal medicine: "Established in 2006, the California Maternal Quality Care Collaborative (CMQCC) has used data-driven approaches in an attempt to understand the root causes of maternal mortality."[26(p51)] The CMQCC has, in 13 years, reduced the maternal mortality rate from 16.9 per 100 000 population to 7.3.[26] In large part, it is demonstrating for Americans how a commitment to antiracism work can save lives and acknowledging that any system built on the backs of the enslaved needs repairing.

Black people have a right to be suspicious of an institution that has historically victimized their ancestors for centuries. It is up to all of us, but especially medical doctors and public health professionals, to decolonize obstetrics and gynecology specifically, and American medicine more broadly, and to apply comprehensive antiracist policies in the prevention of Black people's deaths. Harkening back to Governor Northam's statement that there is no better person to heal illness than a doctor, perhaps doctors, and all medical

personnel—including those in public health—should accept that they need healing too. AJPH

CONTRIBUTORS

Both authors contributed equally to this commentary.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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Perspective

Listen to the Whispers before They Become Screams: Addressing Black Maternal Morbidity and Mortality in the United States

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Abstract: Black women in the United States (U.S.) disproportionately experience adverse pregnancy outcomes, including maternal mortality, compared to women of other racial and ethnic groups. Historical legacies of institutionalized racism and bias in medicine compound this problem. The disproportionate impact of COVID-19 on communities of color may further worsen existing racial disparities in maternal morbidity and mortality. This paper discusses structural and social determinants of racial disparities with a focus on the Black maternal mortality crisis in the United States. We explore how structural racism contributes to a greater risk of adverse obstetric outcomes among Black women in the U.S. We also propose public health, healthcare systems, and community-engaged approaches to decrease racial disparities in maternal morbidity and mortality.

Keywords: black maternal mortality; morbidity; social determinants of health; weathering framework; health disparities; race/ethnicity; COVID-19; racism; intersectionality; pregnancy

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Citation: Njoku, A.; Evans, M.; Nimo-Sefah, L.; Bailey, J. Listen to the Whispers before They Become Screams: Addressing Black Maternal Morbidity and Mortality in the United States. *Healthcare* **2023**, *11*, 438. https://doi.org/10.3390/healthcare11030438

Academic Editors: Ileana B. Heredia-Pi and Edson Serván-Mori

Received: 8 October 2022
Revised: 9 January 2023
Accepted: 31 January 2023
Published: 3 February 2023

1. Introduction

The Centers for Disease Control and Prevention (CDC) reports that 50,000 women in the United States (U.S.) suffer from pregnancy complications annually, but that Black women are at least three times more likely to die due to a pregnancy-related cause when compared to White women [1,2]. The estimated maternal mortality rate in 2019 was 20.1 and, in 2020, was 23.8 per 100,000 births which represents about 861 maternal deaths. For Black women, that rate is about 55.3 per 100,000 live births, representing an estimated 1800 maternal deaths, the highest amongst any racial group; this is a number that has continued to increase over the past few years [3,4]. While each mortality or morbidity circumstance is different, the leading causal factors associated with maternal mortality and morbidity in the U.S. include hypertensive disorders of pregnancy, thrombotic pulmonary embolism, hemorrhage, infection, cardiovascular conditions, cardiomyopathy, and non-cardiovascular medical conditions [5]. While predisposition to underlying health conditions such as hypertension, cardiovascular disease, diabetes, and obesity plays a role in racial disparities in pregnancy-related deaths and other adverse pregnancy outcomes, when these medical conditions are not present, racial disparities persist.

More recent studies have shown that social factors such as historical exposure to racial trauma, discrimination, and marginalization; systemic barriers such as systematic racism and implicit bias within the healthcare system; the possibility of being uninsured; reduced access to reproductive healthcare services; and socioeconomic factors also contribute to pregnancy complications for Black women and have to be given consideration [2,5–8]. These social determinants of health show that poor maternal outcomes for Black individuals are caused by factors of racism that are embedded in healthcare and affect marginalized groups of individuals disproportionately. Based on socioeconomic status, race, age, and other identifying factors, the health disparities amongst individuals in communities that

lack resources and education is exacerbated and continues to expand the gap in access to equitable health [9]. The history of racism within healthcare must be understood to dismantle institutionalized racism in healthcare systems and to create policies that protect Black women. Social and systemic changes are imperative to reduce Black maternal morbidity and mortality. Therefore, the stark differences in reproductive health outcomes for Black women necessitate an increased focus on the intersectional roles of racism, discrimination, and other social determinants of health in influencing disease and mortality risk.

Within the 21st century, healthcare has seen drastic shifts, especially with the ongoing COVID-19 pandemic. Research has shown that maternal mortality increased by 33% after the start of the pandemic and that late maternal deaths increased by 41% [10]. Moreover, the percentage of maternal deaths was even higher among Black and Hispanic women during the early part of the pandemic period, with increases in underlying cause-of-death codes for conditions such as other viral diseases (2374.7%), diseases of the respiratory system (117.7%), and diseases of the circulatory system (72.1%) [10]. COVID-19 represents a major social stressor for all at many levels but especially regarding maternal health [11]. While pregnant women overall were not found to have a higher risk for COVID-19 infection, women of color that were infected often experienced more adverse outcomes, as well as faced disproportionately adverse socioeconomic consequences. Maternal health was impacted due to the current COVID-19 pandemic both explicitly due to a life-threatening infection and indirectly due to the necessary changes in healthcare for infection control purposes. Isolation and quarantine as age-old infectious disease prevention protocols were instituted and strictly enforced. Some examples of healthcare COVID-19 protocols and hospital instituted labor and delivery changes consisted of less familial support available in the delivery room, long wait times, provider shortages, and overall hesitancy to seek prenatal care, which affected pregnant women's mental health drastically, with studies showing increases in depression and anxiety [12]. Overall, during the COVID-19 pandemic, pregnant women experienced the stress of social changes in their jobs, families, and the fear of how to keep themselves healthy and safe.

The purpose of this paper is to discuss structural and social determinants of Black maternal mortality in the United States This perspective paper will also propose some public health, health systems, and community-engaged approaches that reduce racial disparities in maternal mortality and morbidity while striving to achieve equity in maternal health outcomes among Black women in the United States.

