RACISM AS A PUBLIC HEALTH CRISIS

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RACISM AS A PUBLIC HEALTH CRISIS

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EDITORIAL
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Editorial: Racism as a Public Health Crisis: From Declaration to Action

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Editorial on the Research Topic

Racism as a Public Health Crisis

The movement for racial and social justice that swept the United States in recent years has drawn greater attention to life-threatening inequities. The issue of how race-related health inequities are affecting disadvantaged groups has received sharper focus, bringing widespread promises of reform along with it.

Nearly 250 declarations of racism as a public health crisis have passed in states, cities, town councils, county and education boards, and public health entities. While resolutions and formal statements themselves are not necessarily legally enforceable, they are an important first step in shifting a narrative that can drive meaningful changes to public health programming, policies, and resource allocation.

Racism is a system of structuring opportunity and assigning value based on the social interpretation of how one looks (which is what we call "race"), which unfairly disadvantages some individuals and communities, unfairly advantages others, and saps the strength of the whole society through the waste of human resources. Improving health and addressing inequities requires acknowledging that racism exists, correcting misconceptions that fuel racism, and facilitating healing in communities.

In this Research Topic feature, we share what many experts have to say about racialized impacts on health as well as innovations that can foster and sustain transformational change in policies and practices that are driving the social determinants of health and wellbeing. Several underlying themes crisscross the many articles and Editorials including, the need to improve the quality of health data; transforming how we communicate about our past, present, and future; practices and policies that sustain false beliefs in hierarchy; progress of national and state-level legislation to address health inequities, and the importance of community-based participatory research approaches for authentic voices. Many of the manuscripts share real-life examples of how racism and health equity are being addressed across the U.S.

County and city leaders who are looking for practical ways to advance health and racial equity now have a new resource that can serve as a roadmap. In 2021, the American Public Health Association, the de Beaumont Foundation, and the National Collaborative for Health Equity launched *Healing Through Policy: Creating Pathways to Racial Justice*, an initiative that offers local leaders a suite of policies and practices that are being implemented across the country to help advance health, racial equity, and justice. *Healing Through Policy* uses the Truth, Racial Healing and Transformation (TRHT) framework, a comprehensive, national, and community-based process to plan for and bring about change, and to address the historic and contemporary effects of racism.

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First introduced by the W. K. Kellogg Foundation in 2017, the TRHT framework is used by communities around the nation and on dozens of college campuses to promote racial healing and relationship building. The suite is available at: www.debeaumont.org/healing-through-policy.

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All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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ORIGINAL RESEARCH
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"Being a Person of Color in This Institution Is Exhausting": Defining and Optimizing the Learning Climate to Support Diversity, Equity, and Inclusion at the University of Washington School of Public Health

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Learning climate greatly affects student achievement. This qualitative study aimed to understand community definitions of climate; share lived experiences of students, faculty, and staff; and define priority areas of improvement in the University of Washington School of Public Health (UWSPH). Between March-May 2019, 17 focus group discussions were conducted–stratified by role and self-identified race/ethnicity, gender and sexual orientation–among 28 faculty/staff and 36 students. Topics included: assessing the current climate, recounting experiences related to roles and identities, and recommending improvements. Transcripts were coded using deductive and inductive approaches. Race/ethnicity, gender, and sexual orientation appeared to affect perceptions of the climate, with nearly all respondents from underrepresented or minoritized groups recounting negative experiences related to their identity. Persons of color, women, and other respondents who identified as lesbian, gay, bisexual, transgender, queer/questioning, intersex, and asexual (LGBTQIA) frequently perceived the climate as "uncomfortable." Most felt that UWSPH operates within a structural hierarchy that perpetuates white, male, and/or class privilege and "protects those in power" while leaving underrepresented or minoritized groups feeling like "the way to move up… is to conform" in order to not be seen as "someone pushing against the system." Improvement priorities included: increasing community responsiveness to diversity, equity, and inclusion; intentionally diversifying faculty/staff and student populations; designing inclusive curricula; and supporting underrepresented or minoritized groups academically, professionally, and psychologically.

Keywords: learning climate, diversity, equity, inclusion, antiracism, racism, homophobia, sexism

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INTRODUCTION

Among higher education institutions (HEIs), the campus climate is often a critical factor influencing success in recruiting and graduating students, as well as hiring, retaining, and promoting faculty and staff. Campus climate incorporates numerous facets of an institution, including the physical spaces where teaching and learning take place (i.e., classrooms, lectures, libraries, and other on- and off-campus spaces); the resources that produce learning outcomes (i.e., instructors/tutors, curricula, and course materials); the structural diversity and institutional history of an HEI; and the perceptions, attitudes and behaviors of students, faculty, and staff regarding their institutions (1–3). Climate is also defined as a socio-environmental factor that is associated with key cognitive, social, participatory, and attitudinal outcomes of students (2). For the remainder of this paper, we use the term *learning climate*, rather than *campus climate*, to broaden the focus from the location of education to its intention of developing and furthering knowledge and experiences of students, faculty, and staff.

Numerous factors affect the HEI learning climate, including: "its historical legacy of inclusion or exclusion of various racial/ethnic groups; its structural diversity or the numerical representation of various racial/ethnic groups; perceptions and attitudes between and among groups, and interactions; and relationships between diverse campus groups (4)." According to Steele's stereotype threat theory, adverse learning climates negatively affect student academic performance (e.g., course assessments, national examinations, or grade point averages), especially for students of color and other marginalized groups (5, 6). The theory posits that when students are reminded that they belong to a group that is stereotypically defined to be academically inferior, they often perform at lower levels than their counterparts in the majority population due to the pressure of conforming to these stereotypes, despite having similar levels of preparation. Oftentimes, these "reminders" are microagressions–subtle verbal, non-verbal, and/or visual insults directed toward marginalized groups–that are experienced by students of minoritized identities who are repeatedly reminded about their inferiority due to their race, ethnicity, or gender identity.

Today, numerous HEIs conduct annual learning climate assessments that include students as well as other campus populations–namely faculty, staff, and leadership—in order to provide more comprehensive evaluations and develop more inclusive responses to improve overall diversity, equity and inclusion (DEI). In 2008, the University of Washington School of Public Health (UWSPH) conducted its first such climate survey, with subsequent surveys in 2017 and 2018. According to the 2018 results report, the average rating of comfort with the current climate was 3.55 on a 1–5 Likert scale (7). Although the percentage of respondents who felt "comfortable" or "very comfortable" did not substantially change from 2008 (57.4%) to 2018 (58.6%), the percentage who rated the climate as "very uncomfortable" and "uncomfortable" nearly doubled over the same time period (9.9 vs. 18.1%) (7). In addition, persons of color (POC), women, and those from low-income backgrounds consistently reported feeling "uncomfortable," with POC rating the climate the lowest at 2.91 (7). Among those who reported any level of discomfort, microaggressions and exclusionary behavior were the most common offenses, specifically related to participants' racial, ethnic and gender identity, and sexual orientation. Given the disproportionate feelings of discomfort with the climate among marginalized populations, understanding how experiences with implicit bias and microaggressions affect learning and working in UWSPH is critical to eliminate opportunity gaps based on race, ethnicity, gender, or disability. A limitation of the quantitative climate survey approach is the inability to descriptively capture reasons why respondents defined the climate to be sub-optimal. Thus, this qualitative study was designed to conduct an in-depth examination of faculty, student, and staff perceptions of the current learning climate within the UWSPH, the range of experiences of diverse groups operating within that climate, and perceived areas for improvement in the context of DEI.

We also want to illustrate the lived experiences of people identifying with particular demographic groups [i.e., POC, White, women, and persons identifying as lesbian, gay, bisexual, transgender, queer/questioning, intersex, and asexual (LGBTQIA)] and their perspectives on factors contributing to the climate, including: curriculum, recruitment, retention, and promotion, as well as availability and distribution of campus resources. We also present participants' recommendations of strategies that may improve the learning climate.

MATERIALS AND METHODS

Study Design

We conducted a cross-sectional qualitative study using a phenomenological approach to assess perceptions and experiences of students, faculty, and staff within the UWSPH about the learning climate (8). Focus group discussions (FGDs) with representatives across the broad array of UWSPH departments and programs were conducted to develop a deeper and more nuanced understanding of their experiences, the meanings attached to those experiences, and their suggestions to address cultural and social disconnects that emerged from previous UWSPH Climate Survey data.

Study Setting and Participants

FGDs were conducted between March and May 2019 within UWSPH, a large public health school located in the Pacific Northwest region of the United States. UWSPH has 40 graduate degree programs across five academic departments and five interdisciplinary programs. There are ∼1,700 graduate and undergraduate students, 250 core faculty, and 660 staff who teach, mentor, and provide direct support to students. Approximately 20% of the undergraduate and 15% of the graduate student populations are underrepresented minorities (i.e., African American, American Indian/Alaska Native, Hawaiian/Pacific Islander and Hispanic/Latino), according to the 2017 census data (9). School leadership (i.e., Deans, Department Chairs, or Program Directors), faculty, staff, graduate and undergraduate students within any UWSPH department were invited to voluntarily participate in the study. Participants were offered a $10 gift card for their time.

Recruitment and Data Collection

Participants were recruited by emails sent through UWSPH listservs, in-person classroom announcements, individual interactions, and print advertisements widely posted around UWSPH common areas. Recruitment continued on a rolling basis until FGDs were conducted with all targeted groups and data saturation was reached. Individuals who expressed interest in participating were invited to complete a confidential online form and asked to indicate their identities, including role (leadership, faculty, staff, or undergraduate/graduate student), race (Black/African American, White, Native American, Alaskan Native, Asian, Hispanic/Latinx, Native Hawaiian, or Pacific Islander), gender identity (female, male, transgender, genderless, non-binary, bigender, third gender, gender fluid), or sexual orientation (homosexual/lesbian, bisexual, or asexual). Respondents were also given an "Other" option for any identity not listed. Based on these identities, respondents selected their top three FGDs of choice. These preferences allowed the researchers to create representative groupings for more robust discussions and to tailor prompts based on each group's shared identity.

Discussion guides were developed separately for faculty/staff and student FGDs and each focused on four major domains: (a) defining the "ideal" learning climate and its effect on learning and outcomes; (b) assessing the current UWSPH climate (rating the comfort of the climate from "very uncomfortable" to "very comfortable"); (c) collecting positive and negative experiences in the context of participant self-defined identities and roles; and (d) recommending actions to improve the learning climate through the promotion of policies and norms that promote anti-racism, anti-sexism, anti-classism, anti-sexual prejudice (i.e., homophobia or transphobia).

FGDs were conducted in private rooms by two external qualitative researchers (ELDV and LCF) who were not current student, faculty, or staff in UWSPH. One facilitator led each 60-min session in English and also served as the note taker. Sessions were audio recorded after participants gave oral consent for recording. Recorded discussions were transcribed by an external translation firm (GMR Transcription, Tustin, California, USA) and underwent quality assurance processes. While all sessions were recorded, two sessions which only had one participant were not transcribed. For these sessions, facilitators recorded detailed field notes to supplement the audio recordings that were subsequently collated and included in the analysis.

Data Analysis

The analysis included both deductive and inductive coding approaches (10). During the data collection process, both facilitators started developing codes to avoid single-coder bias. They held debriefing sessions within a day or week after completing a series of FGDs to share data and record preliminary themes that emerged from the discussions followed by debriefing meetings with the study principal investigators (M-CG-C and RH). A codebook was then developed, including codes based on these preliminary themes, together with the domains probed in the discussion guides (**Supplementary Table 1**). The coding process was conducted by a single analyst using Dedoose v.8.0.35 software in two rounds. The first round consisted of coding the transcribed data based on the initial codebook. *In vivo* codes were also created when new themes outside of the original domains emerged and these were added to the codebook. In the second round, the analyst then recoded the transcripts to increase the credibility of the data analysis process and also cross-checked the coded data with researcher field notes, facilitator summaries, as well as audio recordings.

Ethical Considerations

The University of Washington Human Studies Division determined that this study was minimal risk and exempted from ethical review. The identities of all participants were only known to the FGD facilitators during the recruitment process and participants remained anonymous during data collection. No reference to their names, titles, or roles were made during the FGDs. If such references were accidentally broached during the discussion, these names or titles were redacted during the transcription process. All FGD audio files were stored in a password-protected cloud storage system accessed only by the immediate research team. In order to ensure confidentiality for all participants, all names and identifying characteristics have been anonymized.

RESULTS

A total of 85 individuals expressed interest in participating in a FGD. Due to attrition from scheduling conflicts and cancelations, 64 participants–28 faculty/staff and 36 students–participated in the study. In total, 17 FGDs were conducted: seven with faculty and staff (including two with school leadership) and 10 with students (**Table 1**). Although we did not capture individual level demographics for all participants, care was taken to include, as much as possible, a diverse representation across the various identities. Among the faculty, we were able to recruit across professorship rank. Among staff, we recruited from both student-facing and non-student-facing positions. Leadership included departmental and school-level leadership. Given the minority representation of some identities within the school, we chose not to report demographics by identity to protect participants' confidentiality. Broadly, the following ethnic identities were represented based on participant self-identification during FGDs: African, African-American/Black, White, Hispanic/Latinx, Southeast Asian, and Pacific Asian Islander. Similarly, we did not capture sexual orientation but we observed LGBTQIA participants who self-identified as lesbian or queer.

The findings are reported within the four research domains of interest, including: the definition of an ideal climate, the assessment of the current climate, positive and negative experiences within the climate, and recommendation for improving the climate. Additional quotes for each theme are found in **Supplementary Table 2**.

TABLE 1 | Type and number of FGDs and participants.

FGD type	Faculty and staff		Students	
	Session *N* = 7	Participants *N* = 28	Session *N* = 10	Participants *N* = 36
Persons of color (POC)	1	4	4	17
White/non-POC	1	2	1	4
Women	2	10	3	9
LGBTQIA	1	4	2*	6
Leadership	2	8	n/a	n/a

One FGD had a combination of POC and LGBTQIA identities.

The Ideal Climate and Its Importance to Learning and Working

Faculty, staff, and student participants viewed seven major characteristics as priority for an ideal learning and working climate: inclusiveness and belongingness; intentional diversity; respect; physical, emotional, and psychological safety; openness and freedom to express oneself, ask questions, take risks, and make mistakes without judgment; adequate mentorship to nurture learning and career growth; and the presence of physical and social spaces conducive for learning. Across all participant groups, having an ideal climate was perceived as essential or non-negotiable.

> [Our] experience should be challenging and rigorous from an academic standpoint, but… [interactions with our teachers or peers] shouldn't necessarily add to that difficulty. It should be facilitating learning and not adding to some type of traumatic experience that the student then has to process through. (Student, POC).

Those who posited that the ideal climate was "very important" (a lesser designation than "essential" or "non-negotiable"), were mostly POC, who shared that they were used to "compromising and adapting to" their current climates. A common theme across all respondents was the effect of climate comfort on learning outcomes.

> I think if you could have professors who make you uncomfortable or don't make you feel safe, you [can] succeed in the class by just getting the grade that you need to get. I don't think that it puts you in a position to really succeed outside of the classroom. You're not gonna reach out to the professor for mentorship; you're just gonna go to the class and go home. (Student, POC).
>
> Out of 120 students this year… we failed one student and felt terrible about that because it was a student of color… and we reached out repeatedly. I will never know what failed for that student. I know we failed because she didn't complete the class. I have to believe a part of it was the environment. (Faculty, White).

Assessment of the Current UWSPH Climate

Three key themes emerged across all respondent groups and across demographic cohorts in regards to their assessment of the current UWSPH learning climate: (a) the effect of race/ethnicity, gender identity, and sexual orientation on comfort within the school, (b) a lack of diversity of faculty, staff, and students across UWSPH, and (c) the opinion that UWSPH is inherently structured with a hierarchy that perpetuates White, male, and/or class privilege.

1. *The effect of race and gender identities and sexual orientation on comfort of the climate.*

Varying levels of comfort were experienced by UWSPH faculty, staff, and students with regards to the overall learning climate at UWSPH. These variations appear to be significantly shaped by one's race/ethnicity, gender identity, sexual orientation, or an intersection of these demographic factors.

Participants who identified as POC, LGBTQIA, and/or female characterized the current UWSPH climate as "somewhat uncomfortable" or "very uncomfortable" more often than their White, male, and non-LGBTQIA peers who often expressed a "very good" level of comfort. For underrepresented or minority students, their discomfort was linked to: (a) the perceived lack of academic, social, or psychological support for their groups; (b) the inability of faculty to genuinely connect with them in the absence of shared identities; (c) the lack of competency of faculty in addressing microaggressions, bias, racism, and sexual prejudice within the classroom setting; and (d) the lack of confidence in UWSPH leadership to resolve inequities that make the climate uncomfortable. This pattern was consistent with responses from faculty and staff in the same demographic groups. Their discomfort was linked to a lack of advocacy or allies resulting from very few POC, LGBTQIA, or women in faculty and leadership positions. Additionally, several respondents perceived structural oppressions based on race, ethnicity, and/or gender that required them to take on tasks that are not part of their position or prevented professional growth.

> My role is not to be a secretary. But there have been many times where I have not been asked but told "You're taking notes today" or "You need to do this." … sometimes, I wonder would they say it in a different way if other people were around or if I was not a person of color, a woman of color. (Staff, POC).

Some LGBTQIA- identifying respondents recounted the discomfort by their peers in having discussions around gender identities.

> When the topic of like gender-neutral or non-binary pronouns come up… everyone wants to use the right pronoun, but people are so awkward about it. [I recall a colleague] who [also] uses gender-neutral pronouns, someone literally going through every pronoun that was not the right one until they got to the right one. For something that seems to be brought up so much… people are pretty not great at it. (Faculty, LGBTQIA).

The positive assessments of the UWSPH climate generally came from faculty, staff, or students who identified as White, especially from males, expressing that they have felt and continue to feel comfortable in UWSPH. Many of these participants acknowledged their positive assessment was likely linked to the benefits they receive from their racial or gendered privilege. Many White respondents also recognized that underrepresented groups often feel uncomfortable and could recall specific instances where POCs faced discrimination.

> We had a front desk person here who was a Black man, and he had to go do an errand, I think, for… someone in a leadership position here. And [he] had to go talk to a faculty member who was a White woman of prestige. And I can't remember the details, but… they called security on him. I mean, he didn't do anything but go to deliver a piece of paper or get a piece of paper and was treated as a criminal. I mean, there are incidences like that [and] you recognize, 'That wouldn't have happened to me.' (Faculty, White).

2. *The lack of diversity in UWSPH*

One of the consistent sentiments that emerged across the demographic groups was that the UWSPH population lacks diversity. The need for a more diverse faculty body was especially important for students, who felt that the current teaching styles and perspectives did not provide enough emphasis on discussions around the importance of diversity or the lack of equity in public health research and practice. Among students, participants described that the racial diversity that exists in the UWSPH population was driven by the large population of international students, and that there are few POC from the United States. Some LGBTQIA faculty acknowledged the lack of representation of LGBTQIA professors and the constant burden of having to self-identify to their colleagues. However, they acknowledged the importance of being able to support LGBTQIA students by expressing their identities. Other faculty also acknowledged that the current mentorship system rewards the more affluent students and further marginalizes groups who come from cultures where they are not encouraged to approach their professors or feel uncomfortable doing so:

> …[one thing] we've tried to be a little more intentional about in our research group is that usually we end up giving projects to people who come ask for them. And there's a very specific group of people who come and ask for projects. And a lot of people who would be great, or who I would enjoy mentoring don't come and ask. So, how do we find them and encourage them to come and get a project and have—and what kind of biases are we perpetuating by sort of continuing to work with the same group of people over and over? Or people who've had a certain type of education that makes them feel confident enough to ask for a project. (Faculty, Women).

3. *UWSPH operates with an inherent structural hierarchy that perpetuates White privilege*

The sentiment of limited diversity was grounded in observations that UW continues to be a "White university" with a "White culture," and that programs or curricula are built for and around the experiences of the dominant racial group. As a result, there appeared to be an overwhelming perception that the backgrounds and experiences of POCs are not well-understood by faculty and school leaders. Faculty, staff, and students were overwhelmingly conscious that they operate within an inherent structural hierarchy in UWSPH. While such hierarchy was widely recognized as common to academic institutions—with some faculty and staff pronouncing that this structure will not change or that they are powerless to change it—there remained a general feeling that such hierarchy breeds discomfort and perpetuates either White privilege, male privilege, and/or class privilege.

> So, in terms of leadership, there are a lot of White privileged men who have been here for quite some time and then, the bureaucracy in itself, it's an institution, right, that's been there forever… and the bureaucracy protects them… And so, for me as a staff at the level I am, I feel like perhaps I can grow but there's definitely a limit. And I think it depends on who I have connections with and my supervisor, again, what privileges they have and what kind of power they have in the organization and how much they're willing to bat for me because that is, eventually, going to be the catalyst that maybe supports some potential movement upwards. (Staff, POC).

Students often acknowledged that faculty still sent subconscious cues in terms of preference to acknowledge White students more than those of color when they get silenced in classes by not being called on or acknowledged by White faculty.

> …every time I bring up sort of indigenous things [in class], or talking about indigenous rights, or how it incorporates into sort of population health… it gets seen as pseudoscience [by the professor]. She'll do this thing where White students will say stuff, she'll write it down because it's interesting, and she'll acknowledge that. But then whenever people of color talk in the class, it seems like she's not writing anything down. And that signals… in this conversation who you value, who you don't. (Student, POC).

Several staff participants also felt that these hierarchical structures caused them to stifle their identity at work and quiet their voice in the presence of colleagues with greater authority and power in order to avoid being perceived as "difficult" or "pushing too much for change." For some POC staff, they generally seemed to feel that their race played a significant role in how they interact with White colleagues and felt more conscious of their racial identity and how they present themselves.

> I think the way I show up to …work was the best representative of myself. I wanted to make sure that I set the tone for being one of the few… persons of color in the office. I felt like I needed to make sure my hair was combed, and I was dressed professionally and that I watched my language and made sure I didn't show too much of my personality… (Staff, POC).

Students also questioned the accountability for faculty considered as the aggressor during racially-oriented incidences, specifically detailing how power and privilege allowed for second chances despite the severity of situations.

> I took a class …and the professor, who I think is close to retiring, he said something very racist in class and… no longer taught the class after that class occurred. But then… as they're creating this new curriculum, I think he's the head of two committees that's

> rewriting the curriculum for the class, right? And I just think that that says something about tenured professors. (Student, POC).

Additionally, for the distribution and access of key resources, the hierarchical system was perceived to favor those with a certain level of power and privilege, with POCs feeling fearful to ask for resources that they feel should also be made available to them, despite seeing them being made available exclusively to their White counterparts. In contrast, some White faculty respondents did not perceive any hierarchical system for promotions or access to resources. Instead, they felt that there were clear rules that were not impacted by identity.

> I hadn't actually felt that being White was either an advantage or a disadvantage for me. I never felt like it made a difference with respect to promotion, for example. The rules were really clear. You publish this much, you get this much grant money—you know, you do these things. Didn't seem to me that it had anything whatsoever to do with any other of my characteristics. (Faculty, White)

Positive Experiences Linked to Identity and Role Within UWSPH

When participants were asked to recount positive experiences related to their identity or role within UWSPH, they experienced satisfaction with and optimism for the trajectory of the UWSPH climate around the themes of: (a) a recognition of an increased commitment to improve the climate, (b) the observation of persons in power acknowledging their privilege, and (c) the active efforts around reducing issues related to racism, sexism, classism, heterosexism and transphobia through the current School- and University-wide DEI strategy.

1. *An increased commitment to improve the climate*

Generally, participants recognized increased commitment from faculty, staff, and students "to want to do better" and noted the increased prioritization of DEI across campus. There were reported instances of students receiving sufficient academic and personal support from faculty despite not having a shared identity in terms of race or gender. Additionally, there were increasing efforts to match students more appropriately with academic advisors who students could identify with beyond a shared research interest. Faculty respondents shared key steps they were taking to build diversity and inclusivity in their curriculum and pedagogy. For example, some professors began their courses with introductory sessions that include discussions of race, gender, and class and how those play out in the course material, while others started the course by acknowledging their privilege, or developing shared ground rules rooted in undoing racism, sexism, classism, and sexual prejudice. These efforts were not lost on students, as some respondents noted their support for professors who were intentionally taking active steps to build a safe space in the classroom.

> From the 1st day of class, all the three instructors introduced with their pronouns, and even [recognized] when they were presenting with examples on papers that they found to be problematic. (Student, LGBTQIA).

2. *Recognition of power and privilege among individuals in organizational positions of power*

Some faculty members who occupy social and organizational positions of power were able to recognize their privilege, whether it be from their race, gender, sexual orientation, socio-economic class, or role.

> This year, we added like a little opening talk about our own perspective as teachers. So, I said, "I'm a cisgender woman. I'm heterosexual. I grew up in a privileged background," that kind of discussion; like recognizing my own privilege and then putting it out there as part of something that's okay to talk about as part of the perspectives we take in the class… I think that it opened up a tiny space for students to feel like, "Okay, your thoughts on these topics are welcome here." It's not off-limits to go there. (Faculty, White).

3. *Acknowledgment of structural efforts to enhance and promote diversity*

A majority of participants were aware that a senior position focused on improving DEI was created in UWSPH, and that school- and department-wide DEI strategy documents exist. Despite feeling there was a lack of sufficient diversity within departments, faculty and staff felt that hiring efforts use a diversity framework, especially by involving departmental DEI committees within current hiring processes. Respondents also noted they observed more specific diversity-related events, including diversity workshops for faculty and staff, and student-center events led by student groups, which were perceived to create opportunities to further create a culture of inclusion.

Negative Experiences Linked to Identity and Role Within UWSPH

Students, faculty and staff were also asked to recount negative experiences related to their identity or role within UWSPH. Key emerging themes were similar to those reflecting UWSPH's climate assessment, including: (a) race, ethnicity, gender identity, and sexual orientation as key drivers of negative experiences, (b) non-inclusive course content and curricula, (c) lack of competency among faculty to respond to issues concerning DEI, and (d) persistence of male privilege and misogynistic perceptions around gender roles and motherhood.

1. *Race, ethnicity, gender, and sexual orientation as key drivers of negative experiences*

An overwhelming majority of the negative experiences of faculty, staff, and students revolved around race, ethnicity, gender and/or sexual orientation. This perception was consistently observed among POC, who felt excluded, discriminated against, or made invisible in a "White-centered" environment. For students, the effect of these negative experiences ranged from emotional discomfort from constantly experiencing imposter syndrome, to, adverse effects on their learning and grades that made them walk out of class angry or consider dropping out. In some extreme cases, students recounted thoughts about harming themselves due to the extreme pressures and stress and leaving the program.

> Also, just generally just dealing with having to be a person of color in this type of institution is just exhausting. It's just kind of tiring to have to constantly deal with these microaggressions and second-guessing yourself. It just takes up a lot of brain space, I think, and so sometimes after I've been in this type of situation, I'm just tired. I don't want to deal with anyone else anymore. (Student, POC).
>
> For me, my 1st year, I actually got depressed and I…wasn't able to get [psychological help]…. I was… pretty much sleeping in the lab, trying to meet my—at the time—PI's expectations, and just being treated so bad. I had to leave school for 2 months and go back [home] to try to get out of depression… I actually was thinking of committing suicide… my work would be more productive if the lab environment could be more friendly and more inclusive. But it's the only way… to keep my career going until I graduate. (Student, POC).

For students and faculty/staff who identified as LGBTQIA, a common issue was the neglect of gender identity and sexual orientation in curricula or in interactions with peers.

> …I think the thing that's come up on more than one occasion that's sort of odd is when people say, "Oh, we're still talking about pronouns?" Or have this mentality like, "Well, we talked about this at the last meeting, so why are we still?" And again, it's like a subtle thing, but to me, like you said this is about cultural change, and that takes time. It's not like you learn this in one meeting's worth of time… I think there's interest in it, but when it takes more than 30 min of brain space, it's like, "Well, that's too much." (Faculty, LGBTQIA).

2. *The curricula and course content across UWSPH are perceived as being exclusive of content featuring minoritized racial and ethnic groups, international populations, and LGBTQIA identities*

Participants perceived that UWSPH programs, curricula, course materials and content were not reflective of the diverse academic experiences of students and their delivery is not inclusive of marginalized populations, including non-US citizens, racial and ethnic minorities, and non-heterosexual and non-cisgender identities. Specifically, students felt there is a very myopic approach to teaching public health in UWSPH, with some participants stating that the presentation of academic content is culturally insensitive or exclusive. They presented examples of how course texts, supplementary reading materials, or examples given in class discussions appeared to be relevant only to the American experience in public health, and primarily reflective of cisgendered, heteronormative, or outdated scholarship.

> And there was another dataset where there were some individuals who had sex assigned at birth that was different than gender identity, and the professor chalked that up to being a data error. And it's like, or we could talk about gender minorities and how some people don't identify with the sex that they were assigned at birth… [There's] an opportunity to say, "Up to now, this isn't the standard. We normally don't ask sex and gender and differentiate, but moving forward, we should be talking about that." And we should be talking about how race itself isn't really a determinant for most diseases; it's racism that is. (Student, LGBTQIA).

3. *Faculty lack the competency to respond to issues concerning equity, diversity, and inclusion in the classroom*

A common sentiment from faculty, staff, and students is that faculty are not adequately skilled to address exclusionary, divisive, or socio-politically charged situations in the moment when they occur in classrooms or other learning environments. Students overwhelmingly felt that faculty lack the cultural and theoretical competency to respond to moments when microagressions, inappropriate comments, or exclusionary behavior occur, or to generally present course material in an inclusive manner. Consequently, students who might be offended are left to either stay silent in fear of retaliation or to defend themselves or their group in the absence of faculty support.

> …it shouldn't be the responsibility of the class, the students, to argue with another classmate if something really inappropriate does come up. And that frequently happens in my courses, where someone will say something that's just off the wall, and then I'm like, "Is the professor going to say anything?" And then they don't, and then I have to. And it's like, "I'm not getting paid to do this, so why am I left to be responsible for handling this inappropriate comment just as a person of color?" (Student, POC).

White faculty felt that differences in treatment based on race was a new observation for them and acknowledged inaction, or not knowing how to act, when their peers face discrimination. Some White faculty feel somewhat uncomfortable with the current UWSPH climate, stemming from the view that students are now more outspoken, vigilant, and less tolerant of micro- and macro-aggressions, which consequently makes them more anxious in their interactions with students for fear of being misinterpreted or poorly evaluated.

> …students have changed. I'm not sure exactly why or how, but [they]… are much more sensitive to the power imbalances, to the race and ethnicity imbalances, to the dissonance between the school and the university stated values and what they see, physically, in the classroom. And I think they're much less tolerant of those variances and our excuses and our trying to explain away why things aren't different. (Faculty, White).

4. *The existence of male privilege and misogynistic perceptions around gender roles and motherhood*

Male privilege emerged as a prominent theme when discussing negative experiences of female-identifying respondents. Female faculty felt that they are more often than not passed up in terms of their professional growth and they are often expected to take on duties such as planning and organizing meetings.

> …there are certain male professors who are my equivalent in rank and skill set, but who appear to be moving quickly through different things, for very unexplained reasons. And then, the second thing is, I think, the office housework concept… like why am I organizing all these meetings and arranging all these things and doing all this stuff? And the people that I consider my equals who are men don't seem to be doing that. They don't seem to have as many of those of those non-academic responsibilities. Or they seem to be able to say no to them more, without having consequences, whereas I would feel like I—I feel like I really have to do all those things. (Faculty, Women).

Women faculty, staff, and students also highlighted the occurrence of misogynistic behavior or microagressions from their male counterparts. This can be in the form of regularly being talked over at meetings or in class discussions, to receiving comments about their appearance. One major area in which male privilege and double standards based on gender became more palpable was parenthood. Participants felt that faculty and staff who are mothers were treated differently compared to those who are fathers or single. Additionally, there was also a common perception that motherhood limits career possibilities and scholarly productivity, especially around inequity of the provision of support for maternal roles.

> When I announced that I was pregnant with my second child, my mentor—in front of other people—said, "Was it a failure of birth control? Because certainly, you would not have planned this." It was amazingly inappropriate. (Faculty, Women).

Linked to the stigmatization of motherhood in academia was a profound disconnect or lack of empathy when it came to policies on maternity leave, childcare, child rearing, and how those matters might relate to the career trajectory of female faculty or staff.

Recommendations and Top Priorities for Diversity, Equity, and Inclusion Efforts

Recommendations for how to improve the learning climate to combat inequitable, biased and exclusionary perspectives and behavior centered around four themes: (a) developing a robust program of continuous learning to promote DEI-related themes, such as recognizing the role of power and privilege in generating social inequities and undermining health, (b) redesigning and developing a more representative and inclusive curriculum, (c) intentionally diversifying faculty, staff, and the student population, and (d) providing more academic, professional, emotional, and psychological support for marginalized or underrepresented groups.

1. *Develop DEI competency through a robust program of continuous learning*

There was an overwhelming perception that faculty, staff, and students believe in the importance of UWSPH training on key fundamental DEI concepts, including racism; diversity; biases; micro- and macro-aggressions as related to race, class, and gender and sexual orientation. The necessity of workshops that promote training and learning on DEI for faculty and staff emerged as the top priority across all cohorts, given their perceived lack of ability to recognize and address situations in the moment when they arise.

> … creating [a] cultural shift is not just about best practices. It's not just about understanding a concept and a training… To me when I think about what it means to be my best self is that I need to be able to reflect on my own thinking, my own biases, my own… I don't know. It's deeper work than just learning about what my core aggression is and how to hopefully not do it… I think the work it's going to take to shift the culture is really one of how do you get people to pause and look at their own selves enough, and deep enough, to not just get defensive? (Faculty, LGBTQIA).

A significant number of faculty, staff, and students recommended making these workshops mandatory, especially since these types of training are usually attended by POC staff. Making these trainings a requirement helps ensure that standard practices and behavior can be achieved especially in terms of classroom management and course delivery. However, some voices from the faculty and leadership were skeptical of mandatory training because of time constraints and demanding too much of faculty. Participants also suggested that new students undergo DEI-related training or orientation sessions, especially international students who may not be familiar with American culture, to prepare them for instances they might face based on their identities.

2. *Redesign a more representative and inclusive curriculum*

Developing an inclusive curriculum to curtail exclusionary behavior or discussions strongly emerged as another priority for faculty, staff, and students. Respondents defined an inclusive curriculum as one that: (a) highlights the experiences of marginalized and underrepresented groups and is responsive to the needs of all students by acknowledging the social justice aspects of public health curriculum; (b) moves away from a US-centric foundation to a more global one; (c) has equitable performance measures for students; and (d) provides opportunities for more inclusive and meaningful learning regardless of a student's background or identity. Some students felt that not enough attention was paid to student evaluation to improve courses.

> I'm a rep on …the curriculum committee for [REDACTED] and they look at all the courses and just quickly look at mean scores. And if it falls below a satisfactory, a three, then they'll flag it to be like, "We should come back and talk about this briefly." But that's it—it's very, very minimal… They don't look at the qualitative [feedback] at all. (Student, White/Women).

3. *Diversify faculty, staff, and the student populations*

There was a general view that intentionally diversifying the UWSPH population—students, faculty, staff, and leadership—would improve the overall climate by making it more inclusive, safe, and comfortable. Specifically, there were suggestions to hire and retain more faculty and staff of color, women and LGBTQIA-identified individuals.

> Well, most of my professors are just old White men. I think that diversifying the professors would go a really long way, even if they don't change anything in the curriculum because I think that professors of color will bring a different perspective and talk about equity and things in a different way that would be helpful. (Student, POC).

4. *Provide academic, professional, emotional, and psychological support for marginalized or underrepresented groups*

Participants identifying as part of a marginalized group, specifically POCs, LGBTQIA, and women—and those whose identities intersect multiple marginalized groups–felt the need for more academic, professional, and emotional or psychological support.

> Throughout my graduate education, I've kind of been told that like, "Make sure you exercise. Make sure you take space if you need it" … And I just realized that, yes, they are helpful, but what I really need to do is to talk to someone because… I can do all these things, but still at the end of the day when I get home, I'm just so exhausted and tired. And I just realized why that was, and it was because [the things recommended were] not necessarily what I need. (Student, POC).

This need was also acknowledged by participants from dominant groups who benefit from certain types of privilege by virtue of being White, male, or heterosexual. Suggestions for provision of support included: (a) creating more opportunities for underrepresented and/or marginalized students to collaborate and/or network with faculty, advisors, or other students and build community; (b) improving mentorship opportunities for underrepresented students by not only matching them to faculty based on their academic and research interests, but also identifying additional mentors with shared identities, including race/ethnicity, sexual orientation, language or place of origin to form a mentorship team; (c) creating more awareness of psychological support catered to underrepresented groups; (d) strengthening policies on parental leave and childcare and providing emotional and professional resources for parents (including student-parents); and (e) strengthening the use and normalization of gender-inclusive language.

DISCUSSION

In this study, we aimed to capture and summarize the perspectives of UWSPH faculty, staff and students regarding their experiences and assessment of the learning climate at the school. Although UWSPH faculty, staff, and students could clearly define their ideal climate and had a collective recognition of an increased commitment to improve the climate, the experiences of respondents revealed the ongoing dissonance between the school's DEI mission and lived experiences. Findings suggest that people of minoritized identities, in terms of their race, ethnicity, gender, and sexual orientation, are often uncomfortable and experience overt and covert negative experiences related to their identities. For these groups, the lack of diversity at UWSPH perpetuates a structural hierarchy favoring White, male, and heteronormative privilege.

Our findings align with previous research indicating that institutions that permanently uphold White ideology have hostile environments for minority and underrepresented students, consequently leading them to have poorer learning outcomes than their counterparts (11–14). Similar to findings from a recent multi-institutional qualitative study (15), POCs in our study felt excluded, discriminated against, or invisible in a White- or Western-centered environment and curriculum. Their White counterparts recognized how their privilege may have blinded them to the differences in treatment from their peers, despite being aware of isolated incidents. This sentiment of "White blindness obscures and protects White identities," especially within institutional curricula by making race a prohibited or awkward subject, defining racism as something of the past, and developing skeptic responses to experiences of minority groups (11, 16). This restriction yields an erasure or downplay of minority issues and supports the racial and social hierarchies that perpetuate discrimination (11).

Women often highlighted misogynistic behavior from their male counterparts, by describing how academic/professional opportunities can be restricted and how motherhood is stigmatized and seen as a barrier. They commonly expressed concern over their vulnerability when their male counterparts continue to operate from a place of power and when the structure of UWSPH continues to support such social hierarchy. This notion aligns with the scholarly work examining the roles of women in higher education that conveys that within institutions, women predominantly play "housekeeping roles," which simultaneously places them within the "managerial yet marginalized fabric of the organization (17)." Other research suggests that women who work in academia often have negative equity due to the burden placed on them by society to balance their roles in the home and place of employment, forcing them to practice bias avoidance, where they often have to hide their familial obligations for career growth (18–20). Female faculty respondents recalled instances of feeling uncomfortable when announcing their pregnancies or needing to leave meetings early to manage child care and other family obligations.

