MEDICINE AND SOCIETY

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How Structural Racism Works — Racist Policies as a Root Cause of U.S. Racial Health Inequities

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In the 5 years since one of us published "#Black LivesMatter — A Challenge to the Medical and Public Health Communities" in the *Journal*,[1] we have seen a sea change in the recognition of racism as a durable feature of U.S. society and of its high cost in Black lives. Elected officials, corporate leaders, and academics alike use the slogan "Black Lives Matter," which has also been widely adopted by members of the public, who by the millions protested the extrajudicial killing of George Floyd.[2] With this change comes growing recognition that racism has a structural basis and is embedded in long-standing social policy. This framing is captured by the term "structural racism."

There is no "official" definition of structural racism — or of the closely related concepts of systemic and institutional racism — although multiple definitions have been offered.[3-7] All definitions make clear that racism is not simply the result of private prejudices held by individuals,[8] but is also produced and reproduced by laws, rules, and practices, sanctioned and even implemented by various levels of government, and embedded in the economic system as well as in cultural and societal norms.[3,8] Confronting racism, therefore, requires not only changing individual attitudes, but also transforming and dismantling the policies and institutions that undergird the U.S. racial hierarchy.

As a legacy of African enslavement, structural racism affects both population and individual health in three interrelated domains: redlining and racialized residential segregation, mass incarceration and police violence, and unequal medical care. These examples, among others, share certain cardinal features: harms are historically grounded, involve multiple institutions, and rely on racist cultural tropes.

REDLINING AND RACIALIZED RESIDENTIAL SEGREGATION

In 1933, the federal government established the Home Owners' Loan Corporation (HOLC) to expand homeownership as a part of recovery from the Great Depression.[8] To guide determinations of mortgage-worthiness, HOLC created maps of at least 239 U.S. cities. Using racial composition as part of its assessment, HOLC staff literally drew red lines (hence "redlining") around communities with large Black populations, flagging them as hazardous investment areas whose residents would not receive HOLC loans. Redlining made mortgages less accessible, rendering prospective Black homebuyers vulnerable to predatory terms, thereby increasing lender profits, reducing access to home ownership, and depriving these communities of an asset that is central to intergenerational wealth transfer. Federal mortgages were declined regardless of home loan officers' racial views; it was not personal.

This government-sanctioned practice validated other racist maneuvers, such as restrictive covenants that barred Blacks from home ownership by means of legal agreements set up by previous owners, undervaluing of real estate in Black neighborhoods, and mob violence against Blacks who moved into White neighborhoods. Although redlining officially ended with the Fair Housing Act of 1968, its impact is seen today in the social geography of cities. Residential segregation formed a platform for broad social disinvestment, especially in neighborhood infrastructure (e.g., green space, housing stock, and roads), services (e.g., transport, schools, and garbage collection), and employment.

Residential racial segregation remains a powerful predictor of Black disadvantage.[3,5,9] There is

a direct legacy of redlining in health and well-being — preterm birth, cancer, tuberculosis, maternal depression, and other mental health issues occur at higher rates among residents of once-redlined areas.[3-5] Plausible mechanisms for the continued health impact of redlining deserve further study, taking into account exposure to environmental toxins (teratogens, carcinogens, air pollutants, etc.) and the sustained physical impact of concentrated psychosocial stressors.[5,9-11] Better HOLC neighborhood grades are associated with lower levels of airborne carcinogens and higher levels of tree-canopy coverage (which mitigates air pollutants and heat).[12] Predominantly White neighborhoods generally have lower air-pollution levels,[13] while higher exposures contribute to asthma and low-birth-weight outcomes in Black communities.[14]

Redlining required the cooperation of government; the banking, credit, and real estate industries and private developers; as well as homeowners. Together, these parties helped stoke cultural beliefs that Blacks made bad neighbors whose presence would lower real-estate values and increase crime. Furthermore, the structural racism that enables and sustains segregation facilitates structural racism in other forms, including mass incarceration and police violence and the unjust distribution of high-quality health care.

POLICE VIOLENCE AND THE CARCERAL STATE

The United States has the world's highest incarceration rate, and U.S. police kill civilians far more often than do police in other wealthy countries.[15,16] A large body of scientific research documents both racially unequal outcomes and racial bias in virtually all aspects of the criminal legal system, with Black people experiencing harsher outcomes in relation to police encounters, bail setting, sentence length, and capital punishment than White people.[17,18] The history of courts, prisons, and police as institutions that maintain racial hierarchy is key to understanding the deeply punitive and racially unequal nature of the U.S. criminal legal system, with important and persisting implications for the health of Black communities.