Theoretical Framework

The effects of racism in our society erode Black people's health in a multitude of intersectional ways and dimensions. One of the theoretical frameworks that guide this paper is the "Weathering" framework. This framework's foundation was originally rooted in maternal health, morbidity, and mortality and directly challenges the historical societal narratives of teen pregnancy, fertility peaks, and birth timing for African American women. In 1992, Dr. Arline Geronimus hypothesized correctly that the effects of racism in our society cause "premature biological aging", hence the "weathering" in African American women, which has a direct effect on infant and maternal morbidity and mortality, and overall birth outcomes [13]. This weathering creates an overall "general health vulnerability" [14,15], which is a consequence of all levels of racism in the United States. Data reveal that there are increasingly poor pregnancy and birth outcomes as young Black women delayed fertility past their late teens, while this was not seen in White females. Since Dr. Geronimus' seminal article, multiple quantitative biological marker studies have borne out the detrimental racial effects of a concept entitled, "allostatic load" or chronic stress [14–16]. Wakeel (2021) and colleagues further expanded the weathering theoretical framework by synthesizing the intersectionality of an older socioecological model (SEM) and the social determinants of health (SDOH) considering COVID-19 [11]. A "stressful life event" such as COVID-19 exacerbates all other social determinants of health [11]. Furthermore, we propose a theoretical framework adapted from Roach's Restoring Our Own

Through Transformation (ROOTT) Theoretical Framework [17], which explores how structural and social determinants impact maternal and infant mortality in the United States (Figure 1). In this conceptual framework (Figure 1), structural determinants of health are characterized by factors such as slavery, structural racism, and institutional policies and practices such as Jim Crow laws, the G.I. Bill (the Servicemen's Readjustment Act of 1944), redlining, mass incarceration, and the 13th Amendment. These structural determinants of health shape social determinants of maternal and infant mortality, with this process indicated by the connection of dashed lines. These social determinants of health include food stability, education, income, built environment, neighborhood demographics, safety, housing, access to care, and incarceration. Structural determinants of health and social determinants interact in multiple and interrelated ways to influence increased maternal and infant mortality in the United States and work to exacerbate disparities in health outcomes. Furthermore, social determinants of health shape and are influenced by increased maternal and infant mortality. It is also important to consider intersectionality as an analytical framework that explores the unique experiences of Black women encountered at the intersections of race, class, and gender [18].

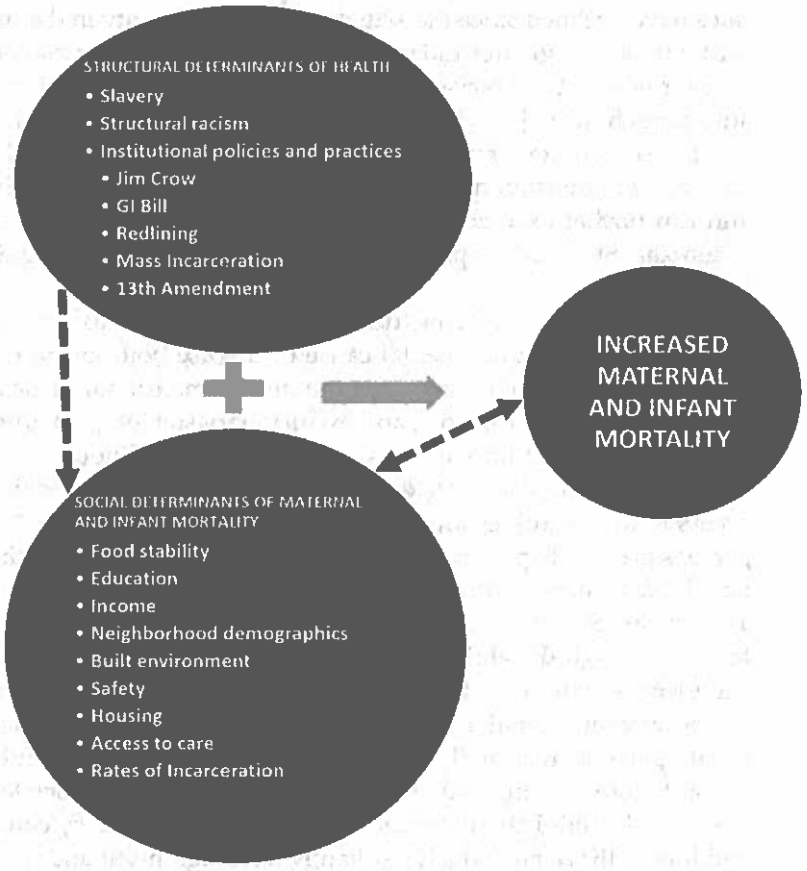

Figure 1. Application of Theoretical Framework on Structural and Social Determinants of Maternal and Infant Mortality in the United States.

2. Social Determinants of Health

Social determinants of health are non-medical factors that affect health outcomes and include biology, individual behavior, socioeconomic status, physical and social environment, support, racism, discrimination, access to affordable health services, and legislative policies [19,20]. Social determinants of health can occur across multiple levels for women and children, intersecting across several domains of influence including biological, behavioral, physical, and sociocultural environments and the healthcare system [21]. Social determinants of health are primarily responsible for health inequities, or avoidable and unfair differences in health status between diverse groups of people within the same country

and between countries [20,22]. Mitigating the root determinants of health to reduce health inequities is vital because health is a fundamental human right, and the inability to prevent inequities results in health disparities [20,22]. Various social determinants play a key role in producing and maintaining adverse maternal outcomes in the United States, with empirical studies showing that race and ethnicity, education, and insurance (including access to prenatal care) contribute to the establishment and continuation of pregnancy-related mortality and severe maternal morbidity risk [23–25]. Place-based factors such as neighborhood conditions, access to quality healthcare and amenities, environmental exposures (heavy metal exposure, pesticides, pollution, and traffic), and residential segregation have been associated with unfavorable birth outcomes among Black and Hispanic women and increased maternal morbidity and mortality [7,26–28].

Structural and social determinants can be further explored to demonstrate their link to racial disparities in maternal and infant mortality. The historical legacy of slavery is linked to Black maternal and infant health, and contemporary maternal and infant mortality [29]. Maternal and infant health disparities are rooted in the institution of slavery, which commodified enslaved Black women's childbearing and empowered physicians to authorize the interests of slaveowners [29,30]. Moreover, while overall infant death rates have declined since the 19th century, the disparity in death rates between Black and White infants is greater today than it was under prewar slavery [31,32]. Currently, the stressor of structural racism permeates and reverberates within the lives of Black women and their children [29]. Racism's effects are seen at the genetic and physiological levels and reveal persistent maternal and infant death disparities [15]. For example, conditions such as hypertension have been associated with the stress of inhabiting a racist society and can further exacerbate disparities in pregnancy-related complications such as preeclampsia. Such factors prompt critical exploration into the underlying initiators of such disparities [33].