For LGBTQIA-identifying participants, issues relating to gender identity and sexual orientation continue not to be given adequate attention, specifically regarding discussing and addressing exclusionary or insensitive research or course materials. Numerous other studies conducted on college campuses mirror these experiences, detailing both direct and indirect aggressions and emphasizing the importance of recognizing and understanding the differences amongst LGBTQIA student experiences in order in developing inclusive and effective strategies to improve the learning climate (21–24). Respondents who identified as LGBTQIA recalled a variety of negative experiences that reflected the different dimensions of their sexual and gender identities, including: discrimination based their physical presentation, frustration with being called the incorrect pronoun, fear of disclosing their identity, and discomfort discussing their intimate relationships or bringing their partners to campus events.

The wide range of negative experiences from our participants reflects those in institutions across the country, which points to rampant neglect to understand the effects of racism, White privilege, patriarchy, heterosexism and transphobia within HEIs. The burden of naming these issues and developing solutions should be placed on those with power and privilege, especially institutional leadership who drive the vision for their schools and departments. Yet, the marginalized continue to bear the brunt of the weight, furthering their burden. This study highlights the importance of distinguishing the experiences and perspectives of various populations within academic institutions in order to equitably understand and meet their needs and it attempts to give those in power actionable items to work toward equity. Acting on the priorities suggested by our participants will directly combat the occurrence of biases, micro- and macroaggressions and address the lack of inclusivity in our teaching curricula by focusing on developing and improving competency across UWSPH through training; curriculum redesign; population diversification; and provision of academic, professional, emotional, and psychological support, especially for marginalized or underrepresented groups. These improvements are necessary as HEIs should be held accountable for establishing a climate that promotes and protects its entire population by welcoming diversity, supporting equity, and promoting inclusion. The suggestions brought forth are supported by and included in the Transformational Tapestry Model (25), a transformation strategy for HEIs based on organizational change theory that defines climate as being essential in the improvement process. For transformation to be sustainable, it is important that institutions who conduct these climate assessments tie recommendations to specific objectives, acknowledge the continuous, non-linear, nature of institutional change as it refers to climate transformation, and ensures the intentional involvement of key stakeholders involved in the transformation process (26). One key to success will be the development of an operational plan with specific evaluation metrics for climate improvement and other metrics that directly or tangentially assess students' learning outcomes. This plan needs to be accompanied by sufficient funds to support the actions and periodic measurement of the metrics. Woodard and Sim's programmatic plan may be useful for the sustainable operationalization of these suggestions, as it transitions from smaller interventions on the cognitive and social level such as signatures of commitment, learning sessions, and cultural activities into larger cultural and systematic shifts, including bias and attitudes work, development of support system, and curriculum changes (26).

Additionally, it is critical that institutions do not implement strategies for the sake of merely increasing tolerance. Institutions must be invested in sustainable, systematic change by challenging the dominant ideology and dismantling the systems that enact and normalize them. HEIs must combat the aforementioned factors that maintain negative climates, especially for students. Otherwise, they will continue to perpetuate the harmful experiences detailed by our respondents, further impacting their mental and psychological well-being. Long term consequences of poorly guided actions also can lead to adverse academic outcomes and further widening of the achievement gap (24, 26, 27).

This work indicates the importance and value of robust qualitative research to assess the learning climate as it reveals the lived experiences of communities within higher education institutions, especially among those within underrepresented and marginalized populations who often have negative experience related to their identities. A major strength of this study is the disaggregated data that provide insights into experiences from a variety of population groups that mirror the heterogeneity of most higher education institutions. One limitation stems from our participants, as volunteer respondents are likely to be those who are already engaged or interested in DEI-related issues and therefore, we may have missed the perspectives and experiences of those who are less interested or knowledgeable in DEI, which may be a key audience for developing a conducive learning climate. Additionally, at recruitment, we did not collect individual-level data on the unique identities of our participants, which did not allow for us to enumerate the various types of sub-identities and intersecting identities within our interview groups. A major challenge during recruitment was the difficulty of capturing a sufficient number of certain identities. Future studies should ensure they maximize representation across all identities to allow for deeper and intersectional analyses.

Findings from our study illustrate the importance of assessing the interaction of structural, psychological, and behavioral aspects of the teaching, mentorship and learning experience within HEIs through the lived experiences of their communities. Additionally, we elicited recommendations for enhancing the learning climate and driving sustainable institutional change. Individuals who hold privilege based on their role, identity, or positionality must first recognize their privilege and make themselves aware of the various types of harm occurring in their institutions. This recognition means being able to reflect on the ways that their social status—race, gender, or class–has given these privileged identities a certain advantage because of structural oppressions and how the system perpetuates these oppressions; therefore, they must use these advantages to take direct action to prevent the perpetuation of any form of exclusion. In order to develop and maintain an environment that drives student success, academic institutions, including UWSPH, must not merely be interested in addressing issues related to DEI, but intentionally invested and committed to developing a climate that places anti-racism, anti-sexism, anti-classism, anti-heterosexism and anti-transphobia as an institutional priority and provides sufficient support and resources to drive impactful and sustainable progress.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The University of Washington Human Studies Division determined that this study was minimal risk and exempted from ethical review. The identities of all participants were only known to the FGD facilitators during the recruitment process and participants remained anonymous during data collection. No reference to their names, titles, or roles were made during the FGDs. If such references were accidentally broached during the discussion, these names or titles were redacted during the transcription process. All FGD audio files were stored in a password-protected cloud storage system accessed only by the immediate research team. In order to ensure confidentiality for all participants, all names and identifying characteristics have been anonymized.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

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SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpubh.2021.642477/full#supplementary-material

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Structural Racism, Health Inequities, and the Two-Edged Sword of Data: Structural Problems Require Structural Solutions

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Analyzing the myriad ways in which structural racism systemically generates health inequities requires engaging with the profound challenges of conceptualizing, operationalizing, and analyzing the very data deployed—i. e., racialized categories—to document racialized health inequities. This essay, written in the aftermath of the January 6, 2021 vigilante anti-democratic white supremacist assault on the US Capitol, calls attention to the two-edged sword of data at play, reflecting long histories of support for and opposition to white supremacy and scientific racism. As illustrated by both past and present examples, including COVID-19, at issue are both the non-use (*Edge #1*) and problematic use (*Edge #2*) of data on racialized groups. Recognizing that structural problems require structural solutions, in this essay I propose a new two-part institutional mandate regarding the reporting and analysis of publicly-funded work involving racialized groups and health data and documentation as to why the proposed mandates are feasible. *Proposal/part 1* is to implement enforceable requirements that all US health data sets and research projects supported by government funds *must explicitly explain and justify their conceptualization of racialized groups and the metrics used to categorize them*. *Proposal/part 2* is that any individual-level health data by membership in racialized groups *must also be analyzed in relation to relevant data about racialized societal inequities.* A new opportunity arises as US government agencies re-engage with their work, out of the shadow of white grievance politics cast by the Trump Administration, to move forward with this structural proposal to aid the work for health equity.

Keywords: anti-racism, data governance, ecosocial theory of disease distribution, health equity, population health, politics of public health data, public health monitoring, structural racism

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INTRODUCTION

Analyzing the myriad ways in which structural racism systemically generates health inequities (1–7)—that is, differences in health status across social groups that are unjust, avoidable, and in principle preventable (8–10)—requires scientific theory, hypotheses, data, and methods. This is standard science (11–13). What could be more obvious?

But when it comes to racialized health inequities, what appears obvious is rarely simple. Any attempt to analyze empirically—and provide evidence to alter—the causal processes by which structural racism produces health inequities, including by shaping discriminatory practices and policies of institutions and actions of individuals—must engage with the profound challenges of conceptualizing, operationalizing, and analyzing the very data deployed—i.e., racialized categories—to document racialized health inequities (1, 14–18).

In this brief perspective, I accordingly call attention to the two-edged sword of data when it comes to racial justice and health (**Figure 1**). At issue are both the non-use (*Edge #1*) and problematic use (*Edge #2*) of data on racialized groups. To avoid being cut by either edge, my proposal – informed by the ecosocial theory of disease distribution and its constructs of embodying injustice along with accountability and agency for documenting and analyzing this causal process (1, 11, 17–20)—is to recognize that structural problems require structural solutions, including for racialized data.

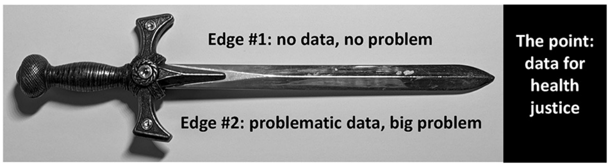

FIGURE 1 | Structural injustice and the two-edged sword of data: (1) *Edge #1*: preventing documentation that injustice exists, (2) *Edge #2*: using problematic data in harmful ways that further entrench justice, vs. (3) looking instead to the point: data for health justice. [Note: the author created the figure and took the photo used; NO copyright issues are involved].

Underscoring the urgency of these issues is the context in which I have prepared this essay. I began writing on January 8, 2021, 2 days after the flagrant violent assault on the US Capitol led by vigilante anti-democratic white supremacist, white nationalist (including white Christian nationalist), alt-right, and neo-Nazi groups, who sought to thwart a fair election and the peaceful transition of Presidential power (21–24). Unifying these groups is a belief in essentialist notion of "race," a fear what they call "demographic replacement" (i.e., becoming white "minorities" in a multi-ethnic/racial society), and the politics of white grievance (whereby any attempts to name or limit white privilege are deemed anti-white racism) (25–30). More mainstream enablers have been seeking to cement conservative white minority rule, using the strategies of voter suppression and gerrymandering, while preserving the veneer of democratic governance (31–34). Also germane are wealthy supporters of an extreme "free market" political agenda and philosophy that holds government exists solely to defend private property—and jointly oppose government regulations (including to protect the public's health, e.g., protect against pollution, climate change, and environmental racism) and taxes to support government programs (especially if to rectify racial and economic injustice) (2, 33–38).

In such a context, how can an anti-racist science for health equity employ data on racialized groups? This is not a new question (15, 16, 30, 39–45)—indeed, in the US, these issues have been posed and debated in medical and public health literature for over 300 years (16, 39–45).

DATA NEVER SPEAK FOR THEMSELVES

A crucial first point is that, contrary to its etymology, "data" is never a "given" (11, 16). Despite being the past participle of the Latin verb "dare," i.e., "to give" (46), data instead are always produced by people, out of what they observe, fail to see, or suppress in the world in which they live (11–13, 47, 48). A corollary, in the case of people, is that a hallmark of privilege is who and what one can afford to ignore (49, 50). Translated to the realm of science, this means it is imperative to ask: who produces and controls the data? To what end? And engaging with what history? (11–13, 47–50).

Within the US, histories of the contested production and use of racialized data extend back to its origins as slave republic and settler-colonial nation (40, 43–45, 51–53). In the eighteenth century CE, racialized data were primarily produced and used to entrench injustice by the enfranchised minority of white men with property (52–54). These data characterized who was enslaved vs. free, and which Indigenous tribes and nations were vs. were not under colonial and then federal jurisdiction (51–54). Indeed, these data underpinned the first-ever decennial census in 1790, the first-ever census to be constitutionally mandated by a government anywhere (51–53), and which was designed to apportion political representation, allocate resources, and power, deeply marked by infamous 3/5 compromise that allowed slave-holding states partial counts of their enslaved but disenfranchised populations (52, 53). In this context, dominant white physicians held that racialized differences in health status, including the poorer health of enslaved persons and decimation of Indigenous peoples by colonial diseases, reflected the natural order of the world (6, 39, 40, 43–45, 55).

In the nineteenth century CE, the rise of the abolition movement, both Black- and white-led (56, 57), triggered a shift in use of racialized data (40, 43, 45). Thus, these abolitionists—including the first generation of credentialed African American physicians—began using racialized data, including on health status, to challenge the abominations of slavery, while supporters of slavery—including many physicians and scientists who embraced scientific racism—sought to use these same data to uphold the doctrine of white supremacy (40, 43, 45, 55–62). Then as now the debates turned on whether the racialized categories were constructed by people, to justify injustice, vs. so-called "natural" categories, reflecting innate or *a priori* differences; for health, the crux of the argument was whether racism vs. "race" accounted for observed differences in health status across racialized groups (30, 40, 43–45, 58–62).

Then as now key debates also concerned what additional data were required, beyond "race," to contextualize the racialized health data. For example, Dr. James McCune Smith (1813–1865), the first credentialed Black American physician in the US (who received his medical degree in Scotland since no US medical school would admit Black students), in 1859 famously compared the similarly high prevalence of rickets among the enslaved Black population in the US South to destitute peasants in Ireland (45, 59, 60). By contrast, Dr. Samuel Cartwright (1793–1863), a prolific white pro-slavery physician, authored tract after tract about the biological "peculiarities" of Black persons that rendered them fit only to be slaves, without ever including any economic data (43–45, 62). Exemplifying the political salience of scientific racism was the inclusion of an essay by Cartwright (63) in the first print edition of the infamous US Supreme Court 1857 Dred Scott decision, which declared that Black Americans "had no rights which the white man was bound to respect ... " (64–66).

In early the twentieth century CE, the same sorts of schisms existed, updated in relation to challenging vs. upholding Jim Crow, a multifaceted regime of legalized racial segregation, upheld by terror, and imposed in the 1880s, fueled by white Southern backlash to losing the Civil War and their enslaved workforce, plus opposition to civil rights gains won during Reconstruction (67–69). Kindred debates occurred over eugenics, with the latter strongly upheld by the US Supreme Court and leading scientists, University presidents, and more, who ushered in the passage of eugenic sterilization laws in 32 US states and also the eugenic-fostered federal Immigration Restriction Acts of 1924 and 1927 (30, 70–74).

Subsequently, during the 1950s and 1960s, racial/ethnic data featured prominently in fights for vs. against civil rights and for vs. against overturning the eugenic-era immigration restrictions (14, 30, 70–76). In the wake of major federal legislation passed in 1964 and 1965 which afforded new protection of civil rights and expanded immigration, official government racial/ethnic data was widely used to provide evidence of injustice, as opposed to justifying it (14, 51, 77–79). However, the successful civil rights strategy of using racialized data to demonstrate the existence of—and support alleviation of—what was termed "statistical discrimination" (or "disparate impact") not surprisingly sparked conservative backlash, leading to two types of resistance (26, 32–34, 78–81).

- One was to try to suppress use of racial/ethnic data, thereby removing any evidence of harm requiring redress, as per the unsuccessful campaign of Proposition 54 in California in 2003 (82, 83). Deceptively dubbed the "Racial Privacy Initiative," it sought to prohibit the state from recording or using any racial or ethnic data—and was defeated in part due to public health concerns about harms caused by concealment of data (83–87).
- The other approach was to require evidence of motivation, not just disparate impact (78, 79). The latest example is the outgoing Trump Administration's bid to require the Department of Justice to "narrowly enforce" Title VI of the Civil Rights Act, i.e., only "in cases where it could prove intentional discrimination, but no longer in instances where a policy or practice at issue had a "disparate impact" on minority or other groups" (88).

Concomitantly, groups concerned about racial justice have repeatedly expressed their concerns about how racialized data have repeatedly been deployed by those with power to stereotype and victim-blame, blaming allegedly "innate" biology and "chosen" cultures for health woes, starting with infant mortality and extending across the lifecourse, and newly including COVID-19 (1–7, 40, 42, 44, 89–92). The tension is real: both use and non-use of racialized data can wreak woes.

THE TWO-EDGED SWORD OF DATA IN ACTION: THE CASE OF COVID-19 IN THE US

The problem of racialized health inequities and the two-edged sword of data is not unique to the US. Similar issues arise in other countries home to social inequities involving racialized groups, including but not limited to France, Portugal, Brazil, Mexico, the UK, Australia, New Zealand, and Canada—all countries whose histories are in differing ways bound up with legacies of colonialism, settler-colonialism, and slavery (15, 93–95). That said, because I am a US person, I offer an example of the two-edged sword in action in my country, in relation to a current calamity: COVID-19.

It is way too early to know how reporting of COVID-19 data by the US Centers for Disease Control and Prevention (CDC), including in relation to racialized groups, has been affected by political interference by the Trump administration, given emerging evidence of politically-motivated data suppression and distortion (96–99). That said, both edges of the sword were—and are still—in full view.

Early on in the pandemic, government data on COVID-19 data by racialized group was missing in action (100–103), despite federal health agencies routinely including racial/ethnic data for just about every disease and mortality outcome (16, 103–106). Instead, tallies and accounts of the burden of COVID-19 among racialized groups came mainly from investigative journalism and web-based data trackers created on the fly (107–116). In early June, propelled by the advocacy of racial justice activists who wanted these data to raise awareness and obtain resources for prevention for their communities, new Congressional legislation mandated the inclusion and reporting of COVID-19 data by race/ethnicity, to be fully implemented by no later than August 1, 2020 (112, 117, 118). This requirement, however, had no teeth: my team documented that between August 28 and September 16, 2020 fully 43% of the new COVID-19 cases added to the CDC roster were still missing racial/ethnic data (119). Welcome to *Edge #1* of the sword.

Edge #2 cut when CDC reported what limited data it had stratified by race/ethnicity. Their focus initially was on *counts* (rather than rates) and concerned differences in the racial/ethnic composition of COVID-19 deaths vs. the total population (120). At the outset, the data for the deaths were on one website, and the data for the total population were on another, making it difficult to discern if the proportions differed (120). Worse, closer inspection of these data revealed a curious finding: contrary to reports coming from the field, the CDC's data in May 2020 indicated that white non-Hispanics were overrepresented, and Black Americans underrepresented, among COVID-19 deaths. Several of us worked to unravel this puzzle, and we soon determined the CDC had committed a classic Type III error: right answer to the wrong question (121). In brief, the CDC weighted the denominators for the US counties by the percent of total COVID-19 deaths occurring in that county within the state (120). Given who was hardest hit by COVID-19, the net effect was to deflate the denominators for the white non-Hispanic population

TABLE 1 | Structural solutions to the problems of structural racism and the two-edged sword of data so that it can point to health justice: proposed minimal data requirements for any health agencies, data systems, grant recipients, or journals receiving government support.

Focus of structural rule	Structural requirement (minimal)	Examples suggesting feasibility of implementation–and limitations to be addressed
Individual-level: membership in racialized group	1) Define how membership in the racialized group is conceptualized as a social variable and how it will be analyzed in relation to the individual-level socioeconomic measures and the community-level measures of structural racism 2) For purposes of comparability, and to enable calculation of population-based rates, minimally employ US census categories for "race" and "ethnicity," which include Indigenous status, as stipulated by the federal Office of Management and Budget (OMB) categories (check all that apply) and required for all NIH grants that include human subjects (54, 126), and also categories for nativity (US born vs. foreign born) (147) or else birthplace as per US standard birth certificate (148)	1) Current journal requirements (regarding conceptualization of and justification for use of these data): International Committee of Medical Journal Editors [(130), p. 16–17]: "Because the relevance of such variables as age, sex, or ethnicity is not always known at the time of study design, researchers should aim for inclusion of representative populations into all study types and at a minimum provide descriptive data for these and other relevant demographic variables. Ensure correct use of the terms sex (when reporting biological factors) and gender (identity, psychosocial, or cultural factors), and, unless inappropriate, report the sex and/or gender of study participants, the sex of animals or cells, and describe the methods used to determine sex and gender. If the study was done involving an exclusive population, for example in only one sex, authors should justify why, except in obvious cases (e.g., prostate cancer). Authors should define how they determined race or ethnicity and justify their relevance. Authors should use neutral, precise, and respectful language to describe study participants and avoid the use of terminology that might stigmatize participants." American Journal of Public Health (131): "If race/ethnicity is reported, the authors should indicate in the Methods section why race/ethnicity was assessed, how individuals were classified, what the classifications were, and whether the investigators or the participants selected the classifications." *Limitations*: No requirement that reviewers evaluate submitted manuscripts in relation to these guidelines 2) National Institutes of Health (regarding requirements for including these data): (a) "Inclusion of Women and Minorities as Participants in Research Involving Human Subjects" and required enrollment tables in relation to federal categories of race, ethnicity, and sex (122–125) *Limitations*: no requirement that reviewers explicitly score grants in relation to approach taken to inclusion of racialized groups and how these groups are conceptualized and analyzed (b) "Consideration of Sex as a Biological Variable in NIH-funded Research," which requires text in the Research Strategy section to "explain how relevant biological variables, such as sex, are factored into research designs and analyses for studies in vertebrate animals and humans," with reviewers instructed to score grants in relation to what is stated (127, 128) *Limitation*: no requirements to address how gender identity and structurally embedded gender norms and institutional policies and practices are conceptualized or measured (129)
Individual-level measures of socioeconomic resources	1) Minimally employ US census categories for data on educational attainment (149): For persons age 25 and older: for self For persons under age 25: for parents or caregivers 2) Additional relevant US census measures pertaining to household income and number of persons (and age) supported by this income (to determine the poverty level), occupation, housing tenure, health insurance status, housing insecurity, food insecurity, etc. (149–151)	US standard birth certificates and death certificates: include data on educational attainment of parent(s) and educational attainment of the decedent, respectively (148) Routine collection of the additional proposed socioeconomic metrics in the US Census American Community Survey (149, 150) and the COVID-19 specific Household Pulse Survey (151)

(Continued)

TABLE 1 | Continued

Focus of structural rule	Structural requirement (minimal)	Examples suggesting feasibility of implementation–and limitations to be addressed
Community-level measures of structural	1) Minimally use ZIP Code for residential address to link to ZIP Code Tabulation Area (ZCTA), but preferably geocode residential address to census tract level (132) 2) Minimally include US census compositional data on: median household income; poverty, and educational attainment (132, 133) 3) Minimally include metrics of social spatial polarization, including the Index of Concentration at the Extremes for economic segregation, racialized segregation, and racialized economic segregation (132), along with other measures of racial segregation (3–5) and data on historical redlining, if one of the cities or towns for which such maps were prepared for the US government in the 1930s (1, 3, 4, 152)	Proposed US census-derived metrics freely available at census tract and ZCTA level at: Public Health Disparities Geocoding Project (national coverage) (132) City Health Dashboard (available for over 750 US cities with populations more than 50,000) (133) Historical redlining data available for selected US cities at: "Not even past: social vulnerability and the legacy of redlining" (152)

and inflate the denominators for the other populations of color, thus inflating risk for the former and deflating risk for the latter (121). Why did the CDC do this? The stated reason was that they were concerned that the racial/ethnic composition of the places initially hit hard by COVID-19, especially NYC, differed from that of areas hit less hard—and their weighting procedure sought to "correct" this problem (120).

But: to ask and answer the question: how does racial/ethnic risk for COVID-19 mortality ***vary apart*** from how racial segregation affects who lives where is to ask and answer the entirely wrong question. By treating place and the lived experiences and impacts of residential segregation as nuisance factors, to be "corrected" for by weighting, the CDC reached the entirely wrong conclusion (121). It will be a task for future historians to establish the decisions, and likely politics, influencing the CDC's approach to data presentation on COVID-19 and racialized groups.

STRUCTURAL RACISM, DATA NEEDS, AND DATA GOVERNANCE: STRUCTURAL SOLUTIONS TO STRUCTURAL PROBLEMS

What then about the point of the sword: data for health equity? My structural suggestion: a two-part proposal to up the ante and create institutional mandates regarding publicly-supported work with racialized health data—whether public health monitoring, grant applications, or publications. The proposed steps are directly informed by ecosocial theory's emphasis on being explicit about agency and accountability at multiple levels, including both institutional and individual (17–20).

Proposal/part 1 is to implement enforceable requirements that all US health data sets and research projects supported by government funds *must explicitly explain and justify their conceptualization of racialized groups and the metrics used to categorize them*. As shown in **Table 1**, there is precedent, admittedly weak, but a basis on which to build. Thus, since 1994 the National Institutes of Health (NIH) has required—with little enforcement—that grants report on and justify the number of "women and minorities" included, with "minorities" delimited using the US Office of Management and Budget categories (122–126). Moreover, since 2014, the new NIH policy on "Sex as a Biological Variable" (SABV) requires that reviewers rate all NIH grants' explanation of their approach to including "sex" as biological variable (127, 128)—albeit with no analogous requirements about how gender is conceptualized and analyzed (129). Numerous leading journals likewise proffer suggested—not mandatory—author guidelines regarding the use and interpretation of data on racialized groups (130, 131), albeit without analogous explicit instructions for reviewers (see **Table 1**). Hence, while none of these current institutional measures are sufficient, they do provide precedent for implementing structural steps to ensure that health agencies, organizations, and researchers must explicitly justify their conceptualization and analysis of racialized health data, and face consequences for not doing so.

But inclusion and reporting of racialized health data, as such, is only a first step. *Proposal/part 2* is that any individual-level health data by membership in racialized groups *must also be analyzed in relation to relevant data about racialized societal inequities.* As suggested in **Table 1**, this minimally means including both diverse metrics for socioeconomic position (at the individual- and community- levels) and exposure to structural racism (1–7, 18, 132–135). The latter can include explicit rule-based policies (e.g., involving voter suppression, or denial of Social Security benefits to domestic workers and agricultural workers) and also area-based or institutional measures that reflect racialized disparate impacts but not the rules *per se* (e.g., measures of racialized economic residential or occupational segregation, or racialized gaps in socioeconomic resources, incarceration rates, political representation, etc.) (1, 3, 135). Suggesting such steps are feasible, even in the midst of a fast-moving fearsome pandemic, scientific studies and data dashboards have generated striking evidence of the societal structuring of COVID-19 risks of exposure, illness, and death, using diverse metrics of residential segregation and racialized inequities in income, sick pay, and crowded housing (132, 136–143).

Granted, this two-part proposal for data justice is only one small step. Also needed is equity-oriented work on *data governance*, i.e., who has input into making the decisions about which data are required, informed by the tandem expertise of health equity researchers and other members of the communities whose data are at stake, affording the expertise of lived experience (2, 6, 47, 91, 92). Bringing a structural perspective to the data needs for data justice provides a start to the work at hand. Justifying implementation, continuing with the status quo and the harms produced is not acceptable.

FINAL REFLECTIONS: RECKONING WITH STRUCTURAL RACISM AND DATA FOR HEALTH JUSTICE

On January 7, 2021, the day after the vigilante white supremacist anti-democratic assault on the US Capitol, the University College London (UCL) notably issued its first-ever institutional apology for its critical role in legitimizing the rise of eugenics and the horrors it has unleashed world-wide (144, 145). As prelude, the UCL last year stripped their buildings of the names of Francis Galton (1822–1911), who coined the term "eugenics," and also his seminal field-building statistical disciples Karl Pearson (1857–1936) and Ronald Fisher (189–1962), who were, respectively, the first and second Professor of Eugenics at UCL (145, 146). The new apology minces no words, with the first two paragraphs stating (144):

> *UCL acknowledges with deep regret that it played a fundamental role in the development, propagation and legitimization of eugenics. This dangerous ideology cemented the spurious idea that varieties of human life could be assigned different value. It provided justification for some of the most appalling crimes in human history: genocide, forced euthanasia, colonialism and other forms of mass murder and oppression based on racial and ableist hierarchy.*
>
> *The legacies and consequences of eugenics still cause direct harm through the racism, antisemitism, ableism and other harmful stereotyping that they feed. These continue to impact on people's lives directly, driving discrimination and denying opportunity, access and representation.*

As this statement attests, the wounds cut by the two-edged sword of wrongly conceptualized and wrongly employed data on racialized groups not only have not healed—they continue to be cut anew.

A new opportunity arises as US government agencies re-engage with their work, out of the shadow of white grievance politics cast by the Trump Administration. It is time, long past time, to delineate new structural requirements for publicly-funded work using racialized health data, so that the point is clear: to expose the harmful impacts of structural racism on health and assess the beneficial impacts of anti-racist policies.

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The author confirms being the sole contributor of this work and has approved it for publication.

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Demolishing the Myth of the Default Human That Is Killing Black Mothers

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It took a white police officer's knee on George Floyd's neck before white people began to reckon with 400 years of slavery and its aftermath, the effects of which Black people have endured for generations. Monuments are being taken down, flags are being redesigned, and institutions that honored those who denied the humanity of Black people are being renamed. Unfortunately for Sandra Bland, Breonna Taylor, Sha-Asia Washington and countless other Black transgender people including those with capacity for pregnancy, there was no justice even prior to the global pandemic of SARS-Cov-2 or coronavirus; namely racism, violence, and the Black Maternal Health crisis that makes it less likely that Black women will survive pregnancy and childbirth. The purpose of this article is to situate the state of Black people with the capacity for pregnancy in the context of these existing crises to illuminate the myths that racism has perpetuated through science, health services provision and policy. The greatest of these is the myth of a default human that can serve as a standard for the rest of the population. This racist ideal underpins education, provision of care, research, policies, and public health praxis. Demolishing the myth starts with acknowledging that Black people are not the architects of their own destruction: the default standard of whiteness is. The article begins with a historical background on how this myth came to be and elucidates the development and perpetuations of the myth of the default human. Next, we present an evidence based scoping review of the literature to summarize current thinking with specific focus on the Black maternal health crisis, we make policy recommendations and retrofits of upstream public health approaches for existing programs toward health equity. We also situate Black maternal health as part of a reproductive justice frame that centers Black women and birthing people's autonomy and agency. In other words, we use the scoping review to end with reimagining public health policy and provide an actionable roadmap to specifically disrupt the myth of the default human and dismantle racism in education, provision of care, research, policies, and public health praxis.

Keywords: Black maternal health, myth, public health, public health praxis, structural racism

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INTRODUCTION

The myth of a default human posits that white people are the natural reference group for all others when designing scientific studies, reporting scientific findings, allocating human, money and time resources, and that the health outcomes of white people in the United States (U.S.) are the best that can be attained. Demolishing this myth starts with acknowledging that Black people are not the architects of their own destruction: the default standard of whiteness is.

The article begins with a historical background on how this myth came to be and essential definitions. The historical background also elucidates the development and perpetuations of the myth of the default human in published scientific and public health literature. Next, we present an evidence based scoping review of the literature to summarize current thinking with specific focus on the Black maternal health crisis. We seek to clarify key concepts and to identify and analyze knowledge gaps. Finally, we make policy recommendations and retrofits of upstream public health approaches for existing programs toward health equity. We also situate Black maternal health as part of a reproductive justice frame that centers Black women and birthing people's autonomy and agency to illuminate how the myth plays out across the reproductive health spectrum. In other words, we use the scoping review to end with reimagining public health policy grounded in reproductive justice and provide an actionable roadmap to specifically disrupt the myth of the default human and dismantle racism in education, provision of care, research, policies, and public health praxis.

This article is unapologetically specific to understanding the experiences of Black people and how scientific racism is manifest in the conduct of clinical and public health research. We begin with some essential definitions to provide readers with clear meanings as they are used in this article. First, where relevant and appropriate we acknowledge that all pregnant capable people do not identify as women, thus we use gender neutral language to foster inclusivity. Second, when citing historical sources and research literature, we retain the language used by the authors. Third, when using the term Black, we make no distinction across diasporas unless specifically noted. In other words, we do not use African Americans to encompass the range of Black people who originate from other geographies, nor do we use Black and African Americans interchangeably. Fourth, we define Black maternal health as the full spectrum of reproductive health experiences that include the perinatal period of pregnancy, labor, birth, and post-partum; when discussing other pregnancy outcomes (i.e., abortion, family planning, miscarriage, surrogacy) we use the more accurate terminology. When discussing people with capacity for pregnancy or pregnant capable people, who are not currently pregnant, we purposively use these terms as opposed to pre-conception. Finally, we include the word mother in our title out of respect to the family members who intentionally use this term in the context of maternal mortality.

Historical Background

The Black maternal health crisis as we know it today devolved from a system that once deemed Black women the most valuable of all commodities. In 1619, the United States of America was as nascent as its capitalist system, the foundations of which were built on the backs of Africans brought to the Americas as chattel (1–3). After this new nation won its independence, slavery and the growth of capitalism continued hand in hand. Banks, insurance companies, higher education institutions, manufacturing, and health care institutions formed a constellation of enterprises that were created because of and relied on the enslavement of Black people. This began a sustained effort of constructing systems, structures, and policies that inured toward white supremacy and further subjugated Black people.

The U.S. Congress abolished the transatlantic slave trade in 1807 (4). However, interstate slave trade was still legal and under U.S. law, the children of slaves were enslaved by birthright. This made Black women's ability to reproduce paramount. 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 (5). Marie Jenkins Schwartz, in her book, *Birthing a Slave: Motherhood and Medicine in the Antebellum South*, noted that:

> "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" (6).

Such surveillance ensured that enslaved Black women continued to reproduce: Between 1807 and 1860, the number of enslaved Black people in the U.S. increased from just over 1 million to over 3.9 million (3). Also see **Figure 1**.

A lesser-known fact is that while enslaved Black women did not have control over their sexuality or ownership of their bodies, they found ways to manage their fertility (7). By wresting control over their ability to conceive or to bear a child to full term, they declared their whole humanity and agency over their bodies despite a system that would declare otherwise (7). They also defied passing on the birthright of bondage to their children.

Instances of abortion and infanticide are mere mentions in the historical record. According to Deborah Gray White, how enslaved Black women managed their fertility remained a subject discussed only amongst themselves (8). What has been gleaned from further analysis of the Works Progress Administration (WPA) slave narratives is that the ingestion of tinctures made from cotton root, was a form of birth control used to prevent conception. Barrier methods were also used and were dangerous forms of birth control that could result in infection and in some cases, death. These were risks that enslaved Black women believed worth taking. In addition to abortion and infanticide, enslaved Black women practiced abstinence which resulted in further, though inconclusive, surveillance by white doctors who came to believe that those women were simply not able to bear children (7). These examples serve to teach us that the sexual and reproductive health of Black women and their enslaved ancestors is underexamined in historical records. It matters to point these exemplars out to disrupt the myth of the default human: Concerns about reproductive healthcare and injustice did not originate with narratives that are grounded in bra burning and the sexual "revolution" associated with second wave white feminists (9).

The abolition of slavery and the failure of Reconstruction demanded that a hierarchy of humanity be reasserted. While chattel slavery was no longer part of the capitalist system, Jim Crow laws became its proxy, denying freed slaves the rights secured by whites. Laws that mandated segregation based on race gave rise to the development of new systems and structures that excluded Black people. The 1856 ruling in Scott v. Sandford (10) was a bellwether. Central to Scott v. Sanford was Justice Taney's belief that "Black people had no rights that white men were bound to respect," therefore codifying a racist system of laws established after emancipation (10).

If Scott v. Sanford built the table, Plessy v. Ferguson (11) provided the bounty for *separate but equal*. In 1896, the U.S. Supreme Court ruled against the challenge brought by Homer Plessy that segregation based on race was a violation of the equal protection clause of the 14th Amendment. By ruling in favor of separate but equal accommodations, the Supreme Court essentially relegated Black people to second-class citizenry. The impact of legalized racial segregation and resulting lack of investment in equal housing, education and healthcare for Black people is multi-layered, multi-generational, and profound (12). It is especially broad and deep with regard to access to healthcare, health provision, and the education and training of healthcare professionals.

Limited access to quality public education has had the most profound effect on Black people's health outcomes. After emancipation, the sharecropping system kept Black families in poverty and truncated secondary education. While land grant institutions were founded to educate freedmen, there were many barriers to medical education for Black people, including affordability and access. Racial segregation and structural racism also limited access to residency and specialty fellowship programs. In response to these barriers, a movement to train more Black physicians resulted in the founding of 14 medical schools between the late nineteenth century and early twentieth century. While it has been argued that a few of those schools may have been established as diploma mills that did nothing to advance the cause of medical education for Black people, it is also important to note that most of them were underfunded, lacked adequate facilities, and had limited access to patients (13).

Abraham Flexner in his report (14) commissioned by the Carnegie Foundation in 1910, emphasized the need for improvements in medical education. Flexner visited 155 medical school in 18 months, citing Johns Hopkins Medical School as the standard that medical education should emulate (13). This standard was nearly impossible to meet for medical schools founded to educate Black people. Of the fourteen medical schools founded for that purpose, only two survived: Howard University School of Medicine and Meharry Medical College, which before 1960 had graduated nearly all the Black physicians who received training in the U.S. (15).

Flexner's goal, to improve the quality of medical education, came with a consequence that the healthcare enterprise continues to reckon with. The closure of medical schools founded to educate Black people who were refused admission to majority-white institutions, coupled with the closure of majority institutions that also did not meet the standards that Flexner set, placed medical education further out of reach, especially for Black students. There have been just two Black medical schools founded in the last 100 years: Charles Drew Medical School and Meharry Medical School and <4% of physicians in the U.S. are Black, while Black people make up 13% of the population (13).

Dr. Charles H. Epps, renowned orthopedist, put a finer point on the impact of Flexner's work. In his article, Perspectives From the Historic African American Medical Institutions (16), he wrote that Howard University and Meharry Medical School educated ∼85% of all African American physicians whereas the majority medical schools educated 15% for more than half of the twentieth century. Drawing from a 1975 study, Effects of affirmative action in medical schools, Dr. Epps also pointed out that minority physicians, especially African American physicians, tended to provide services in their own communities that are competent and culturally sensitive (17).

For Black people, "The opportunity to train to be a physician is still not where it should be," Dr. Ed Harley told *MedPage Today*. "More than 100 years later, we are still trying to make up for the deficit" (18).

On the heels of Flexner's report came another set of standards developed without regard for, or understanding of, the historically and culturally relevant experiences of Black women. The Sheppard-Towner Act (19) was birthed after intense lobbying by middle class white women with a progressive agenda for establishing standards to reduce maternal and infant deaths (20). Their work paid off when first, in 1912, the federal government established the Children's Bureau. The Children's Bureau worked with states to track birth and death records under the Sheppard-Towner Maternity and Infancy Act that followed in 1921 (20). Additionally, the Act provided states with federal funding to improve maternal and childcare through education, training and licensing of midwives as well as the establishment of hygiene and other standards. Midwifery was largely concentrated in the rural South where Black (grand) midwives were the majority. Under the scrutiny of Sheppard-Towner, grand midwives were deemed ignorant, dirty, dangerous and prone to superstition (21). The American Medical Association's powerful lobby against the Act due to a fear of government control over the medical profession, was a factor that led to its repeal in 1929 (21). By then the damage was done to Black midwifery: the narrative about the lack of hygiene and cleanliness of Black midwives and Black mothers remained the frame through which Black midwives were trained and through which Black women would continue to be judged as dangerous and not to be trusted.