Contemporary U.S. policing has roots in slave patrols, which were first established in 18th-century colonial Virginia in an effort to capture runaways and quell uprisings. After the abolition of slavery and the short-lived progress of the Reconstruction Era, police and prisons served as key institutions for reasserting White dominance, especially in the South. Law enforcement sanctioned, enabled, and participated in the lynching of Black people, which White mobs typically carried out under the pretext of punishment for crime; in reality, lynching often had broader economic and political motives.[19] Southern White people also used police and prisons to enforce vagrancy laws and the convict-leasing and sharecropping systems in order to compel formerly enslaved people to return to the fields — "slavery by another name," as one author famously put it.[20]

By the time Congress passed the Civil Rights Acts of 1964, lynching had become rare and the convict-leasing system had been long abandoned. But just months later, President Lyndon Johnson declared a "War on Crime," which was followed in the next decade by President Richard Nixon's "War on Drugs," both of which appealed to fears about supposed Black criminality. These developments portended a sevenfold increase in the size of the incarcerated population, with Black people incarcerated at five times the rate for White people.[21,22] As in the post-Reconstruction era, the development of mass incarceration also had economic dimensions — for example, the expansion of prisons provided employment in White, deindustrialized rural areas.[23]

The late 1960s also saw a massive spike in police killings of Black men,[24] and it was not until the 1980s that the U.S. Supreme Court placed even modest restrictions on police use of force — for instance by declaring it unconstitutional for police to shoot a civilian who is fleeing a crime scene but poses no harm to others.[25] Policing has long been entangled in other structures that reproduce racism, such as residential segregation. Police once enforced racial restrictions in "sundown towns" that excluded Black people outside working hours; they now disproportionately target Black people who enter White neighborhoods.[26] The police activity that resulted in Breonna Taylor's fatal shooting by police in Kentucky has been tied to an "urban revitalization" plan.[27]

Policing and incarceration have profound adverse consequences for the health of Black people. Some of these consequences are direct — police use of force kills hundreds of Black

people each year and nonfatally injures many thousands more. Incarcerated people — who are disproportionately Black — face a high risk of death after release,[28] and prisons and jails have been major sites of disease transmission during the Covid-19 pandemic.[29] There are also indirect effects — for instance, police violence can harm mental health for entire communities through constant surveillance and threat of violence,[30] and the churn in and out of incarceration can result in community spread of sexually transmitted infections or other infectious diseases, such as Covid-19.[31]

The notion that police reform alone will solve police violence is incomplete and misleading. A structural racism lens allows us to see how policing and prisons have served their intended purpose of social control of the Black population, which has long been enforced by violence. For effective change, we must determine which sectors (such as mental health and social services) should be involved in equitably addressing public safety without necessarily requiring a police response.

UNEQUAL HEALTH CARE

Modern American medicine has historical roots in scientific racism and eugenics movements. Scientific racism reified the concept of race as an innate biologic, and later genetic, attribute using culturally influenced scientific theory and inquiry.[32] American scientists, such as Samuel Morton, continued this tradition, using anatomical features such as skull size and volume to categorize races in ways that enshrined White superiority.[32,33] The modern eugenics movement swept through the United States in the early 20th century, leading to laws prohibiting "miscegenation" and the forced sterilization of undesirable "races" in an effort to create a better, more intelligent, Whiter nation.[32]

Well-respected medical doctors cast Blacks as innately diseased and dehumanized their suffering, using scientific arguments to provide the illusion of neutrality and objectivity. For instance, in 1851, Southern physician Samuel Cartwright described "drapetomania," a "mental illness" that he claimed caused enslaved Africans to run away from their confinement; he argued that it could be prevented by keeping Black people in submission and could be cured by whippings.[34] Cartwright also "discovered" dysaesthesia aethiopica, a "disease" in Black people characterized by reduced intellectual ability, laziness, and partial insensitivity of the skin.[34] Similarly, physician J. Marion Sims, who was hailed as the father of modern gynecology, owed his signal accomplishment of vesicovaginal fistula repair to repeated operations performed, without anesthesia, on enslaved Black women — women for whom informed consent had no meaning.[35]