Racism as a social construct has been identified as a persistent population health emergency and a fundamental cause of disease both in the U.S. and globally. Studies have comprehensively illustrated the multidimensional associations between racism at the cultural (e.g., derogatory, and exclusionary stereotypes), interpersonal (e.g., macroaggressions rooted in implicit bias and decreased likelihood of receiving patient-centered care), and structural levels (e.g., laws, regulations, and policies that steadily lead to reduced access to opportunities and services based on race), and health outcomes among Black persons [34–49]. Experiences of racism are also apparent across the sexual and reproductive health lifespan. Structural racism can impact Black women's use of reproductive services and can sustain reproductive healthcare disparities; structural racism can influence access to care through the ability to attain timely services, the use of healthcare services, and experiences with care related to interactions with the healthcare system [8]. Notably, there can be an intergenerational transmission of the stress that stems from cumulative exposure to interpersonal racism, illustrated by the fact that both stressful life events and perceived stress, before, during, and after pregnancy, have been associated with unfavorable pregnancy and childbirth outcomes; effects include pregnancy complications, preterm birth, and low birth weight, which resultantly have significant and multifaceted implications for longstanding maternal and child health outcomes [6,40–43]. Moreover, the intergenerational transmission or risk associated with structural racism is particularly manifested in the greater risk of adverse obstetric outcomes and increased infant mortality rates in U.S. Black communities [26,27].

Regarding policies and practices, Jim Crow laws legalized segregation in Southern U.S. states from the 1870s through the mid-1960s and exposed Black persons to noxious social, economic, and physical conditions that could influence access to care [44]. Being born in a Jim Crow state has been shown to influence population health indicators such as infant death, and the health effects of state-sanctioned racism in the 1960s to this day can be seen in infant death inequities. Specifically, Black infant death rates were almost two times higher in Jim Crow states than non-Jim Crow states from 1960 to 1964 [45]. It is

known that early-life traumatic exposures can influence the risk of any type of health issue. Understanding determinants of health inequities within and across generations involves recognizing that people carry the history of a country within their bodies [45,46].

In another example of structural determinants of health, President Roosevelt's race-neutral G.I. Bill, a law that went into effect in 1944 and provided a range of benefits for qualifying returning World War II veterans and their families, had state-controlled oppositions that kept many Black veterans from acquiring its full benefits. Resultantly, Black veterans and their families were deprived of their fair portion of the multigenerational, enhancing effect of home ownership, educational, and economic security that the G.I. bill bestowed on most White veterans, their children, and their grandchildren [47]. Redlining, or government-sponsored disinvestment in non-White neighborhoods, to be explained further in this paper, is a structural determinant of adverse maternal and infant health outcomes [9].

The mass incarceration of Black persons in the U.S. is largely the result of institutional policies in U.S. police and judicial systems, including aggressive enforcement of low-level drug offenses and mandatory punitive sentencing laws that excessively affect Black persons [48]. Furthermore, incarceration in the family can play a crucial role in affecting Black, Indigenous, and people of color (BIPOC) women's life, including during a pandemic. Mass incarceration can have important maternal and child health considerations such as the availability of sufficient social support during pregnancy and delivery and can adversely impact BIPOC populations during the COVID-19 pandemic [49]. Additionally, Black women may have to contend with the increased likelihood of having a partner suffer an injurious or fatal interaction with law enforcement due to the persistent issue of police brutality against Blacks in the United States [50].

In another example, while the 13th Amendment abolished slavery by the start of the twentieth century, the interstate slave trade was still legal under U.S. law. Children of the enslaved were enslaved by birthright, Black women's bodies were commodified as their ability to reproduce was of utmost importance, and enslaved women's reproductive lives garnered increasing attention from White physicians. Lastly, we believe that these social conditions are intersectional and interlaced and have reinforced lasting effects that can be manifested in the bodies of Black women. These issues highlight various concerns related to reproductive justice, human rights, and birthing autonomy [51].

3. Black Maternal Morbidity and Mortality

3.1. *Contributing Factors*

The Weathering Framework is germane to this paper as it combines the Socioecological Model and Social Determinants of Health. The socioecological model shows that behavior has multiple levels of influence; the model helps examine factors that influence a specific behavior (See Figure 2). The CDC considers this model as a framework for prevention [52]. The model contains five levels: individual, interpersonal, organizational, community, and societal, as recreated in this paper (See Figure 2). Following this socioecological model for prevention, contributing factors toward racial disparities in maternal morbidity and mortality can be examined (Figure 2). Through this lens, a range of factors that put Black women at risk can be understood. Racism is a social construct, root cause, and determinant of maternal morbidity and mortality. Historically, when social support is increased in the U.S., maternal morbidity, and mortality as an indicator of a society's well-being are improved. This is due to the intersectionality of the following levels of influence. Furthermore, the relationship between factors at one level of influence that can impact factors at another level can be studied.

Figure 2. Socioecological Model for Prevention.

3.1.1. Individual Factors

Individual contributing factors describe biological and personal traits that cause certain behaviors. Examples include biological and genetic factors, beliefs, attitudes, education, stress response, and even coping skills. One biological factor is age, which is a nonmodifiable risk factor. Data show that the maternal mortality rate for Black women between ages 30 and 34 is over four times higher than the rate for White women [53]. Existing health conditions such as cardiovascular disease, diabetes, and high blood pressure can be detrimental to a pregnant woman. These health problems are preventable if quality care is given and access to education is available.

Black women have a maternal mortality rate of 2.9 times that of White women in the United States [11]. For several years, Black women have been ignored and dismissed by medical providers in the United States. Even as medicine progresses, racial disparities persist [54]. Black women continue to be failed by blatant negligence and ignorance. As a result, Black women may lose the fight to be heard by their providers.

Individual traits of women can either help or work against them. For example, an individual contributing factor is education and knowledge. Unfortunately, many women are not well informed about the importance of preconception health, their specific pregnancy milestones, or even frequently occurring conditions. As a result, this makes them more susceptible to being ignored. They may not be capable of advocating for themselves and may reluctantly be mistreated because they are unaware. On the other hand, a very educated woman who is more knowledgeable about her pregnancy and concerns may still be misheard or ignored by medical providers because "they know best".

Stress response and chronic stress are other types of individual contributing factors. Humans produce stress hormones when stressed. However, when stressed all the time, the body will have elevated levels of stress hormones. Elevated stress relates to physical and mental health conditions that can lead to death [55]. Studies have shown that just being a woman is a stressor in our society. Being a Black woman causes a "double pressure" influence on women [56]. The pressure of being a Black woman is immense and can have effects on a pregnancy [55]. Different types of stress that can occur during pregnancy include negative life events, catastrophic events, long-lasting stress, chronic stress, and racism [57]. Racism is a large contributor to stress, and it is evident through data that shows African American women in the United States deliver a higher rate of premature and low-birthweight babies than their counterparts [58]. Attitudes and beliefs are impor-

tant individual factors. There is compelling data to suggest that when Black Women and babies are dying due to pregnancy complications or possible negligence from providers and the healthcare system, this puts Black women on edge [54]. They enter situations with preconceived notions about how they will be treated. This in turn affects their expectations of care and whether they feel empowered to speak up about the care they are receiving. Other individual factors such as alcohol intake, being a current or former smoker, nutritional status (e.g., chronic energy deficiency vs. good nutrition), and occupational status (e.g., whether a person is working or not) have been shown to increase a woman's risk for maternal morbidity and mortality [59–61]. Living in a disadvantaged neighborhood has been linked to a higher allostatic load in African American women at risk for obesity and related chronic diseases [62–64]. Moreover, neighborhood disadvantage in the context of allostatic load can influence individual health behaviors such as alcohol and tobacco consumption, diet, and exercise [65]. Economic and psychosocial factors have been shown to explain 36–42% of racial and ethnic inequalities in postpartum allostatic load [66]. Therefore, structural factors that shape social determinants such as neighborhood features can also influence individual behaviors that place Black women at increased risk for maternal morbidity and mortality.