In her ground-breaking work, *Medical Bondage*: *Race, Gender, and the Origins of American Gynecology*, Dr. Deirdre Cooper-Owens outlines the important connection of these actions on the health of Black people. In a follow-up article for the American Journal of Public Health, she writes:

> "Explicit segregation in the realm of health care remained completely intact until the mid-1960s. In 1964, Congress passed the Civil Rights Act, which prohibited federally funded programs and institutions from discriminating on the basis of race. The following year, Congress created the Medicare Program, which made almost all hospitals the recipients of federal funding. As a consequence of their participation in the Medicare Program, almost every hospital in the U.S. was forced to abide by the provisions of the Civil Rights Act of 1964. Despite attempts to

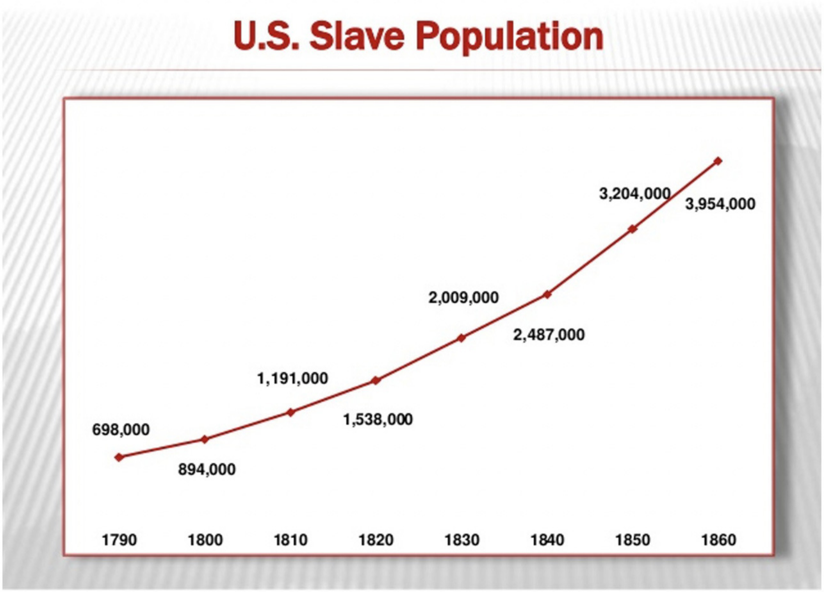

FIGURE 1 | Trajectory of the Slave Population in the United States (U.S.) from 1790 until 1860. This figure used with permission from (copyleft 2007) Chad David Cover. Data derived from "Series A 119–134. Population by Age, Sex, Race, and Nativity: 1790–1970." U.S. Bureau of the Census, Historical Statistics of the United States, Colonial Times to 1970. Bicentennial Edition, Part 2. Washington, D.C., 1975.

> prevent racial integration, medical facilities eventually came to treat patients and hire doctors of all races" (5).

While the Civil Rights Act ended de facto segregation, it did not change the fact that Black people were at the bottom of the hierarchy of humanity. As such, they continue to experience seemingly intractable health disparities. In examining the clinical, research and education enterprises within healthcare, these disparities are the result of systematic and intentional adherence to standards built with and toward the exclusion of Black people. Paradoxically, the default standard of whiteness used as the exemplar in the healthcare is also a damnable one: One of the most profound disparities- the high rate of Black women dying during or soon after childbirth- threatens the very ability for Black people to reproduce.

Scoping Review of the Literature

The process of naming, defining, and documenting a longstanding myth of a default human—that white people are the natural reference group for all others when designing scientific studies, reporting scientific findings, allocating human, money and time resources and that the health outcomes of white people in the U.S. are the best that can be attained—requires rigorous methods. The study of race and racism crosses multiple domains including the arts and humanities, clinical health services provision, healthcare, history, psychology, public health, and sociology. Despite recent attention to health disparities (22), health inequities (23), and anti-racism efforts (24), the boundaries of these domains of knowledge are unknown. To avoid replicating one common mistake of retrofitting new knowledge onto existing science, (i.e., conducting a narrowly defined systematic review), we believe a scoping review of literature is a better approach to synthesizing the myth in context.

The purpose of scoping reviews has been described as the following: (1) To identify the types of available evidence in a given field; (2) To clarify key concepts/definitions in the literature; (3) To examine how research is conducted on a certain topic or field; (4) To identify key characteristics or factors related to a concept; (5) As a precursor to a systematic review; and (6) To identify and analyze knowledge gaps (25), We believe the Black Maternal Health crisis in the U.S. provides a clear exemplar of the manifestation of the myth of the default human. Additionally, given the complexity of how Black maternal health spans social and structural determinants of health, public health, medicine, nursing, health policy, we consider a scoping review as essential to clarify key concepts (i.e., myth of default human and where it manifests) and to identify and analyze knowledge gaps specific to necessary interventions resolve health inequities.

MATERIALS AND METHODS

The purpose of the scoping review was two-fold. The first was to clarify key concepts, which requires articles that report data comparing either among Black people and/or between Black people and people of other races to meet inclusion criteria. The second was to achieve our goal of identifying and analyzing knowledge gaps, therefore articles needed to either include interventions in their research methods, report evaluation of interventions, or discuss interventions or mitigation of harm in the section Discussion. Maternal mortality was used as the primary Medical Subject Headings (MeSH) search term including sub-headings of morbidity. The authors conducted the scoping review between December 2020 and February 2021.

Inclusion criteria for the scoping review included articles specific to Humans, published in English and any study conducted and published from any time period with data from people aged 13 to 65 years of age. There were no limitations on the types of research methods used by research teams. Studies reporting individual, community, or neighborhood level data were included. Exclusion criteria included animal studies, studies in languages other than English, systematic reviews of pregnancy outcomes, methodology or methods articles, studies without analyses of African American or Black participants. An additional exclusion criterion was any pregnancy mortality that was not the result of an intended birth, specifically studies describing gestational trophoblastic disease and abortion. Gestational trophoblastic disease is managed as malignancies in oncology and abortion related mortality has been known to be rare, particularly after decriminalization codified in Roe vs. Wade in 1973.

Given the specific focus of racism how and how it operates in the U.S., studies including data from international geographies outside of the U.S. were excluded. However, we acknowledge that the myth of the default human grounded in white supremacy

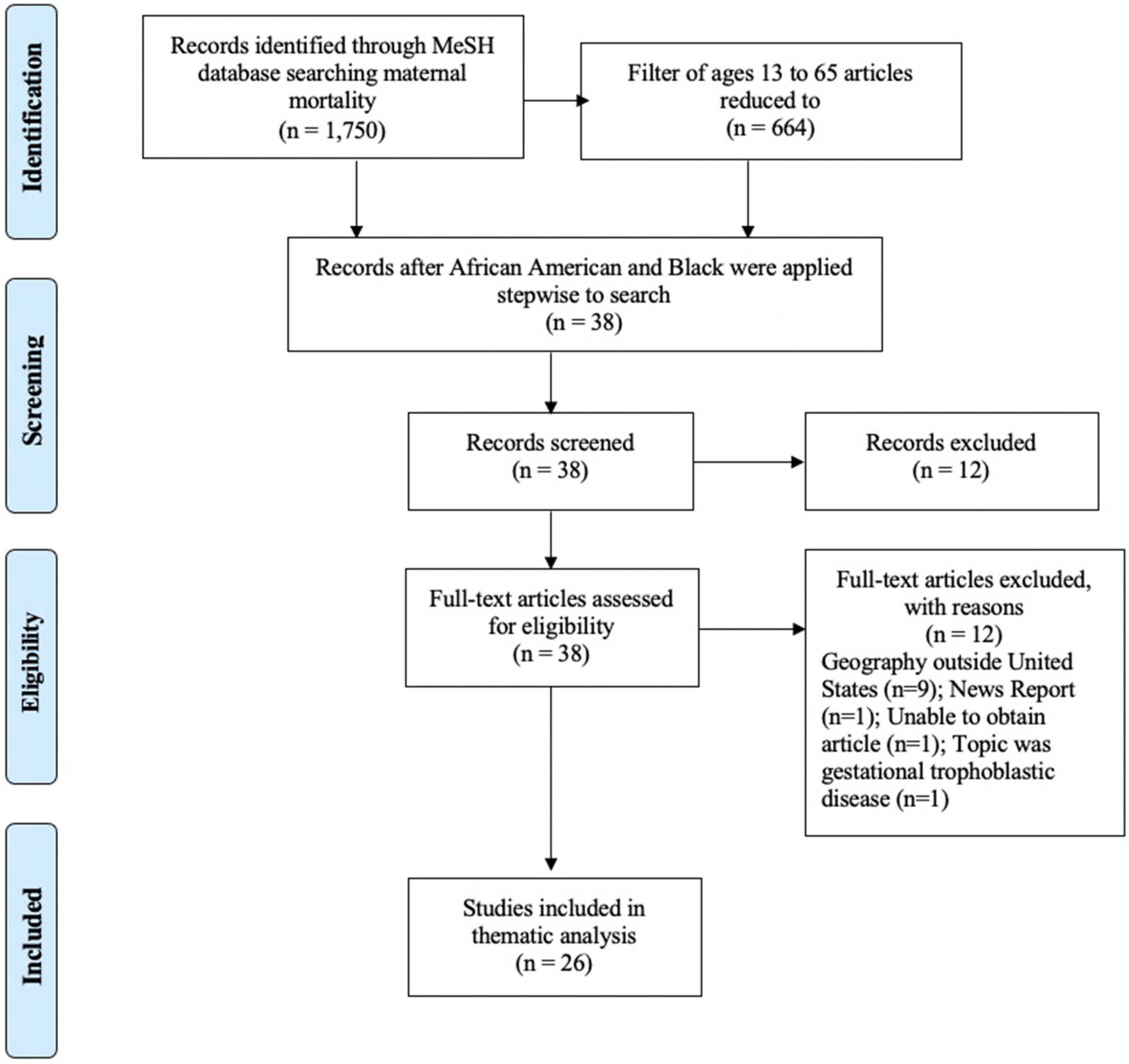

FIGURE 2 | PRISMA for Scoping Review Phase I—Clarify Concepts.

and racism are not exclusive to the U.S. Risk categorization was not considered as an inclusion or exclusion criteria since it is already known that education, income, social and marital status do not impact maternal mortality among Black women—risk is equitably shared regardless of these demographic characteristics.

Phase I of the scoping review was conducted to **clarify concepts** and was completed in January 2021 that included articles using the Pubmed MeSH topic *maternal mortality* with no filters and this search resulted in 1,750 articles ranging from 1958 to 2021. When the filters of Human, English language, and ages 13–65 years were set, this reduced the articles to 664. When the word *Black* was applied to this search that yielded 664 articles, the number reduced to 38 articles published between 2000 and 2021. When the term *African American* was applied to the search that yielded 664 articles, the number reduced to 24 articles published between 2000 and 2021. The MeSH search lists (including African American and Black in the search terms) were merged and resulted in 38 articles. All abstracts were retrieved, reviewed and 26 met inclusion criteria for the scoping review. Nine articles were excluded because their study populations were in geographies outside of the U.S, and one article was excluded because it was a news report in a scholarly journal. One abstract could not be obtained. An additional article was excluded because it reported updates in gestational trophoblastic

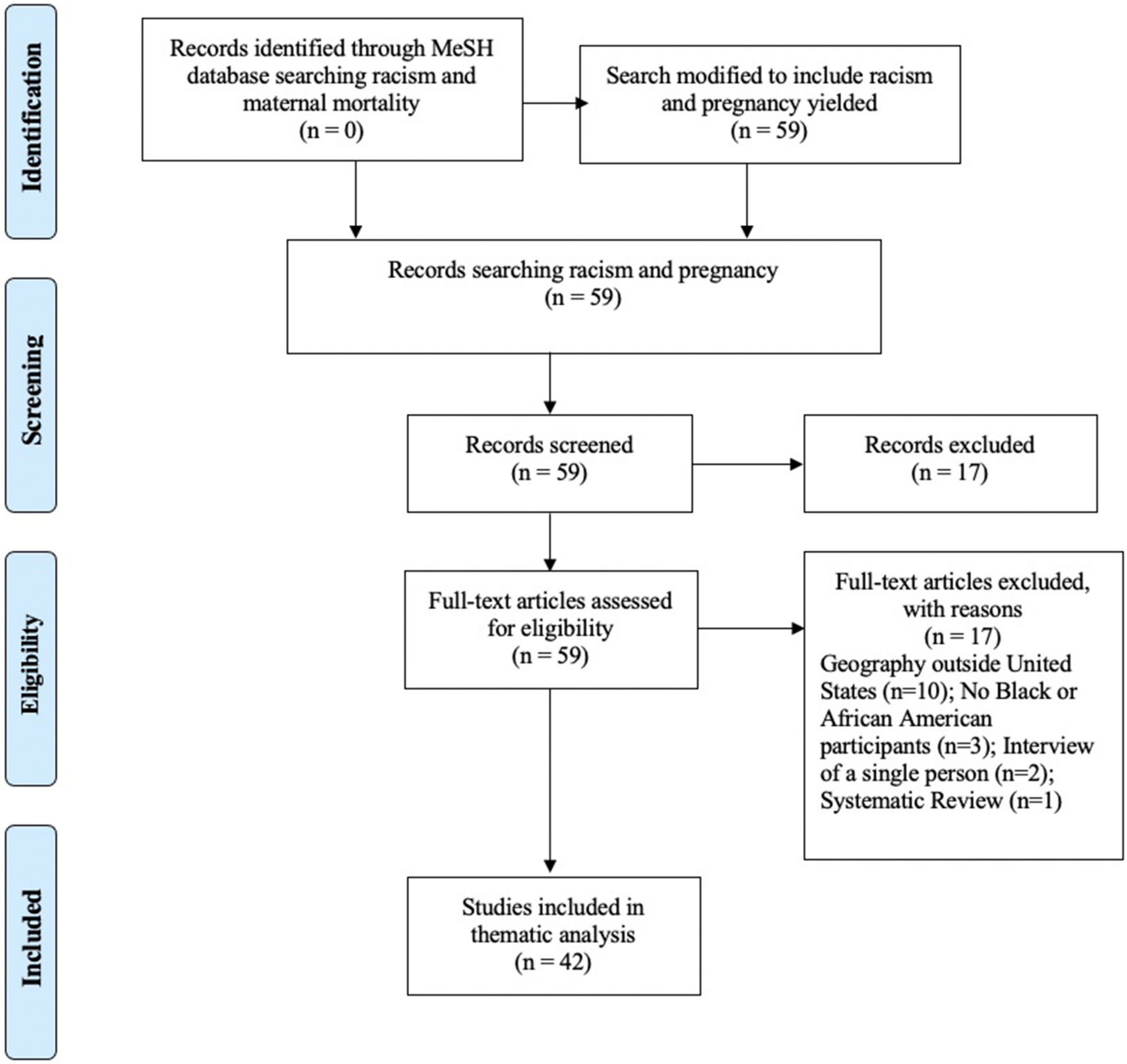

FIGURE 3 | PRISMA for Scoping Review - Phase II - Knowledge Gaps.

disease—a pregnancy outcome managed differently than birth. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) for Scoping Review Phase I appears in **Figure 2**.

Phase II of the scoping review was to **identify and analyze knowledge gaps**. This review, conducted in February 2021, included articles using the Pubmed MeSH topic *racism* with no filters and the addition of *maternal mortality* yielded no results. When *pregnancy* was used instead, this search resulted in 59 articles ranging from 2012 to 2021. No filters were used, and all abstracts were retrieved, reviewed, and 42 met inclusion criteria for the scoping review. Fifteen articles were excluded as the study populations were in geographies outside of the U.S. Three articles did not include Black or African American participants. Two articles were an interview of a single person, and one systematic review of racism and pregnant youth was excluded. Five of the 42 articles included in this scoping review are evidence-based or historical commentaries that use data to make important points specific to interventions and mitigation of harm. The PRISMA for Scoping Review Phase II appears in **Figure 3**.

In lieu of generating summary statistics, we read each article to synthesize the concepts within and across studies. We used procedures included in thematic analysis methods (26) including familiarizing ourselves with the data; however, instead of generating initial codes, we extracted data for clarifying key concepts specific to establishing the presence/absence of the myth of the default human. By reviewing the full text of the articles that met inclusion criteria, we were able to document themes of each study. We categorized each study based on the type of data that were reported (i.e., individual level data, population level data, and state level data) to determine if these factors impacted the generation of themes. While reviewing themes of each study, we defined, named and categorized themes across studies, allowing us to identify and analyze knowledge gaps.

TABLE 1 | Thematic analysis of scoping review by phase.

Phase I (clarifying concepts) theme: data

- Who is measured and when and where measurement occur
    - Overreliance on national data sets that are limited.
    - The outsourcing of data analyses to university-based researchers
    - Mix of morbidity, mortality and conditions that lead to each
- Attention and focus of research questions
    - When facility-based analyses are used, few pay attention to staffing, personnel, skill mix or structural factors that impact the facilities
    - Many analyses are atheoretical

Phase I (clarifying concepts) theme: lack of accountability for generation and perpetuation of blame narratives

- No community involvement, engagement or oversight
- Conflation of surveillance statistics and description of disparities
- Dearth of intervention studies; Policy Studies
- Blame-based analytics (i.e., crack cocaine, homicide, gun violence)

Phase II (knowledge gaps) theme: life course approaches are under-utilized in study designs

- Establishment of outcomes and exposures
    - Pregnancy is a condition, and abortion, birth, and miscarriage are outcomes
    - Selection of control vs. comparison groups (i.e., few within-Black people analyses)
    - Examinations of maternal death out of context (i.e., life expectancy)
    - Length of stay analyses
- Family unit analyses
    - White middle-class lens of analytics
    - Coupling maternal health and infant outcomes
    - Ill-defined geographies and rationale for place-based analyses

Phase II (knowledge gaps) theme: interventions focus on leveraging existing structures that are inequitable retrofits

- Public health programs such as Doulas, Home Visiting, Midwifery Model of Care, Healthy Start, Women, Infant, and Children Nutrition Program, Family Planning, Nurse Family Partnership, Group Prenatal Care, Social Support
- Medicaid expansion—State focus with inequitable distributions, services, policies

RESULTS

A total of 67 published manuscripts combined from Phases I and II were used for this scoping review that includes data that represent both qualitative and quantitative research methods (**Supplementary Tables 1–6**). Beginning from the foundational work of Guyer et al. (20) which provides the annual summary of vital statistics and trends in the health of Americans during the entire twentieth century, we begin to see the manifestation, development, and perpetuation of the myth of the default human. The a priori categorization of the studies by data level (i.e., individual level data, population level data, and state level data) did not alter the themes, however, for ease of reading grouping them allowed us to determine the elements of the myth of the default human. Themes from the scoping review (**Table 1**) show there are four elements that are endemic to the maintenance of the myth of the default human that are perpetuated by descriptions of disparities—without testing interventions for mitigation. These elements include (1) Data; (2) Lack of accountability for generation and perpetuation of blame narratives; (3) Life course approaches are under-utilized in study designs; (4) Interventions focus on leveraging existing structures that are inequitable retrofits.

In the Phase I analysis specific to clarifying concepts two themes were identified, data and lack of accountability for generation and perpetuation of blame narratives. Within the data theme were most studies that attempt to define, make sense of, and determine who is measured, when, where, and how. The sub-themes of data are indicative of not having comprehensive national data to understand maternal morbidity and mortality and reflect the limitations of study design when using administrative or publicly available administrative or claims data sets. Specific to lack of accountability, there are several issues that are determined by the fact that Black women and pregnant capable people are not routinely consulted as experts on their own health, nor are their specific research interests reflected in the published literature. Intervention studies are sparce and inadequate because they are focused on leveraging existing structures that are inequitable retrofits (Phase II gap). It is important to note that the bulk of scholarly contributions included in this scoping review have been published within the last 10–20 years (despite no search limits specific to time), reflecting a lack of attention to maternal health more broadly and Black maternal health specifically.

Phase II of the scoping review specific to identifying gaps again focused on data and study design—specifically since the middle-class, white heteronormative gaze is apparent in research questions, the determination of outcomes and exposures without every accounting for the realities of Black life, structural racism, and resilience factors of communities. Additionally, life course approaches were under-utilized in study design. Taken together, one unfortunate conclusion that could be drawn from this scoping review is that the increase in Black maternal death did not draw attention until the data began to indicate an increase in white maternal death. An additional finding from this scoping review suggests the need for a reimagining of education, health services provision, research, and policy specific to the reproductive life courses of Black women and birthing people. Much of the published research treats Blackness as a universal characteristic, with little to no attention to the intersections of class, or income. Despite the fact that it is already known that risk for Black maternal death is equitably shared, interventions have specifically focused on low-income individuals and/or those using publicly funded insurance or services. Given the historical grounding that opens this piece, it should be obvious that the public infrastructure has been inadequate to meet the health needs of Black people. Therefore, to address the findings of the scoping review, that include patients, people, seeking services, as well as clinical treatment and procedures, in context of the historical data presented in the introduction, we propose adopting reproductive justice as a foundational and theoretical frame for intervention research. This path forward should begin essential work to resolve the myth of the default human in the context of maternal morbidity and mortality.

DISCUSSION

So, what is the way forward? How do we dismantle the myth of the default human and what will it take to build new standards in education, provision of care, research, policies, public health praxis, and workforce development, and ultimately improve Black maternal health outcomes? First, we must acknowledge that the people most impacted by health disparities are best positioned to determine the solutions. This means that Black communities and Black women specifically need to be centered and prioritized in discussions and decisions about Black maternal health. This includes the mapping of assets, and the development and testing of interventions. Best practices and standards in the conduct of research with, for, and by Black mamas have been proposed to improve the quality of research questions that decenter whiteness (27). Next, curricula need to reflect the knowledge production of Black communities and their experiential wisdom. It is disingenuous that patient medical history remains a gold standard of health information gathering, but patient voice is missing from the education and training of the future health care workforce. Third, community-generated big data are essential for research that is conceptualized, operationalized, and actualized with, for, and by Black women. Finally, clinical care needs to be provided by a racially, culturally, and socially concordant workforce. Intentional investment in the healthcare workforce in Black communities that experienced divestment after the Flexner report was released in 1910, is one right place to start.

Recent Developments and Action Steps

Adopting reproductive justice is an essential component for the design of all clinical health services and educational programs. Specifically, understanding every person has a human right to maintain personal bodily autonomy, have children, not have children, and parent the children we have in safe and sustainable communities (28). If we are to achieve reproductive justice, we can no longer afford to risk the lives of Black women and birthing people based on a mythical standard. Healthcare providers, researchers and scholars, policymakers, and philanthropists–all who have a stake in addressing this crisis–must listen to Black women and birthing people if we are to reduce maternal deaths. We must also remedy the divestments in the social safety net following Reconstruction, the Civil Rights movement, and most of the Reagan era. We cannot allow for a return to complacency if and when we start to see declines in Black maternal morbidity and mortality. History teaches us that any new path forward should center those who are the most marginalized if we are to improve health outcomes for all people with the capacity for pregnancy.

The preservation of Black maternal health is just one aspect of reproductive justice that not only calls for accountability but also requires radical reimagination. This radical reimagination centers Black women, trusts Black women, and invests in Black women. Imagine this: the solution to reducing Black maternal mortality and morbidity already exists within the community that carries the greatest burden. Imagine if Black women defined for themselves the standards by which their agency is measured. Imagine if they harnessed that same self-determination and agency that would have enslaved Black women control whether they would bear a child conceived in rape, to carry and give birth to a much-wanted child to term without sacrificing her life. Imagine if cultural rigor– the operationalization of critical race theory, reproductive justice, research justice, and big data intersected with health services provision, health services research, quality improvement, and health care policy–was used to build those new standards (29). Imagine if the forces that have kept Black people from extinction were better understood and leveraged to improve Black maternal health outcomes.

Recent developments have provided some cause for optimism including a recently announced public-private partnership that was established to address maternal morbidity and mortality from the Department of Health and Human Services, The Office of the Surgeon General, and the March of Dimes (30). Additionally, for the first time since its inception in 2018, a Presidential Proclamation was issued to establish April 11th through April 17th as Black Maternal Health Awareness week (31). Finally, funds were included as part of the American Rescue Plan, for post-partum Medicaid expansion to address preventable maternal mortality—which is known to disproportionally occur in the post-partum period (32).

Additional action steps should include:

- Targeted Investments in Black Students, Educators, Healthcare Providers, and Researchers
- Targeted Investments in the Social Safety Net and Black Communities
- Establishing Community Engagement as a Default Mechanism of Accountability
- Center the Voices, Strategies, and Interventions of Black Birthing People
- Retrofit, Reform, and Reimagine Clinical Health Services Provision, Education, Research, and Policy Development
- Establish Authentic Partnership with Black Women and Femme led Organizations as Leaders of the Work to Reduce Maternal Morbidity and Mortality
- Believe When Interventions are Developed and Implemented to Improve Black Maternal Health that the Health of All Populations Will Improve.

There are limitations and strengths to this work that need to be acknowledged. First, this work is limited to history documented by individuals immersed in and responding to the myth of the default human. We have paid close attention to our citational practices to center the perspectives of Black authors and scholars. Next, articles included in the scoping review were exclusive to those published in English—which misses nuance of Black or African American experiences of people who use speak other languages. Recent work has focused on colorism and the domains of racism and discrimination and this scoping review was unable to be as granular in our analysis—although some of those citations do appear in the review. Finally, we do not proport to have mapped all dimensions of the evidence of the myth of the default human in health services, education, research, and policy related publications. The limited purpose of the scoping review was to clarify concepts and identify gaps to make recommendations about areas where public health interventions could be reimagined.

CONCLUSION

In conclusion, we have read or heard countless stories of Black women who have nearly died or have died during or after childbirth. We know them. They are our friends, our neighbors, our co-workers, our family members, and our partners. While we know that higher socioeconomic status is a predictor of health outcomes, this couldn't be further from the truth when it comes to Black maternal health outcomes. How much money or education Black people have, how they construct families, what they wear, their hairstyles, diction, and their very breath are constantly under assault even as Black people aspire to be the "right" kind of people as defined by the default standard of whiteness. It begs the question of whether any default standard is the right exemplar for preventing Black maternal death when we examine the maternal health outcomes in lower income countries where the default standard is not whiteness (29). Too many scholars have been content to describe disparities in reproductive health outcomes specific to Black maternal health, and yet far too few have examined interventions to mitigate the associated drivers of disparities and inequities. Further, the healthcare enterprise continues to dismiss Black maternal agency by perpetuating narratives (e.g., older, sicker, fatter) that place the blame for poor maternal health outcomes on Black mothers (33). Included in that narrative is non-compliance, a by-product of medical mistrust due to racial discrimination (34, 35). None of these approaches appropriately represent the experiences, satisfaction, or quality of Black life or wellness. The inability for research, education, policy or clinical practice to encapsulate or even imagine Black humanity as unique and distinct from the myth of the default standard of white people cannot continue and should be designated unethical. As Katherine McKittrick has outlined in her recent book entitled *Dear Science*, we observe that "the project of making discipline overwhelmingly only gives us two options for the study of Black people—to describe racism and resist racism; these options rarely have any noise or curiosity or questions about Black life interrupting them" (36). We wholeheartedly agree and call upon those in education, provision of care, research, policies, and public health praxis to consider actively dismantling of the myth of the default human—it is not the best that can be attained and new futures remain limited by its continued existence.

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MM co-wrote this manuscript with SB, principal—Black Women Write. Both authors conceptualized, wrote, and analyzed the data in this manuscript.

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What We "Cannot *Not* Know in America": 400 Years of Inequality and Seven Sins

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The 400 Years of Inequality Project was created to call organizations to observe the 400th anniversary of the first Africans landing in Jamestown in 1619. The project focused on the broad ramifications of inequality. Used as a justification of chattel slavery, structures of inequality continue to condition the lives of many groups in the US. Over 110 organizations joined this observance and held 150 events. The highlight of the year was the homily given by Reverend William Barber II, co-chair of the Poor People's Campaign, who described the "seven sins" that link the concept of inequality to every aspect of national life, from politics to militia. These "seven sins" help us to analyze and address crises, such as the COVID pandemic.

Keywords: racism, inequality, 1619, anniversary, police violence, COVID-19, neoliberalism

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The year 2020 will be remembered for two epoch-defining events: a pandemic on a scale not seen for more than 100 years, and the largest uprisings for racial justice in US history. The demonstrations against police violence organized by Black Lives Matter and other movement coalitions in cities across the U.S. were rapidly joined by an unprecedented number of sympathetic demonstrations in countries across the world. Both events underscored how systemic and frequently race-based inequalities condition local, national, regional, and global health-related vulnerabilities. As some have noted, there is an apocalyptic quality to this moment: a veil is being pulled back to reveal, what Cornel West has termed, "a reality that one cannot *not* know" (1). Camara Phyllis Jones, former President of the American Public Health Association, finds this "both a treacherous time and a time of great promise" (2). The stark racial disparities in COVID-related deaths—Black Americans have been dying at more than twice the rate of white people (3)—affirm again the deadly consequences of racism, a fact Jones underlines with her declaration that, "Race doesn't put you at higher risk. *Racism* puts you at high risk" (emphasis in the original). Heartened that "folks from all parts of our population," expressed outrage following the murder of George Floyd, Jones wonders, cautiously, if, "perhaps this nation is awakening to the realization that racism does indeed hurt us all." If "perhaps" this is a time of awakening, might it now be possible to change paths and head in the direction of the solution, if only we knew what that was?

For over 30 years we have examined the determinants of a number of health concerns in the US. Our investigations of the excess risk for AIDS among Blacks and Hispanics, for example, revealed how urban renewal and other forms of neoliberal disinvestment fractured communities and thinned the supports necessary to sustain life, community, and spirit (4–6). In demonstrating the constitutive role geographies of inequality have on community and population health, our research drew from an added work of medical and health geographers such as Pyle (7), Dear and Wolch (8), and Brown et al. (9). This body of work ilustrates how, on the one hand, the diffusion of disease is facilited by racial and other forms of segregation, which, on the other hand, curtial the distribution of and access to care. We saw this process repeated as poor and minority communities faced the epidemics of crack cocaine addiction, violence and associated mental disorders, multi-drug resistant tuberculosis, and asthma (10–12). Now, these geographies of inequality and other social fractures are shaping the COVID-19 pandemic. Thus, while this moment is extraordinary, it is not unprecedented. Indeed, some of its deepest lessons lie in what is familiar.

As with past epidemics, the burdens of COVID—infections, deaths, access to care, vaccination rates, and the host of associated ills such as housing and food insecurity and occupational hazards—fall inequitably on poor, low wealth, and majority communities of color (13, 14). Similarly, the murders of George Floyd, Breonna Taylor, Ahmaud Arbery, and so many others by police officers and white supremacist vigilantes are grim additions to a legacy that is centuries deep. We also face a familiar contradiction: the corporate and state systems that have failed us, that have, in fact, helped produce and amplify these crises, are also the very ones we most need in this moment because of their scale, reach, and resources (15).

Knowing what we cannot *not* know, our task in this apocalyptic moment is 2-fold: address the immediate and urgent issues of life, death, and justice, while also transforming our institutions so that we are better able to meet the challenges of the future. This is a complex undertaking for the goal is not to "return to normal." The history of the AIDS crisis offers a cautionary tale in this regard. In a 1993, a special panel convened by the National Academy of Sciences, Engineering, and Medicine to monitor the social impact of the AIDS crisis, concluded that, "Although the AIDS epidemic has devastated the lives of many individuals over the last decade, there is little evidence that six major American social institutions [the health care delivery system, the public health system, correctional systems, voluntary and community-based organizations, and religious groups] have been changed fundamentally" (16). Rather, they concluded, AIDS had become, "accepted as one of the 'synergy of plagues' endemic in vulnerable communities."

Inherent in that conclusion was the assumption that endemic disease was not only concentrated but also contained in poor and minority communities. That assumption was incorrect: disease, dysfunction and social pathology have spread broadly across the nation from the places where they were allowed to fester. The epidemic of "deaths of despair" among white working-class people in the Rust Belt, for example, is part of the insidious march of disease across geographic space and up the social hierarchy (17). This process has been orchestrated over the past three decades by neoliberal "reforms" that devolve the responsibilities of the state to "the market," eliminating, in the process, programs that provided some relief to poor and low wealth families and communities. The US's bifurcated health care system, a patchwork of profit-driven and public funded enties that leaves millions without affordable or secure access to healthcare, is perpetuated by these policies. First adopted by the Chilean dictator General Augusto Pinochet and then by Prime Minister Margaret Thatcher in Great Britain and President Ronald Reagan in the US, neoliberalism is now a global economic and governance system. The resulting policies and practices are an underlying driver of the COVID pandemic where poor and other marginalized populations are abandoned and ignored (18). Can we learn from this disaster and move in a different direction? To answer this question, we reflect on what we learned from Reverend William Barber II's homily on the seven sins of the United States.

400 YEARS OF INEQUALITY

In 2016 we launched the 400 Years of Inequality Project, a call for observance of the 1619 landing of Africans at Jamestown to be sold into bondage. Anniversaries are widely recognized as events with individual and collective meaning (19). Their observance is a part of ritual and culture (20). In addition to observing the anniversary and reflecting on the past, we called for a "People's Platform for Equity." If the observances provided opportunities for communities to name the problem, designing the People's Platform for Equity would be the "intervention." Together, these activities would affirm what we stand for and where we are headed. To that end we planned from the beginning of the project a Solemn Occasion that would assimilate the insights of 400 years of inequality into a blueprint for the future. Our dream was that Rev. William Barber, co-chair with Rev. Liz Theoharis of the Poor People's Campaign, would deliver this message from the pulpit of Riverside Church in New York City where prominent national and internation leaders have provided guidance in other times of crisis.

We chose to focus our work on "inequality," arguing that the slaveholders invented tools of dehumanization that they used to justify slavery and that have been used ever since to oppress people along lines of race, class, gender, religion, immigration status, sexual orientation, and many other dimensions. As we worked together to develop tools for the anniversary observances, we came to think of the system that arose from those dehumanizing foundations as an, "ecology of inequality." Massey and Eggers, in a groundbreaking paper on the topic of the ecology of inequality, looked at the ways in which public policy had created spatial isolation of poor Blacks and Hispanics (21). Other policies disrupted the economic basis of American life through deindustrialization, the transformation of farming to agribusiness and the divergence of employment in high-paying tech sectors and low-paying service sectors. This understanding of an ecology—a life and social system in which we are all engaged, both those with the greatest privilege and those with the least—was a shift in our thinking, and guided the way in which we approach the creation of a People's Platform.

The 400 Years of Inequality Project was launched by five partner organizations: the University of Orange, The New School, ONE DC, Columbia University Mailman School of Public Health, and Voices of a People's History. Our first task was to increase awareness of the anniversary. In 2017, we established a website and developed the project logo, the number 400 with a loop of chain linking each digit (22). The organizing committee suggested that individuals or local groups research and observe local histories of and movements against inequality. This place-based focus would enable observance participants to develop conversations regarding the history of inequality they, their neighbors, and ancestors had experienced and witnessed.

We asked observance organizers to let us know about events. We heard from 110 organizations across the country. Since a number of them mounted multiple observance events, we received information on close to 150 events. We were also aware of multiple organizations organizing events that did not submit information to us. While we are not able to provide a full accounting of observances, we are confident that they number in the hundreds.

Participating organizations ranged from CBO/NGOs and religious groups to academic institutions, schools, and museums and historical societies. Black civil rights organizations and black churches were expected to participate in large numbers and they did. What was more surprising was the extent to which "mainstream" organizations of major stature participated. These included: Carnegie Hall, the Brooklyn Public Library, the American Journal of Public Health, and schools of public health. We documented events at Tulane University's School of Public Health and Tropical Medicine, the Mailman School of Public Health in New York City, the School of Public Health at Boston University, Harvard University's T.H. Chan School of Public Health, and The Drexel University Dornsife School of Public Health. Dr. Sharrelle Barber, Rev. William Barber II's daughter, organized the event at Drexel University.

Observance themes ranged from the legacies of slavery, to the history of urban segregation, and present-day health inequities. They were addressed in conferences, symposia, worship services, exhibitions, and community celebrations. These events wove together multiple strands of history to illustrate how different communities and events have been caught up in the processes of inequality and have organized against them. Residents of a neighborhood in New York City organized a candlelight vigil at the site of a recently discovered African burial ground. African immigrants and Native American residents from the neighborhood joined local faith leaders and community members for prayers and reflection. The event inspired the organizers to form a neighborhood racial justice committee and the community is involved in planning a memorial for the site. In "The Cotton Series," dancer and choreographer Havanna Fisher and her ensemble drew from the history of cultivating and harvesting cotton and sewing with cotton fabrics to explore the living and working worlds of black women, beginning with African ancestral practices to present-day celebrations and justice struggles. The Allen Memorial Art Museum at Oberlin College mounted the exhibition, "Afterlives of the Black Atlantic," to chart the impact of black slavery on both sides of the Atlantic. Oberlin students complemented this event with, "Be Not Dismayed," an exhibition of items from the university's archive of anti-slavery materials.

On October 20, 2019, we gathered with hundreds of congregants and friends at Riverside Church for the 400 Years of Inequality Project's Solemn Occasion, "Stolen Hands, Stolen Lands" (23). This three-and-a-half-hour long event included dancing, drumming, and song. Faith leaders offered libations, prayers and other ceremonies to honor the ancestors and affirm the commitment to equality at the moral and ethical heart of their traditions. An ensemble of performers read selections from the historical record: first person accounts of First Nation's leaders, activists and poets; appeals for freedom from enslaved and formerly enslaved people; and, articulations of justice from within justice struggles focused on the rights of women, people with disabilities, undocumented individuals, workers, and LGBTQ+ groups.

SEVEN SINS

As we had envisioned, Rev. Dr. William Barber II delivered the homily, "Stolen Hands, Stolen Lands." The sermon placed the United States on trial. Reverend Barber made the case that "seven sins" of the American colonies encoded structures of dehumanization that define the present. Movements for justice and liberation will need to dismantle these structures. "To name our sins," he explained in his preamble, "is to tell the story of how we got here, but also it is to say we refuse to go along with sin even for a little while. Judgment is an opportunity to ask honestly whether we're going to repent and rebirth America again."

These are the Seven Sins Rev. Barber urges us to reckon with if we are to take seriously the systemic racism we have inherited borne out of a system of slavery:

1. *Bad Biology* is the "naturalizing" and de-historicizing of inequality so that it might appear to be an inevitable outcome of the natural order. Barber cites a study by researchers at the Mailman School of Public Health at Columbia University who estimate that 250,000 people die each year from poverty (24). The construction of race in its weaponized form as racism undergirds this system.
2. Segregation, specifically the "separate but equal" racist doctrine codified in the US Supreme Court's ruling in Plessy v. Ferguson is *Sick Sociology* (25). It is the conviction that we cannot live as we wish with some people as our neighbors. That, Barber explains, is why we create ghettos or incarcerate people en masse.
3. *Political Pathology* works to establish and enforce inequality. It operates in Jim Crow laws and gerrymandered districts (26). It is the gutting of the Voting Rights Act and the disenfranchising of 6.1 million people—one in every thirteen black men aged 30–34—due to felony convictions (27).
4. *Corruptible Courts* helped create chattel slavery and continue to abet and enable practices of political pathology. Barber tells of the black servant John Punch, who in 1640, fled bondage. Two fellow servants, who happened to be white, escaped with him. The white men had their terms of indenture lengthened by several years, while John Punch was ordered to serve his master for the rest of his natural life. Thus, the courts inscribed racial inequality onto the lives of those who were equal in other ways, including their desire for liberty.
5. *Evil Economics* argues that profits justify both means and ends. Barber referenced specifically the failure to prosecute the greed and corruption that caused the financial crisis of 2007 and permitted thousands to fall into poverty and low wealth. We

glimpse his fusion politics when he observes that while a far greater percentage of people of color live in poverty, in the raw numbers, more white women and white people are poor and low wealth than any other demographic. A unified, multi-racial constituency of poor and low wealth people could wield great power.