Racialized conceptions of susceptibility to disease persist to this day. In its 2003 report *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, the Institute of Medicine reviewed more than 100 studies and concluded that bias, prejudice, and stereotyping contributed to widespread differences in health care by race and ethnicity.[36] That call to action went largely unheeded. Fifteen years later, the 2018 National Healthcare Quality and Disparities Report documented that Black, American Indian and Alaska Native, and Native Hawaiian and Pacific Islander patients continued to receive poorer care than White patients on 40% of the quality measures included, with little to no improvement from decades past.[37] This unequal treatment is based, at least in part, in enduring racist cultural beliefs and practices. For instance, in a 2016 study to assess racial attitudes, half of White medical students and residents held unfounded beliefs about intrinsic biologic differences between Black people and White people. These false beliefs were associated with assessments of Black patients' pain as being less severe than that of White patients and with less appropriate treatment decisions for Black patients.[38]

It would be short-sighted to think that individual prejudice and discrimination alone drive substandard care. The systematic disinvestment in public and private sectors within segregated Black neighborhoods has resulted in underresourced facilities with fewer clinicians, which makes it more difficult to recruit experienced and well-credentialed primary care providers and specialists and thereby affects access and utilization.[3] Black communities became medical training grounds and a source of profit, reinforcing the American medical caste system that we have today. Regardless of intent, actions by parties ranging from medical schools to providers, insurers, health systems, legislators, and employers have

ensured that racially segregated Black communities have limited and substandard care.[3]

Acceptance of this inequitable treatment as "normal" is historically rooted in and supported by the belief that Black people are intrinsically disease-prone and, implicitly or explicitly, not deserving of high-quality care. As with policing, dismantling structural racism's impact on health care is not an issue of "a few bad apples"; we must reflect on the ways our everyday, accepted practices reify race — that is, treat the social construct of race as an intrinsic biologic difference — thereby exemplifying and contributing to a broader system of structural racism.

OUR ROLE IN DISMANTLING STRUCTURAL RACISM

Structural racism reaches back to the beginnings of U.S. history, stretches across its institutions and economy, and dwells within our culture. Its durability contributes to the perception that Black disadvantage is intrinsic, permanent, and therefore normal. But considering structural racism as a root cause is not a modern analogue of the theory that disease is caused by "miasmas" — something that's "in the air," amorphous and undifferentiated. Structural racism functions to harm health in ways that can be described, measured, and dismantled. Actions to dismantle racism necessarily involve the whole of society. Moving beyond individual education and personal insight to change policy and social norms will require the engagement of many institutions, but the medical and public health communities can contribute directly in at least four key areas.

The first is embracing the intellectual project of documenting the health impact of racism. Despite the long and ongoing history of racism, empirical research showing its impact on health is rarely published in major medical journals. Although we find the evidence of the health effects of structural racism to be convincing, and supported by more than a century of wide-ranging theoretical and empirical scholarship, it remains marginalized and eclipsed by other research priorities.[3-6,39] When leading medical journals address structural racism, it is often confined to commentaries and editorials, as though these topics are suitable for discussion but not discovery. Broad agreement is needed — by funders, editors, and reviewers — that racism and inequities in social determinants of health more generally are topics as valid for research as biologic markers (and certainly the two can be combined).

Next, the availability of data that include race and ethnicity must improve, and efforts to develop and improve measurement of structural racism need to be supported, particularly those using available administrative databases. Such work is under way, and we believe it should be widely encouraged.[6,40-44]

Third, the medical and public health communities need to turn a lens on themselves, both as individuals and as institutions. Faculty and students need a more complete view both of U.S. history and of the ways in which medicine and public health have participated and continue to participate in racist practices. Reflection includes recognition of harms arising from the uncritical use of racial categories, which reinforces implicit assumptions that racial differences are genetic in origin. Furthermore, it includes measuring the success of interventions in terms of how well they narrow inequitable gaps in health (here, between Black people and White people) instead of focusing solely on the overall population. Rigorous, clear standards for publishing research on racial health inequities have been proposed.[45]

Meanwhile, addressing the growing underrepresentation of Black students in medical school,[46] and the disadvantage Black researchers face in seeking awards from the National Institutes of Health[47] should not wait. We should call into question claims that there is an inadequate pool of qualified Black applicants to recruit, hire, and promote.

Fourth, we should acknowledge that structural racism has been challenged, perhaps most successfully, by mass social movements. Change will require policies that restructure the chances for a healthy life for people of color, righting the wrongs done by the foundational racial hierarchy that continue to shape everyday life. Organized medicine and public health have a long history of opposing desegregation and broader access to care (e.g., Medicare), of barring Black physicians, of championing scientific racism, and of enshrining race as a biologic variable. Our fields have much to regret, and we have much still to offer to right our historical wrongs. Let's not sit on the sidelines.

Disclosure forms provided by the authors are available at NEJM.org.

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This article was published on December 16, 2020, at NEJM.org.

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DOI: 10.1056/NEJMms2025396