3.1.2. Interpersonal Factors

Interpersonal contributing factors describe relationships. An individual's immediate social circle (friends, spouse, and family members) influence their behavior and affects their experiences. During pregnancy, several relationships will be formed. Examples include doctor–patient relationships as well as family and peer relationships. International and national studies commonly find that preventable maternal deaths are due to provider factors. These include ignoring and withholding diagnoses, lack of appropriate referrals, and poor documentation and communication [67]. Doctor–patient relationships are especially important from the start of a pregnancy. However, several studies have shown negative maternal and child health providers' attitudes and behaviors affect patients' well-being, satisfaction with care, and care-seeking [68]. Trust is a crucial factor in relationships. Social roles and social isolation must be considered as well in these contributing factors. History of mistreatment can affect the support received from family and friends. This occurrence could influence an expecting mother's thoughts or behaviors toward her pregnancy journey.

Social isolation is an interpersonal contributing factor, and it can be damaging to health. COVID-19 further perpetuates its occurrence. COVID-19 negatively impacted the social life of pregnant women. Loss of social support can affect how a mother will advocate for herself. Women reported that the pandemic created fear and anxiety among pregnant patients because of limited doctor visits and financial issues. Women reported fear and anxiety concerning poor perinatal services [69]. There can also be a lack of advocacy on a woman's behalf from family and friends. Lack of this support causes anxiety about giving birth as well. A study showed that women felt that COVID-19 separated them from their families and put a strain on interpersonal relationships. An increased fear of catching the new disease weakened support systems and increased dependency on providers that mothers did not feel close to [69]. Lack of support during the delivery or labor process isolates mothers and contributes to their concerns being disregarded.

3.1.3. Organizational Factors

Systemic inequalities are often first seen at organizational levels. Organizational contributing factors include schooling and educational opportunities, community services, and access to resources. Quality access to health care, especially in terms of physical proximity, can be a challenge for individuals in certain neighborhoods and communities. Regardless of race, mothers living in impoverished areas are prone to die from maternal mortality [70]. Implicit bias among providers and staff highlights the importance of cultural competency, shared decision-making, and acknowledgment of personal biases to address disparities in care [67]. Furthermore, implicit bias can lead to racial disparities in maternal morbidity and

mortality in the U.S. [71]. Implicit bias and discrimination within the healthcare system can be revealed in the dismissal of Black women's symptoms and concerns, which can elucidate the poor outcomes even for Black women with higher levels of education and income [72]. Provider actions and their interactions with patients are strongly linked to racial disparities in the endurance of trauma during childbirth. Thirty percent of Black and Hispanic women in the United States who delivered in a hospital reported provider mistreatment compared to twenty-one percent of White women [73]. In a survey on maternity care among women in California, Black women were ten times more likely to report unfair treatment and discrimination from maternity care providers when compared to White women [74]. Community-based care could be used as an effective method of providing more access to care and resources to mitigate maternal mortality. Community-based care can include home-based care by more certified midwives, community-operated clinics, and health campaigns [75]. These efforts should include reinforcement of preconception and postpartum care to target racial disparities in maternal morbidity and mortality. Furthermore, multidisciplinary quality care initiatives that partner with communities can enhance the quality of care and reduce disparities [67]. Social mobilization, health promotion and education, and advocacy are needed to promote health, and to give people the knowledge and skills needed to improve their health or to advocate for themselves.

3.1.4. Community Factors

Relationships will occur in community settings (i.e., schools, workplaces, and neighborhoods) and can become a contributing factor to how maternal health is affected and the outcomes in maternal health for Black women. As mentioned at the organizational level, discrimination in one's surroundings has a notable impact on healthcare and health outcomes. For example, a recent study in Chicago showed a relationship between racial residential segregation and the presence of hypertensive disorder in Black pregnant women living in impoverished neighborhoods [76]. This further supports that there is a correlation between health and racial residential segregation. These urban communities with large Black populations tend to be impoverished and underfunded and lack adequate resources such as stable housing and suitable transportation, which are fundamental causes of poor physical health and further disadvantage the people who live there, which include Black pregnant women. This is caused by instances of systematic racism, which cause social and structural determinants of maternal and infant mortality in the United States.

There are many practices within communities that originate from structural racism. For example, redlining (defined as home mortgage denial based on race and government-backed disinvestment in non-White neighborhoods) was created as an oppressive form of housing historically and underserved individuals living in these areas. This created unhealthy habits within a community such as less emphasis on physical activity. This causes health disadvantages for those who are in this community such as financial barriers to care, access to quality healthcare, lack of education, and a shortage of primary care providers [77]. Racial and ethnic disparities in postpartum care before and after the COVID-19 pandemic also influence maternal mortality and severe morbidity among Black women [78,79]. The postpartum period is a crucial time for women to recover from childbirth and to adjust to several biological, social, and psychological transitions [80]. The postponement and absence of prenatal care, which was more likely to occur among Black and Hispanic women even before the COVID-19 pandemic [81,82], can obstruct prevention of maternal mortality and increase the likelihood of emergency room visits, childbirth complications, postpartum depression, and unmet postpartum care needs [83,84]. One study showed that, when compared to White women, Black women had an increased probability of not scheduling postpartum care and the slowest reduction in postpartum care canceling rate during the COVID-19 pandemic [85]. Black women have also been at increased risk for worries about prenatal care [79] and postpartum stress during the COVID-19 pandemic [86]. It is important to acknowledge the role of structural inequities and intersectional vulnerabilities that increase risks for unfavorable maternal health outcomes and fuel health disparities [85].

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One way to address this contributing factor is to invest in primary care within a community that can tend to diverse women that differ in race, age, and socioeconomic status in a variety of settings. Midwifery, doulas, maternity centers, nurse practitioners, and clinical settings can greatly impact maternal health in Black communities [87].

3.1.5. Societal Factors

The goal of reducing Black maternal mortality involves a vast approach that includes the patient, provider, and public health policies. Concepts such as structural racism have been proven to be the main reason for the disparities that occur across the different levels of influence. Structural racism is a large and deep-rooted force in society that can factor into health care. For example, there may be a racial bias that is present among certain healthcare professionals, which can cause hindrance to the care and treatment of Black pregnant patients. These patterns cause mistrust among Black patients and their providers as well as the medical community at large [8].