6. To explain *Militia Madness*, Barber recounted the contradictory history of Bacon's rebellion. In 1676 indentured white servants and enslaved, indentured, and free blacks united to attack local Native nations to take their land. They then overthrew the colonial government in Virginia, and for a time, ruled the colony together. "Black and white servants had long conjoined and conspired," observes Barber, "but this was a new and dangerous level of cooperation that crossed the color line." *Militia Madness* works to frustrate and violently suppress such alliances. The Second Amendment codified this practice to ensure that white men would be able to raise militias against slave rebellions.
7. Rev. Barber holds his Christian brethren complicit with his seventh sin, *Heretical Ontology*. This is the crafting of a theological justification for inequality evident in ideologies of race and Manifest Destiny. It presents the stealing of land and labor as "God's work." Heretical Ontology is summed up by the declaration: "God meant it this way." The ontological status of this assertion provides cover to the other six sins.

As we listened to William Barber make his case, we could not anticipate specifically where we would find ourselves in just a few months, in the grips of a pandemic and taking to the streets to demand justice. The framework he provided, however, enabled us to name the problems when they occurred.

As evidence of *bad biology*, we observed the litany of denials, distractions, falsehoods, and arrogant magical thinking that led the CDC in the 1st weeks of the pandemic to turn down the WHO's offer to provide test kits, only to find that its self-designed tests were faulty (28). It was also apparent in the callous and cavalier dismissal of the risks faced by workers in meatpacking plants (29). That these are mostly people of color and immigrants only increases their disposability.

With the endorsement of *corruptible courts*, the war on immigrants intensified as border restrictions increased and asylum claims were denied. The Department of Justice ordered immigration courts to continued to operate despite Coronavirus cases in the courthouse (30). Under the cover of crisis, conservatives deepened their efforts to appoint compliant ideologues, particularly to the Supreme Court of the United States.

The vulnerability of workers inherent to the *evil economics* of neoliberalism came to the fore almost immediately. The most undervalued and underpaid workers, most of them people of color, became classified as "essential." As confirmed by epidemiologists, the wages for this reclassification were increased risk for infection, illness, and death (31). The pandemic thrust to the fore and amplified the economic vulnerabilities underlying homelessness, a growing precarious workforce, rental distortion created by real estate speculation, student loan debt, food insecurity, digital divides, and so on. Comparable distortions exist in other countries. In the UK, COVID-19 morbidity and mortality has followed the social gradient: infections and death clustered in the country's more deprived and predominanty racial minority areas. Building on earlier analyses of health inequities in the UK presented in the Black Report of 1980 and the Acheson Report of 1998, Marmot and Allen track what they term the "causes of causes" of health inequities, including the impact of neoliberal austerity, structural racism and other forms of inequality (32). Despite multiple and detailed findings regarding the social determinants of health, governments in the UK and elsewhere in the world have refused to enact adequate and timely reforms (33). Comparable trends and government failures are evident in Brazil, India, and multiple other countries (34, 35).

In their effort to blame the epidemic away, the U.S. president and his apologists set communities against each other by blaming China for the pandemic (36). This conjunction of *political pathology* and *sick sociology* surely made us sicker in body, in spirit, and in community, and, therefore, far more vulnerable than we would have been had we united. Blaming others, fueling hatred, and stoking division is the core practice of political pathology. These actions transformed a life saving practice, wearing protective masks, into an ideological melee that brought us to the brink of insurrection multiple times until, in early January 2021, that brink was crossed. Thus, we saw the clear link between *political pathology* and *militia madness*. The warning signs were there when gun merchants reported higher than usual sales as people purchased new and additional weapons (37).

As indicated above, according to Rev. Barber *heretical ontology* binds the other structures together into what we term, the "ecology of inequality." To succumb to heretical ontology is the greatest defeat of all for it means that we both accept and collude in the production and enforcing of inequality. This heresy blinds us to our shared vulnerability and the awareness that by protecting others, especially the most vulnerable, we support our collective health. Withholding protective resources, vaccines and health care from homeless men and women or people who are incarcerated is a heretical betrayal of our shared life.

We outline this analysis in the spirit with which Rev. Barber presented his sermon on the seven charges against the US, particularly his conviction that in "learning from the sins of the past … we might embrace a better future." To signal this turn toward the future, he reminds us of James Baldwin's charge: "We made the world we're living in and we have to make it over again" (38). In this period of crisis, we confront a most American of paradoxes: our deeply exercised capacity for, on the one hand, discrimination, exclusion, privilege, and dehumanization—we are not, as some in power claim, "all in this together"—and, on the other, the spirit of justice, equity, emancipation, and horizontalism—indeed we are "all in this together" if our intention is our collective well-being. Within this paradox lie crucial questions of spirit and being, questions of the meaning of existence, questions of community and society. We have an opportunity to look at who we are, to name the problem, and to envision who we might become.

In 1989, reflecting on the "black condition," Cornel West suggested that, for black people, having long lived in crisis at, "the ragged edges of the Real, of Necessity, not being able to eat, not having shelter, not having health care," had provided, "a strong sense of reality" (1). This oppressive condition in which life is bound by Necessity on one side and state and supremacist violence on the other is the reality, "that one cannot *not* know." Rev. Barber is rooted in the black prophetic tradition that strives to name this reality, to make it evident. The uprisings following the killing of George Floyd were another prophetic edition. And it seems, "perhaps," that others are waking up, that a critical mass is cognizant of the "ragged edges of the Real, of Necessity." And, having woken up, are we possibly ready to take action. "I am committed to working with you all to build a moral fusion coalition in the 21st century," announced Rev. Barber at the conclusion of his sermon. Then he asked: "Is there anybody else in here ready to build?"

DATA AVAILABILITY STATEMENT

The datasets generated for this study can be found in online repositories. The names of the repository/repositories and accession number(s) can be found at: www.400yearsofinequality.org.

AUTHOR CONTRIBUTIONS

All authors participated in the project described here, conceptualized the manuscript, and contributed to the writing.

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POLICY AND PRACTICE REVIEWS
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Declaring Racism a Public Health Crisis in the United States: Cure, Poison, or Both?

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Declaring racism a public health crisis has the potential to shepherd meaningful anti-racism policy forward and bridge long standing divisions between policy-makers, community organizers, healers, and public health practitioners. At their best, the declarations are a first step to address long standing inaction in the face of need. At their worst, the declarations poison or sedate grassroots momentum toward anti-racism structural change by delivering politicians unearned publicity and slowing progress on health equity. Declaring racism as a public health crisis is a tool that must be used with clarity and caution in order to maximize impact. Key to holding public institutions accountable for creating declarations is the direct involvement of Black and Indigenous People of Color (BIPOC) led groups and organizers. Sharing power, centering their voices and working in tandem, these collaborations ensure that declarations push for change from the lens of those most impacted and authentically engage with the demands of communities and their legacies. Superficial diversity and inclusion efforts that bring BIPOC people and organizers into the conversation and then fail to implement their ideas repeat historical patterns of harm, stall momentum for structural change at best, and poison the strategy at worst. In this paper we will examine three declarations in the United States and analyze them utilizing evaluative criteria aligned with health equity and anti-racism practices. Finally, we offer recommendations to inform anti-racist public health work for meaningful systematic change toward decentralization and empowerment of communities in their health futures.

Keywords: structural racism, health equity, social justice policy, accountability, public health crisis, pharmakon, black lives matter, decolonial practice

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BACKGROUND

> *"By itself, however, naming racism does not ensure equity. We must also tackle the underlying mechanisms by which white supremacy and structural racism preserve themselves. Otherwise, naming racism will serve as a substitute for actually eradicating it."*
>
> *-Dr. Chandra Ford, in response to the CDC declaration of racism as a public health threat (1)*

The World Health Organization's (WHO) Conceptual Social Determinants of Health (SDoH) framework (2) demonstrates how social, economic, and political factors such as income, education, occupation, gender, race, and ethnicity influence a person's socioeconomic position that, in turn, plays a role in determining health outcomes. Racism and discrimination are also key determinants of health (see **Table 1**).

TABLE 1 | Definitions.

Race and Racism

Race is a socially and politically constructed way of grouping people (3). Racism is a system of structuring opportunity and assigning value based on how one looks, which unfairly advantages some, disadvantages others, and saps the strength of the whole society (4). Historically, racism has operated as a socio-political and economic construct rooted in the violation of dignity, humanity, personhood, and self-determination of communities and their access to land, resources, and basic human rights. Racism operates across ecological levels and societal structures (4). Utilizing Dr. Jones' theoretical framework, this paper identifies racism operating at three levels: internalized, interpersonal, and structural. Internalized racism occurs when members of racialized groups accept negative messages about their abilities and intrinsic worth. Interpersonal racism manifests as prejudice and discrimination through differential actions toward racialized groups. Institutional or structural racism is differential access to the goods, services, and opportunities of society by race which can manifest as inaction in the face of need.

Crisis, Emergency, Issue

A public health issue is one that affects a significant portion of a specific population. According to the WHO, an emergency describes "a state that demands to be declared or imposed by somebody in authority, who, at a certain moment, will also lift it." It is usually defined in time and space and requires threshold values to be recognized; it also implies rules of engagement, an exit strategy, and mobilization of resources/budget (5). In contrast, a crisis implies the possibility of an insidious process that cannot be defined in time, and that can exhibit different layers/levels of intensity. A crisis "may not be evident, and it demands analysis to be recognized" (5). Conceptually, "crisis" can cover both preparedness and response. Therefore, the term crisis is the most appropriate term to use when it comes to addressing and defining the state of structural racism and its impacts on health. The threshold values and limits of the term "emergency" are insufficient and the term "issue" too vague.

White Supremacy Culture

While "white supremacy" often conjures images of individual or group acts of overt and racially motivated acts of violence, "white supremacy culture" address normalized and pervasive daily and subtle manifestations that support the maintenance of a white supremacist system. White supremacy is a system in which those who benefit from whiteness maintain power and privilege through the oppression and exploitation of those who are not included in the definition of whiteness, with Black and Indigenous People of Color (BIPOC). Culture is the behaviors, beliefs, values, and symbols that they accept, generally without thinking about them, and that are passed along by communication and imitation from one generation to the next. Cultural racism is how the dominant culture is founded upon and then shapes the society's norms, values, beliefs, and standards to validate and advantage white people while oppressing BIPOC (6). White supremacy culture maintains that the cultural behaviors, beliefs, values, and symbols of white people is superior to that of people of color. As identified in *Dismantling Racism: A Workbook for Social Change Groups,* this includes perfectionism, worship of the written word, sense of urgency, defensiveness, quantity over quality, only one right way, paternalism, either/or thinking, power hoarding, fear of open conflict, individualism, progress is bigger/more, objectivity, and right to comfort (6).

The American Public Health Association's (APHA) 2016 Presidential Initiative, a National Campaign Against Racism (7) asserts that racism is:

- a social system with multiple dimensions: individual racism is internalized or interpersonal; and systemic racism is institutional or structural, and
- a system of structuring opportunity and assigning value based on the social interpretation of how one looks, that
- unfairly disadvantages some individuals and communities,
- unfairly advantages other individuals and communities, and saps the strength of the whole society through the waste of human resources.

When examining the impact of a resolution or a declaration of racism as a public health crisis, it helps to take a heuristic approach while utilizing a pharmakon framework. A heuristic approach is an accurate, reliable and generalizable way to examine a concept for problem solving or learning how to problem solve (8). When we examine the resolution or declaration as a remedy for structural racism, we must consider the potential for harm or poison (pharmakon), that can occur when that solution (declaration of racism as a public health crisis) stalls momentum for meaningful material anti-racism policy and program implementation. However, we have to be vigilant and thoughtful of the ways this can be implemented because performative actions, missteps and intentions can be counterproductive.

The concept of performative allyship in anti-racism is understood as someone from a non-marginalized group professing support and solidarity with a marginalized group, but in a way that is not helpful and potentially even harmful (9). This work examines not simply the performative nature that declarations can embody, but also the implications of non-performativity. The non-performativity of anti-racism within institutional speech acts has been described by Sara Ahmed as holding the intent to do nothing. Institutional anti-racism speech is not a failed performance that did not reach its intended audience, but rather is intended to be non-performative. When, "the failure of the speech act to do what it says is not a failure of intent or even circumstance, but is actually what the speech act is doing," therein lies the potential for harm in a speech act which aims to cure (10).

According to the philosopher Achille Mbembe in his book *Necropolitics*, the ultimate expression of sovereignty resides in the power and capacity to dictate who lives and who dies and draws on the concept of pharmakon as "a medication that acts at once as remedy and as poison" (11). Derrida defines "pharmakon" as the desire to bring healing while being blind to harm (12). It is within this framework that we analyze the declarations of racism as a public health crisis while we consider the potential unintended consequences. This suggests that a resolution or declaration can simultaneously be the remedy and the poison. Guided by the values of health equity, we will build on the concept of pharmakon to propose paths forward to magnify and expand the impact of such declarations in addressing the systemic oppression and violence which leads to racialized health inequities. Within the lineage of Derrida and Foucault, Mbmbe's conceptualization of biopower and biopolitics depart from the Eurocentric view to include a framework of power with a critical lens of colonialism, post-coloniality, and conceptualizations of aliveness within a framework of the "living dead" whose bodily sovereignty are controlled by racialized state politic (11). That is, this paper aims to address remedies to the potential implications of state-sanctioned death through non-performativity in declarations of racism as a public health crisis. If the data is disaggregated, the mortality disparities are clear, if racism has been declared a crisis, and still no meaningful action is taken, then these declarations become one more way that "contemporary forms of subjugation of life [give] to the power of death" (11).

Catalyzed by the murder of George Floyd on May 25th, 2020 by a police officer in Hennepin County, Minneapolis, over 180 declarations have been made across public health institutions, US counties, cities, and states in <1 year (13). Though declarations are not uniform in their scope, most have sought to raise awareness about how structural racism and systemic inequities negatively impact population health. This praxis is aligned with the three principles for achieving equity: (1) Valuing all populations evenly and equally more broadly; (2) Evidence-based approaches to recognize and rectify historical injustices; (3) Providing resources according to need. Using these steps as a guide, governments have their best chance to conquer health inequities through meaningful implementation of declarations (14).

HISTORICAL CONTEXT

Legacies of Racism in Public Health

The history of public health is a complicated story of science and colonial, post-slavery social systems where good faith policy narratives implicitly and/or explicitly put into practice violent systems of restrictive health access that perpetuate inequity (15). While the role of anti-racism declarations in impacting health outcomes, addressing the social determinants of equity (SDoE), and decreasing inequities is still being conceptualized and actualized in measurable, concrete, and consistent ways, there is historical precedent.

Within the context of necropolitical biopower and colonialism, it is important to name the ongoing struggles of Indigenous sovereignty globally. Within the United States, the historical legacies of land theft, genocide, ongoing violation of the over 500 treaty rights that were signed between 1778 and 1781 (16), and continued erasure of Native American, Alaska Native, Hawaiian, and other Indigenous communities contribute to the lack of sovereignty and disparate health outcomes seen today (17), particularly during the COVID-19 pandemic (18). An example of non-performativity within public health is continued genocide through data erasure and misclassification (19). Lack of data directly impacts the ability of local, state, federal and tribal public health authorities to address the COVID-19 virus and limits policy makers' ability to make data-driven decisions for equitable policy and resource allocation (20). Few, if any declarations, acknowledge or address Indigenous populations within declarations. Within a context of Indigenous erasure, non-performativity is made visible by its absence.

Since World War II, the creation of international governing bodies has increasingly been used to affirm state legitimacy, particularly through the ratification of human rights principles and treaties. Notwithstanding their intended effects, these accords have led to an increase in abuse (21, 22). Known as "radical decoupling," this phenomenon reflects the harms of disconnection between practice and policy and provides insight to the pharmakon phenomenology (23), Human Rights as Myth and Ceremony found that while signing declarations was associated with improved human rights practices, it did not necessarily translate into improved human rights outcomes (24). Meir et al. wrote that accountability; non-discrimination and equality; and community participation are "crucial to realizing all human rights" (25). Our collective process of transmuting the poisons of structural racism into solutions for structural racism requires not only commitment to specific protocol, but careful practice and work (26, 27).

Black Lives Matter (BLM) has created a window of opportunity for anti-racism dialogue and action in health sectors and beyond (28). Catalyzed by the acquittal of George Zimmerman for the murder of Trayvon Martin, the courage of this movement elevated the conversations of the countless unjust murders and deaths at the hands of police from the living rooms of the Black community to a global dialogue on state-sponsored violence against people of color in all spaces (29). These conversations were reignited during the COVID-19 pandemic with the murder of Mr. George Floyd and the revelation of structural gaslighting not only within policing in America but also within the medical system surrounding his autopsy (30). The recent death of Dr. Susan Moore from complications of COVID-19 further exemplifies how the systems and policies in the US across all public and private sectors are not set up for safety for people of color and rather than take responsibility, often blame them for poor outcomes (31). Her heartbreaking video referencing the inequitable care that she received *as a doctor* was punctuated by words that Black and Indigenous People of Color (BIPOC) feel around the world "I put forth and I maintain, if I was white I wouldn't have to go through that" (32).

Thankfully, the public health community has taken the lead in calling attention to how racism is operating in public health and medical spaces (33), how health workers and healthcare institutions have been complicit with structural racism (34), and how critical race theory can help us to better understand and challenge the impact of racism on health and well-being (35). Trainees across the health professions have responded by organizing protests, founding new organizations like White Coats for Black Lives (36), and pushing for institutional change such as ending race correction of kidney function (37). This is evident by the actions of the American Medical Association

(AMA) declaring racism a public health threat and the removal of the public display of the founder due to their racist past, along with the removal of their name off of one the most prestigious annual awards (38, 39). The rising tide of declarations of racism as a public health crisis is an opportunity to not only drive this momentum forward, but to transform it from mere anti-racism declaration to anti-racism action through meaningful processes of accountability rooted in health equity principles and decolonial practices.

Declaration Origin Story: WPHA

The Wisconsin Public Health Association (WPHA) is the largest and most recognized membership association for public health professionals in Wisconsin. Catalyzed by the reality of injustice in local maternal/child health, the events in Charlottesville, Virginia in 2017, and the 2016 launch of a National Campaign Against Racism by the American Public Health Association (7, 33), At-Large Representative for the Board of Directors Lilliann Paine, MPH created a Racial Equity Workgroup for the Wisconsin Public Health Association (WPHA). Driven to get racial equity on the strategic planning agenda of the WPHA, Paine along with colleagues Jessica LeClair and Colleen Moran led the development of the Racial Equity Workgroup. This trio emphasized the need for WPHA to create educational opportunities and build capacity (e.g., board orientation, conference, external evaluator, trained facilitator) to have deliberate dialogue regarding whiteness, power, and privilege. It was the desire of these founding members to establish racial equity as a core element in the WPHA.

A conversation about feeling safe and included at the May 2017 WPHA annual conference sparked a journey that resulted in the creation of the WPHA Racial Equity Workgroup. During the strategic planning process, the Board discussed proactive steps to assess policies, processes, and social relationships that contribute to the exclusion of racialized communities.

The Board approved the Racial Equity Workgroup in September 2017. An invitation was extended to the membership for potential committee members. Eleven applicants were selected based on their experience working toward racial equity and their interest in serving on the Racial Equity Workgroup. The Workgroup's charge was to recommend activities to support public health professionals in their work to address racial inequity in public health.

In August of 2017, the WPHA Board discussed the events in Charlottesville and events following that tragedy. A written statement asserted that WPHA continues to support APHA's policies on race and hate crimes (40). The Board emphasized the desire to continue this important conversation and identify potential strategies to address these issues through their current and future work. One immediate opportunity was to expand the WPHA 2010 resolution titled *Achieving Health Equity* to include racism among other inequities for the WPHA Annual Meeting in May 2018 (40).

In December 2017, the Workgroup located resources, drafted a workplan, using the APHA 2016 Presidential Initiative as a model to prepare a resolution naming racism as a public health crisis. Initial resistance grew out of discomfort about making the implicit explicit and pointing out biases around dominant culture and the minimization of differences. WPHA members approved the resolution at the May 22, 2018 Annual Business Meeting. This was the blueprint and catalyst for recognizing the need for shared responsibility of exercising racial equity to achieve the organization's mission. This was the remedy.

One of the strong considerations for the WPHA 2018 Resolution was to conduct an organizational assessment of internal policy and procedures using the Beloved Community Survey to ensure racial equity is a core element for the organization. The survey results assessed on a scale of nine specific domains: embracing conflict, seeking reconciliation, seeing, redeeming qualities, forgiving, loving, moving toward liberation, balancing, being radically open, and struggling with fear. The findings of the survey did not translate into improved outcomes but rather created conditions where Beloved Community could become a practice (41).

EVALUATIVE CRITERIA

As the WPHA story illustrates, it is not enough to make a declaration of racism a public health crisis. Public health has to be in alignment with the radical imagination and with the communities it serves, works to protect, and center. Accountability with a material commitment toward first naming and then reckoning with lack of racial consciousness, protection of privilege, and internalized oppression and dominance. The desired change would be a raised awareness and critical analysis of racial consciousness and the articulation of power and difference at a structural level.

Upon reviewing the literature, policy and financial documents, legal codes, grassroots mandates, the work of community-based health organizations, and conducting stakeholder interviews, we identified evaluative criteria to assess if declarations integrated meaningful accountability measures. The three declarations highlighted below were chosen based on their unique approach to the integration of principles of racial equity and their development pre or post the killing of George Floyd in order to demonstrate the evolution of the trend toward making declarations. Each declaration implemented different strategies: working inside-out (Milwaukee County), coalition building (Ventura County), and community organizing (King County).

Declarations were evaluated according to whether they are: a*ctionable*, f*inancially responsible to communities most impacted, address the structural determinants of equity/inequity*, and include meaningful community *participation* (see **Table 2**).

MILWAUKEE COUNTY, WISCONSIN: INSIDE OUT STRATEGY

Description

Inspired by the WPHA unanimously passing a resolution that declared racism a public health crisis the year before, Milwaukee County Executive Chris Abele signed the first public declaration, a rectified version of the WPHA's resolution,

TABLE 2 | Evaluative criteria for accountability in addressing racism as a public health crisis.

Criteria	Definitions
Actionable	Declarations can propose a theory of change to public health institutions toward achieving a collective vision of racial equity in health. Plans can drive institutional and structural change if they are actionable (42). This requires resources to implement time, money, skills, and effort. It requires local governments' will and expertise to change policies, practices, habits, and cultures (43). For example, declaring a national holiday in recognition of children descended from slaves does little to repair inequity in education. In contrast, eliminating school suspensions and implementing restorative justice practices serves to disrupt the school to prison pipeline (44).
Financially responsible	Cost effectiveness, while a traditional consideration in policy analysis is distinct from financial responsibility (45). Financial responsibility uses an equity lens in particular highlighting Dr. Jones' third equity domain providing resources according to need (4). It considers intangible individual, community, and societal costs and additionally considers how funding is allocated and creates space for equitable funding analysis, tools, and concepts of reparations and debt forgiveness (46). This can include use of race equity budget tool, reparations frameworks, or debt forgiveness.
Addresses structural determinants of equity	A structural determinant of equity (SDoE) approach will frame any interventions, models or programs in focusing on structural or root causes. For example, as defined by Healthy People 2020 and Healthy People 2030, structural determinants of health (SDoH) are "the conditions in the environments where people are born, live, learn, work, play, worship and age that affect a wide range of health, functioning, and quality-of-life outcomes risk" (47). Understanding health disparities requires a holistic perspective where "social determinants are often the root causes of illnesses, disease and disparities" because of racialized, systematic oppressions imposed and perpetuated (48). SDoE challenge the current distribution of SDoH by addressing factors that determine the range of contexts observed in each place and time and the distribution of populations in those contexts (49). SDoE focuses on structural or root causes, recognizing that addressing health disparities requires a holistic perspective; authentic processes in mitigating inequity require addressing the unequal allocation of power and resources (50). This includes disaggregation and stratification of data by race (51).
Participatory	Meaningful engagement of community across all levels of public health practice through culturally grounded and community led processes, programs, and interventions (52) through participatory frameworks allow for analyses of power, profit, control, exploitation, ableism, oppression, violence, and trauma across health systems with a focus on addressing harm and generational healing (53). Participatory processes can serve as an aspect of healing justice if it seeks to address systemic oppression through community/survivor-led responses to support community well-being across ecological levels and ecosystems (54). Participatory engagement and processes includes, but is not limited to, building and maintaining relationships to the land and nature, centering patient autonomy and consent, and foregrounding sustainability as a political practice (the creation of advisory councils, participatory budgeting processes, engagement in the policy process, etc.) (55).

on May 20, 2019. The Common Council for the City of Milwaukee followed suit on July 30, 2019 (56). There are 19 cities in Milwaukee County, with a population of around 950,000. Prior to the murder of Mr. George Floyd, only eight jurisdictions (cities or counties) in the country had declared racism a public health crisis. Milwaukee County was the first.

The Racial Equity Assessment Report (Beloved Community Survey) was commissioned by WPHA through a request for proposal process identified by the Ubuntu Research and Evaluation. Milwaukee County did not conduct an environmental scan or internal assessment. It was important that the third-party organization be led by a woman or BIPOC team, along with having the lived experience of communities that are historically oppressed and traditionally marginalized. The findings of this report created the framework and context for policy changes that officials could use to execute on the commitments outlined in the declaration (41). Informed by the WPHA resolution, the Milwaukee County Executive Board took steps to create the first municipal ordinance in the country to make a formal declaration where race is acknowledged as a social construct, to assess internal policies and procedures using race equity as a core competency, and to advocate for policies to improve health in communities of color. In addition to concrete changes in policy language, representation in staffing and community investments, and utilizing a race equity budgeting tool across all departments, this upgraded view of health helped to disaggregate COVID-19 data by race at the beginning of the COVID-19 pandemic shedding light on its disproportionate impact on Black Americans. The City of Milwaukee followed a continuum on becoming an anti-racist multicultural organization (57).

Analysis

Actionable

The initial declaration by the WPHA was a resolution which politically holds more symbolic than actionable significance. However, in May 2020, the Municipal County created an ordinance, Chapter 108 of the municipal code: "Achieving Racial Equity in Health." Transforming this resolution into an ordinance created the legislative teeth and accountability for the objectives described in the declaration. Since its signing, Milwaukee county has provided 11,000 training hours to over 3,000 employees (about 75% of their total staff). They became a member of the Government Alliance on Race and Equity (GARE), who helped them develop training and toolkits. They were among the first locales to report racial disparities in the COVID-19 pandemic, which is one of the more compelling outcomes despite not being an original goal of the declaration (58).

Financially Responsible

Through the partnership with GARE, they developed a racial equity budget tool. Each department went through a budget request using this race equity lens to see burden and benefit in 2020 to determine the 2021 budget priorities (59). This budget tool aligns with four strategic objectives: diverse and inclusive workforce, people-focused design, employee perspective, and equitable practice.

Addresses SDoE

Milwaukee is made up of 19 municipalities and each one has its own health department except for Milwaukee County. When the County declared the COVID-19 public health emergency on March 13, 2020, the City of Milwaukee Health Department led the pandemic response.

Due to the foundational work done at both the County and City level the year before and utilizing WPHA's 2018 resolution as a blueprint to declare racism a public health crisis, the City of Milwaukee Health Department was able to document and address racial disparities during COVID-19. This work would not have been possible without the actions that flowed from the preexisting declaration of racism as a public health crisis. Moreover, they were the first to report race stratified COVID-19 data in the country (58). This enabled them to allocate $77 million dollars for mortgage assistance, eviction prevention, housing, and funding to community-based organizations and invest in equity across the county.

Participatory

Since the Declaration, Milwaukee county has created a health and race equity framework to analyze policies, practices, and procedures rooted in white supremacy culture and power. This process has led to the first strategic plan in 20 years with 3 identified focus areas aligned with power mapping strategies. These focus areas center engagement and participation of communities most impacted by structural racism in both internal and external processes: (1) Create Intentional Inclusion; (2) Bridge the Gap in Addressing Disparities; (3) Invest in Equity.

VENTURA COUNTY, CALIFORNIA: COALITION ADVOCACY

Description

Ventura County's Declaration (60) is framed as "the first step of many against the institution of racism" following the murder of Mr. George Floyd. According to Black Lawyers of Ventura County (61) the resolution was drafted after they released a statement, which was modeled after the 8 Can't Wait policy recommendations. Eight Can't Wait was a social media campaign that demanded immediate actions to reduce police violence (62).

The final Ventura County resolution, which was drafted in collaboration with BLVC, focused on Ventura County law enforcement agencies based on the recognition that Black people are under existential threat due to burgeoning police killings. It recognizes how the school-to-prison pipeline ties to the incarceration of BIPOC youth and specifically calls out their policy to not use law enforcement for disciplinary practice. In addition, a diversity and inclusion officer was hired within Ventura County Public Health.

According to Ventura County Public Health and members of the BLVC, Ventura County law enforcement agencies have implemented six of the eight actions with many of the policing reforms put into effect prior to Ventura County's resolution.

Analysis

Actionable

The declaration exists currently as a resolution and is framed as a pledge rather than a deliverable set of objectives. It has set the stage for community forums, employee training, and collaborative conversations with community-based organizations to surface specific concerns in the hopes of problem solving in the future (63). As it stands, it runs the risk of not being actionable as there are no explicit deliverables articulated.

The 8 Can't Wait Campaign has been criticized (62) for its reliance on faulty data science and statistical analysis. The campaign argues that if eight policy shifts are made at the city level, it can reduce police killings by 72 percent (64). "But the data and study design do not support that staggering statistic put forth in the least bit," activists Cherrell Brown and Philip V. McHarris said in a statement published on June 5, 2020 (65). It has been criticized by activists as irresponsible and creating an out for leaders and politicians looking for alternatives to more transformative abolitionist demands (66).

Financially Responsible

While the resolution resolves to invest in economic initiatives that support housing, business, and education and pledges to expand partnerships with public health institutions and non-profit organizations involving social workers and mental health professionals, it does not have any budgetary impact. It is unclear with the resources available at this writing whether there is a shift of resources to keep initiatives budget neutral while investing in the priorities outlined in the declaration.

Addresses SDoE

While it is impossible to understate the legacies of harm that anti-Blackness and white supremacy have caused to African American populations in the US, it is equally important for counties and health institutions to consider the additional ways that racism is operating in their context. Of the 1,300 police shootings in California (67) since 2013, 20 occurred in Ventura County (68), amounting to ∼2.2 shootings per year.

There is little available data on racial disparities in SDoE in Ventura County; the California Health Places Index (69) from the Office of Health Equity disaggregates by several identified determinants of health, but does not disaggregate by race. Current California standards and tracking using place-based indicators systematically underrepresent Pacific Islander and Native American populations (70). A 2015 article indicates that immigrant Indigenous communities in Ventura County reported discrimination, insufficient employment opportunities, access to food and housing, and lack of transportation (70). This same study found that many adults in the community were able to secure healthcare for their children but not for themselves.

While the declaration emphasizes the role of eliminating discriminatory policing as a determinant of health, addressing anti-Black racism, and legacies of slavery cannot be fully realized if they are achieved by perpetuating Indigenous erasure and erasure of other communities of color. Addressing over policing of Black communities without addressing SDoE for such a large immigrant, undocumented, and non-English speaking population, Ventura County runs the risk of pharmakon "desire to bring healing while being blind to harm."

Participatory

The document proposes to establish a working group of experts to study the delivery of healthcare to underserved populations, and to continue to incorporate diversity and equity training for county employees. The final draft included input from the NAACP, Black Lawyers of Ventura County, local law enforcement agencies, public health experts, the district attorney's office, and Ventura County Human Resources (71).

There was a missed opportunity in addressing the full realm of participatory praxis by excluding broader community participation, particularly the Indigenous and Hispanic communities that make up the majority of the minority population in the county.

KING COUNTY, WASHINGTON: COMMUNITY ORGANIZING

Description

On June 8th, 2020, Black-led movements and protests following the murder of Mr. George Floyd were successful in occupying a police precinct in a neighborhood in Seattle after a week of nightly confrontation with police who excessively used teargas. This area became known as the Capitol Hill Organized Protest (CHOP) and was a community hub and mutual aid center with free food distribution, community housing, medical teams, daily art and political education classes, and a community garden (72). While CHOP was cleared by police in July 2020, there were daily and nightly marches for nearly 300 days since the murder of Mr. George Floyd. CHOP Organizers had three main demands: cut Seattle's $409 million police budget by 50 percent, shift funding to community programs and services in historically Black communities, and ensure that protesters would not be charged with crimes. Seattle has cut the police budget by 5% and those funds are being reallocated utilizing a participatory budgeting process involving community leaders.

At the same time CHOP was being formed, local organizers and faculty at the University of Washington wrote an open letter to public health officials on June 6th, which garnered over 2,000 signatures and included demands to declare racism and policing public health emergencies and to defund the police to reallocate resources (73). They also created a policy around decriminalizing the University of Washington campus (74). Over 10,000 healthcare workers marched on June 10, 2020 and held a rally outside the Mayor's office demanding action (75).

The next day, on June 11, 2020 King County declared racism a public health crisis (76). The same executive who made this declaration had also created a roadmap to Zero Youth Detention in 2017, while building a $210 million dollar new youth jail in a historically Black and immigrant neighborhood (77, 78).

Analysis

Actionable

Nearly 300 organizations and over 43,000 people have signed on to decrease the police budget by 50% resulting in a step in the right direction with a 5% cut. While much effort has been placed to defund and reallocate policing budgets, King County Public Health has also created other mechanisms within public health, including a community engagement compensation fund, building new models to serve residents in community safety, redesign fare enforcement on public transit, increase translation access for public health materials, and expand community engagement in budget development for fiscal years 2023–24.

Financially Responsible

In 2021, King County has budgeted $400 million in securing permanent housing, nearly double the last budget (79). However, it is unclear who this housing supports. In the previous budget, the approach to priorities were strengthening financial practice and improving operations. For this biennial budget, the priorities were replaced with anti-racism, criminal legal reform, and community involvement to inform their approach (79).

As part of an eight-point anti-racist budgeting priority, they plan to invest $6.2 million in "Restorative Community Pathways," invest $750,000 to co-create and implement alternatives to policing in urban unincorporated King County, divest $1.9 million in detention by continuing limits on jail population, and invest in community engagement.

Addresses SDoE

Under the leadership of County Executive Ron Sims, in September 2020, King County Public Health (KCPH) conducted an Equity Impact Review through their Equity and Social Justice Initiative, which was founded in 2008 (80). Despite this commitment to advancing equity (81), communities of color still experience disproportionate risk to COVID-19 (82), as well as access to care. There are over 30 identified immigrant populations and 20 official languages spoken in King County.

Due to existing equity protocol as well as emergent community consultant programming, King County Public Health allocated $60 million for acquisition and development of isolation and quarantine facilities, PPE, and shelter de-intensification in neighborhoods most impacted by COVID-19 (79). This program was successful due to the meaningful engagement of the community through their community navigator COVID-19 response program and advisory group.

However, even prior to the pandemic, the gap in life expectancy was as high as 18 years in conditions such as ischemic heart disease and drug use disorders between immigrant and BIPOC neighborhoods and white neighborhoods (83). These facts underline the importance of pairing declarations with deliverables.

TABLE 3 | Summary of recommendations for achieving health equity through anti-racism practices.

Address Structural Determinants of Equity SDoE focus on structural or root causes, recognizing that addressing health disparities requires a holistic perspective. Authentic processes in mitigating inequity require addressing the unequal allocation of power and resources	• **Care over control** Replace increased surveillance and restrictive funding with direct community partnerships. Resourcing medically underserved communities allows for self- determination of healthy futures. • **Anti-racism analysis** Acknowledging and reconciling that mechanisms, systems, and employees within public health institutions, medical schools, hospitals, and other health care and educational settings are rooted in racism. • **Meaningful community building** Integrating within existing health systems a Black and Indigenous community health approach to reducing health disparities along racialized lines. Addressing specific barriers that interfere with access to medical and public health recommendations.
Reparations The case for reparations has never been clearer considering the obvious result of decades of policies leading to persistent modern day racial inequities in wealth, home ownership, and health, as examples. Avoidable racial differences in COVID-19 spread and transmission might have been decreased by up to sixty percent if reparations had previously been enacted	• **Financial accountability** Reparations for Black descendents of enslaved persons as a solution for racial health inequities. Financial responsibility includes reparations as a solution to disrupting the seeming permanence of racism in our society. • **Truth and reconciliation** Healing justice is a framework that allows for analysis of power, profit, control, exploitation, ableism, oppression, violence, and trauma across health systems with a focus on addressing harm and generational healing. Centering healing justice principles and practices can serve to evaluate process and self-reflexive practice in the spirit of truth and reconciliation.
Address Indigenous Erasure An example of Indigenous Erasure within public health is continued genocide through data erasure and misclassification. Lack of data directly limits the ability tribal health authorities and policy makers' ability to make data-driven decisions for equitable policy and resource allocation	• **Honoring treaty rights** The continued violation of treaty rights is a legacy of the colonial control of genocidal intent foundational to America. Decolonization is rooted in the repatriation of land and the rematriation of cultural practices and lifeways. • **Decolonizing data** Decolonizing data includes methods of collecting, analyzing, and interpreting data using anti-oppression and Indigenous frameworks and value systems. • **Anti-blackness and indigenous erasure** Addressing anti-Blackness within Indigenous communities and Indigenous erasure within Black communities needs to be addressed in dismantling racism. True accountability will not be accomplished by only addressing one without the other.
Abolitionist Praxis Acknowledging the ways in which the prison industrial complex interacts and works with the medical industrial complex (MIC) is a step in changing the landscape of what is possible. Abolition requires the development of alternative solutions toward social problems; abolition is both a process and a goal.	• **BREATHE Act** A project of the Movement for Black Lives that calls for decriminalization, elimination of police enforcement, and diversion of funding from law enforcement agencies to community-based programs that address violence and harm. • **Decriminalization and decarceration** From a public health and health justice critical lens, decriminalization, and decarceration are required in redefining what health, healing, and safety are without punitive measures and punishments. • **Incarceration as a Public health crisis** Incarceration is considered a SDoE by Healthy People 2030. Reform alone will not solve the longstanding human rights abuses and violence committed by the prison industrial complex.

Participatory

As an initial pandemic response, King County created a Pandemic and Racism Community Advisory Group (84) as well as a team of cultural and faith based navigators to lead equity responses to the dozens of immigrant, minority, and religious communities residing in King County.

King County Equity Now (85) and Decriminalize Seattle (86), two Black-led movement-based organizations, are coordinating a participatory budgeting process for the "Public Safety" parts of the 2021 city budget. Community members will develop a budget proposal for the dollars currently spent on the Seattle Police Department, Municipal Court, and the City Attorney's office (the city prosecutors). They have created a team of community-based researchers across demographic areas and from communities impacted by the carceral system and racialized violence to determine how to reallocate $30 million dollars out of policing and into community alternatives (87).

RECOMMENDATIONS

These declarations demonstrate the importance of not only acknowledging historical injustices, but also clearly defining steps toward dismantling structural harm. Press releases from mayors, statements by health boards, newly formed racial equity positions and centers, and commitments to policy changes should be accompanied by concrete action plans with deliverables that address and confront several systemic and structural issues, which include but are not limited to police brutality, inequitable education, housing segregation, environmental degradation, disinvestment from communities of color, and other material needs of BIPOC communities. Without addressing and changing the reality that the landscape of American political institutions is rooted in death and exploitation of historically oppressed populations, attempts to declare racism as a public health crisis will only perpetuate harm. The remedy could be the poison.

We can avoid this by committing authentically to the following practices and actions (see **Table 3**).

Practices to Address SDoE

We consider these three practices to be high priority in the current unique window of opportunity to advance racial equity.

Care Over Control

First, declarations should name the importance of prioritizing care over control (88). There were health inequities and disparities before COVID-19 that demonstrated the need to prioritize health, healing and community safety compared to prioritizing systems that oppress, surveil and harm people, especially BIPOC communities. Because of the nature of the pandemic, COVID-19 has led to the proliferation of contact tracing efforts which use mechanisms of surveillance that could further racialize and harm BIPOC, driving home the imperative that these mechanisms must be interrogated and reoriented to advance trustworthiness. Prioritizing care in this example could exemplify providing resources according to need, like personal protective equipment (PPE) and subsidized housing for essential workers who cannot physically distance. It also means being committed to the frameworks and approaches that prioritize tackling the SDoE. Resolving to shift resources toward struggling communities in order to achieve the benchmark set by those communities should be our north star.

Anti-racism Analysis

Public health policies must be race-explicit if they seek to achieve racial and health equity. The gaps between Black and white outcomes (89) in this nation have not improved over several decades of colorblind policy and structural racism continues to drive health inequities (90) under our current legal framework despite persistent calls for resources distributed according to need (91). By implementing evidence-based approaches, recognizing and rectifying historical injustices, we can ensure that the recovery is prescriptive and preventive, instead of reflective of the status quo.

Additionally, this anti-racist analysis needs to be applied to our disciplines to be able to work across sectors, not just in public health. Disaggregating data, utilizing race equity toolkits, and using different models are important and critical to shift where we need to go. Without acknowledging, admitting, and reconciling that our mechanisms, systems, and employees within public health institutions, medical schools, hospitals, and other health care and educational settings are rooted in racist practice themselves, we will fall short of this principle. Put another way, our current infrastructures and practices are embedded in a system that is reflective of systemic racism, bias and discrimination that we need to grapple with.

The Anti-Racism in Public Health Act of 2021 aligns with such goals and includes the creation of an anti-racism center at the CDC, embedding an anti-racist practice into COVID-19 response, and addressing police violence and brutality as a public health crisis (92). Initially introduced in 2020, this bill is being reintroduced and all states who have declared racism as a public health crisis should support this federal bill (93).

Meaningful Community Building

The voice of BIPOC communities, their priorities, and their self-determination and autonomy must be centered and respected in order for health institutions to achieve trustworthiness (94) and successfully end racial health inequities (95). As Critical Resistance speaks to, “Participatory community research can create capacity for us to name the problems and frame the questions” (96).

Failing to operationalize this principle will lead to harm by experts who lack critical consciousness (97) and offer solutions that do not reflect the lived reality nor address the material needs of the communities they serve. This is an example of valuing all individuals and populations evenly and equally more broadly. Partnering, developing, or integrating within existing health systems a Black and Indigenous community health approach to reducing health disparities along racialized lines. Replacing the useless label of non-compliance with descriptions of the specific barriers that interfere with one’s ability to follow medical and public health recommendations (e.g., medication management support, transportation support, technology support) would be a start.

Reparations

Financial Accountability

Reparations (98, 99) for Black descendants of enslaved persons in the USA is receiving attention as a solution for racial health inequities, even from mainstream medical journals (100). The case for reparations has never been clearer considering the now obvious result of decades of policies leading to persistent modern day racial inequities in wealth (101), home ownership (102), and health (90) as examples. The unjust and avoidable racial differences in COVID-19 spread and transmission might have been decreased by up to sixty percent if we had previously enacted reparations for Black descendants of persons enslaved in this country (103). Future declarations of racism as a public health crisis should certainly be financially responsible and should also openly and directly support reparations as a solution to this never-ending crisis of racism if we are serious about disrupting its seeming permanence in our society.

Truth and Reconciliation

It is important to address and acknowledge whether or not the populations most impacted by structural racism were harmed in the process of creating declarations. Actions that appropriate, co-opt, or censor BIPOC organizers contribute to the potential transformation of remedy to poison. As an institution rooted in structural racism, people of color operating within it often experience racialized harm, particularly when questioning white supremacy (104). Healing justice is a framework that allows for analysis of power, profit, control, exploitation, ableism, oppression, violence, and trauma across health systems (105) with a focus on addressing harm and generational healing. Although not visible within the context of this analysis for any of the declarations which is one of the strongest examples of harm, centering healing justice principles, and practices can serve to evaluate process and self-reflexive practice in the spirit of truth and reconciliation. For example in 2015, the Maine Wabanaki-Child Welfare Truth and Reconciliation Commission (TRC) released a report finding and acknowledging that the state of Maine committed a cultural genocide against its Native peoples—the Wabanaki—by forcibly removing Native children from their homes and placing them with white families (106).

Addressing Indigenous Erasure

Honoring Treaty Rights

Native peoples' have inherited an audacious vision of what it means to survive an apocalypse and keep dreaming (107). At the center of this paper is an offering to truly listen and move in solidarity with the communities most impacted by racism. Compassionate activism as an antidote to non-performativity. Julian Brave NoiseCat offers that Native peoples, as well as African Americans, "know what it means to lose our world and live," and therefore, "might have something to lend to a broader humanity that now faces its own existential crises in the form of disease and climate change."

In 2020, a landmark Supreme Court case was passed to uphold, for the first time ever, a treaty right between a Native tribe and the US Government. *McGirt v. Oklahoma* honors that *1*9 million acres composing 47 percent of the state of Oklahoma is Native land (108, 109). The continued violation of treaty rights goes beyond the level of non-performativity and a legacy of the necropolitical colonial control of genocidal intent. This historic win acknowledged that, "at the end of the trail of tears was a promise."

Aligned with that vision of honoring promises to the Indigenous peoples on whose land we are guests, and within the scope of public health, institutions, and governments can create meaningful health partnerships and programs with Native Health Boards, increase representation of Native and Indigenous employees, and seek to create meaningful representation within data for Native and Indigenous communities. Decolonization is not a metaphor; it is rooted in the repatriation of land and the rematriation of cultural practices and lifeways (110).

Decolonizing Data

At the point in the pandemic when the Navajo Nation had some of the highest COVID-19 rates in the country, the Seattle Indian Health Board received body bags instead of the requested personal protection equipment (PPE) (111). Intentional or not, this action embodies the very heart of a necropolitical dynamic in literally assigning who receives life-saving medical supplies and who receives body bags.

Decolonizing data (112), or methods of collecting, analyzing, and interpreting data using anti-oppression and Indigenous value systems (113), has implications from appropriate allocation of resources, addressing the Missing and Murdered Indigenous Women (MMIW) movement (114), to increasing funding for tribal health organizations, to decrease disparate health outcomes (115), to innovating approaches to treatment for chronic disease associated with historical trauma (116).

When the needs of those most impacted are met, it creates practices that support the broader community. Disaggregating data, utilizing culturally affirming approaches to rectify disparities, and decentralizing health programming by funding existing community-based responses all begin with a decolonized approach to health research and data. Decolonizing data (117) recognizes that research is an indigenous practice and integral part of wisdom that created and sustained the abundance (118) that existed prior to first contact.

Addressing the Relationship Between Anti-blackness and Indigenous Erasure

To meaningfully move forward in addressing racism as a public health crisis, it is important to name and discuss lateral violence between communities of color. White supremacy is predicated on the public dehumanization of the Black body and the erasure and silencing of Indigenous voices (119). Addressing anti-Blackness within Indigenous communities, and Indigenous erasure within Black communities is a deep and ongoing internal accountability process that also needs to be addressed in dismantling racism. True accountability will not be accomplished by only addressing one without the other. As put by Malinda Maynor Lowery (Lumbee) in response to an incident on anti-Blackness in the Native community, "What do Lumbees lose when Black lives matter? Nothing except our colonized minds" (120). This includes complicating narratives between Black and White (121), and recognizing (122) that Black Americans are from an Indigenous African diaspora (123).

Abolition

As defined by Critical Resistance, "abolition is both a practical organizing tool and a long-term goal" (124). Prison industrial complex (PIC) abolition, is focused on eliminating punitive measures, practices, policing and policies that control, surveil, and harm people. Acknowledging the ways in which the prison industrial complex interacts and works with the medical industrial complex (MIC) in these declarations will help reimagine what is possible by taking steps to move toward other models of health, healing and safety. Changing the landscape of what is possible, abolition requires the development of alternative solutions toward social problems (125). Radical legislation, like the BREATHE Act, takes steps toward abolition through a reimagining of public safety, community care, and infrastructure. As public health professionals, we have a responsibility, "to apply a comprehensive, holistic approach to prevent and proactively address the trauma, repression and disruption of communities" (126, 127). The following are examples of policies and ideologies that inform an abolitionist public health practice.

BREATHE Act

The BREATHE Act, a project of the Movement for Black Lives, calls for decriminalization, elimination of police enforcement (in activities including but not limited to drug use and possession, sex work, loitering, sleeping in public, minor traffic violations), and diversion of funding from law enforcement agencies to community-based programs that address violence and harm. These activities are within the context of ensuring they do not criminalize communities, including mental health intervention, violence prevention and intervention, and conflict mediation programs, particularly in the communities currently most affected by police harassment and violence (128).

With a divest/invest focus, the BREATHE Act focuses on opportunities to invest in "new, non-punitive, non-carceral approaches to community safety" while divesting from heavy policing and carceral methods in order to build healthy, sustainable and equitable communities. The BREATHE Act is an example of how to move the needle forward from a policy standpoint in reimagining what the world could be.

Furthermore, as posed by Critical Resistance and other public health entities such as the American Public Health Association, "community-centered strategies for addressing harm and violence have the potential to increase public safety without the violence associated with policing," citing that decriminalization and decarceration are a means to achieve and move toward health equity by investing in community-based solutions and models to drive and move toward healing and reconciliation processes and strategies (128).

For example, in subsection 3, BREATHE Act specifically acknowledges and centers the importance of an approach that is beyond "high-quality, equitable, and accessible healthcare." By creating opportunities to "incentivize state and local government to make health equity-focused policy changes," it opens access to ensuring health equity through use of dollars and goods for food, economic and health access. Put another way, as the subsection illustrates, "ensuring health equity, including equity for Black, Latinx, AAPI, Indigenous, LGBT, low-income, homeless, disabled, and undocumented individuals…" (129) through a competitive grant is a way to begin to abolish current infrastructures and begin to create new ways of innovation and bring abundance to communities that are often left scarce.

From other aspects of BREATHE Act, it is very clear that the underlying legislative description and research are situated in creating policies and practices that build capacity for public health by involving more community voices to drive the conversations from the upstream, rather than not being transparent and leaving the door open for more troubles and issues down the line. While it may not be perfect in that a national policy packet may need to be modified and changed for the local and state context in the US, these declarations have an opportunity to utilize similar context, language, and foresight as the BREATHE Act to build power and create space for health equity conversations, innovations and practices for the future.

Abolition and policies, like the BREATHE Act, centering practices and policies that take on decarceration and decriminalize, would drive the momentum further in what these declarations and resolutions could mean for the future of health in the US and beyond. With investments in community practices, avenues for training and skill-building as well as succession planning with community members, public health advocates and practitioners and healers, models of care and safety can be codified and created as well as evaluated and assessed over time for their effectiveness and sustainability.

Decriminalization and Decarceration

Decarceration is the process of reducing the number of people who are currently incarcerated and diverting those who might become embedded into the prison industrial complex (130). Decriminalization is the act of removing criminal sanctions against an act, article or behavior (131). When it comes to public health, health justice, decriminalization, and decarceration, efforts are a way to center abolition because it requires redefining what health, healing, and safety are without punitive measures and punishments. Like COVID-19 and other public health emergencies and crises, prisons, and jails pose a great community risk not only for those who are directly impacted, but for the construction of how safety and care is determined in a community. Policing and surveillance are also a large part of our lives. This rapid acceleration of technologies, of data, of biometrics is sounding the alarm. Big Data, from "the abstraction of the catastrophic loss of human life, and the necessary torture required to maintain plantations, needed to serve the owners who were removed from the daily abuse of the literal rows and fields" with slavery to the systems we are all too familiar with today "used to control, surveil, and enact violence to maintain power structures and ensure profit," scientific oppression, aggressive public policy, and harmful algorithmic design need to be stopped (132). Health systems are now capable of using algorithms that use predictive analysis to determine care in hospitals, creating a new web of harm that the MIC is a part of.

These algorithms, like many in education and policing, can discriminate, as Dr. Ruha Benjamin states as "the New Jim Code" (133). Therefore, with these declarations, there has be a conscious effort to recognize how to work with communities to ensure that there is a balance between transparency, interoperability, and freedom of privacy.

Incarceration as a Public Health Crisis

With an increasing focus on fighting the prison industrial complex, ongoing concerns about surveillance and control over care, and COVID-19 spread, public health workers have stepped up to support decarceration and decriminalization but have not supported abolition at a larger scale. The US has the highest rate of incarceration in the world (134) with an incarcerated population that has increased by 700 percent since 1970 (135). Over 60 percent of incarcerated persons (136) are people of color. Importantly, prisons and jails (137) are often amplifiers of infectious diseases so it is not surprising that they reveal the highest rates of COVID-19 transmission (138) which is unjust and completely preventable. While the momentum across sectors and groups has been evident for many decades (96), even as incarceration is being considered a SDoE by Healthy People 2020 and 2030, it is increasingly clear that reform of the prison industrial complex will not solve the longstanding human rights abuses and violence that incarcerated persons and those impacted by the prison industrial complex deal with. More public health workers should take a clear stance in support of abolition. Because public health implications are supported by clear evidence of the inadequacies of carceral reform, advancing steps toward abolition, by centering formerly incarcerated people, those impacted by the prison industrial complex, abolitionist organizers, and organizations around the world, is also critical.

CONCLUSION

As we work to dismantle deeply embedded systems of oppression and correct historical injustices that have plagued the Americas for hundreds of years, public health practitioners, healers and community members will have to continue to be critical and thoughtful about how to reimagine the world. For those most impacted, an infrastructure that prioritizes and maximizes opportunities for profit from oppression must be abolished. Our bodies, our people, deserve better than to become numbers, figures or models. It is time for public health to reckon with its history, how it is currently operating, and think more radically and critically of how to move away from non-performativity toward health equity. Healing justice, disability justice, and intersectional frameworks that consider how interlocking systems of oppression operate, are integral to this process. Without recognition that non-performative declarations will by default support the maintenance of a white supremacist society, there is no space for the conversations necessary to drive generative change in undoing structural racism.

Desmond Tutu said in an interview about forgiveness, to forgive but to never forget (139). We believe we can remedy the poisons of the past in solidarity with truth, reconciliation, and justice. As Dr. William C. Jenkins states, "researchers, practitioners, and community members will all need to build on the field's history of fighting racism and its health effects if health disparities are to be eliminated" (140). Therefore, by declaring racism as a public health crisis, we're naming what so many scholars, pioneers, and communities have known is a part of a larger structural, root cause that will prevent us from a more just and liberated future. CDC has recently declared racism as a public health threat, again illuminating that the shift to move us all forward is here and it's time. Considering too, an ever-evolving digital frontier and oppressive systems interlocked, as we tried to demonstrate throughout this paper, the possibility of amplifying the medical apartheid and unjust systems that do not prioritize care and community is terrifying and insidious. As we move toward rapid automation, robots and roads with automatic cars, telemedicine and big data are being used to "optimize" the world in a way we have only imagined in popular culture. However, can we ideally say technology and science with its legacies in harm, oppression and overt destruction won't be used in the same way in a "possible" future?

"Sola dosis facit venenum" means that the dose makes the poison. This basic principle of toxicology points to the need for titration for this reason.Therefore, he field of public health, medicine and arguably, science, must reconcile and commit to making meaningful change to address structural racism and deepening health disparities. It has to rexamine the ways in which "evidence" and "data" is collected, what building with communities and people will require to create new models of care and safety, and what we have to learn together to drive that change. Therefore, we believe accountability is that titration process.

Accountability is a process of integrity and responsibility that requires health professionals to move shoulder to shoulder with the communities that have been most impacted. Instead of being rooted in punishment, revenge or superficiality, accountability should be anchored on the values of growth, transformation, healing, and liberation (53). For the declarations to be able to move the needle, there has be accountability and recognition of futures that we have made invisible and blueprints that the past laid out that we never quite finished, such as the Ten Point Plan by the Black Panther Party.

Without meaningful accountability (6) (e.g., realistic budget and timelines, thoughtful-decision making, community inclusion, appropriate frameworks), policies, such as declaring racism a public health crisis, could become weaponized as pharmakon as officials and leaders seeking cover for rising unrest and dissatisfaction with progress toward racial justice and equity. This means that longitudinal studies on health policies and implemented public health practices, through legal epidemiology and cross-sector analyses (141), with communities leading and creating the solutions with invested, sustainable resources is key. For example, policies have to be studied in a variety of ways, such as through mechanism studies that examine how laws affect environments, behaviors and health over the long and short term (141). It'll require examining cultural and socio-political theories that are race-conscious, clear on decentralized models of care and prioritizing that communities know and are the ones who are most equipped to drive what places, people and resources are needed to solve the problems they're most acquainted with. For example, as the language of intersectionality grows in popular media, researchers have to be critical and thoughtful about their work. As COVID-19 has demonstrated, and as scholars have noted, it has been communities who have once again been the most knowledgeable and actionable analyses to center and support themselves and each other (142). Put another way, it has not been traditional public health agencies or surveillance systems, but community-based organizations and policy think tanks, that have the analyses of the disproportionate and structural impacts of the pandemic on people (142). The more that public health and health infrastructures evaluate and change their current model of care and safety, the more we can envision a praxis that is more situated closer to putting people before profit or performance.

It'll also mean abolishing structures, institutions and places that are not serving the purpose of the people, that only seek to extract and profit off communities. It's because there are also futures that we can envision and imagine without policing, without destruction, and without harm so that when we conjure names, like Octavia Butler and Dr. Ruha Benjamin, we have to remember that those futures exist too.

Limitations

Due to small sample size of declarations, and the lack of available data, there is a need for more rigorous policy study in this area. Additionally, this paper focuses on racism within the context of the United States, but there remains imperative need to address racism from a global perspective, particularly as it relates to the impact of US imperialism. There is a need to go beyond what currently exists. To truly dismantle white supremacy and structures of anti-Blackness and colonialism, there is a need for a new grammar of futurity (143) in health and social policy.

AUTHOR'S NOTE

The authors of the paper are members of the Equal Health Campaign Against Racism (CAR); Racism as a Public Health Crisis Taskforce. CAR is a global grassroots network of health care professionals, organizers, and activists committed to dismantling racism within health care. In its first year, 250 active members and 1,500 health professionals and allies engaged through various CAR actions. Members have launched 23 chapters across 10 countries. CAR came into being in 2017, under call from past president of the American Public Health Association, CJ and leadership from MM, founder of Equal Health. LP is a public health advocate, ESTJ that flexes from Sensing to Thinking and Judgement, an elderly millennial, born and raised in the Midwest. LP contributions to the field of public health include starting the movement to declare racism a public health crisis. As a multiracial Indigenous person in diaspora, PR (Mēxihcatl) approaches anti-racism and decolonization work as an act of ancestor honoring. AE Medical Director at CityBlock Health, and a leader in national and international medical education with demonstrated leadership in hospital management as a previous Chief Medical Officer and Intensive Care Unit Director in Haiti. CA is a holistic scientist and health educator born and raised in the American South. A black womanist/feminist, scientist and a solarpunk enthusiast, Courtni is an afrofuturist scholar, healer in progress, data geek who sees how the world can be carved and forged into a place where healing, health and tech can be in harmony. Her praxis is at the intersection of critical race theory, intersectionality, and scientific discovery, hoping to center and continue to learn more in disability, healing, and data justice. LL research and organizing are centered in abolition, decolonial feminisms, and transnational solidarity. AC is a community organizer in Catalonia, Spain and was instrumental in supporting the passage of the first international declaration of racism as a public health crisis, in solidarity with undocumented youth organizers.

AUTHOR CONTRIBUTIONS

All authors contributed to the conceptualization, research, writing, and editing of this paper.

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The existence and vitality of all communities are a reflection of the generations from around the world who have contributed their hopes, dreams, and energy to making the history that led to this moment. In America, many were brought here against their will. Some came to seek safety and a better life, and some have lived on this land since time immemorial. Truth and acknowledgment are a critical first step to building respect, connection, and healing. There is a complexity and a need to acknowledge that there are multiple histories and stories here.

We honor and acknowledge that America rests on the occupied ancestral lands of the Indigenous peoples of Turtle Island. We pay respects to their elders past and present, for stewarding the land that we reside on. We honor that the original peoples are still here, continuing to persist and persevere to their ancient heritage despite not having treaty rights honored or having yet to be justly compensated for their land, resources, and livelihood (144).

Collective action propels us, sustains us, protects us, and inspires us! We acknowledge and honor the lived experiences of all people impacted by the violence of colonialism, racism, casteism, anti-Blackness, the legacies of slavery, gender-based violence, transphobia, ableism, and other forms of oppression. We are no longer about passing the torch. We are lighting each other's torches in real time—a bonfire of progressive light and action.

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The Case for Health Reparations

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The disproportionate impact of COVID-19 on racially marginalized communities has again raised the issue of what justice in healthcare looks like. Indeed, it is impossible to analyze the meaning of the word justice in the medical context without first discussing the central role of racism in the American scientific and healthcare systems. In summary, we argue that physicians and scientists were the architects and imagination of the racial taxonomy and oppressive machinations upon which this country was founded. This oppressive racial taxonomy reinforced and outlined the myth of biological superiority, which laid the foundation for the political, economic, and systemic power of Whiteness. Therefore, in order to achieve universal racial justice, the nation must first address science and medicine's historical role in scaffolding the structure of racism we bear witness of today. To achieve this objective, one of the first steps, we believe, is for there to be health reparations. More specifically, health reparations should be a central part of establishing racial justice in the United States and not relegated to a secondary status. While other scholars have focused on ways to alleviate healthcare inequities, few have addressed the need for health reparations and the forms they might take. This piece offers the ethical grounds for health reparations and various justice-focused solutions.

Keywords: reparations for historical injustices, racism and antiracism, health disparities, justice, health policy, historical trauma and historical oppression, medical education, community health

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INTRODUCTION

The COVID-19 pandemic has exacerbated the inequitable mortality across different racial groups in the United States, highlighting the way in which historical racism in healthcare, housing, employment, and education continues to shape life and death today. Even the rollout of the potentially lifesaving COVID-19 vaccine has been marred by inequity. As physicians seek to gain trust for a wholly untrustworthy healthcare system from historically marginalized and oppressed communities, they have begun to examine medicine's historical role in racist practices. Unfortunately, many of these attempts have fallen short. Consider the Journal of the American Medical Association's podcast in February 2021 that featured two White physicians who questioned whether racism is actually be embedded in society and whether the term racism "might be hurting us" (1). Or as an isolated example, research scholars often cite the Tuskegee experiment, but soul-searching the egregiousness of this one study is woefully insufficient to regain trust, as well as redress past injustices. Indeed, invocations of "Tuskegee" to explain distrust or disparities obscure more telling forms of structural racism (2).

This analysis explores the evolution of medicine's contribution to racial healthcare oppression and its ability to rid itself of the societal scourge. Delving into the history through the present, we show how physicians and scientists created the racial taxonomy and oppression upon which this country was built, a hierarchy that was further honed and wielded so as to maintain and develop the economic, political, and systemic power of Whiteness. This piece then explores a methodology in the form of reparations through which equity could be achieved and the consequences associated therewith. Admittedly, achieving these objectives can be fraught with major challenges, but attainment of these cherished goals would ultimately prove worthwhile. We describe the justification for health reparations and what a blueprint for these policies would look like, with the ultimate goal of achieving long overdue justice for Black people who have suffered because of healthcare's racist past. While this piece focuses on the necessity of health reparations for Black populations, analogous arguments must be made for other marginalized populations, including Native Americans and other communities of color.

Historical Roots of Racism Stem From Medicine and Research Science

Historically, physicians justified healthcare inequities by claiming that there were genetic and biological differences between races. More specifically, science and medicine have used biological race to support the racist mythical notion that there are "Black" genes, which cause Black individuals to be inferior to White people (3). Examples in which there appears to be some unspecific and undefined biological difference include the essentialist explanation for differences in IQ described in the Bell Curve Intelligence Theory, the Eugenics Movement, and the continued use of biological race in health disparities research, medical guidelines, and standards of care (4).

Prominent examples of when scientists endeavored on their mythical project include the following: (1) Dr. Josiah Nott, a slaveholder and surgeon, from whom came the idea of polygenism, which scientifically supported slavery by arguing that non-European people, particularly, Black people, were a different species; (2) Dr. Samuel Cartwright, who created the pseudo-illness of *drapetomania*, to explain the desire of enslaved people to pursue freedom from bondage as a mental illness, and (3) Dr. Louis Agassiz, a Harvard professor, physician, and another proponent of the theory of polygenism, who championed the American eugenics movement that operationalized the theory that any peoples other than Europeans were physically, socially, and intellectually inferior.

The scientific validation of biological race justified the existence and propagation of racial hierarchy in economics, politics, social structure, and health. This is despite the fact that the myth of biological race had not and has not been supported by genetic findings or linked to genes that affect health. Put plainly, race is a socio-political construct with no biological bearing or determinacy (5–7). In fact, the human genome project revealed that between any two humans, over 90% of genes are identical; the small variation is actually greater between individuals with the same skin color. There are no identifiable continental or racial genomic clusters, yet race has historically—and continues to be—misused as a biological reality in healthcare and biomedical research (8–10). For example, American-born Black people have significantly higher rates of multiple types of cancers compared to sub-Saharan African people, indicating that skin color alone is not a driver of cancer (11). This, along with many other analogous studies, represents a strong argument against race standing in for true physiopathological markers for disease.

Multiple scientists, social scientists, and historians have called for the removal of a biological concept of race in research and practice (12). While the definition of race has been inconsistent for over a century, it nevertheless continues to be used as a taxonomic categorization that is both problematic and harmful (13, 14). As the American Anthropological Association notes, race has always carried more meanings that physical differences—race is "a worldview, a body of prejudgments that distorts our ideas about human differences and group behavior" (15). Racial myths about behavior and physical features have implied that both are genetically determined and interrelated, when in fact this is not, and has never been, the case.

The continued misuse of biological race in medicine reinforces a racial hierarchy and has resulted in disparities in equal access, treatment, and outcomes. Indeed, there is compelling evidence that racism (rather than genes and biology) is a main driver of health inequities. Consider two contemporary examples that demonstrate this point, namely, sickle cell disease and breast cancer. Inequalities in health outcomes for both diseases persist because of inadequate research funding and medical training for "Black" diseases and poor socioeconomic statuses—both driven by historical racism.

Sickle cell disease is labeled as a "Black" disease, despite the fact that people from all different races and ethnicities suffer from it (16–18). This label has caused its research funding and medical education on sickle cell disease to suffer compared to other, historically "White" diseases, such as cystic fibrosis (19). In 1910 physicians labeled sickle cell anemia a Black disease (20). This example of sickle cell plays into the "one-drop rule" that even an ounce of Black blood in one's ancestry was enough to corrupt the genetic purity of Whiteness (21). By the 1950s, although researchers began to argue that the disease was linked to environmental factors, the Journal of the American Medical Association disagreed, claiming "its occurrence depends entirely on the presence of Negro blood, even though in extremely small amounts" (22). The impact of race relations on the disease itself continues to exist today. For instance, sickle cell trait has been cited in dozens of police custody deaths that were ruled accidental or natural, even though the condition is benign on its own (23). Even today, treatment for patients with sickle cell disease lags despite advances in scientific understanding, much in part due to the politics of race and biases (24). Studies have shown that the majority of family physicians feel unqualified to treat sickle cell disease, and many patients who present to the emergency room during acute episodes are denied treatment usually based on faulty assumptions of the Black patients having drug-seeking behavior or a greater pain tolerance, resulting in unnecessary deaths (25, 26).

Second, in the 1930s, medical research used the category of so-called biological race to explain higher rates of breast cancer in Black women compared to White women (27). However, these differences were eliminated once socioeconomic status was controlled (28). Nonetheless, in 2006, medical researchers suggested that increased mortality in Black women with breast cancer was due to an unspecified biological difference, when in reality it was more likely due to unequal treatment and access to mammograms, which were not fully covered by Medicaid (7, 29, 30). By continuing to study and rely on a mythical biological basis for "race" in medicine and science, as opposed to utilizing funds to eliminate barriers tied to socioeconomic status, the racist belief that White people are superior was reaffirmed, and Black individuals were barred from being treated equally by physicians.

In terms of more modern examples, there are many instances in which race has been embedded in the machinery of medicine and in the algorithms applied. For example, Lundy Braun demonstrated how, rooted in racist practices in the antebellum South to demonstrate inferiority of slaves, race is often corrected for in spirometry. These race-based adjustments persist despite the fact that race itself is never universally defined, meaning that differences in lung function are often incorrectly shown to be due to some inherent (or genetic) differences in race (31). Recent reviews have also noted that from cardiology to nephrology to obstetrics to urology, race is used in algorithms to determine organ function, although there are often no racial or ethnic differences that inherently exist (32). Many of these race-adjusted algorithms guide decisions in ways that might direct more resources to White patients than to patients of racial and ethnic minorities; precision technologies and techniques that are supposed to measure biological differences accurate are actually masking racial myths.

Historical mythical conceptions of race as biologic persist today, even in medical education, impacting medical decision making (33). One recent study showed that a substantial number of White laypeople, medical students, and residents hold false beliefs about biological differences between Black and White people and demonstrated that these false beliefs predict racial bias in pain perception and treatment recommendation accuracy (34). This is in part because race is misrepresented in preclinical curricula (35), as well as that over the last 30 years, the world's top medical journals have rarely published scientific articles about the impact of racism on health (36). There are also limits to classroom education on public health and primary care. Misinformation about biological differences in race continue to shape the way physicians perceive and treat Black patients and exacerbate racial disparities in treatment and outcomes, and real change must be structural and multi-pronged.

DISCUSSION

Reparations are a way to make amends for wrongs or injuries inflicted. The impact of racism found within healthcare in terms of differential morbidity and mortality is more than enough to justify reparations to the Black community (37). Reparations must satisfy two criteria: first, they must seek to rectify past injustices of specific populations. Second, they must remedy current inequitable outcomes. Medicaid is a powerful intervention that helps many historically marginalized populations, but based on the two aforementioned criteria, it would not count as a form of reparations. This is because Medicaid is technically available to all people of a certain socioeconomic status, and it does not specifically seek to remedy current inequities due to historical and transgenerational trauma. Medicine's historical role in presenting mythical uses of racial categories to justify racism—which fueled the inequities in criminal justice, housing, education, and other systems today—requires immediate and long overdue action.

While reparations typically refer to financial compensation, reparative policies need not solely consist of direct monetary transfers. Rather, reparative policies can be those accomplishing two things: first, they break down existing processes that maintain the racial hierarchy by empowering the individuals they oppress. Second, their aim is to achieve equity in outcomes, not just equality. Although both equity and equality attempt to promote justice, equality achieves this through treating everyone the same regardless of need, whereas equity achieves this through treating people differently depending on need. Therefore, a health inequity is a difference in a health outcome between population cohorts caused by avoidable systemic structures rooted in racial, social, environmental, or economic injustice.

We suggest that the development of reparative policies in healthcare be guided by a framework such as the Critical Race Public Health Praxis (CRPHP) (38, 39). CRPHP highlights the need to honor the voice of socially marginalized groups, address structural determinism, and engage in disciplinary self-critique. For each of these principles, we suggest examples of policies that embody them.

First, to honor the voice of marginalized groups, reparative policies must be shaped by the communities in which they are trying to serve. In other words, the community voice must be operationalized into interventions to ensure needs are appropriately understood and met. For example, in the South Africa's Pholela Community Health Center model, and the related Community Health Center model in the United States facilitated by Jack Geiger, 50% of the leadership had to be people who use the health care system (40). In the 1960s and 1970s, the Black Panther Party created a Breakfast Program to feed thousands of Black children. This program expanded to 45 other similar initiatives to cover everything from free medical clinics to community ambulance services and legal clinics (41). In these examples, the policies were enacted by the community they were designed to serve. Of note, community health centers are not without their limitations, such as how "community" is vaguely defined and whether decentralization might breed inefficiency in care (42, 43). Nevertheless, the goal of reparative policies is to restructure the way in which decisions in healthcare are made so that those in the community context—who would be most affected by the policies—are the primary decision-makers. Creating free, community-led health clinics would elevate equitable access and treatment—as well as provide sustainable medical infrastructure—in marginalized communities.

Second, to address structural determinism, reparative policies must be race-conscious rather than race-blind (44). Indeed, there is a rich literature demonstrating the impact of structural racism on the health of Black Americans (45). For example, when adjusting for other sociodemographic factors, being Black is independently associated with increased incidence of mental health conditions such as anxiety and depression, as well as hypertension. Whereas these differences have been assumed to be due to genetic differences, research shows that they are not due to innate biological differences but rather influences of chronic and unremitting stress caused by racism (46). Therefore, reparative policies must be race-conscious and deliberatively seek to benefit Black and non-White populations. Colorblind policies would not lead to more equity. In fact, evidence shows that colorblindness upholds the racial status quo and inhibits efforts to promote health equity (47). While healthcare has worked hard to rid our discourse from negative biases, stereotypes, and discriminatory language that adversely impact people of color, we need to add back to our discourse the notion of race and identity (48). We must see and acknowledge race, and thereby acknowledge the harms of racism. In doing so, we can fully account for the adverse effects of race and racism on health.

A specific reparative policy that is race-conscious rather than race-blind and addresses structural determinism is payment reform, such as the expansion of Medicaid coverage or new, state-specific health insurance for non-White populations. For example, pulmonary rehabilitation has been found to be an effective treatment option for those with COPD (49). Yet, since not all insurance carriers cover it, Whites disproportionately benefit. This has led to disparities in COPD and other respiratory treatments, which are likely to be exacerbated during the COVID-19 pandemic. Reforming payment for effective treatments for diseases in addition to COPD that are more prevalent in minority populations, such as diabetes and heart disease, would also achieve greater justice (50).

Finally, to engage in disciplinary self-critique, the fields of clinical medicine and research science should adopt certain reparative policies that embody the same themes and change the process by which decisions are made to shatter the status quo racial hierarchy. Clinical medicine interventions may include mandating voices of historically marginalized voices in the governance of hospitals that receive public funds, funding for community-driven interventions to address social determinants of health tied to historically racist policies (e.g., housing voucher programs, food programs), and pipeline programs to recruit young people from communities of color into health careers. So long as policies seek to rectify past injustices of specific populations as well as remedy current inequitable outcomes, regardless of whether there is a financial component, they are reparative. These are necessary but not sufficient by themselves to righting past wrongs and achieving greater health equity.

Research science has also played an important and unique historical role in developing the architecture of racism in America. The central racism in the conception and execution of research science manifested in J. Marion Sims's experiments in obstetrics to the use of Henrietta Lacks's stem cells for research without her consent. Thus, research science itself must face a reparative reckoning. After the unconscionable experiments on vulnerable groups during World War II by German and Japanese scientists, ultimately, research science in the United States took the dramatic step of embracing and operationalizing (via Institutional Review Boards) a code of ethics that was more protective of the rights of individuals. There is no reason that half a century later, a similar, significant reform, centering and operationalizing racial equity and community engagement would not be possible. Reparative justice in research might include forcing more diversity in research subjects (away from White males) and ensuring clinical subjects and target populations are guaranteed continuation of clinical effective treatments.

While healthcare is crucial to the discussion since it paved the foundation for racism in all other aspects of daily life, broader concerns relating to housing, jobs, law, and the like deserves attention. Structural racism in these other contexts must be tackled, lest any advances in health equity ultimately be moot. The specifics of how changes in these areas might be achieved is beyond the scope of this paper, but examples include eliminating food deserts from particular minority-heavy neighborhoods; altering housing laws to encourage more rent-controlled subsidies and affordable house ownership; and reforming the criminal justice system away from antiquated laws from the War on Drugs during the Nixon Administration that disproportionately affect communities of color (51). Addressing systemic racism in all fields is vital to ensure that advances in health equity are optimized and sustainable.

How will we know the need for reparative policies is over? There are many considerations, but policies first and foremost should be tied to data-driven outcomes. Reparations may no longer be needed once there is equity in health outcomes between different races for similar diseases and conditions. Next to quantitative metrics, subjective measures can drive reparative policies, measures such as the level and restoration of trust in medicine by the Black community. Ultimately, the decision of when to start and stop reparations must be iterative, with ongoing considerations and reviews. Finally, we want to re-emphasize that while this piece focused on reparative policies for Black Americans based on the medical profession's history of racism, there are other historically marginalized populations, such as the Native American and other communities of color, that have suffered unmeasurable historical injustice, including specifically at the hands of physicians (52), and they must also be the beneficiaries of similar, necessary reparative policies.