One of the structural determinants of maternal health that is linked to U.S. health disadvantages for individuals is the suffering of financial barriers to care [24]. This results in the lack of primary care providers, which creates poor, insufficient care for individuals. With healthcare facilities understaffed and overworked, many patients have a feeling of being overlooked and healthcare professionals are reporting burnout. There is a shortage of obstetricians, nurse midwives, and well-women nurses that serve in low-income, racially, and ethnically diverse communities. The lack of medical personnel can drastically affect the outcome of a pregnancy. Another structural determinant at the societal level is education [9,47]. Structural racism can also manifest in historical and contemporary practices such as redlining and segregation, which can hinder access to educational resources and opportunities and perpetuate intergenerational poverty due to less access to parental materials [7,9,36,39]. Additionally, the intergenerational transmission of risk attributed to structural racism is most concretely illustrated through the increased risk of adverse obstetric outcomes and higher infant mortality rates in African American communities. For example, research has indicated that African American women exposed to residential segregation are more likely to experience adverse birth outcomes, even after controlling for individual and neighborhood-level poverty [26,27]. While socioeconomic inequities rooted in structural racism and discrimination are primary drivers in racially disparate maternal health outcomes, differences in insurance coverage also play a role [88]. The Medicaid coverage gap, which can occur when individuals of low income lack a path to affordable coverage due to living in one of 12 U.S. states that have refused to expand Medicaid, is rooted in structural racism, and affects maternal morbidity and mortality [89]. Medicaid covers over 40 percent of U.S. births and 65 percent of births to Black mothers; almost 30% of Black women of reproductive age are in the Medicaid coverage gap, which limits their access to quality preconception and prenatal services and prospects of a safer pregnancy and birth for a parent and baby [89].

4. Discussion

An exploration of the factors that contribute to racial disparities in maternal morbidity and mortality among Black women in the U.S. calls for public health, the healthcare system, and community-engaged approaches to achieve equity in maternal health outcomes. These types of barriers could be addressed by targeting the underlying social determinants that fuel the rates of Black maternal morbidity and mortality and by incorporating policy and educational modifications to the healthcare system and industries that supply the healthcare system. We propose the strategies below to reduce racial disparities in maternal morbidity and mortality.

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4.1. Enhance Curriculum and Diversify the Workforce to Address Implicit Bias and to Improve Cultural Humility

Evidence strongly supports the impact that structural racism continues to have on our healthcare sector [11]. Diversifying the medical workforce is imperative to help with this crisis. Currently, although Black individuals make up 13% of the population, they comprise just about 5% of the active physician workforce. "Black female physicians comprise even less, representing only 2% of physicians overall" [90]. This illustrates the importance of racially concordant care and encourages efforts to address implicit bias and to improve cultural humility within the healthcare workforce. Healthcare providers can use clinical resources and tools to recognize and address unconscious bias and stigma in themselves and in their offices to promote cultural awareness and health equity [77]. To remedy implicit bias across the continuum of maternal health care, hospitals and healthcare systems can train obstetric and non-obstetric care providers to build knowledge and skills on cultural humility, cultural competency, and person-centered care [87].

Medical schools and health profession programs should incorporate social determinants of health and health disparities education into the curriculum to equip students with an appreciation of cultural competence, to help them identify and address racial bias in themselves and medicine, and to clarify how health disparities can unfavorably affect both patient and healthcare system outcomes [91]. Outlining how health disparities and contributing social determinants can result in excess medical care costs, lost productivity, and premature deaths can help reduce healthcare system costs and improve the quality of care for everyone [92]. Additionally, curriculum development should consider interprofessional, collaborative efforts with other health professions disciplines to foster a multidisciplinary approach to addressing health disparities [93]. Patient education and clinical workforce training initiatives can partner with community health organizations and academic researchers to raise awareness about racial disparities in maternal and child health outcomes [94]. There should also be enhanced training and education in maternal–fetal medicine to improve the management and medical care of pregnant women to address racial disparities in maternal mortality and severe morbidity [95]. Additionally, there should be efforts to increase and diversify the perinatal workforce (e.g., doulas, certified and lay midwives, and perinatal social workers) to decrease maternal and neonatal morbidity and mortality [96].

4.2. Explore the Impact of Environmental and Occupational Exposures on Maternal Morbidity and Mortality

There is a need to explore the impact of disparate environmental and occupational exposures on maternal morbidity and mortality [7,26–28,97]. Psychosocial stressors such as police brutality can impact Black mothers' lives when Black mothers endure a gendered racial vulnerability with their added responsibility of teaching their children to respond to police violence in the "police talk" [98,99]. Such responsibilities that stem from structural racism can cause physical manifestations of stress and psychological distress and have been associated with depressive symptoms among Black women [58,100–103]. Moreover, as previously mentioned, incarceration in the family can play an immense role in affecting BIPOC women's life and have important maternal and child health considerations, including adversely impacting the availability of adequate support during pregnancy and childbirth among BIPOC populations [49]. It is also important to examine how structural racism and discrimination in the workplace environment can take a toll on Black mothers through manifestations such as microaggressions, increased emotional trauma, the gender pay gap, invisibility, negative stereotypes, tokenism, and isolation [101,102].

When further considering environmental impacts on maternal mortality, it is evidenced that racial and ethnic inequities in social determinants of health, such as neighborhood environment (e.g., access to healthy food, neighborhood safety, housing, air pollution, pest, and mold exposure), environmental exposures (e.g., experiences of racism, discrimination, immigration, and acculturation), socioeconomic status (e.g., income, wealth,

educational attainment, and employment), housing (e.g., housing conditions such as indoor air pollution and microbial/pest allergen exposures), and health care access and quality, add to the excess burden of chronic disease incidence, prevalence, morbidity, and mortality among particular racial and ethnic groups, including Black communities. Other recommendations include safe housing and environmental justice efforts that include the reduction, remediation, and prevention of environmental lead hazards in older housing to remedy inequitable exposure of lead to Black residents, including disparate lead exposure to Black children [103]. Moreover, BIPOC and low-income communities, both in residential and workplace settings, as well as in rural and urban areas, shoulder a disproportionate burden of the harms caused by pesticides in the United States, which have maternal and child health implications. There is an increased application of pesticides in urban and low-income public housing [104]. Remediation policies are needed where women and children in these communities may be disproportionately exposed to pesticides through an increased likelihood to reside near pesticide manufacturing facilities that may possibly violate environmental laws [104].