In conclusion, the inequitable morbidity and mortality as a result of COVID-19 across racial groups in the United States demonstrates that historical racism in healthcare, housing, employment, and education continues to shape society. Now, more than ever, health reparations are needed. It was racist physicians and scientists who fabricated the racial hierarchy based on fabricated scholarship that people of different races hold biologically different statuses, a belief used to maintain the power of Whiteness. Therefore, the healthcare profession has an ethical duty to pursue health-related policies designed to rectify past injustices and remedy current inequitable outcomes related to historical and systemic racism. While our list of examples could never be complete, a principle-based approach that seeks to amplify the community voice, address structural determinism, and engage in self-critique and historical reawakening is fundamental to a more equitable future. Indeed, the proposed health reparations would not be sufficient to create more equitable health outcomes, but they will foster an equitable health system built on justice for all, especially society's most vulnerable.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

AUTHOR CONTRIBUTIONS

DS conceptualized the idea and drafted the manuscript. AC, DO, and EL all participated in edits and revisions to the manuscript. All authors reviewed and approved the final version of the manuscript.

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PERSPECTIVE
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Seeing the Window, Finding the Spider: Applying Critical Race Theory to Medical Education to Make Up Where Biomedical Models and Social Determinants of Health Curricula Fall Short

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A professional and moral medical education should equip trainees with the knowledge and skills necessary to effectively advance health equity. In this Perspective, we argue that critical theoretical frameworks should be taught to physicians so they can interrogate structural sources of racial inequities and achieve this goal. We begin by elucidating the shortcomings in the pedagogic approaches contemporary Biomedical and Social Determinants of Health (SDOH) curricula use in their discussion of health disparities. In particular, current medical pedagogy lacks self-reflexivity; encodes social identities like race and gender as essential risk factors; neglects to examine root causes of health inequity; and fails to teach learners how to challenge injustice. In contrast, we argue that Critical Race Theory (CRT) is a theoretical framework uniquely adept at addressing these concerns. It offers needed interdisciplinary perspectives that teach learners how to abolish biological racism; leverage historical contexts of oppression to inform interventions; center the scholarship of the marginalized; and understand the institutional mechanisms and ubiquity of racism. In sum, CRT does what biomedical and SDOH curricula cannot: rigorously teach physician trainees how to combat health inequity. In this essay, we demonstrate how the theoretical paradigms operationalized in discussions of health injustice affect the ability of learners to confront health inequity. We expound on CRT tenets, discuss their application to medical pedagogy, and provide an in-depth case study to ground our major argument that *theory matters*. We introduce MedCRT: a CRT-based framework for medical education, and advocate for its implementation into physician training.

Keywords: critical race theory, health inequity and disparity, medical education, social determinants of health, biomedical model, health pedagogy, racial justice, medical critical race theory

INTRODUCTION

As the healthcare system struggles to combat racial health injustices, it is important to interrogate how medical education may contribute by failing to address inequity on a pedagogical and rhetorical level (1, 2). Though a portion of US medical schools now include some health disparities teaching, few engage in critical examination of health inequity (3, 4). As defined by Kawachi, *health inequality* is the "generic term used to designate differences, variation, and disparities in the health achievements of individual groups," whereas *health inequity* "refers to those inequalities in health that are deemed to be unfair or stemming from some form of injustice" (5).

This distinction between health *inequalities* (used here interchangeably with *health disparities*) and health *inequities* is important, and often missed. Many have expressed concern that current health disparities curricula—often referred to as "Social Determinants of Health" (SDOH) curricula—fail to engage with health inequity (6). These models merely name the existence of health differences and describe social determinants (such as access to food, educational attainment, income level) without relating them to power structures that marginalize different populations (6). This inability (or unwillingness) of SDOH to contextualize healthcare within relevant sociopolitical realities leaves trainees without Structural Competence—the proficiency to articulate or challenge root causes of unequal conditions (6–9). To ensure healthcare professionals are able to provide high-quality patient care and advance health justice, medical education needs a robust approach to health inequity that can scrutinize racial injustices pertaining to clinical practice, physician training, and scientific knowledge production (3, 10–12).

Critical Race Theory (CRT) is uniquely primed to help achieve this goal. CRT is an intellectual movement, body of scholarship, and analytical toolset historically developed to interrogate relationships between law and racial inequality (13). By training learners to identify and oppose fundamental sources of patient marginalization and engage in self-critique of health services research, CRT does what biomedical and health disparities curricula cannot: rigorously prepare physician trainees to combat health inequity. In this Perspective, we review current pitfalls of Biomedical and SDOH educational models, introduce MedCRT: A CRT-based framework for medical education, and advocate for its implementation in physician training.

BACKGROUND

How physicians are trained undoubtedly impacts the professionals they become and the systems they influence. Currently, medical training is dominated by knowledge produced by Western biomedicine, a field with limited diversity and inclusion (14–17). As such, the discipline has limited ability to disrupt social hierarchies (18) that perpetuate inequities, and has inadvertently reified problematic paradigms, including biological notions of race (3, 4, 8, 19).

Students and educators empowered as critical learners and scientist-scholars can create a more ethical healthcare system (4, 20). But US medical education notably lacks space—in terms of faculty positions, classroom hours, assessment considerations—dedicated to training students how political economy shapes medical knowledge and systems today (3, 11, 21). This undermines social science perspectives, effaces the muscularity of social powers in dictating health outcomes, and narrows critical scholarly introspection (22, 23). Biomedicine extolls the importance of peer review for strong scholarship, but fails to bring interdisciplinary experts to its own table (7).

Calls for anti-racist education have been made nationally (24, 25). However, these efforts have been mostly student-led or elective, and lack established support (8). Effective and critically anti-racist health justice education is not yet institutionalized in US medical education (3).

What Is Your Theory? The Shortcomings of the Biomedical Model

The biomedical model (BM) characterizes bodies as machines, and disease as machine malfunction: pathology arises when biological components (hormones, tissues) are impaired (26–28). As Krieger states, this paradigm "divorce[s] external forces from the internal mechanisms: it focuses on the inner-workings of the machine…rather than interrogating factors that shape the contexts within which the machine acts (how was the machine built? Where does it thrive?)" (28). This focus on individual machinations relays that the source of disease—and disease disparities—is found within the body's borders, divorcing human health from socio-political realities (29). Because pathology is understood to arise from/in bodies, its presumed solutions do too. Proposed treatments engage only individual machines, and include pharmaceuticals, surgeries, and behavior changes (27, 29).

The BM is reductionist and essentialist. Because it reasons that risk factors are physiologic components of each patient's "machine" that confer higher probabilities of disease, ideas like race and sex are flattened as immutable characteristics that can be tabulated as machine parts. Rather than being appraised as complex political constructions rooted in cultural history, race becomes a series of genes; sex, a soup of hormones. This conceptualization deduces that health disparities arise from different and dysfunctional machine parts, which impedes nuanced comprehension of why people of different identities suffer unequal health outcomes (or what these identities even are). Learners of the BM discuss "poverty but not oppression, race but not racism, sex but not sexism, and homosexuality but not homophobia" (6).

Biomedicine has a set of assumptions and logic models—a theoretical paradigm—that guides how the discipline and its resulting scholarship conceive of concepts such as race, sex, disease disparities, and disability. This lens impacts the questions, methods, and conclusions produced. Yet, the field denies the existence of an overriding framework and presumes it is apolitical and value-neutral (3, 17, 30–33). It is a culture that cannot recognize its own culture (34). This hinders its ability to interrogate the window through which it observes and interprets the world (30).

All thinking and research is guided by theory, and critical formations within social science disciplines draw attention to this fact to interrogate the limits, format, and assembly of their "windows" and the views they provide (32, 35). This practice allows social scientists to analyze inequities that impact their approaches and explanations—their thinking (32). Lenses warp light. But biomedicine's insistence that it relies on pure empiricism—that it sees the world without an intervening theoretical frame—means it cannot evaluate the process, construction, and ensuing flaws of its understanding of bodies, disease, and racial difference (36–41). The field is left without the scholarly articulation and rhetorical defenses that help identify and combat racism embedded in hospitals and professional medical culture (32). This lack of reflexivity has ushered hidden curricula into the healthcare system (14–16). As result, medical trainees struggle to identify and disrupt injustice out in society *and* within their own professional homes. Given only the "Master's Tools" (42), they are left "on a road to nowhere" (6). Medical pedagogy needs critical perspectives that can help elucidate the social and scientific phenomena that allow injustice to perpetuate in its own house. It must learn to see the window, in order to critique and correct the lens through which contemporary biomedicine perceives racial inequities.

Social Determinants of Health Theory: Where Is the Spider?

While many institutions have sought to address limitations of the BM with SDOH teaching, these emerging curricula are still ill-equipped to challenge health inequity (6). In these instances, *social determinants* are often presented as well-worn considerations that are in some ways natural and immutable. A number of conditions—poverty, race, diet, sex—are labeled as "risk factors" entangled on a "web" of contributing elements that increase the likelihood of a given pathology (27, 43–46). Importantly, however, the spider that weaves the web is absent in this metaphor (43). The material and historical conditions that create unequal distributions of power and resources—the conditions that spin the web of inequity such as racial supremacy, wealth concentration, neoliberal capitalism, and misogyny—are not included, considered, learned, or taught (43). The lack of an agent implies that these important determinants of health appear at nobody's behest. Thus, SDOH models imply that the disproportionate suffering of vulnerable populations originates from expected or natural differences instead of *inequities* engineered through unjust provisions set in place by empowered systems.

By pivoting discussions away from actors (spiders) that *create* inequity, SDOH curricula deliberate only biological, internal, and behavioral "causes" of disproportionate disease. Marginalized identities are pathologized: students learn that "urban" patients face more chronic disease due to poor diets and poverty. Learners are *not* taught unequal contexts of urban engineering, police surveillance, neighborhood segregation, and food deserts that limit well-being (47–49). This failure to include critical explanations on why, how, and by whom groups of people are historically and actively oppressed means SDOH curricula continually frame marginalized populations as deficient—not only financially, but also with regards to literacy, acumen, and ability (36, 37). Wealth and privilege are also social determinants of health—as are whiteness, citizenship, and proximity to political power. Yet, SDOH curricula bypass these considerations (and neglect to discuss who *benefits* from health inequity) to continually fixate on perceived deficiencies of "at-risk" populations. The repetition of the deficit-model constantly stigmatizes patients of color as poor, illiterate, needy, and unknowledgeable, while also implicitly supporting their surveillance, which can worsen existing health inequities (3, 4, 8, 19, 36, 37).

Without spiders, the visible agents in the web are patients, which locates them as the only active—and therefore, the only culpable—individuals in the disease pathway. Health disparities are thus framed as the outcome of poor individual choices or faulty genetics (4, 29, 38). This emphasizes targeted behavioral and biomedical interventions rather than considering structural solutions to structural obstacles. Consider, for example, how terms such as "non-compliant" (39, 40) ignore institutional inequities in insurance, transportation, and access that limit ability to adhere to prescribed treatments. This underscoring of individual culpability implicitly casts social justice efforts as philanthropic enterprises (needed to help people make better decisions or overcome genetic predisposition) rather than justified, reparative endeavors necessary to rectify historical wrongs (4). Like the BM, SDOH curricula lack theorization that explicitly associates socio-political economy with health inequity. Instead, students are taught to label populations as "vulnerable" without understanding what *makes* them vulnerable.

Lastly, because SDOH pedagogy does not incorporate teaching on actionable skills or solutions, students learn *about* health disparities but are not taught *how* to achieve justice (6). For example, implicit bias is framed as a cause of health disparities (13), but students are not asked to consider the *origins* of anti-black/pro-white biases, nor how to combat them. Prejudices are framed as subtle, innocuous preferences that are "unconscious," which removes the purveyor's culpability and casts biases as normative and uncontrollable (41). Instead of an intervention, implicit bias tests—which associate racial discrimination with aversion to poisonous snakes—become "an alibi" that functions to permit further prejudice (50).

Racism is a leading cause of implicit bias: so how can students attack unconscious prejudice if they are not taught what racial hierarchy is or how it functions structurally? Without understanding how power operates in society, students cannot conceptualize how institutional and interpersonal prejudices disadvantage marginalized people regardless of conscious intent. White students, for example, will have difficulty comprehending racial inequity if they are unable to articulate or acknowledge their own privilege. This is also where traditional cultural competency models fail (51–54). Not only do they attempt to compartmentalize the needs of patient populations—often through troubling racial stereotypes—they "serve to further Other communities, because it (teaches) students to see difference without dissecting their own power" (17, 55). Learners receive information about human difference without being taught to challenge unjust distributions of power, which relegates SDOH pedagogy to a formality where competencies can be obtained without meaningful movement toward equity. Though medical schools may respond to the call for social justice with SDOH, lack of critical analyses on race and health renders these attempts ineffective (6).

CRITICAL RACE THEORY

We have described the ways US medical education fails to address health inequities. In their reticence or inability to engage in theoretical analysis of sociopolitical power, BM and SDOH curricula decontextualize human experience and erase patient perspectives (56, 57). Students are taught to fixate on individual choices and innate flaws—locating "responsibility" for poor health outcomes within those who inhabit them. Importantly, this may fail to engender empathy (or even discourage empathy) toward those facing structural violence (38). Lack of critical perspective also prevents "disciplinary self-critique" and fails to teach trainees how to act meaningfully against injustice (6, 12).

Current pedagogy on culture, bias, and diversity have been insufficient in engendering equity (54). New methods of building critical consciousness are necessary to bridge comprehension of inequities to care and praxis against them (58). A form of critical teaching and scholarship, Critical Race Theory (CRT) is able to address the deficiencies of current medical pedagogy by embracing tenets that help students achieve critical consciousness (59) of structural inequity (see **Table 1**).

Unlike the BM—which inaccurately presumes race is an essential component of the human machine—CRT asserts that race is not genetic but a power construct engineered to enforce racial hierarchy. In addition, CRT stresses that racism is so prevalent in society that it has become normalized to the point of invisibility (60–62). This recognition comes with comprehension that racism has shaped governing systems of the United States and is embedded into every institution of power (63). Thus, *normal* institutional operations—including that of medicine, healthcare, and scientific research—produce and perpetuate racial hierarchies and injustices *by design* (62). CRT demonstrates that racial categorization incites racism, which directs power and privilege toward some and away from others, justifies unfair outcomes, and reconciles how professed commitments to equality co-exist with the undeniable fact of injustice (13). This acknowledgment helps visualize the sociopolitical powers that influence medicine, and in juxtaposition to existing biomedical and SDOH models, grants learners and educators skills of self-critique required to "see the window" and dissect the racial inequities embedded in their own organizations (64). At its core, CRT seeks to identify and rectify systemic practices that generate racial injustice (63, 65). Importantly, CRT is not only interested in scholarship for scholarship's sake; It is committed to action that advances social equity (66, 67).

TABLE 1 | How critical race theory addresses deficiencies in existing medical curricula.

	Deficiencies of the biomedical model	Strength of CRT that addresses pitfall	
Pathologize race	Patient decontextualized, erasing individual patient perspectives	Utilize patient narratives with "Counter-Storytelling" and "Centering at the Margins"	**Theorize on and address health inequities: pathologize racism**
	Theorizes "Body as Machine," casting race and sex as simple characteristics and Risk Factors inherent to individual physiology	Race seen as a dynamic, sociopolitical construct historically enforced to uphold power. Race is framed as a Risk Marker that indicates vulnerability to social inequity	
	Biomedicine is blind to its own theoretical paradigm; As a "culture that cannot recognize its own culture" it cannot critique its own window and theoretical perspective	Reflexivity allows CRT to consider internal power hierarchies that influence the construction of its scholarship and action; Sees and actively critiques the enmeshment of racial inequity in medical knowledge and practice paradigms	
	Proposed treatments and solutions only target individuals (Cannot propose solutions for broader social inequalities)	Proposed solutions target unique individual needs and address social and political inequity at large	
	Deficiencies of SDOH curricula		
Theorizeon health inequalities: pathologize racial identities	Web of Causation does not implicate causes of social inequity (Cannot see the spiders)	Emphasizes actors of power (spiders) that weave health inequity into society	
	View patients as only active agents; emphasize individual biological, internal, and behavioral interventions	Emphasize interventions on structures that create disproportionate burden of death and disease on vulnerable patients	
	Repeatedly uses Deficit Models to characterize vulnerable populations without discussing what makes them vulnerable (Ex. "Noncompliant patient")	Acknowledges structural obstacles that create conditions that limit individual autonomy and ability to adhere to medical care	
	Do not teach on power and positionality; Students lack ability to think reflexively about the power of medical institutions and doctors in society	Requires learners to reflect extensively on power, positionality, and privilege	
	Frame healthcare inequity as aberrations/mistakes that can be fixed by optimizing current features	Frames the healthcare system as a fundamental source of inequity in America	
	Knowledge of healthcare disparities and inequalities is itself a measure of competence; Does not teach actionable skills to enact health justice	Equips learners with actionable skills and requires students to take active stances against health inequity	

A medical CRT (MedCRT) framework requires scholars and learners to: "(1) Analyze race and racism as fundamental social structures within science, medicine, and society, (2) Challenge scientific theories of race that obscure the institutional mechanisms that generate racial health inequity, and (3) Produce analyses that mobilize and support antiracist praxis" (68) (see **Table 2**). MedCRT's iterative methodology continually questions complex power dynamics and "place[s] medicine in a social, cultural, and historical context" to develop nuanced comprehension of race, injustice, and health (51). While biomedical and SDOH models characterize race as an intrinsic individual risk *factor*, CRT asserts that racial identity should instead be understood as a risk *marker* that inscribes vulnerability to structural racial inequities in education, environmental safety, criminal justice, housing segregation, and social investment (45, 46). This transforms the question of differing racial epidemiology

TABLE 2 | Critical race theory adapted to medical education (MedCRT) (13).

	Critical race theory (CRT)	Application to medical education (MedCRT)
Race as a social construction	**Scientific consensus demonstrates that race is not a genetic variable** (69, 70). Genetic differences among humans do not function to divide them into discrete biologic categories. Instead, genetic difference is a spectrum, making the demarcation of racial boundaries in the human population arbitrary. Phenotypic differences often used to construct racial categories—like skin color, hair, texture, eye shape, and lip size—do not reflect meaningful genetic inferences. Indeed, racial labels were originally mobilized to enforce racial hierarchies for colonialism (69–72). Foundational to CRT is the understanding that while the notion of biologic racial essentialism is erroneous, socially-constructed racial labels have powerful material consequences. Racial inequity determines proximity to illness and health, ultimately influencing who lives vs. who dies (73).	Despite scientific consensus that racial categories cannot be used to make meaningful genetic inferences, medicine continues to pathologize race as an immutable biologic variable (70, 71, 74). By using race as a scientific taxonomical tool, medicine reifies essentialist notions that frame bodies of color as "abnormal" variants of White bodies, which are normatively ascribed as "standard" (70, 71, 74). **This major CRT tenet requires that physicians reject education, research, and practice modalities that frame race as a genetic variable or fail to challenge racial essentialism**. Race corrections—such as those included in kidney and pulmonary function measurements—should be critiqued and used cautiously. Clinical training should explicitly instruct learners to understand race as a sociopolitical construct and inform them of the harms created when race is portrayed as a biologic trait that can used as a proxy for genomic information.
Critique of colorblindness	**CRT rejects the liberal embrace of colorblindness as the path to racial equity.** The critique lies in the premise that colorblindness narrowly conceptualizes racism as race-consciousness. Racism is not "thinking about race;" racism is "thinking about race *in the service of white supremacy*." Colorblindness proposes that racial justice is achieved when everyone is treated similarly. CRT understands that this is an active injustice and seeks to treat marginalized people differently to guarantee equity.	Within the context of an unequal healthcare system that boasts rampant racial inequity, treating all patients equally merely maintains the status quo. The allocation of care and resources must be proportionate to injustice experienced. In addition, while race-based medicine that relies on biologic determinism should be critiqued, research utilizing racial labels to document racialized epidemiological inequities is important. **Medicine should not be color-blind, but race conscious in thoughtful and nuanced ways.**
Intersectionality/anti-essentialism	In 1989, Professor Kimberlé Crenshaw articulated the concept of Intersectionality to explain that an **individual's multiple positions** (regarding socioeconomic status, gender, citizenship, etc.) **must be interrogated to comprehend unique manifestations of racial subordination.** This also strengthens the claim of anti-essentialism; that there is no single experience for a given identity; there no common position to all "women," "black people," "trans people," etc. (75). This supports the act of "Centering at the Margins," in order to ensure that the unique needs of individuals who face intersecting oppressions from multiple axes of identity are addressed (76, 77).	Intersectionality appreciates the significance of layered identities in medical care. **Interrogation of different marginalizing forces that act simultaneously upon patients allows greater precision.** For example, impoverished Black women confront barriers that wealthy Black men do not face. Anti-essentialism also rejects problematic assumptions that people of the same identity have the same attitudes, experiences, and biology. It requires that physicians access humility and do not assume that they know the needs of each patient. To act otherwise is reductionist, intellectually unsound, and robs patients of the right to be seen and humanized as complex individuals.
Ubiquity of racism	**CRT identifies that racism is embedded into the everyday institutions that rule American society**. This integration of racial injustice into powerful governing bodies means that they will continue to reproduce and engender inequity through their normal function (13). Thus, sociopolitical apparatuses of power do not prioritize the interests of racially marginalized communities, and will only seek to accommodate inequities during conditions of Interest Convergence, wherein dominant groups are incentivized to act for their own benefit (78). This tenet recognizes the reality that goodwill alone fails to advance racial equity. In parallel, CRT vigorously critiques ahistoricism and seeks to understand how racism influences social, economic, and historical contexts that produce unequal realities (79). It recognizes that narratives of marginalized people have been excluded from history and formal scholarship, and advocates for "counter-storytelling" in order to center these epistemologies.	**Medicine is not immune to the primacy of racism.** Students must acknowledge that racial injustice is woven into the fabric of society to comprehend the depth of health inequity. Critical Consciousness is required for learners to discover and rectify personal and structural racial biases. Because unequal health is not an aberration, but an engineered result of our systems, progress cannot be achieved through passive scholarship. Explicit action is required to combat health injustice, because healthcare has omitted the needs of marginalized patients. Alongside the principle of Interest Convergence, active stakeholder involvement is necessary since medical institutions will not expand racial equity without explicit incentives. Though action may not further career promotion (since dominant powers do not have pre-existing motivation to prioritize equity), health justice must be sought by healthcare professionals—especially White colleagues who have greater privilege—as a moral obligation.

BOX 1 | Theory matters: racial asthma inequities as a case study.

The guiding theory of illness dictates how students understand, explain, and challenge health inequities. Thus, theory matters. To reiterate our arguments in this paper and illustrate the importance of CRT-based medical curricula, we utilize the case example of childhood asthma, for which there are known contemporary health inequities. We show how Biomedical, SDOH, and CRT models of medical education identify different causal justifications for this racial difference in disease morbidity and mortality, and how these operationalized theories impact the corollary solutions each pedagogic framework proposes to address the problem. Concepts are summarized below.

For Black children, the mortality rate for asthma hangs six times higher than it does for their white counterparts (83). As discussed, the biomedical model portrays race as an essential genetic characteristic, and intuits that black race is an internal risk factor that predisposes black youth to this disease. As such, purveyors of biomedical theory may teach medical students about differential racial genetics that act as biologic predictors to asthma (84). Research on genetic mutations—such as those impacting SPINK5, DPP-1, and GRPA genes—are offered as the root of health disparities (85, 86). Genes that cause racialized responses to treatment options are also touted as rationale (87). The underlying notion is that if physician-scientists are able to locate genetic racial differences, targeting them through pharmacology and gene therapies will serve as a potent method to minimize racial disparities. This theory is pervasive and financially well-supported. The 2013 NIH Biennial Report (88) details million-dollar investment in the development of the “African Power Chip—” a genome-sequencing endeavor meant to “discover genes associated with asthma in African ancestry populations.”

SDOH curricula may go a step further in their discussion of asthma health inequalities by outlining a web of causation that connects risk factors like race, gender, and housing to unequal disease outcomes. It may teach students, for example, that people of color have higher exposure to mold, low-quality housing, or cockroaches that increase likelihood of asthma (89, 90). Data demonstrating that people of color have higher rates of smoking (89) may also be posited as a cause of disproportionate illness. Solutions, therefore, focus on behavioral changes like smoking cessation measures, patient outreach on hygiene education, or instruction to purchase hypoallergenic materials to minimize exposure to triggers. This ignores data that demonstrates how communities of color are targeted with significantly higher rates of tobacco advertisements as a predatory business strategy (91). SDOH shows students the web of health inequality, but not the spider that weaves racial inequity.

In fact, systemic racism manifests in myriad ways to cause racial health inequities in asthma. CRT helps us see how. This in turn helps inform solutions that are fundamental to promoting health justice. First, CRT asserts that race is a sociopolitical construct, which weakens the biomedical theory that differences in asthma prevalence can be explained by genetic racial differences in cell signaling and lung physiology. This also undermines the idea that genomic pursuits like the African Power Chip represent sustainable remedies to health inequities. CRT’s position on the ubiquity of racism, the rejection of colorblindness, and the importance of intersectionality also combine to provide important insights that inform the causation of and interventions for asthma health inequities.

Given CRT’s origins in law, it is appropriate to begin with the historical enmeshment of racial inequity in the criminal justice system. Today, the United States imprisons a larger percentage of its Black population that South Africa did *during apartheid* (92). Despite similar rates of drug use, Black men are 12 times more likely to be arrested for drug offenses than white counterparts (93). Being locked up is bad for your lungs. People with a history of incarceration are twice as likely to have asthma than the non-incarcerated American population (94).

America’s lack of a socialized healthcare system ties medical access to financial security. While the black- white income gap itself is large, it is perhaps more important to consider the generational *wealth* gap, which is startling at 91,000 dollars for whites, 6,500 dollars for blacks. This is a 14-fold difference, and this gap is widening (95). Given economic analysis demonstrating that 50% of the median homeowner’s wealth comes from the value of their property, it is important to understand how Black American families were historically denied home ownership. In the 1930’s, the Federal Housing Association financed 60% of all American homes, yet <2% of these loans were awarded to people of color (96). Black neighborhoods were routinely “red-lined” and coded for mortgage default, stranding them in poorly-resourced and underdeveloped geographic locations (97). This discrimination is foundational to government-sponsored racial segregation, which, even when controlled for income, is tied to not only asthma, but heart disease, cancer, and lower life expectancy overall (98). In the South Bronx, a child is 14.2 times as likely to be hospitalized for asthma-related complications than a child in wealthier neighborhood <2 miles away (99). Importantly, the racial housing inequity is tied not only to issues of socioeconomic status, but environmental exposure.

Urban planning in America has time and again chosen to destroy places where people of color live, breathe, play, and pray. Throughout American history, black neighborhoods have been decimated to make way for highway construction, or else chosen as sites near which toxic waste landfills are placed (98, 100). Indeed, Black and Hispanic populations have higher exposure to 13 out of 14 main environmental pollutants (101) and are twice as likely to live near sources of industrial pollution in residential areas known as “sacrifice zones” (102).

CRT shows how the pervasiveness of racial injustice in American incarceration, urban planning, resource allocation, and environmental damage represent disproportionate, constant, and serious insults that are definitively linked to higher rates of lung disease in people of color. Its relevant intersections with poverty, imprisonment, and gender give methods to theorize thoughtfully on how to attend to specific populations jeopardized by multiple identities. Lastly, alongside epidemiologic scholarship on Weathering and Embodiment (103, 104)—concepts that tie how racial discrimination and social inequality translate to biologic dysfunction—the importance of rejecting to colorblindness as a path to equity is highlighted. It is necessary to pay attention to race insofar as it lets us see how racism is a major driver of health inequity. We need a critical theory of race—CRT—to locate the spider.

Model	Explanation	Solution	Interpretation
Biomedical (BM)	Immunological dysfunction genetic racial difference biomarkers	Pharmaceuticals Genetic technologies, Racialized treatment algorithms Ex. African Power Chip	Race as an internal risk factor; racial physiology as culprit
Social determinants of health (SDOH)	Web of causation Race, housing, air pollution, poor access to healthcare Implicit bias	House cleanliness Patient outreach “Healthy Habits” Hypoallergenic Materials Mindfulness	
Medical critical race theory (MedCRT)	Neighborhood segregation, federal housing association (FHA) policies Environmental racism and “Sacrifice Zones” built environment; highway distribution two-tiered medical system Weathering, embodiment	Political advocacy environmental regulations housing reform	Race as an external risk marker; racism as culprit

from "How do, and which intrinsic biological racial differences cause health disparities?" to "How do, and which racial injustices cause health inequities?" This allows robust avenues for learners to identify and intervene where health injustices originate. Further, in interrogating how and why atavistic beliefs of racial biology persist, (What is considered legitimate scientific knowledge? Who has the authority to create it? What agendas are implicitly supported by theories of intrinsic racial biology?) CRT not only allows for examination of biomedicine's theoretical window—it also abets understanding of how injustice has warped the lens (3).

This sharpening of self-critique is not only important for the training of scientists and scholars who must examine the questions, methodologies, and interpretations of health inequality research to create new and better knowledge (12). It also aids in the Structural Competence and compassionate caregiving of clinicians. Both academic and clinical medicine are strengthened by the ability to understand one's position of power, as "critical consciousness" is theorized to be an important component of a trainee's ability to address health inequities (6, 80).

While traditional medical education may erase reflexivity by endorsing "the belief that (a healthcare provider's) class, race, ethnicity, gender, and sexual orientation are irrelevant to their medical practice" (17), CRT emphatically names its importance to ensure learners contextualize their care and improve on their ability to humanize patients (14, 81). For example, providers seeking to understand racial HIV inequities noted a "CRT lens proved especially useful in articulating the deep, complex, and systemic structural underpinnings of psychosocial barriers" in their patients, which allowed them to offer better, more compassionate medical care (82). This may ultimately improve patient outcomes, which represents an important opportunity for future research.

The guiding theory of illness (what causes and distributes disease) dictates the measures, methodologies, and justifications trainees and educators have to not only research and explain phenomena, but to articulate causative factors and thus imagine solutions (26–28, 38). Thus, theory matters. The window matters (see **Box 1** for a case study). Overall, because CRT develops in learners a better understanding of structures of oppression, self-critique that can cultivate greater consciousness for change (105), and action-oriented praxis, it is a pedagogical intervention uniquely equipped to bolster health justice training and advancement (82). As a critical framework that offers necessary perspectives on race, racism, and health inequity for physicians, we propose that MedCRT should be employed to reform medical education.

DISCUSSION

Critical Race Theory (CRT) emerged in the 1970s to challenge the shortcomings of the law by mobilizing an unrealized imagination: "What would the legal landscape look like today if non-white people were at the table when our society and its institutions were being organized?" We are inspired. What would medicine—its training, practice, and presumption—look like if it were informed by the scholarship and experiences of a vast diversity of people: people who are racially-marginalized, sociologists, community organizers, queer, differently-abled?

Though medical education has made strides to address health disparities, these efforts are falling short. The burdens of racism are indisputable. Physicians are taught to train their eyes on the numbers, but without critical frameworks, they will continue to perseverate on health inequality ineffectively. They will know *about* health disparities, but be unable to articulate health inequities well enough to challenge them (6).

Health equity cannot be achieved through technologic advancement or market-based ingenuity. It is, fundamentally, not a problem of science, but an issue of ethics and justice. Indeed, while 30,000 deaths could be prevented through medical innovation annually, eliminating excess mortality associated with education inequities would save 200,000 lives yearly (106). Remaining idle and ignorant renders our institutions complicit in an unjust system that makes our patients sicker. Medical trainees should receive robust, critical education that allows them to confront the forces that bolster health inequity. This requires the analytical and action-oriented pedagogical framework of Critical Race Theory.

Since its origins in jurisprudence, CRT has expanded into realms of education and public health (64, 66, 107–110). That CRT has been effectively incorporated into other domains to better address educational, health, and legal inequities demonstrates that incorporating CRT into medical pedagogy is necessary. Indeed, that CRT remains absent from physician education suggests that efforts to address racial inequity in medicine are lagging. It further underlines that MedCRT perspectives must be integrated in senior, administrative, and faculty-level continuing medical education—not just that of early trainees.

Medical education is a powerful site of action: Institutional commitment to equity can begin with improving how we teach and produce knowledge about inequity itself. The principles of Critical Race Theory are especially equipped to train learners to see spiders that weave political economy and power together to create injustice. We urge medical institutions and educators to mobilize greater engagement with Critical Race Theory and take a decisive step toward a more equitable future for students and patients alike.

AUTHOR CONTRIBUTIONS

JT was responsible for conceptualization, research, original writing, and revisions. EL and KB was responsible for research, original writing, and revisions. All authors contributed to the article and approved the submitted version.

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Racism as Public Health Crisis: Assessment and Review of Municipal Declarations and Resolutions Across the United States

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Racism in the United States has been cited as a key driver of racial health inequities. Racism as a public health crisis has been in the forefront, particularly with respect to state and municipal governments that have developed legislation, resolutions, and declarations. This policy brief includes a review of resolutions and declarations across the US related to Racism as a Public Health Crisis through the end of September 2020. There were 125 resolutions reviewed for content related to the history of racism, reference to racial health equity data, content related to action steps or implementation, and any accompanying funding or resources. We found that the majority of policies name racism as critical in addressing racial inequities in health with limited details about specific actions, funding, or resources.

Keywords: racism, public health, health equity, declarations, legislation, policy

INTRODUCTION

Racial inequities in health and well-being are well-documented. For example, there are long-standing racial inequities in maternal and infant health (e.g., maternal mortality and preterm birth), chronic disease (e.g., diabetes and hypertension), and COVID-19 cases, hospitalizations, and deaths (1–6). These racial inequities are a result of historical and contemporary oppression. Recognizing and naming racism as a public health crisis is a critical first step in dismantling structures and systems of oppressions that not only impede health and well-being but contribute to racial inequities in health. Naming racism as a public health crisis also has implications for other systems that are important for health, such as education, food systems, housing, and employment.

Racism can be defined as "state-sanction and/or extralegal (meaning not necessarily regulated by the law) production and exploitation of group-differentiated vulnerability to premature death" (7) and elevate how oppression, privilege, and power operate based on racial classifications (8). The origin of the United States includes colonization, genocide, and land theft from Indigenous communities as a result of white supremacy and structural racism.

The trauma and oppression committed against Indigenous communities has implications for health and well-being (8). Dr. Camara Jones, prominent public health expert and former president of the American Public Health Association, defines racism as "a system of structuring opportunity and assigning value based on the social interpretation of race, that unfairly disadvantages some individuals and communities, unfairly advantages other individuals and communities, and saps the strength of the whole society through the waste of human resources (9)." Racism also can operate at three levels, as institutionalized, interpersonal, or personally-mediated and then internalized (10), with structural being the totality of ways in which racism operates in a society.

The majority of empirical research on racism and health has focused on interpersonal or personally-mediated racism (which includes the day-to-day experiences of racism that are mediated through individuals and a result of racist structures and institutions). This research demonstrates that personally-mediated racism acts through stress pathways to dysregulate bodily systems, resulting in accelerated aging and adverse health outcomes; and daily stressors accumulate as "wear and tear on the body" also known as "weathering (11, 12)." As a result, immune function is dysregulated and the body cannot reach equilibrium, creating vulnerability and susceptibility to disease, which challenges the body's ability to remain in a healthy state (11, 12).

There is also empirical evidence describing how structural and institutional racism shape health and well-being. A large body of this research measures residential segregation as a fundamental cause of health inequity (13). Segregation is a result of specific policies and actions that disproportionately affect communities of color, particularly Black communities, and low-income communities. Racist practices, policies and structures have resulted in disparate social and physical environmental conditions, limiting access to healthcare resources, inequities in housing and wealth attainment, influencing behaviors, and ultimately health (14). Residential segregation is the result of housing policies such as redlining, backed by the federal government. Broadly defined, racial redlining encompasses not only the direct refusal to lend in neighborhoods of color and Black neighborhoods in particular, but also procedures that discourage the submission of mortgage loan applications from these areas, and marketing policies that exclude such areas (15–17). Prior research highlights the intersections between lending disparities and health disparities (18–20). There is a growing body of research measuring structural racism in the form of racial inequities in political participation, judicial treatment, and employment and job status and its association with adverse health outcomes such as infant mortality, small for gestational age birth, cancer, and myocardial infarction (21–25). This work highlights how policies, structures, power, and privilege are fundamental in understanding and eliminating health inequities.

Policy and legislation specifically related to racism and health has come to the forefront over the past few years. Examples include federal policy such as the Anti-Racism in Public Health Act of 2020, the Black Maternal Momnibus Act of 2020 (and Act of 2021) as well multiple local and state resolutions related to Racism as a Public Health Crisis (26, 27). In May 2019, Milwaukee County in Wisconsin was one of the first areas to develop and adopt a resolution related to racism as a public health crisis. Soon after, several other locations adopted legislation or resolutions such as the city of Milwaukee (July 2019); Cook County, Illinois (June 2019); and Pittsburgh, Pennsylvania (December 2019). By the Spring of 2020, numerous cities, counties, and other governmental agencies adopted similar resolutions or declarations. Many of these resolutions were adopted after the killing of Breonna Taylor and George Floyd by police, the global movement for Black lives and a time of racial reckoning in 2020. There is not a formal public health definition of crisis; however, public health emergencies and disasters point to major events affecting multiple populations causing trauma or harm (28). Racism as a public health crisis also speaks to trauma or harm over time and over multiple generations. Simultaneously, public health crises would require long-term solutions (29); solutions that address structures and institutions that create health inequities.

In this paper, we review declarations and resolutions adopted by cities, counties and states prior to October 2020 related to Racism as a Public Health Crisis. The purpose is to provide an analysis of the key content, how racial inequity in health and other areas are articulated in these resolutions and specific actions steps to name racism and ultimately eliminate racism. These resolutions specifically point to race as a social construct, racism and its relation to health, and variations in action items on how to undo or address racism. We hypothesize that many legislators and governing bodies have adopted resolutions that take the critical first step to naming racism as a public health crisis, but there will be limited language in the legislation that explicitly include action steps (e.g., programs, funding) to eliminate racism.

POLICY OVERVIEW AND METHODS

Policies, declarations and other legislation adopted by cities and municipalities in the United States were identified by searching publicly available search engines. Two team members independently searched public engines and databases (May–June 2020) while two additional team members (October–December 2020) updated the list while also reviewing state and city government websites and information generated from the American Public Health Association. Given the recency of most policies and declarations, and their dissemination in the lay literature and governmental websites, public search engines were the best option for identifying legislative documents. No limitation was set on the initiation date of the policy, and all resolutions and legislations passed prior to October 1, 2020 were reviewed.

The policies and resolutions were organized by state and reviewed by at least one researcher. Data were extracted into a structured, cloud-based, and data table. Co-authors met and discussed the content of the resolutions. Data initially recorded in the table included location, date approved, any background on the process for developing the resolution, the person or group who introduced the resolution, overall content, themes, and proposed actions. After data extraction of the first one-third of the resolutions, co-authors met and discussed common recurring themes, overlap across resolutions and a consolidated list of 18 themes. The data table was updated to record themes present in each legislation from the pre-identified list. As a result of the discussion, the following substantive areas were analyzed: historical context of racism, if maternal child health was addressed, if economic policies were addressed, funding described, names of any organizations, or entities mentioned.