4.3. Address Social Determinants of Health by Exploring the Impact of Structural Racism on Maternal Health Outcomes

There is also a need to address social determinants of racial disparities in maternal morbidity and mortality by exploring the impact of structural racism on access to factors such as quality healthcare (e.g., the effect of structural racism/historical abuses on health-seeking behaviors and confidence in the health care system), education, income and employment, and quality food. Structural racism affects health through its past and present effects on the quality of, and equal access to, key social, and environmental determinants of health. For example, the practice of redlining inhibited communities of color from acquiring residential mortgages and, accordingly, access to public transportation, supermarkets, and healthcare, contributing to the proliferation of residential segregation in the United States [35,44,105,106]. Resultantly, in U.S. communities plagued by segregation, Black persons and other racial and ethnic minority groups are more likely to live in neighborhoods with increased levels of poverty; to have reduced access to employment, credit, housing, educational, transportation, nutritional, and healthcare resources; and to live in health-inhibiting environments, compared to the White population [35,107]. Systemic racism also inhibits access to vital healthcare services, such as access to reproductive and sexual health services [8]. Therefore, there is a need to address these structural barriers and to acknowledge their role in racially disparate maternal health outcomes.

4.4. Improve Social Policies and Programs

In the wake of the United States Supreme Court's decision to overturn Roe v. Wade (Dobbs decision), women of color, communities of low income, and other marginalized populations will be disproportionately impacted by barriers to accessing care [108]. This can lead to increased maternal and infant mortality and an enduring impact on women and families, particularly for Black and rural populations [109]. For example, reduced access to reproductive services could impact high-risk pregnancies. Nationally, Black women are three times more likely to die from a pregnancy-related cause than White women [87]. Another way to address structural racism in birth outcomes through policymaking is to expand access to care in terms of health insurance to include coverage for nonhospital care, doula care, and labor and delivery classes [110]. Policymakers should tackle barriers to doula services that include low reimbursement for Medicaid clients, conflicting certification requirements, and complicated paperwork [111]. There should also be continued Medicaid expansion for postpartum women, including women living in non-expansion states, as timely postpartum care is linked with lower maternal morbidity and mortality [112,113], particularly for Black women [89]. Expanded coverage for behavioral health care should also be considered [88]. There should be an extension of the Medicaid postpartum coverage limit from 60 days (about 2 months) to at least one year [114]. Furthermore, in addition

to the need to improve access to reproductive health services, it is imperative to address gaps in maternal support in the U.S., including in the areas of paid family leave, income for women, and child-care affordability [115].

5. Conclusions

Pregnancy-related deaths are tragic and mostly preventable. The stark racial disparities in adverse pregnancy outcomes in the U.S. requires a deeper exploration into the role of social determinants and how structural racism contributes to a greater risk of adverse obstetric outcomes among Black women in the U.S. These social determinants include, but are not limited to, neighborhood environments such as access to healthy food, neighborhood safety, housing, air pollution, pest, and mold exposure; environmental exposures including experiences of racism, discrimination, acculturation, and immigration; socioeconomic status factors such as income, education, and occupation; housing conditions; and health care access and quality. Moreover, structural determinants of health such as slavery and structural racism influence social determinants of maternal and infant mortality. The amelioration of these social determinant disparities may also be the answer to decreasing or eliminating the dismal maternal morbidity and mortality rates and may lead to improved health outcomes for Black women in the U.S. Strategies are needed to undo the legacy of racism that fuels unfavorable pregnancy outcomes among Black women in the United States. Recommendations include addressing implicit bias and improving cultural humility in the healthcare sector, diversifying the workforce, incorporating social determinants of health and health disparities into the medical and health professions curriculum, exploring the impact of environmental and occupational exposures on maternal morbidity and mortality, addressing the impact of structural racism on health outcomes, and improving social policies and programs.

Author Contributions: A.N. conceived the project; A.N., M.E., L.N.-S. and J.B. conducted the literature review; A.N., M.E., L.N.-S. and J.B. wrote the manuscript; and A.N., M.E. and L.N.-S. reviewed the manuscript and formatted it for publication. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: No new data were created or analyzed in this study. Data sharing does not apply to this article.

Conflicts of Interest: The authors declare no conflict of interest.

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Taking a Closer Look

Table 2 provides a breakdown of the leading causes of death by age group. This data is also available for the last 10 years **(Table 7)**. The majority (58%) of deaths continue to be rooted in medical causes such as prematurity, birth defects, cancer, infection, and other medical conditions **(Table 10)**. The top three causes of infant death continue to be prematurity, sleep related and birth defects. Other medical cause were the leading cause of death in the 1- to 9-year-old age group, while gunshot wound was the leading cause of death in the 10- to 17-year-old age group.

Table 2. Leading Causes of Death by Age Group in 2022

Cause of Death	Under 1 Year	1 - 9 Years	10 - 17 Years	Total
Prematurity	52	1	0	53
Gunshot Wound	1	2	17	20
Other Medical Cause	5	7	8	20
Sleep Related	20	0	0	20
Birth Defect	7	2	3	12
Assault	2	3	0	5
Cancer	0	2	2	4
Fire	1	2	1	4
Motor Vehicle Accident	0	3	1	4
Poisoning	0	2	1	3
Undetermined	2	1	0	3
Hanging	0	0	2	2
Drowning	0	1	0	1
Other Unintentional Injury	1	0	0	1
Total	91	26	35	152

The cause of death with the largest year-over-year decrease was birth defects (from 24 in 2021 to 12 in 2022). Deaths due to drowning and other medical cause decreased by five and other intentional injury deaths decreased by three. There were two fewer deaths due to hanging. One less death due to cancer and motor vehicle accident in 2022.

There were six more gunshot wound deaths in 2022 and the highest total number in the last 10 years. Sleep related and undetermined deaths increased by three, and two more assault and prematurity deaths occurred.

In 2022, there were no COVID-19 related deaths to children in Cuyahoga County. In Ohio, 21 children died of COVID-19 and more than 470 children in the United States passed away from this disease in 2022[7]. For children 6 months to 4 years, the COVID-19 vaccine was not accessible until June 2022. The most effective way to protect children from this disease is getting them vaccinated and washing hands frequently.

2022 FAST FACTS

- Infant deaths were the lowest in the county's history at 91.
- Gunshot wound deaths were the highest total in the last 10 years.
- Birth defect related deaths were the lowest in the last ten years.

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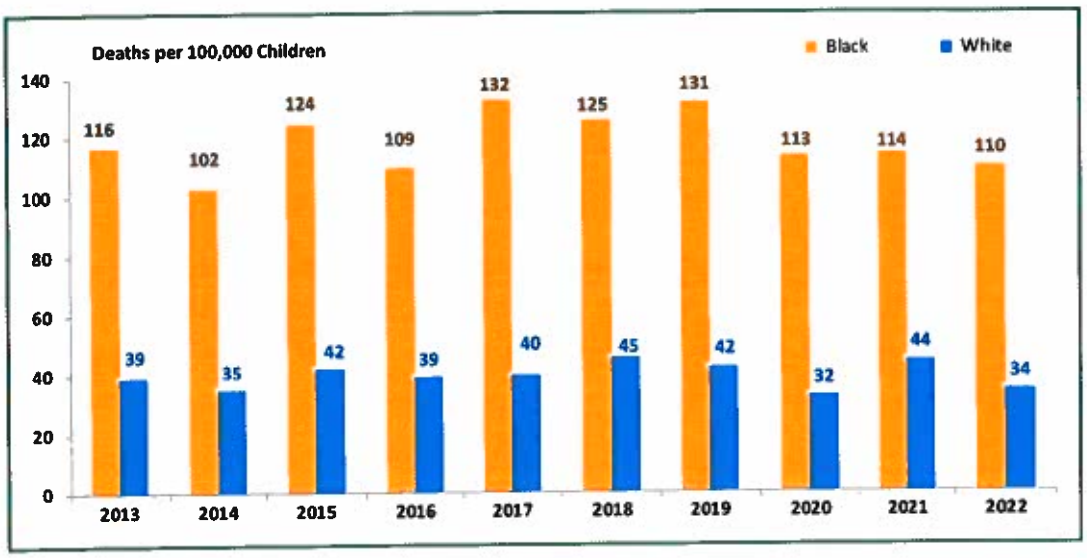
THE BLACK-WHITE CHILD DEATH DISPARITY RATIO WAS THE THIRD-HIGHEST IN THE LAST 10 YEARS.

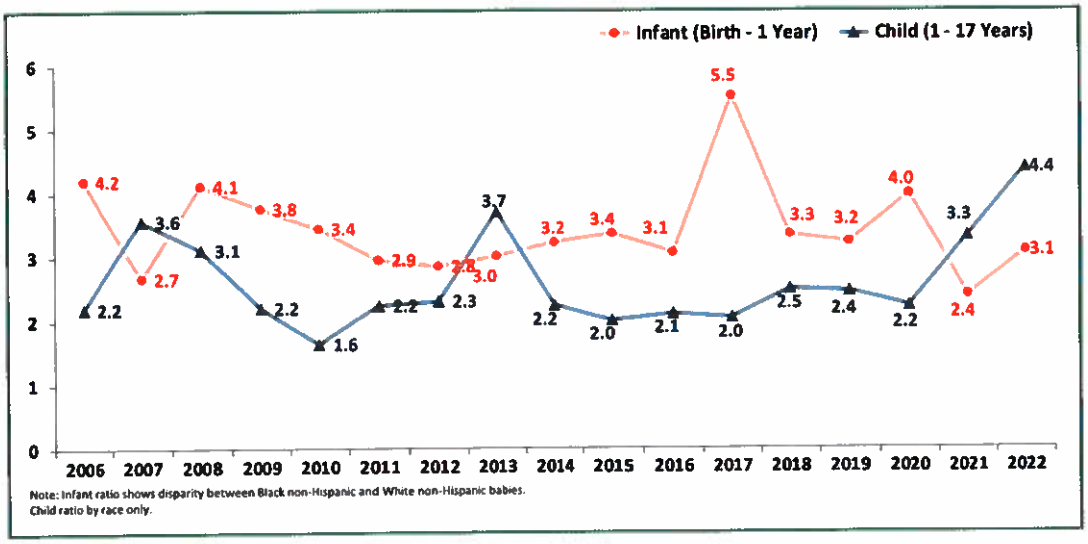
Figure 3: Child Death Rate by Race (age 0-17)



The Black-White child death racial disparity ratio increased to 3.2 in 2022, which was the third-highest ratio in the last ten years **(Table 9)**. The ratio increased because the White child death rate (34.4) decreased by 23%, while the Black rate (109.6) decreased by 4% **(Figure 3)**. The White rate was the second-lowest rate in the last ten years, and the Black rate was the third-lowest over the same time period. Of the 152 child deaths, 100 were Black, 45 were White, 6 were of another race, and 1 was of an unknown race.

Figure 4: Infant and Child Deaths; Black-White Racial Disparity Ratio

It is important to look at the racial disparity for infants and children separately, as illustrated in Figure 4. The child Black-White racial disparity ratio of 4.4 was the highest in more than 25 years. The racial disparity ratio of infant deaths (3.1) was tied for the third-lowest in the last 10 years. The 2022 infant death racial disparity ratio in the state of Ohio is 2.8[13] and the US ratio is 2.4.[14]



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America has an infant mortality crisis. Meet the black doulas trying to change that

theguardian.com/us-news/2019/nov/25/african-american-doula-collective-mothers-toxic-stress-racism-cleveland-infant-mortality-childbirth

Nina Lakhani November 25, 2019

Rachel is a college-educated professional pianist who lives in a middle-class leafy Cleveland suburb with her husband and their baby boy.

The 34-year-old is fit and healthy with good medical insurance and a close-knit family network, but these socio-economic advantages were not sufficient insurance to insulate her from the racial disparities that characterise America's infant and maternal mortality rates: African American babies are twice as likely to die before reaching their first birthday than white babies, regardless of the mother's income or education level.

A report earlier this year from Centers for Disease Control and Prevention found that over 22,000 babies died before their first birthday in 2017. But the racial disparities tell their own story: black women's babies died at a rate of 10.97 per 1,000 births – more than twice the rate for white, Asian or Hispanic women.

And in Ohio – home to Cleveland – the situation is even worse: the mortality rate for black infants (15.1 per 1,000) was around three times as high as the rate for white infants. Black women are also three to four times more likely to die in childbirth in America than white women, again regardless of their socio-economic status.

It's this terrifying reality that persuaded Rachel, who suffered a miscarriage before becoming pregnant with her son last year, that she needed an African American doula by her side during the pregnancy, delivery and after the birth.

"I was scared … I wanted someone who understood my history as a black woman to be with me during the birth and advocate for me in the hospital system where we are dismissed and not heard," said Rachel. "Even Serena [Williams] was dismissed."

(After giving birth in 2017, medical staff initially dismissed the tennis star's concerns about life threatening blood clots, a condition which almost killed her in 2011.)

Rachel eventually came across Birthing Beautiful Communities (BBC) – a Cleveland-based African American doula collective that provides culturally sensitive education, advocacy and emotional support for women during pregnancy and up to a year after birth.

The not-for-profit group was founded in 2014 by Christin Farmer, a straight-talking community organiser with an entrepreneurial spirit.

"The American infant mortality crisis is driven by black babies dying. It's about systemic racism and the lack of power sharing," said Farmer, 34. "We have to take things in our own hands at the grassroots level because we cannot depend on the same people that enslaved and repressed us to save us."

'Black babies account for a third of births, but three-quarters of infant deaths'

Farmer set up BBC to tackle longstanding birth inequalities by training local black women to provide holistic attention to pregnant women in their own communities.

Birthing Beautiful Communities is among 25 inspirational people and organizations that the Guardian is highlighting as part of a week-long City Champions project in Cleveland. It is designed to showcase the upsides in a city like Cleveland where grassroots activists faced with endemic problems – like lead poisoning, infant mortality and gun violence – and few or no state solutions, are taking the initiative and helping to change lives in some of the city's most marginalised communities.