The research team met to review the structured data table to identify, patterns, similarities and differences across the resolutions and legislation. The group also compiled a list of professional health organizations (e.g., American Public Health Association) that have published formal statements declaring racism as a public health crisis. Although the position statements by professional organizations are outside of the scope of this review, we acknowledge examples in the discussion of this paper.

The aforementioned search of government (e.g., state, city, and town) policies and resolutions was complemented with an *ad hoc* search of PubMed of texts related to racism as a public health crisis. The purpose of the search was not to conduct a separate review of published literature on racism and health but to provide some potential context for the emergent policies. Search terms were "racism," "public health," and "crisis" combined with Boolean connectors. The search returned 60 texts that were reviewed for key content; none of which were specifically related to policies or resolutions on racism as a public health crisis and therefore not included in this review.

POLICY OPTIONS: REVIEW OF RESOLUTIONS AND DECLARATIONS OF RACISM AS PUBLIC HEALTH CRISIS

As of October 1, 2020, there were 128 resolutions, declarations or legislative content related to racism as a public health crisis passed by state and local governments and municipalities (**Table 1**). There were declarations in a total of 25 states. By this time, only Wisconsin, Nevada and Michigan had a resolution passed at the state level. California, Massachusetts, Michigan, and Ohio had more than 10 municipalities/cities with resolutions or declarations. A total of 13 of the 25 states had fewer than three local municipalities/cities with resolutions (**Table 1** and **Figure 1**). Additional local municipalities and states passed declarations or other legislative content after October 1, 2020. However, the research team chose this date to have sufficient time for review, analysis and write up of existing legislation up to that point; because we reached content saturation judged by minimal new findings; and repeated language that was "cut and paste" across multiple declarations. Additional declarations, resolutions, and legislations were passed in municipalities in Hawaii, Kentucky, Missouri, Utah, Virginia, Washington, DC, and West Virginia through the end April 2021.

In the review of the resolutions and legislative content, the historical context of racism in the United States is usually discussed in the context of the nation's history of slavery and racist policies such as redlining. Almost half of the municipalities (45%) included examples of racism's historical context at a national level (**Table 1**). However, specific examples of racism at the local and state levels were slightly less common, with 30 and 14% of resolutions, respectively. The examples provided include Santa Barbara County, California, which named the first enslaved resident, John Forney, highlighting that Black people were enslaved outside of the southern U.S. Another example was Prince Georges County, Maryland which acknowledged that schools' desegregation in that county did not occur until 1972, 18 years after Brown vs. Board of Education declared school segregation unconstitutional. Westerville, Ohio, touted its long history of support of the abolitionist movement evidenced by several underground railroad stops and home to abolitionist Benjamin Hanby and Otterbein University, one of the first predominantly White institutions to accept men and women of color. Minneapolis explicitly acknowledges the placement of the city on Indigenous land. The three-page resolution of Harris County, Texas, was among the longest, and provided extensive detail on how racism was within the fabric of every institution and facet of life, in which they note that the County Attorney's office was a slave auction site and the Texas Rangers' murder and oppression of Black and Indigenous communities. These concrete examples of how historical contexts set the stage for current inequities were common across multiple resolutions (**Supplementary Table 1A** includes a detailed table with weblinks to the full resolution or legislative content).

The four most common themes in order of prevalence were systemic racism, COVID-19, social determinants of health (SDOH), and specific health outcomes. Many resolutions and declarations defined three levels of racism in the opening paragraphs as defined by Jones (10) and established the connection between health inequities and racism. Mentions of systemic racism were present in 92 of the 128 resolutions compared to 45 and 5 resolutions for interpersonal racism and hate crimes, respectively. For example, the template provided by Health Equity Solutions, a community-based organization in Connecticut, has language built in defining systemic racism (30). Several resolutions had shared language that was "cut and pasted" and applied across multiple municipalities and states, including language related to systemic racism and racism in general. Some of this copy and paste language included reference to action plans, definitions of racism and racial justice, and "400 Years of Black America's experience under slavery and Jim Crow" and related laws (**Supplementary Table 1B**).

Given that only five of the resolutions were adopted prior to 2020, it is not surprising that COVID-19 was the second most common theme (76 out of 128). Over half of the declarations included statistics or broad statements on the disproportionate impact of the COVID-19 pandemic on Black, Indigenous and Latinx communities. It seems that the confluence of COVID-19 and the death of George Floyd catalyzed a rapid proliferation of declarations of racism as a public health crisis as many of the declarations specifically note this. While COVID-19 was a common theme, police violence (28 of 128) and police reform (13 of 128) were less common components of the declarations (results not shown). There were also very few declarations

TABLE 1 | Racism as a Public Health Crisis legislation summary by state through September 30, 2020.

State	Municipalities identifying racism as a PH crisis prior to 10/1/20	Municipalities providing historical context of racism specific to the city, county, or state	Municipalities including maternal child health in the legislation on racism as a PH crisis	Municipalities including information on economic policies (e.g., living wage) in the legislation on racism as a PH crisis	Municipalities including plans for funding initiatives related to racism as a PH crisis
Alabama	None	None	None	None	None
Alaska	None	None	None	None	None
Arizona	None	None	None	None	None
Arkansas	Fayetteville	None	Fayetteville	None	Fayetteville
California	Coachella, Fontana, Goleta, Indio, Los Angeles, Long Beach, Moreno Valley, Oxnard, Palm Springs, Redlands, Rialto, Riverside City, Riverside County, San Bernardino County, San Luis Obispo, Santa Barbara, Santa Clara County, Santa Cruz County, Ventura City, Yolo County	Goleta, Los Aneles, San Bernardino County, Santa Barbara	Los Angeles, Long Beach, Oxnard, Rialto, San Bernardino County, Santa Clara County, Santa Cruz County	None	Long Beach, San Luis Obispo, Santa Clara County, Ventura City
Colorado	Denver	Denver	None	None	None
Connecticut	Bloomfield, Bridgeport, Colchester, Easton, Glastonbury, Hamden, Hartford, Manchester, New Britain, New Haven, New London, Simsbury, South Windsor, West Hartford, Windham, Windsor	None	Bloomfield, Bridgeport, Hamden, New Britain, Simsbury, West Hartford, Windham, Windsor	None	None
Delaware	None	None	None	None	None
Florida	Hillsborough County	None	Hillsborough	None	None
Georgia	DeKalb County	None	DeKalb County	None	None
Hawaii	None	None	None	None	None
Idaho	None	None	None	None	None
Illinois	Cook County	None	Cook County	None	None
Indiana	Evansville, Indianapolis Marion County	Indianapolis Marion County	Indianapolis Marion County	Indianapolis Marion County	None
Iowa	None	None	None	None	None
Kansas	None	None	None	None	None
Kentucky	None	None	None	None	None
Louisiana	None	None	None	None	None
Maine	Portland	Portland	None	None	None
Maryland	Anne Arundel County, Montgomery County, Prince George County	Montgomery County, Prince George County	Montgomery County	None	None
Massachusetts	Beverly, Boston, Chicopee, Everette, Framingham, Holyoke, Longmeadow, Medford, Revere, Somerville, Springfield	None	Springfield	None	Beverly, Boston, Everette, Revere, Somerville
Michigan	Eaton County, Flint, Genesee County, Ingham County, Jackson, Kalamazoo County, Lansing, Pontiac, Port Huron, Washtenaw County, Wayne County, Westland, Ypsilanti, State At Large	Eaton County, Flint, Ingham County, Kalamazoo County, Lansing, Washtenaw County, State At Large	Eaton County, Genesee County, Ingham County, Kalamazoo County, Lansing, Pontiac, Washtenaw County, Westland, State At Large	None	Genesee County, Lansing, State At Large, Washtenaw County
Minnesota	Hennepin County, Minneapolis, Olmsted County, State At Large	Minneapolis	Minneapolis	None	Hennepin County, Minneapolis
Mississippi	None	None	None	None	None

(Continued)

TABLE 1 | Continued

State	Municipalities identifying racism as a PH crisis prior to 10/1/20	Municipalities providing historical context of racism specific to the city, county, or state	Municipalities including maternal child health in the legislation on racism as a PH crisis	Municipalities including information on economic policies (e.g., living wage) in the legislation on racism as a PH crisis	Municipalities including plans for funding initiatives related to racism as a PH crisis
Missouri	Kansas City	None	None	None	None
Montana	None	None	None	None	None
Nebraska	None	None	None	None	None
Nevada	State At Large	None	None	None	None
New Hampshire	None	None	None	None	None
New Jersey	Leonia	None	None	None	None
New Mexico	None	None	None	None	None
New York	None	None	None	None	None
North Carolina	Ashville, Charlotte, Durham, Mecklenburg County, New Hanover County, Pitt County, Wake County	Charlotte, Mecklenburg County	Ashville, Durham, Mecklenburg County, New Hanover County, Pitt County	Wake County	None
North Dakota	None	None	None	None	None
Ohio	Akron, Athen, Canton, Cincinnati, Cleveland, Columbus, Cuyahoga County, Dayton, Elyria, Franklin County, Hamilton County, Lima, Lorain County, Montgomery County, Piqua, South Euclid, Summit County, Stow, Upper Arlington, Westerville, Warren, Youngstown	Akron, Athen, Canton, Cincinnati, Cleveland, Columbus, Cuyahoga County, Dayton, Franklin County, Hamilton County, Montgomery County, Piqua, Summit County, Stow, Westerville, Warren	Akron, Athens	Cleveland	Columbus, Cuyahoga County
Oklahoma	Ardmore	None	None	None	None
Oregon	None	None	None	None	None
Pennsylvania	Allegheny County, Erie, Pittsburgh	Allegheny County, Erie, Pittsburgh	Allegheny County, Erie, Pittsburgh	None	Pittsburgh
Rhode Island	None	None	None	None	None
South Carolina	None	None	None	None	None
South Dakota	None	None	None	None	None
Tennessee	Chattanooga, Memphis, Shelby County	Memphis	Chattanooga	None	Chattanooga
Texas	Austin, Dallas County, Harris County, San Antonio	Austin, Dallas County, Harris County, San Antonio	Austin, Dallas County, Harris County, San Antonio	None	None
Utah	None	None	None	None	None
Vermont	Burlington	None	None	None	None
Virginia	None	None	None	None	None
Washington	King County	King County	King County	None	None
West Virginia	None	None	None	None	None
Wisconsin	Cudahy, Dane County, Kenosha County, Milwaukee, Milwaukee County, Rock County, State At Large	None	Cudahy, Dane County, Kenosha County, Milwaukee, Milwaukee County	None	Cudahy, Milwaukee
Wyoming	None	None	None	None	None

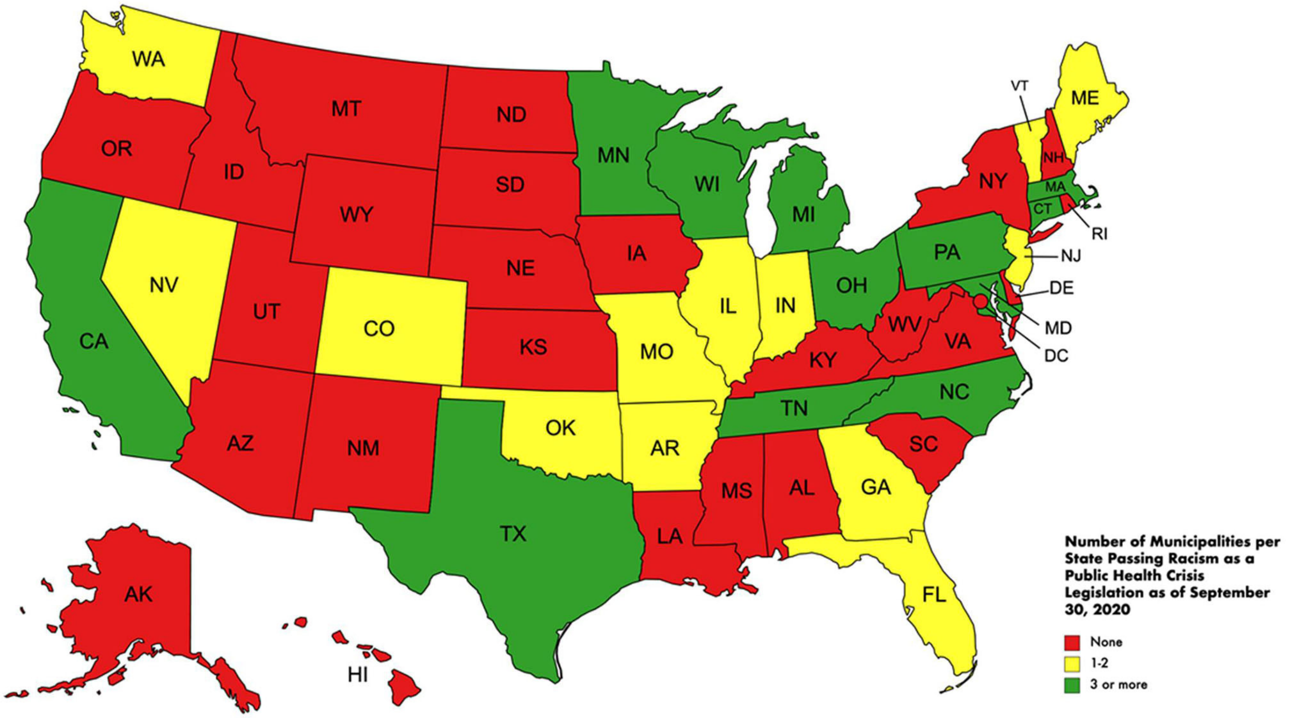

FIGURE 1 | Geographical distribution of racism as a Public Health Crisis legislation through September 30, 2020.

that discussed economic inequities and related policies (**Table 1** besides general statements about social determinants of health).

Multiple resolutions included content related to social determinants of health (SDOH) and specific health outcomes. A total of 66 resolutions discussed SDOH and 63 discussed health outcomes. Common language related to social determinants of health included naming key areas such as "housing, education, employment, transportation, and criminal justice (31)." Several resolutions included specific language related to maternal and child health (**Table 1**). Specific examples include racial inequities in infant and maternal mortality, key indicators used to capture the health of a nation.

In addition to background, definitions of racism, examples of health inequities, and overall rationale for the declarations and resolutions, we reviewed action items (**Table 2**) and whether specific funding was named or allotted (**Table 1**). Overall, action steps were frequently absent from the declarations of racism as a public health crisis. We classified action items as passive or active. Passive action steps convey a commitment to advocate for equitable policies and facilitate discussions on the impacts of systemic racism but fail to mention how municipalities explicitly plan to make equitable decisions moving forward. Various municipalities in nine states had mostly passive action steps. For example, Ardmore, Oklahoma, noted a need to consider tools to eliminate racism, but there is no indication of how they plan to achieve this. Municipalities in 16 states had overall active action steps. Active action steps include specific plans to enact equitable and systemic changes in neighborhoods and school districts as well as community investigations and future investment. For example, Ventura City, California, has committed to enacting police reform. They specifically aim to formalize a ban on excessive force and reiterate police department policies on these matters. Overall, action steps emphasized data-driven review, community reparations, police reform, and the creation of offices and committees geared toward racial equity.

Approximately 22 (17%) resolutions had explicit language related to funding for initiatives and actions (**Table 1**). Most of these funding plans were not concrete plans but rather an investment consideration, a vague suggestion of budget reallocation, or merely a recognition of the need to acquire funds somehow. In this regard, many of the funding initiatives could be described as passive. Only four municipalities/cities (Long Beach, San Luis Obispo, Boston, and Lansing) explicitly mention the amount of funding they plan to put toward their proposed action steps and reform. Long Beach's city budget for the 2020–21 fiscal year includes $3.2 million in funding for racial equity. San Luis Obispo plans to allocate $160,000 of city funds for diversity and inclusion. Boston plans to reallocate $3 million of its $414 Million police budget to these matters of public health. Lansing proposed $100,000 from Police Department Budget, $20,000 from Mayor's Office, and $50,000 from the Human Relations and Community Service office to put toward an Equity and Anti-Discrimination Fund.

TABLE 2 | Summary of legislation implemented active and passive action steps related to racism as public health crisis.

State	Examples of active action steps Include name of municipality	Examples of passive action steps Include name of municipality	Overall, are actions in the state more active or passive?
Alabama	None	None	None
Alaska	None	None	None
Arizona	None	None	None
Arkansas	Foster small business development, affordable housing and community infrastructure serving minority residents and those of lower income (Fayetteville) Develop and implement a Racial Equity Strategic Action Plan (Fayetteville)	None	Active
California	Commit to formalizing a ban on the use of excessive force and reiterating police departments policies about excessive force (Ventura) Creation of an *ad hoc* Special Committee on Equity and Social Justice (Coachella)	Commitment to action that recognizes and addresses racism by ensuring meaningful progress (Yolo County)	Active
Colorado	The expansion of documented equity decision-making frameworks that are transparent to the public (Denver)	[We support]... agency organizational workplans to address and correct embedded policies that discriminate and perpetuate racism (Denver)	Passive
Connecticut	Improve the quality of the data collected and analyze using qualitative and quantitative data (New Britain) Appoint a Commission on Racial Justice and Equity, composed of nine members (Glastonbury)	Identify activities to enhance diversity and ensure antiracism principles (Easton)	Active
Delaware	None	None	None
Florida	Periodic reports to assess progress and capitalize on opportunities to further advance racial equity (Hillsborough County)	Promote equity through all policies (Hillsborough County)	Passive
Georgia	Periodic reports to assess progress and capitalize on opportunities to further advance racial equity (DeKalb County)	Promote equity through all policies (DeKalb County)	Passive
Hawaii	None	None	None
Idaho	None	None	None
Illinois	Create the Office of Health and Social Equity (Cook County)	Encourage others [local, state and national entities to recognize racism as a public health crisis (Cook County)]	Active
Indiana	Investigating in disadvantaged neighborhoods that suffer most from racial disparities (Evansville)	Honest and open debate, discussion and analysis (Evansville and Indianapolis Marion County)	Active
Iowa	None	None	None
Kansas	None	None	None
Kentucky	None	None	None
Louisiana	None	None	None
Maine	Establish a Racial Equity Steering Committee (Portland)	None	Active
Maryland	Work with the county police department to implement police reform such as banning chokeholds and strangleholds (Anne Arundel and Prince George Counties)	Continue to advocate locally and nationally for relevant policies that improve health in communities of color (Montgomery County)	Active
Massachusetts	Development of a "Boston Health Equity Now" plan with details objective and measurable goals (Boston) Compile specific race and ethnic data documenting health inequities (Beverly) Establish Citizen Police Advisory Committee to the Mayor (Holyoke)	Promote racially equitable policies and community support (Springfield)	Active
Michigan	Increase the budget for the Public Health Department and Racial Equity Office (Washtenaw County)	Develop an anti-discrimination policy (Jackson County)	Active
Minnesota	Develop annual report with racially disaggregated data on the health of BIPOC and recommendations for actions to eliminate disparities and improve overall health (Minneapolis)	Study and investigate this issue with special emphasis on the services the county provides (Olmsted County)	Active

(Continued)

TABLE 2 | Continued

State	Examples of active action steps Include name of municipality	Examples of passive action steps Include name of municipality	Overall, are actions in the state more active or passive?
Mississippi	None	None	None
Missouri	Assess internal policies to ensure racial equity is a core element of the city (Kansas City)	Encourage other local, state, and national government to recognize racism as a public health crisis (Kansas City)	Passive
Montana	None	None	None
Nebraska	None	None	None
Nevada	None	Declare Racism a Public Health Crisis (State at Large)	Passive
New Hampshire	None	None	None
New Jersey	Encourage racial equity training among community partners, vendors contractors (Leonian)	Promote equity through policies (Leonian)	Passive
New Mexico	None	None	None
New York	None	None	None
North Carolina	Establish a Community Reparations Commission (Ashville)	Support policies that promote racial equity (Charlotte)	Passive
	Create periodic reviews to assess racial equity progress (Durham)	Encourage others (states, cities, counties) to promote racial equity policies (New Hanover County)	
North Dakota	None	None	None
Ohio	Systemic review of Canton City Public Health department programs (Canton)	Commits to open discussion on race and its impact (Lima)	Active
	Remove discriminatory laws (i.e. Stop and Identify Statute) (South Euclid)	Strengthen government/community partnerships (Lorain County)	
Oklahoma	None	Consider tools to eliminate racism (Ardmore)	Passive
Oregon	None	None	None
Pennsylvania	Create internal policies, procedures, and assessments for racial equity (Allegheny County, Pittsburgh)	Advocate for relevant policies to improve health of communities of color (Allegheny County, Pittsburgh)	Active
	Create status report to recommend and review policies to reduce racial disparities (Erie)	Commits to addressing racism (Erie)	
Rhode Island	None	None	None
South Carolina	None	None	None
South Dakota	None	None	None
Tennessee	Address minority health inequities, including a systematic, data-driven focus on poverty, economic mobility, inequities, and other factors that may impact the social determinants of health (Chattanooga)	Commitment to enacting policies that defend minorities and eradicate the effects of Systemic Racism (Shelby County)	Passive
Texas	Promoting racially equitable city services, programs and policies from neighborhood investment to infrastructure and transportation to economic and workforce development (San Antonio)	Develop policies, programs, and services that work to dismantle systemic racism (Harris County)	Active
Utah	None	None	None
Vermont	Develop a plan to ensure school district curriculum and teaching is culturally relevant and anti-racist (Burlington)	Actively fighting racist practices and participating in creating just and equitable systems (Burlington)	Active
Virginia	None	None	None
Washington	Board will assess, revise, and write guiding documents and policies with a racial justice and equity lens (King County)	Advance a public health approach in addressing institutional and systemic racism (King County)	Active
West Virginia	None	None	None
Wisconsin	Incorporate inclusion and equity in county practices, offer educational trainings/activities to employees and provide tools for members to engage actively with communities of color (Milwaukee County)	Advocate for relevant policies to improve health in communities of color (Kenosha County)	Active
Wyoming	None	None	None

DISCUSSION AND RECOMMENDATIONS

In our review of municipal and state government resolutions and declarations related to Racism as a Public Health Crisis, more than 100 areas adopted resolutions, and there was a tremendous increase in resolutions in 2020 by the Spring and Summer. The adoption of these policies can be framed as a first step in naming racism as critical in addressing racial health inequities and other racial inequities in housing, transportation, and policing. Public Health Critical Race Praxis (PHCRP), which is an extension of Critical Race Theory to the field of public health, argues that racial inequities in health should not only be identified and named but eliminated (32). Given that over 100 declarations and resolutions garnered enough support to pass in multiple state and local governments is worthy of celebration, and simultaneously signals an opportunity to advocate for further action to eliminate racism. Also, the majority of the declarations and resolutions passed are led by local city, town and municipal governments. There is strength in having local entities lead local efforts, but there are some limitations when action and investment at the state and federal level do not follow.

PHCRP also acknowledges that understanding how racism shapes health is central for further action. A number of policies included language related to the levels of racism. The focus on systemic racism is meaningful because it uplifts the importance of large-scale solutions that are required to remedy the pervasive and malignant problem of racism. The focus on systemic racism in many of the resolutions and declarations may also be a result of the use of copy and paste templates that served to guide governing bodies in drafting the declarations. These declarations referenced definitions of racism, racial justice and historical and contemporary examples oppression, particularly experienced by Black communities in some of the "copy and paste" language. Although many of the declarations use general language to describe racism and its impact on multiple communities (e.g., Black, Indigenous, and Latinx), we identified the limited reference to historical oppression experienced by Indigenous populations and limited contemporary examples with the exception of the framing and definition of racism and the disproportionate impact of COVID-19 on Black, Indigenous, and Latinx communities.

There was some regional clustering of resolutions across several northern states and California. Some of the early states to adopt legislation before 2020 included the northern states such as Wisconsin, Michigan, and Pennsylvania. In reviewing, a source produced by the American Public Health Association that regularly updates its list of state and municipal resolutions and declarations, areas in Hawaii, Kentucky, Missouri, Utah, Virginia, Washington D.C., and West Virginia passed declarations after October 2020 for a total of 190 resolutions (as of March 21, 2021) (33). In addition to the geographic spread of municipalities making declarations, we observed wide variation in the declarations' content and the explanation of the role of racism in health. Many resolutions mentioned long-standing racial inequities in conditions such as cardiovascular disease, maternal, and infant mortality and more recent disparities in COVID-19, as ways that racism is reflected in health outcomes.

We also reviewed resolutions to identify specific action steps and appropriation of funding. Although a small proportion of the resolutions included action items, these are examples for how other municipalities can incorporate specific actions. In addition to the stated actions in the resolutions, Dr. Chapple-McGruder solicited responses *via* Twitter of specific action items or steps municipal governments were taking to address racism as a public health crisis or issue (**Supplementary Table 1C**). Although not a comprehensive review and only includes those on Twitter and willing and able to respond, some of the responses included the formation of an equity committee to execute new work, a new police oversight commission, and Washington, DC passed the REACH Act with five key components such as racial equity impact assessment, processes for accountability, and development of a commission (34, 35). Additionally, one recently published review of three declarations of racism as a public health crisis found that while the declarations are an important first step, tremendous *harm* was also done (36). This includes publicity and attention to politicians while undermining existing community or grassroots anti-racism efforts (36).

In addition to state, county, and city resolutions, there were some adopted by health departments/boards of health in states such as Arizona, Colorado, North Carolina, and Illinois (33). Also, several professional societies adopted statements and resolutions. Examples include the American Public Health Association as stated previously, the American Medical Association, and the American Psychiatric Association (37–39). The board of health and professional organizational statements and resolutions included clauses that acknowledges the history of racism in the US, denounced police brutality and recognizes the role of racism in the disproportionate impact of COVID-19 on Black, Indigenous, Latinx, and other communities of color. Some statements also urge other health and government agencies to follow suit. Similar to the other reviewed states and municipalities, most do not mention any financial considerations or explicit action steps.

After a review of the resolutions and declarations related to Racism as a Public Health Issue, there are specific recommendations that would be critical moving forward. First, extending action steps beyond training to include implementation of skills and knowledge gained is important. A majority of the resolutions call for training and the review of hiring practices in the government entities. While important, actions must go further to support communities negatively impacted by institutions with historical and contemporary practices that reinforce racism. Additionally, it is critical that those who are making decisions and in the position to implement change also have the capacity and tools to transform systems and address racism. This includes increasing the capacity of government entities and workers to be able to address racism. Another recommendation is transparency and direct partnership with communities. Communities most affected should be centered in this work, in positions to make decisions, be co-leaders and provided with the resources and funding to do this work (40–42). This includes but is not limited to community members leading in developing plans for implementing actions related to addressing racism as a public health issue as well as being allocated specific funds for any work to execute actions related to declarations of racism as a public health issue.

Additionally, these declarations and resulting actions must be intersectional and acknowledge that multiple systems of oppression converge, making the experiences of Black women for example unique. This also means being intentional about intersecting social groups and resulting hierarchies within systems related to racial and ethnic groups, immigrants, and LGBTQIA+ communities. Finally, it will also be important to hold systems accountable (including health, housing, criminal justice, and economic development) to enact change and document the impact. Currently, limited declarations have explicit language about measuring impact through data or specific accountability metrics.

CONCLUSION

Given the current urgency of addressing racial inequity in the United States and specifically racial inequity in health, resolutions, and declarations naming racism as well as specific steps for undoing racism are critical. Several action steps have been noted in the current body of resolutions related to Racism as a Public Health Crisis, but more is needed. Intentional action is necessary to move the declarations from the performative space to actual anti-racism intervention. As racism was structurally embedded into systems, such as housing, interventions will need to occur at all levels, including within government and policy. Moving forward, it is clear that anti-racism action items will require the environment (e.g., "political will") for implementation and may differ at various levels (the local, state, and national level). Further, as these are complex issues, that have existed for centuries, the financial commitment to funding anti-racism interventions will need to extend over a significant period of time. Abrupt ending to funding will only replicate the band-aid solutions that have not worked in the past. In the future, researchers could focus on understanding how racism is showing up and affecting people's lives, proximal and distal indicators that anti-racism interventions are working, and identifying and undoing other systems of oppression.

AUTHOR CONTRIBUTIONS

DM developed the research study, led analyses, and policy review. MM and MS were involved in the initial search and data extraction. JS, LA, and CT were involved in the secondary review, extraction, and synthesis of data. All authors were involved in writing, editing, and final approval of manuscript.

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SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpubh.2021.686807/full#supplementary-material

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Poverty, Racism, and the Public Health Crisis in America

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The purpose of this article is to discuss poverty as a multidimensional factor influencing health. We will also explicate how racism contributes to and perpetuates the economic and financial inequality that diminishes prospects for population health improvement among marginalized racial and ethnic groups. Poverty is one of the most significant challenges for our society in this millennium. Over 40% of the world lives in poverty. The U.S. has one of the highest rates of poverty in the developed world, despite its collective wealth, and the burden falls disproportionately on communities of color. A common narrative for the relatively high prevalence of poverty among marginalized minority communities is predicated on racist notions of racial inferiority and frequent denial of the structural forms of racism and classism that have contributed to public health crises in the United States and across the globe. Importantly, poverty is much more than just a low-income household. It reflects economic well-being, the ability to negotiate society relative to education of an individual, socioeconomic or health status, as well as social exclusion based on institutional policies, practices, and behaviors. Until structural racism and economic injustice can be resolved, the use of evidence-based prevention and early intervention initiatives to mitigate untoward effects of socioeconomic deprivation in communities of color such as the use of social media/culturally concordant health education, social support, such as social networks, primary intervention strategies, and more will be critical to address the persistent racial/ethnic disparities in chronic diseases.

Keywords: racism, structural inequities, poverty, race, social determinants of health

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> *I used to think I was poor, then they told me I wasn't poor, I was needy. Then they told me it was self-defeating to think of myself as needy, I was deprived. Then they told me underprivileged was overused, that I was disadvantaged. I still don't have a dime, but I have a great vocabulary—From a Jules Feiffer cartoon, 1965.*

Poverty is one of the most significant, yet understudied social conditions of the 21st century (1). This social condition can be defined in a number of ways; however, it can be summarized as the lack of resources necessary to meet basic human needs. Prosperity has been a primary focus in recent years with the rise in overall global wealth (2). But, the growth in economic and financial resources has not been equally distributed. The gap in resources between the affluent and the poor has been steadily increasing and global extreme poverty (individual income < United States [U.S.] \$1.90/day) increased in 2020, the first time in over two decades to 9.2%, after falling to a low of 8% in 2019 (3). Over 40% of the world lived on less than the U.S. \$5.50 a day in 2017 with most of the extreme poverty concentrated in Africa (3). The prevalence of extreme poverty in the U.S. is very low by global standards (3). However, the U.S. has one of the highest rates of poverty in the developed world and the worst index of health and social problems as a function of income inequality (4). For each additional household member, the level increases by \$4,480 a year. The level of relative poverty in the U.S. is determined by the federal poverty level (FPL), and for a single-person household, the 2020 poverty level was \$12,760 a year, or just under \$35 a day. The prevalence of communities being below the FPL varies by race and ethnicity with 24.2% American Indian/Alaskan Native, 21.2% of Black, 17.2% of Hispanic, 9.7% of Asian/Pacific Islander/Native Hawaiian, and 9% of White American families falling below 100% of the FPL (5). Furthermore, the inequities in wealth are even greater than income differences across racial and ethnic groups.

Black families in the U.S. have about one-twentieth the wealth of their White peers on average (6). For every dollar of wealth in White families, the corresponding wealth in Black households is five cents. Wealth inequality is not a function of work ethic or work hour difference between groups. Rather, the widening gap between the affluent and the poor can be linked to unjust policies and practices that favor the wealthy (2, 7–9). The impact of this form of inequality on health has come into sharp focus during the COVID-19 pandemic as the economically disadvantaged were more likely to get infected with SARS CoV-2 and die (10).

For many health providers, the link between poverty and health among health care providers has been primarily grounded in access to health care with several downstream effects of poverty that may include poor nutrition and substandard housing. This understanding is often influenced and perhaps confounded by the correlation between race and poverty, or racism and classism (11). A common narrative for the relatively high prevalence of poverty in marginalized minority communities is predicated on notions about them having poor work ethics and poor innate inabilities to achieve wealth. An over-reliance on the myth of meritocracy and a failure to understand root causes of poverty operating at community and individual levels can exacerbate poor patient-provider relations and perpetuate suboptimal patient outcomes among marginalized minority groups. Racial and economic marginalization has contributed to public and population health crises in the United States (U.S.) and across the globe (12, 13). However, poverty is much more than just a low household income. Poverty has been characterized in the following three ways: (1) economic well-being, commonly linked to income; (2) ability to navigate society as a function of an education or health status of the individual; and/or (3) social exclusion as a result of institutional behaviors, practices, and policies (1, 14). The purpose of this article is to discuss poverty as a multidimensional factor influencing health and explicate how racism contributes to and perpetuates the economic and financial inequality that diminishes prospects for population health improvement among marginalized racial and ethnic groups. We believe this discussion will help to inform a realistic way forward in the pursuit of health equity.

POVERTY AND HEALTH DISPARITIES, A HISTORICAL PERSPECTIVE

In the mid-1800's, Dr. James McCune Smith was the leading voice in the medical profession to argue that the health of the person was not primarily a consequence of their innate constitution, but instead reflected their intrinsic membership in groups created by a race structured society (15–17). This articulation of health disparities being linked to the racial caste system of America and inequitable social conditions is one of the earliest written descriptions of racism as the cause of health inequities and ultimately health disparities by a member of the American healthcare community. His arguments were scientifically validated when Dr. William Edward Burghardt Dubois reported his findings in 1899 from the first sociological study of Blacks in America, The Philadelphia Negro, demonstrating that racial differences in mortality in Philadelphia were explained by social factors (e.g., economic, sanitary, and education) and not innate racial traits or tendencies (18). Dr. Dubois documented how white supremacy policies, actions, and beliefs leading to discrimination, oppression, and more contributed to structural poverty and increased levels of despair, disease, and death (19). Thus, Drs. James and Dubois are considered by many to be the true pioneers who laid the foundation for future work clarifying racism rather than race as the cause of health disparities (20, 21).

Explicit notions of Black biological, intellectual, and moral inferiority often categorized as scientific racism have gradually moved from the mainstream to the margins over the last century as social movements advocated for the full citizenship of Black Americans. Despite the passing of civil rights legislation in the U.S. prohibiting discrimination in public arenas and civic engagement (e.g., Civil Rights Bill of 1866, Civil Rights Act of 1964, Voting Rights Act of 1965, and Civil Rights Act of 1968), structural racism, discrimination, and other harmful forms of bias continue to persist today (22–24). Many factors, such as explicit and implicit provider biases, medical and institutional mistrust (due to historic and contemporary mistreatment), and low self-esteem and stereotype threat, from internalized racism continue to impact our nation and further contribute to the genesis and perpetuation of health disparities (25). This was reified in the 1985 Report of the Secretary of the U.S. Department of Health and Human Services (U.S. DHHS) Task Force on Black and Minority Health, known as the Heckler Report, the first government-sanctioned assessment of racial health disparities (26), followed nearly two decades thereafter by the Institute of Medicine (IOM) Report on Unequal Treatment (25). The Heckler Report noted mortality inequity was linked to six leading causes of preventable excess deaths for the Black compared to the White population (cancer, cardiovascular disease, diabetes, infant mortality, chemical dependency, and homicide/unintentional injury) (26). The IOM Report focused on health care disparities and highlighted the role interpersonal racism can have on health outcomes for members of minoritized groups (25). These reports and others (9, 27–35) have led to a more robust focus on population health over the last few decades that has included a renewed interest in the impact of racism and social factors, such as poverty on clinical outcomes (1, 33).

POVERTY AND THE MYTH OF MERITOCRACY

The race is an antecedent and major determinant of socioeconomic status (SES) in the U.S.; therefore, it is not surprising that the successful implementation of discriminatory race-based policies premised on racial inferiority would produce racial disparities in SES. The term structural racism is used to capture the ways in which inequities are perpetuated through the racialized differential access to resources, opportunities, and services that are codified in laws, policies, practices, and societal norms (23, 32, 33, 36–40). This system harms marginalized populations at the expense of affording greater resources, opportunities, and other privileges to the dominant White society (23, 32, 33, 36–40). Importantly, a single identifiable perpetrator is not visible making its denial easy and its identification and dissolution challenging (41).

However, the role of structural racism in creating and sustaining poverty is rarely discussed in scholarly and public circles despite the publishing of seminal works, such as *Caste, Class and Race*, *Black Metropolis*, and *An American Dilemma* during the mid-20th century (42–44). These groundbreaking books laid the foundation for several sociological studies documenting key structurally racist policies and practices (i.e., residential segregation) that created communities comprised of racial and ethnic minorities that are beset with poverty and related factors, including high unemployment, poor schools, substandard housing, and limited social mobility (45–47). Most White Americans were not exposed to this scholarship nor the overwhelming financial and economic disadvantages faced by African Americans and other marginalized groups. As such, public discourse has been largely shaped by a narrative of meritocracy which is laced with ideals of opportunity without any consideration of the realities of racism and race-based inequities in structures and systems that have locked individuals, families, and communities into poverty-stricken lives for generations. Pervasive public policies spanning from slavery to voter suppression have and continue to severely limit opportunities for social mobility among marginalized groups, thereby perpetuating and hardening vast inequities in power, status, and resources that define our racial caste system and structure (9, 34, 48–50).

The narrative of meritocracy has also been extended to immigrants, but it is framed through a narrative of European immigrants who work hard and become successful. However, immigrants from Mexico, Central and South America, in particular as well as many refugees from poor Asian and African countries are also exposed to laws and policies that create and perpetuate a life confronting persistent inequality and perceptions of inferiority.

These practices of race-based, community-level disinvestment in each of the domains of the social determinants coupled with a lack of a national health program condemn oppressed populations such as Black and Hispanic Americans, American Indians, and disproportionately non-English speaking immigrants and refugees to remain in poverty and suffer from suboptimal health. Thus, poverty represents a critical public health condition that is both determined by and perpetuated by structural racism.

CONCEPTUAL FRAMEWORK OF POVERTY AND HEALTH

Socioeconomically disadvantaged populations across the globe bear a disproportionate burden of chronic diseases and are least likely to receive evidence-based care leading to optimal clinical outcomes (51, 52). A basic understanding of the vulnerabilities of the marginalized and oppressed populations will facilitate the adaptation and adoption of the necessary policies to support disease treatment and prevention guidelines (52). The WHO has identified three key tenets to improving health at a global level that each reinforces the impact of socioeconomic factors: (1) improve the conditions of daily life; (2) tackle the inequitable distribution of power, money, and resources, the structural drivers of those conditions of daily life, globally, nationally, and locally; and (3) develop a workforce trained in the social determinants of health and raise public awareness about social needs and the social determinants of health (53). Social factors and health behaviors have contributed substantially to the growing non-communicable disease epidemics (e.g., obesity, diabetes, hypertension, and mental health disorders). A deeper understanding and integration of social and behavioral sciences is needed to equip medical and public health communities to address the challenge of providing quality care in the setting of contrasting financial and public health policies to control costs (54). A conceptual framework emphasizing the key pathways through which poverty and structural racism may influence wellness and health outcomes is shown in **Figure 1**.