Cleveland is the capital of Cuyahoga county located on the shore of Lake Erie in north-east Ohio, a former urban powerhouse which has suffered decades of economic decline and widespread racial inequalities. It is one of the most segregated cities in the US, a fact which directly influences the allocation of public resources for housing, health, education, infrastructure, crime prevention, parks and environmental hazards.

Back in 1850, when the US first started collecting infant mortality statistics, the black infant mortality rate was 340 per 1,000 while the white infant mortality rate was 217 per 1,000. While deaths have fallen overall thanks to improvements in hygiene, nutrition and healthcare, the black-white disparity has grown.

The situation in Cuyahoga county is shocking: last year African Americans accounted for just over a third of births, but three-quarters of infant deaths. This year looks set to be the worst since 2015, with black babies dying 3.8 times more frequently than white babies, according to preliminary figures.

"Everytime I hear these numbers something inside me dies," said Margaret Mitchell, president of YWCA Cleveland. "We have suppressed the truth for too long; this is not about race, it's about racism."

overall us race stats

Community leaders and health experts in Cleveland are pushing city officials to declare racism a public health crisis. At a recent city event, 400 years of Inequity: A Call to Action, some of the country's leading racial justice researchers argued that racism – historical and contemporary –

contributes to widespread health inequalities for African Americans including infant and maternal mortality.

Infant and maternal health specialist, Dr. Arthur James, of the Kirwan Institute for the Study of Race and Ethnicity at Ohio State University, said: "85% of the African American experience has been defined by slavery and Jim Crow yet we never talk about the role of history in today's racial inequalities in gun crime, addictions, mass incarceration and infant mortality.

"Advantage and disadvantage accumulates over time, it's time to change the narrative and shift the direction of public policy towards social determinants and achieving equity. Declaring racism as a public health crisis could change this dynamic."

Milwaukee, Wisconsin, declared racism a public health crisis earlier this year.

'Black babies and black mothers are dying'

BBC is located in a cozy converted house in Hough, one of the city's most marginalized neighborhoods, where women attend classes on breastfeeding, baby bonding and healthy eating in the open-plan lounge.(In 1966 the economically depressed and predominantly African-American neighborhood of Hough was the site of four days of rioting sparked after a black man was denied a glass of water at the white-owned Seventy-Niners Cafe at Hough Ave. The National Guard ordered in and, four days later, four people had been killed.)

The women coming to BBC can also access legal assistance, education, art therapy and entrepreneurial opportunities. In the past five years, they have trained almost 30 "super doulas" who have worked with more than 600 women. Creating jobs and reducing infant deaths marries Farmer's two passions: community wealth-building and health equalities.

"I'm unapologetic about ensuring African Americans get opportunities first. We need space to focus on our community issues because as a culture we have so much healing to do," said Farmer.

Doula Marlene Morris, 38, has supported 27 mothers through childbirth this year and witnessed countless examples of casual racism in hospitals such as assuming the woman's partner is nothing more than a "baby daddy".

"There are some awesome midwives, nurses and doctors, but too many assume that black women are angry, on Medicaid, and don't have a birth plan, and can tolerate more pain."

Research by the University of Virginia in 2016 found that a substantial proportion of white medical students and residents falsely believe black people have less-sensitive nerve endings, and that black skin is thicker than white.

"Black babies and black mothers are dying ... women come to us because they are scared," added Morris.

To qualify for BBC help, there are some non-negotiable rules: smokers must stop smoking (which may contribute to their good outcomes), and are obligated to take anxiety management classes, known as Sisters Offering Support (SOS). Why? Toxic stress.

In the first few months of BBC, Farmer noticed an odd phenomenon among pregnant women coping with tough situations such as domestic violence, poverty, homelessness and family incarceration – they consistently denied feeling stressed.

To find out why, Farmer approached Angela Neal, a professor, clinical psychologist and director of the Program for Research on Anxiety Disorders among African Americans at Kent State University.

The findings show a link between the extent of racism a woman has experienced and low cortisol levels – which is associated with anxiety and PTSD.

"The cause of toxic stress is American racism, and that is the principal social determinant of infant mortality disparity," added Neal. "Part of the solution to infant mortality is making sure emotional care is part of antenatal care."

Farmer added: "Black women have been normalizing and internalizing stress and trauma for so long … this is a big deal in prematurity which is killing our babies."

Toxic stress contributes to conditions like hypertension and pre-eclampsia, which increase the risk of premature birth and its complications — the largest contributors to infant death globally. In the US, one in 10 babies were born premature last year, signalling the fourth consecutive annual increase, according to new figures by March of Dimes, a not-for-profit that works to improve the health of women and babies. The premature birth rate among black women is 49% higher than for white women.

For black women in America, the grind of institutional and societal racism generates physiological stress which directly increases the risk of life-threatening conditions for them and their babies.

In a 2010 paper on the complex web of factors which contribute to racial inequalities in infant mortality published in the Maternal and Child Health Journal, academics at the University of South Florida concluded: "In addition to infant, maternal, family, community and societal characteristics, we present research linking racism to negative birth outcomes and describe how it permeates and is embedded in every aspect of the lives of African American women.

"Understanding the contribution of history to the various factors of life of Black women in the United States will aid in developing more effective policies and programs to reduce Black infant mortality."

But sometimes nothing is enough.

'Grassroots is what's going to save our babies'

Romanique Rice did everything right. She read countless pregnancy books, ate well, attended classes and antenatal appointments, and called upon doula Morris for support and advice.

"I wanted someone to have my back in the hospital … a doula the same race as me, who understood my experiences, the inequalities and circumstances of my life without judgment," said Rice, 26.

Everything seemed fine. Rice went into labour at full term, but by the time she got to the hospital her daughter, Riley, had died in utero. She wouldn't, couldn't believe it until Morris arrived to relay the news. A placenta abnormality was the probable cause. Rice and her partner were devastated, and so was Morris and the whole BBC family. "I'm just trying to help her process the grief and find the answers she needs," said Morris.

It's the first time Rice is back at the BBC house since the stillbirth, and it hurts. "I was so angry, full of emotions, but Marlene has helped keep me calm and give me clarity."

Farmer is an optimistic changemaker with ambitious plans to extend the super-doula model across America. So far she's opened a second BBC centre in the neighbouring city of Akron; developed standardized training and care protocols to ensure fidelity to their model; is writing a book and working towards opening the state's first midwife- and doula-run community birthing centre

To do this work, BBC receives financial support from the state government and the Cleveland Clinic, a world-class medical system with health centres and hospitals across north-east Ohio where health and wealth inequalities are stark.

Farmer has no qualms about this juxtaposition. For her, the infant mortality divide is systemic, but the solutions are local.

"Grassroots is what's going to save our babies and everyone else should be supporting partners in that work including hospitals and government."

She added: "I don't focus on what we can't do, only what we can do and know that we can solve infant mortality so that's my goal. I won't stop until that goal is realised, and if that means I have to figure out other strategies, well bring it on, that's what I do."