PERNICIOUSNESS OF PERSISTENT POVERTY

The Social Determinants of Health (SDoH) are macro-level factors that shape the economic, physical, psychological, and social environments in which people live (56). They are often viewed as having the capacity to enhance or diminish the resources available to individuals to promote health, including but not limited to the food supply, housing, economic and social relationships, transportation, employment, criminal justice, education, and health care, whose distribution across populations effectively determines length and quality of life and

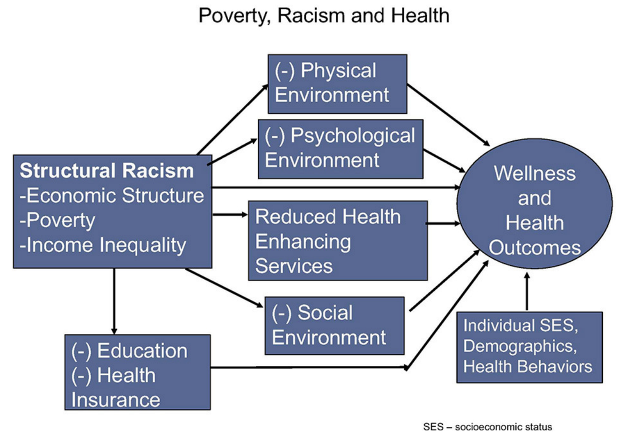

FIGURE 1 | A conceptual framework emphasizing the key pathways through which poverty and structural racism may influence wellness and health outcomes [adapted from Wen et al. (55)].

the programs and policies that direct them (23). The World Health Organization Commission on Social Determinants of Health has found that the poor health status of low resource persons, communities, and nations is directly related to the unequal distribution of power, income, goods, and services (53). Social structures and institutions with unequal and unfair social policies, economic arrangements, and practices have contributed to much of the health inequity present in the world. A brief overview of select medical conditions follows.

Communicable diseases: Poverty can contribute to many communicable diseases including many acute and chronic infectious diseases. Poverty and the associated disadvantage of personal and social resources often lead to unsafe habitation and lack of cleanliness, unhealthy diets, and malnutrition (including maternal-fetal), poor water quality, increased exposure to infectious diseases, environmental pollution and toxins, and more (57). The rates of infectious disease morbidity and mortality in low resource households, communities, and nations over decades bear witness to the considerable impact of economic inequality on health (53).

Maternal and child health: Poverty has been strongly linked with poor reproductive outcomes, both independently and in combination with exposure to discrimination (58–61). Maternal and child health among low-income and racial/ethnic minority groups are particularly susceptible to psychological stress, nutrition, substance use, and more (58, 62, 63).

Incarcerated youth: Globally and in the US, incarceration rates are higher among poor and marginalized groups (64). For children within the criminal justice system or otherwise deprived of liberty are at particularly high risk of violence, rape and sexual assault, sexually transmitted diseases, substance use disorders, mental illnesses, and physical disorders, many of which will continue throughout the life course (65, 66). Furthermore, adult incarceration can create health deficits in familial youth (64).

Chronic non-communicable diseases: Similar patterns of disparities negatively are observed in the incidence and prevalence of chronic diseases, such as cardiovascular disease, diabetes, kidney disease, and others (67–70). Poverty can also have indirect implications for health (5, 71). Race-based economic disadvantages can influence other social determinants as the intersection with poverty can further limit housing, educational, and employment opportunities, and these have also been linked to worse health outcomes (58, 72–74). Poverty can also influence individual perceptions and behaviors (75). Relative and absolute economic deprivation can shape expectations and perceived life chances in a manner that individuals focus on surviving rather than thriving.

Mental health: In addition to the more traditional mental health conditions that may limit daily functioning, the additional chronic stress associated with navigating basic needs in a state of poverty can impair cognitive processing and the ability to remember and to perform implementation tasks (76), along with mistrust which may impact the ability of the individual to follow up on medical appointments, provider recommendations and more to conspire to limit health outcomes (77).

In summary, the impact of poverty on both the physical and psychological aspects of a person can play an important role in the many dimensions associated with the development and progression of diseases. The socioeconomic status of the individual may considerably impact the perception of the individual of many life issues, such as food, education, language, and time (75). While these concepts may be apparent and easily recognizable in other social disciplines, their presence and implications may be lost or concealed to many health care providers. Therefore, an understanding of how poverty may influence worldviews is critical for health professionals to truly understand the diverse group of patients they care for and how to better connect with those in an impoverished situation to optimize the effectiveness of traditional and alternative health strategies and recommendations. **Table 1** highlights the influence of socioeconomic class including income on the context of patient-specific needs, values, and preferences, as well as considerations as to how racism may be operating in that setting.

Poverty, Refugee, and Migration

As a large nation founded by immigrants, the United States inevitably and receives a large number of refugees, documented, and undocumented immigrants seeking a better life. The national narrative is that immigrants will find employment, gain some measure of socioeconomic equity and become eligible for health insurance. Unfortunately, this ideal only holds true for a subset of preferred immigrants largely from wealthy European countries. Individuals from formerly colonized nations in Central or South America, Asia, or Africa who come to the United States are often beset with persistent marginalization, poverty, and poor health (78, 79). Furthermore, the likelihood that groups will be placed in such a situation is grounded in racial and ethnic discrimination as well as religious discrimination (11). Many immigrants with limited resources experience a combination of stressors, including discrimination, isolation, uncertainty, and mental health disorders from posttraumatic stress symptoms, depression, anxiety alcohol, and substance use to posttraumatic

TABLE 1 | Socioeconomic class and values of key determinants of health [adapted from Payne and Blair (75)].

	Poverty	Middle class	Wealth	Role of racism
Food	Key question: Did you have enough? Quantity important.	Key question: Did you like it? Quality important.	Key question: Was it presented well? Presentation important.	Key question: Why do poor and mostly non-White people like to eat that way?
Education	Valued and revered as abstract but not as reality.	Crucial for climbing the success ladder and making money.	Necessary tradition for making and maintaining connections.	Maintain substandard resources for schooling in Black and other minoritized school districts thereby perpetuating inequitable higher education and employment opportunities
Destiny	Believes in fate. Cannot do much to mitigate chance.	Believes in choice. Can change future with good choices now.	Noblesse oblige.	Reinforce destiny to a lower caste as fate, grounded in innate group differences
Language	Casual register. Language is about survival.	Formal register. Language is about negotiation.	Formal register. Language is about networking.	Promote narratives that focus on survival for poor and mostly non-White people and reinforce the situation is innate and not due to the racialized caste structures of society
Family structure	Tend to be matriarchal.	Tends to be patriarchal.	Depends on who has money.	Promote laws and policies that require a fractured family setting to be eligible for safety net resources and perpetuate incarceration programs to target and generate and maintain matriarchal social structures in poor and mostly non-White communities
World view	Sees the world in terms of local settings.	Sees the world in terms of national settings.	Sees the world in terms of international view.	Ensure as many as possible poor and mostly non-White people see the plight in their local setting as fixed and due to their innate inferiority
Time	Present most important. Decisions made for the moment based on feelings or survival.	Future most important. Decisions made against future ramifications.	Traditions and history most important. Decisions made partially on the basis of tradition and decorum	Promote narratives that equity and justice to always come a little later. To be patient and that now is never the right time

stress symptoms (80, 81). In addition to researchers, providers have acknowledged the importance of poverty, discrimination, and other structural barriers on the lived experiences of immigrant clients and how it may impact their health (80).

WHAT MIGHT BE THE WAY FORWARD?

An aphorism commonly attributed to the former Center for Medicare and Medicaid Services (CMS) director Don Berwick is "Every system is perfectly designed to achieve the results it gets." Our society has been outstanding in perpetuating the conditions that lead to and maintain poverty for a disproportionately high percentage of people of color. Unlike many narratives about poverty and the innate values of people of color, no one wakes up wanting to be poor or sick. Similar to most other major institutions, the health profession has chosen to work around the margins of poverty and to study and practice what is the best way to treat patients with limited resources, limited social support, and multiple exposures that develop or worsen the disease. While the stature of the health profession has given it an immense level of privilege and power that could be used to achieve different results in a nation with immense wealth, we have chosen as a collective not to address the root causes because it would conflict with the white supremacy ideology of a caste-based society. Continuing the same approach to medical education in the setting of our rapidly increasing wealth gap will lead to training physicians and other healthcare providers on how to most effectively care for fewer and fewer people. Creating a new generation of healthcare providers dedicated to mitigating the many social factors that conspire to perpetuate health disparities is one important step toward how the profession can rebuild patient trust and ultimately improve patient outcomes.

The solutions must involve stakeholders from across diverse sectors (82). The medical community and related stakeholders should adopt a strategic approach to address the financial and related public policy issues that will enable the delivery of appropriate clinical care to marginalized patient populations including low those with low SES, minoritized communities, and non-European immigrants and refugees (40, 48, 54, 83). The Affordable Care Act (ACA) was one such policy that dramatically increased the insurance coverage eligibility for a large number of low-income young Americans (84), with important consequences for mitigating health disparities as well as possibly reducing bankruptcy related to health care costs (85), although other data suggest that there has been no impact on bankruptcy (86). Barcellos et al. (87) reported persons with a lower income (100–250% FPL) were 31% less likely to score above the median on ACA knowledge and 54% less likely to score above the median on health insurance knowledge vs. persons with higher income levels (>400% FPL). These findings highlight the need to not only implement health policies to increase access to care for lower-income individuals but also the need to ensure such policies and associated programs are reaching those in need. The ACA may set the stage for not only more available care but also more structured medical care systems which can help improve health outcomes (88). However, improved outreach and education of the potential benefits of and access to the ACA in lower-income communities and support to ensure people are enrolled is still required (87).

A major challenge for the broader medical community is to reconceptualize how it might improve each domain that impacts health outcomes, beyond those limited to a procedure or prescription. Increasing the awareness of environmental and social factors that contribute to health disparities must be followed by actions, such as cost-effective policies, to improve disease prevention and care in impoverished communities, especially in the setting of increasing inequities in wealth and many of the other SDoH (88–92). Healthcare providers can directly address many of the factors crucial for closing the health disparities gap by recognizing and trying to mitigate the race-based implicit biases many physicians carry (93), as well as leveraging their privilege to address the elements of institutionalized racism entrenched within the fabric of our society, starting with social injustice and human indifference (91, 94). Examples of evidence-based initiatives to mitigate untoward effects of socioeconomic deprivation include the use of videos and/or novellas (95, 96), the use of social support, such as social networks (97), and primary intervention strategies including the use of mobile clinics, lay health workers, and patient navigators to address chronic diseases (98–101). Finally, the healthcare sector should not miss the opportunity to learn important lessons as it strives to advance the necessary policies to improve social welfare and health outcomes, as the existence of health inequities provides unique, unrecognized opportunities for understanding biological, environmental, sociocultural, and healthcare system factors that can improve clinical outcomes (88–92).

> *"Overcoming poverty is not a gesture of charity. It is an act of justice. It is the protection of a fundamental human right, the right to dignity and a decent life"—Nelson Mandela former President of South Africa.*

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

AUTHOR CONTRIBUTIONS

KN wrote the first draft of the manuscript. BB, MB, CF, and RT wrote sections of the manuscript. All author contributed to conception and design of the study, contributed to manuscript revision, read, and approved the submitted version.

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REVIEW
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Abandon “Race.” Focus on Racism

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The concept of “race” emerged in the 1600s with the trans-Atlantic slave trade, justifying slavery; it has been used to justify exploitation, denigration and decimation. Since then, despite contrary scientific evidence, a deeply-rooted belief has taken hold that “race,” indicated by, e.g., skin color or facial features, reflects fundamental biological differences. We propose that the term “race” be abandoned, substituting “ethnic group” while retaining “racism,” with the goal of dismantling it. Despite scientific consensus that “race” is a social construct, in official U.S. classifications, “Hispanic”/”Latino” is an “ethnicity” while African American/Black, American Indian/Alaska Native, Asian/Pacific Islander, and European American/White are “races.” There is no scientific basis for this. Each grouping reflects ancestry in a particular continent/region and shared history, e.g., the genocide and expropriation of Indigenous peoples, African Americans’ enslavement, oppression and ongoing disenfranchisement, Latin America’s Indigenous roots and colonization. Given migrations over millennia, each group reflects extensive genetic admixture across and within continents/regions. “Ethnicity” evokes social characteristics such as history, language, beliefs, customs. “Race” reinforces notions of inherent biological differences based on physical appearance. While not useful as a biological category, geographic ancestry is a key social category for monitoring and addressing health inequities because of racism’s profound influence on health and well-being. We must continue to collect and analyze data on the population groups that have been racialized into socially constructed categories called “races.” We must not, however, continue to use that term; it is not the only obstacle to dismantling racism, but it is a significant one.

Keywords: racism, race, racialization, racial classification, racial/ethnic classification, public health monitoring, public health research

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INTRODUCTION AND OVERVIEW

Racism is a public health crisis requiring bold action on many fronts. One of those fronts, perhaps surprisingly, is semantic and conceptual in nature; this does not, however, mean that the issue is unimportant or abstract. Language has power. Words can matter. Words have meaning that can inspire, promote, condone, justify, or inhibit actions. Words are tools we use to build or reinforce a shared understanding. Take the word “race,” for example. The concept of “race” emerged in the late seventeenth century, with the rise of the Transatlantic slave trade, and was used to justify slavery by regarding Africans as innately and biologically inferior (1–7). “Race,” as construed since then and now, refers to the classification of humans based on phenotype—observable physical differences—which are assumed to reflect inherent biological differences. “Race” has been used to justify the exploitation, denigration, and decimation of groups of people throughout our history. Even when those using the term underscore the distinction between phenotype and genotype (underlying genetic makeup), “race” still is and will continue to be implicitly conceptualized as biological. This paper's aim is to initiate discussion of what will undoubtedly be a controversial proposal: to abandon the term "race" as a way of categorizing humans, while retaining the term "racism" as a necessary tool for dismantling it.

Instead of "race" we propose that "ethnic group" or "ethnicity" be used to encompass what are now commonly referred to as "racial or ethnic groups," an approach that has prevailed in much of Europe for decades. We propose continued use of the terms African American/Black, American Indian/Alaska Native, Asian American, European American/White, Latino/Hispanic, Native Hawaiian/Other Pacific Islander, but explicitly denoting them as ethnic groups, reflecting geographic origin and ancestry, not "races," which intrinsically connotes biological differences. All of these terms denote geographic ancestry in a particular continent or other large region of the world and the shared history and language, beliefs, and/or customs that often accompany geographic ancestry. The concept of ethnic group or ethnicity has been criticized at times as too ill-defined and broad to be useful, given the diversity within each group;(8, 9), ideally we would monitor and study much smaller ethnic groupings according to clear, explicit criteria. These large geographic ancestry groupings are, however, at a minimum, critically important to continue to monitor and study, principally because of racism, which holds profound, which holds profound implications for health and well-being. These groupings reflect—albeit very roughly—how people are perceived and treated.

Using "ethnic groups" to encompass not only those groups that have traditionally been referred to as such, but also those now called "races" or "racial groups" is more consistent with science than the current approach. The scientific consensus about "race" today is that it is a fundamentally social rather than biological construct. The differences in superficial secondary characteristics such as skin color and hair texture across different "racial" groups do not correlate with underlying fundamental biological differences (10–13). Given human migrations over tens of thousands of years, each group defined by geographic ancestry reflects extensive genetic admixture across and within continents/regions. For example, Baharian et al. (14) estimated that African Americans today have approximately 16.7% European ancestry; Solovieff et al. (15) concluded that African Americans have "from 20 to 30% admixture with Europeans."

Despite this knowledge, in official U.S. public health classifications, "Hispanic" or "Latino" is regarded as an ethnic group, whose members can be of any "race," while African American/Black, American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, and European American/White are classified as "races." There is no scientific basis for considering African Americans, Indigenous peoples, Asian Americans, Native Hawaiians/Pacific Islanders, and European Americans to be "races," not ethnic groups, while viewing Hispanics/Latinos as an ethnic group but not a "race." All of these groupings reflect geographic ancestry. The continued distinction between "race" and "ethnicity" only serves to underscore the implication that "race" reflects biological differences.

The continued use of the term "race" is by no means the only or even the principal obstacle to addressing racism. It is, however, a significant obstacle because it is irremediably imbued with scientifically unfounded but nevertheless tenacious notions of biological differences and hierarchy which have long served to justify exploitation and oppression. The use of "race," even by those who abhor racism, tends to reinforce those notions. Reflecting commonly held beliefs, ethnicity is consistently defined as a social or cultural characteristic, while race is defined as biological and/or based on physical traits (which implicitly reflecting biological differences) (16–21).

We are not the first to propose abandoning use of the word "race" for classifying humans and substituting "ethnicity." Ashley Montagu proposed substituting ethnicity for race in the field of physical anthropology in the 1940s (22). Bradby (9) argued that in the face of the dangers of using "race," "the most helpful strategy is to reject the term "race," but to retain the words 'racism' and 'racialization' and to use the term 'ethnicity'." Furthermore, as noted earlier, in much of Europe today the words "race" or "racial" rarely appear and official statistics do not report on "race." The term "ethnicity" is used to encompass characteristics that in the United States would span both "race" and ethnicity (8, 23, 24). This well-established approach that has prevailed across multiple decades—abandoning the term "race" and substituting ethnicity—was adopted in Europe after World War II, in horrified reaction to the genocide of 6 million Jews, who the Nazis regarded as a "race" (25, 26). Unfortunately, when they ceased using the term "race," a positive action, the Europeans also ceased any official collection of routine data on the groups formerly called "races;" they now lack crucial evidence for routine monitoring of racism and its social and health effects (27). This is an error we must not commit.

While not useful as a biological category, "race" as currently categorized—African American/Black, American Indian/Alaska Native, Asian, European American/White, Native Hawaiian/Pacific Islander, along with Latino/Hispanic "ethnicity"—is a vitally important social category for monitoring, understanding, and intervening on differences in health (28). This is true because of racism's profound influence on health and well-being. Each of these geographic groupings reflects ancestral origin in a particular continent or other large region of the globe. These geographic groupings are of great social—and therefore health—meaning and significance principally because they reflect differences in how people are perceived and treated both currently and historically. They reflect experiences of racism. They reflect shared history, e.g., the genocide and expropriation of the lands of Indigenous peoples; African Americans' enslavement, oppression and disenfranchisement under Jim Crow laws and ongoing violations of civil rights; and Latin America's Indigenous roots and colonization by Spain and Portugal.

Because of the profound impact of racism on health and well-being, we must continue to collect data on these socially constructed categories that have been called "races." We should not, however, continue to unintentionally or intentionally *racialize people*—i.e., to regard people as if they represent fundamentally distinct groups—by using that term. In the next section, we further examine the concept of "race," how it has been used, and the implications.

THE CONCEPT OF RACE

Is there just one race—the human race? Or are there intrinsically different groups of humans who are biologically distinct from each other? Despite extensive scientific evidence to the contrary, there has been a long-standing, widely held, deeply rooted, and unfounded belief that "race," as reflected by skin color, hair texture, facial features and other superficial secondary physical characteristics, reflects fundamental biological differences. That is a convenient idea to hold if one wants to justify treating some people as undeserving of equal rights, autonomy, and respect.

In colonial America, the notion of race arose and not coincidentally co-evolved with the emerging trans-Atlantic slave trade in the late 1600s; it was used to justify the enslavement and brutal treatment of Africans (1–7). Globally, the separation of groups into fundamentally different, "superior" and "inferior" races has been foundational to justify both slavery and genocide (29). These notions also have been used to justify discriminatory laws, policies, and practices that deny equal rights and opportunities based on "race." These discriminatory structures include the "Jim Crow" laws in formerly Confederate states that prevailed for almost 100 years after legal slavery officially ended (1, 30). They also include the lesser-known but also long-standing "Black Laws" denying the rights of Black people in Northern states, which predated and served as a model for Jim Crow laws (31). Pro-slavery doctors used pseudoscience to explain Black-White differences in anatomy and disease as innate and evidence of Black inferiority. Pro-slavery politicians amplified this pseudoscience to argue against abolition (4, 32).

Reflecting the belief in an underlying biological basis for "race," official birth and death records and other health data in the United States have long been reported separately by age, sex, and "race." Because age and sex do indeed reflect fundamental biological differences, this reporting practice implicitly tends to reinforce the erroneous notion of "race" as a biological construct. While changing "race" to "ethnic group" would not eliminate this conceptual problem, it may be a small but important step in helping us to reconceptualize superficial physical difference as reflective of social and cultural diversity rather than biology.

If race were biologically based, one might expect to find consistency in classification and consensus about some standard set of mutually exclusive racial groups. The concept of race has been very fluid, however, and operationalized in different ways at different times, which in itself suggests its fundamentally socially constructed nature. For example, the Nazi movement in twentieth century Germany regarded Jewish people as a "race;" the rationale for their mass extermination was that they were an inferior "race" that should be eliminated to avoid contaminating the superior race, Aryans (29). In the United States during the late nineteenth/early twentieth centuries, many economically struggling White people felt threatened by an influx of immigrants willing to work for lower wages. Immigrants from Ireland, Italy, and Poland were widely regarded as being from "races" distinct from and inferior to "Whites," i.e., the more established European immigrants (33, 34). The more established immigrants asserted their group's superiority, beginning to express political power through various institutions (e.g., labor unions) and actions (e.g., race riots). Over time, the ethnic identities of the more recently arrived European immigrants were subsumed into "Whiteness," and members of these groups came to benefit from the legal, political, and social advantages enjoyed by White people in the United States (33, 34).

Reflecting changing social, economic, and political forces over time in the United States, "races" have been officially categorized in various ways. The earliest U.S. Census surveys distinguished only Whites, all other free persons, and slaves. Later Census racial categories included White (European ancestry), Black (African ancestry), or Mulatto (mixed), and, only in the 1890 Census, "Quadroon" and "Octoroon," classifying people by their percentage of African ancestry. Census racial categories have changed and expanded to reflect emancipation, immigration, social movements, and political pressure (35, 36). Currently, the established "racial" categories for reporting federal statistics in the U.S. are African American/Black, American Indian/Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and European American/White. Each of these groupings corresponds to ancestry in a continent or other large geographic region (37).

Since 1980, the U.S. Census and vital statistics have collected data on a separate field in addition to "race," to specify whether a person is of "Hispanic origin." This information is officially referred to as a measure of Hispanic *ethnicity* and not of race (38, 39). This implies that while African Americans, Asian Americans, European Americans (Whites), and Indigenous Americans each constitute a separate race, Latinos or Hispanics do not, they are an "ethnic group." This classification implicitly reinforces a notion of race as biological, in contrast to ethnicity, which is social. Based on recognition that these two categories are not distinct, the term "race/ethnicity" is often used instead of either term alone. In practice, health research and reporting frequently classify people into five mutually exclusive categories referred to as "racial/ethnic" groups, based on the continent or other large geographic region of their ancestry. This is often done by creating a category for Latinos/Hispanics regardless of "race" and restricting each of the "racial" groups to non-Latinos/Hispanics in each of those groups. This widespread practice reflects the lack of conceptual coherence of the distinction between "race" and "ethnic group. "Latino/Hispanic" denotes Latin American origin/ancestry ("Latino" is arguably a more appropriate term than "Hispanic," given that many Latin Americans—for example, those from Brazil, Latin America's largest country—are not Spanish-speaking, and people from Spain—who one would expect to be included as "Hispanics"—are Europeans).

Another example of the fundamentally social nature of "racial" classifications comes from a study examining the health advantage of Whiteness. Jones et al. (40) studied how self-reported health varied depending on whether it was examined in relation to survey respondents' "socially assigned race," meaning, the "race" that other people generally assumed them to be, or the respondents' self-identified "race." They found considerable differences in health based on self-identified vs. socially assigned "race." The investigators found that, among respondents who self-identified as Black, Hispanic, or multi-racial, the prevalence of excellent or good self-reported health was significantly higher among those who were perceived by others to be White than among those of the same self-identified "race" who were not perceived by others to be White; the same pattern was seen for American Indians but was not statistically significant. A 2020 review of 18 studies of associations between a range of health indicators and socially assigned "race" reported that most studies have found an association between socially assigned "race" and health (41). These research findings, along with a large body of other accumulated knowledge, support the realization that it is the social experience of living in bodies perceived to be of different "races," which society treats differently, rather than fundamental biological differences between people of different "races," that generally drives differential health outcomes.

Studies of human genetics have shown repeatedly that there is more genetic variation among people with the same geographic ancestry than there is between groups of people with different geographic ancestry (42). The scientific consensus about racial categories today is that they are fundamentally social rather than biological constructs (10–13). Craig Venter, head of Celera, the private genetics company that partnered with the National Institutes of Health on the Human Genome Project, stated in a White House briefing on the Human Genome Project in June of 2000 (and note the use of the term "ethnicity" vs. "race"):

> "The method used by Celera has determined the genetic code of five individuals. We have sequenced the genome of three females and two males, who have identified themselves as Hispanic, Asian, Caucasian or African American. We did this sampling not in an exclusionary way, but out of respect for the diversity that is America, and to help illustrate that the concept of race has no genetic or scientific basis. In the five Celera genomes, there is no way to tell one ethnicity from another."

This does not imply that there cannot be any genetic differences among people in groups with different geographic ancestry. Rather, it means that differences in superficial secondary physical characteristics such as skin color, facial features, or hair texture do not define biologically distinct groups. Neither do differences in some gene frequencies, nor any of the isolated, highly specific genetic differences that have been found across different geographic ancestry groups define biologically distinct groups. The racialization of sickle cell disease is an instructive example. If a person inherits the sickle cell mutation from both parents, sickle-shaped (deformed) hemoglobin is produced, which, when exposed to low levels of oxygen, damages red blood cells, leading to "acute vasoocclusive events, hemolytic anemia, organ damage and failure, and an average lifespan reduction in developed countries of more than three decades" (15). While the mutation is most common among people with ancestry in three areas of West Africa, it is not common among people from other areas of Africa, furthermore, it is also seen among people with Mediterranean, Middle Eastern or Indian ancestry, regions which, like West Africa had a high prevalence of malaria. The mutation came to be frequent in those regions because it was protective against malaria, giving an evolutionary advantage to carriers (people with only one affected gene). This highly specific genetic difference among African Americans from three areas of West Africa and people from the Mediterranean, Middle East, and India, compared to most Africans and Europeans arose because of evolutionary pressures. It does not occur among African Americans from most parts of Africa—only those from specific areas in West Africa, and it occurs among people with non-African ancestry. Despite these undisputed facts, sickle cell disease has been racialized; this isolated genetic difference does not define a "race." Another example is Tay-Sachs disease among Jewish people of Northern European ancestry, the greater frequency of the mutation that produces Tay-Sachs disease does not make Jewish people a biologically distinct group.

It should be noted, furthermore, that even when there are isolated genetic differences between groups of people with different geographic ancestry, those differences may not be expressed (i.e., the genes may not have their potential effects on the body) unless people are exposed to certain environmental influences, including stressors, which are shaped by social forces. Social experiences often control whether or not genetic differences are expressed or suppressed, this underscores the social nature of "racial" categories. The next section discusses how racism affects health.

RACISM AND ITS EFFECTS ON HEALTH

Racism is a fundamental social determinant of racial disparities in health (43). It is a system of "race"-based power, rooted in notions of inherent racial group superiority and inferiority, that systematically, pervasively, and unjustly privileges "Whites" and oppresses "non-Whites" (44). It manifests at multiple levels (internalized, interpersonal, institutional, and structural or systemic) and involves direct, indirect, individual, and group-based exposures across the life course (45, 46). Whether blatant, subtle, or ambiguous, racism is a particularly visceral threat to well-being because it denigrates a core aspect of a person's identity that is ever-visible and unchanging.

Racism produces racial discrimination, i.e., "race"-based unfair treatment. Although racial discrimination is no longer legal, socioeconomic, and health inequities along racial lines persist because of deeply rooted, unfair systems and structures that continue to operate to sustain the legacy of formerly overtly discriminatory practices, policies, laws, and beliefs. At times, these systems and structures operate unintentionally, but nevertheless effectively, to produce and sustain racial discrimination.

An extensive body of literature demonstrates large and pervasive disparities in health adversely affecting African Americans/Black people (47, 48), American Indians/Alaska Natives (49), Hispanics/Latinos (50), some Asian subgroups (51), Native Hawaiians/Pacific Islanders (52–54), and immigrants compared to Whites (47, 48, 51, 55). These differences are seen for a wide range of health indicators and across the lifespan (56–59). The largest and most consistent racial/ethnic health disparities generally have been observed when comparing Black people and (when data are available) American Indians with Whites, although Latinos and some Asian/Pacific Islander groups have worse health than Whites on some measures. What explains

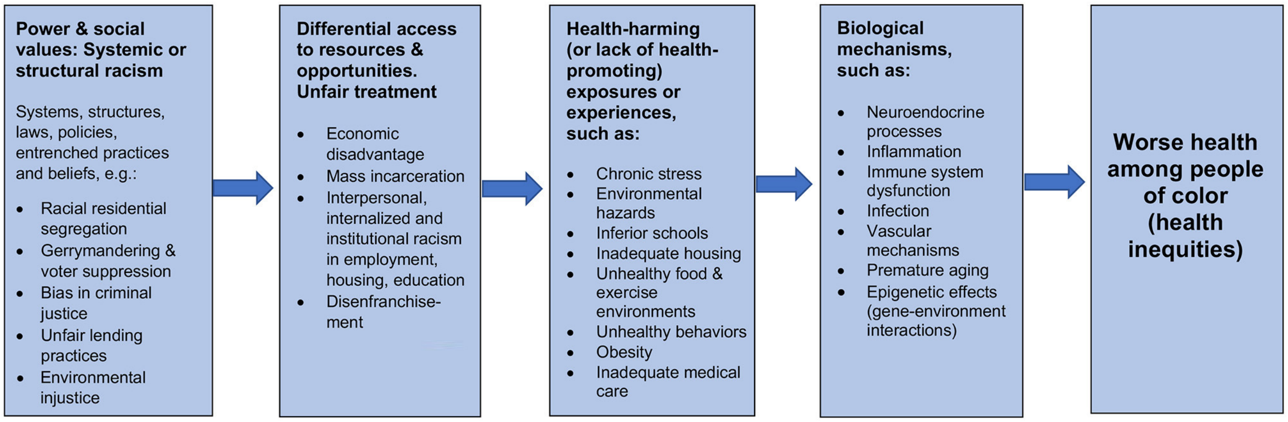

FIGURE 1 | How racism is thought to damage health: a general overview of key sequential steps.

these pervasively and repeatedly observed differences in health across a wide array of health indicators?

Racism can damage the health of people of color through many different causal pathways. An extensive and growing body of scientific research indicates how diverse experiences of racism likely play a fundamental role in producing racial/ethnic inequities in health by activating multiple causal pathways. Some of these pathways are complex and long, often playing out over lifetimes and even generations. The complexity and length of the causal pathways often makes it difficult to detect their origins, that is, the underlying but hidden fundamental causes. The term "embodiment" has been used by several scholars within and outside the health field to describe how racism in its myriad forms ultimately produces damages to health, which are then misinterpreted as signs of underlying biological differences among racialized groups (60, 61).

Although the focus here is on how racism can damage the health of people of color, it is important to note that racism is likely to damage the health and well-being of virtually the entire society in which it operates. The support for this hypothesis comes from research on social inequality in general rather than on racism specifically: A convincing case has been made that social inequality damages the health of societies overall (62, 63), largely by undermining social cohesion (64).

Based on the literature, the figure (above) depicts a series of sequential general steps through which racism is thought to produce racial disparities in health. These general steps represent the basic skeleton of innumerable specific pathways, which are indicated by the factors listed in each box as non-exhaustive) examples.

- The first box on the left in **Figure 1** represents the beginning of the general sequence. The common beginning or source of all the potential causal pathways is systemic or structural racism, the unjust systems or structures that systematically put people of color at a disadvantage in multiple domains. Systemic or structural racism reflect underlying differences in power and social values in a society. The relevant systems or structures include laws, policies (written and unwritten), entrenched institutional practices, and the pervasive, deeply rooted beliefs that condone, promote, and perpetuate the systems and structures. Examples of systemic or structural racism in the past include: slavery and the laws and beliefs that supported it; Jim Crow laws and the systematic use of terror to enforce them; and redlining and the discriminatory implementation of the G.I. Bill and low-interest FHA loans that enabled many White people of modest means to become homeowners but were given to very few Blacks (65, 66). These historical systems and structures set the stage, establishing the inequitable patterns and providing a firm basis for their perpetuation including: disenfranchisement via gerrymandering and voter suppression; racial residential segregation; unfair lending practices depriving people of color of the opportunity to own a home or to start or expand a business, thereby closing off opportunities to accumulate wealth; the dependence of schools on local property taxes, ensuring that schools in areas that lack wealth are under-resourced; and mass incarceration of men of color based on biased policing and sentencing.
- The 2nd box from the left in **Figure 1** represents the next general step in the sequence: the direct products of systemic or structural racism which are unfair treatment and differential access to resources and opportunities. Arguably, the borders between this 1st box on the left and the 2nd box should be depicted as porous, as many examples of systemic or structural racism not only produce but in themselves constitute unfair treatment and lack of access to resources and opportunities. Examples of unfair treatment and lack of access to resources and opportunities that are generally due to systemic or structural racism include: both interpersonal and internalized racism; less favorable treatment in hiring, retention, promotion, and pay; the socioeconomic disadvantage that results from being trapped in low-opportunity segregated areas with substandard schools, poor services, and scant hope of escaping unrelenting financial hardship; and the permanent stigmatization of people who have been incarcerated, permanently blocking ex-prisoners from employment opportunities, thus ensuring

ongoing financial hardship for the ex-prisoners, their families, and communities.

- As depicted in the third box from the left, the unfair treatment and differential access to resources and opportunities result not only in exposure to health-harming conditions (such as toxic environmental hazards and chronic stress), but also limited access to conditions that are health-promoting, such as good schools, a nutritious diet, green spaces, bicycle lanes, being able to afford a gym membership, and quality medical care.
- These health-harming (or lack of health-promoting) exposures or experiences in turn trigger biological mechanisms that produce ill health (the fourth box). These biological mechanisms include, for example, inflammation and alterations in the functioning of the immune system that are known to lead to chronic diseases, such as heart disease, stroke, and diabetes. The biological mechanisms include neuroendocrine processes triggered by chronically stressful experiences (such as experiencing discrimination or persistent financial hardship). These neuroendocrine processes result in the body's production of hormones (like cortisol and other substances) that can, if present at persistently high levels over time, lead to inflammation and dysfunction of the immune system, both of which contribute to susceptibility to chronic disease and premature aging (67).

This section of the paper has sought to demonstrate that, although further research is needed, there is now considerable evidence of how racism sets in motion a range of phenomena that damage health in multiple domains. The damage is inflicted by unfair treatment and differential access to resources and opportunities, which produce health-harming exposures (and lack of health-promoting experiences), which in turn trigger an array of physiologic processes that directly produce ill health. Racial differences in health overwhelmingly reflect racism.

CONCLUDING REMARKS

The concept of "race" had its origins in the slave trade. It is time to abandon it. The concept was used to justify slavery by implying that those who were enslaved were fundamentally different and inferior beings. Today "race" continues to reinforce false and weaponized notions of inherent biological differences based on physical appearance. It should be used rarely and only inside quotation marks when necessary to make a point about its historical usage. "Ethnic group" or "ethnicity" should be substituted, consistent with the social characteristics that often accompany geographic ancestry. The feasibility of using "ethnic group" or "ethnicity" in place of "race" is suggested by the fact that this has been standard practice in Europe since soon after the end of World War II. Has the fact that Europe has largely substituted ethnic group for race ended racism there? Of course not. But it does mean that racism is not being perpetually and unnecessarily reinforced by the use of a term that inevitably evokes biological difference. Wherever this approach is adopted, if it is, vigilance will be needed to detect and halt conscious or unconscious attempts to redefine ethnicity as biological. Abandoning "race" will not in itself end racism or even help us to focus more on racism; we have called for focusing on racism to make it clear that abandoning the term "race" is part of a struggle against racism; and that the term "racism" must be retained. Abandoning "race" should, however, remove one ubiquitous and not inconsequential source of constant reinforcement of racism. Abandoning "race" should be part—admittedly a small part—of a strategy to intensify and broaden actions against racism. While abandoning "race," we should not only retain the term "racism" but mount more intensive efforts to identify and dismantle it. In particular, we need to focus on systemic or structural racism, often invisible but posing the greatest barriers to justice and health because it is the root source of the varied manifestations of racial discrimination observed in multiple domains.

While not useful as a biological category, geographic ancestry—i.e., African American, American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, European American, and Latino/Hispanic—is a key social classification for monitoring and addressing health inequities. These geographic ancestry groups are very broad, with great heterogeneity within each. To address this, we ideally would monitor and study much smaller and better-defined ethnic groups. Because of racism's profound influence on health and well-being, however, we must, at a minimum, continue to collect and analyze data on the population groups that have been racialized into socially constructed categories called "races." It is unfortunate that in Europe, abandoning the term "race" has not been accompanied by routine monitoring of health and well-being according to markers of the ethnic groups that are relevant to racism. We must continue to monitor differences in health and well-being according to geographic ancestry. We must not, however, continue to use the term "race." It is not the only obstacle to dismantling racism, but it is a significant one, one that amplifies the damage every time it is used, even when used by those who actively struggle against racism. It is beyond the scope of this paper to discuss the implications of the use of "Black" and "White" in ongoing population monitoring and research, important and complex issues are involved there as well.

Bhopal (16) offered the following statement "for reflection and debate": "The term "race" should be used with caution for its history is one of misuse and injustice." Like Bhopal, we offer these thoughts to stimulate reflection and debate; however, we advocate not merely using "race" with caution but abandoning it entirely because it inherently lends itself to perpetuating falsehoods that promote serious harm and injustice. The public health crisis produced by racism requires fighting vigorously in many arenas, including conceptual and semantic spheres. Abandoning "race" is not a panacea but may be a useful adjunct to other crucial efforts to dismantle racism in all of its forms.

AUTHOR CONTRIBUTIONS

PB wrote the first draft after discussion with TP. TP added substantially to that and made revisions. All authors consulted closely with each other and participated in final revisions.

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SYSTEMATIC REVIEW
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A Systematic Policy Review of Black Maternal Health-Related Policies Proposed Federally and in Massachusetts: 2010–2020

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Background: Black women in the United States experience maternal mortality three to four times more often than white women (1, 2). States vary in degree of disparity, partially due to programs and policies available to pregnant people. In Massachusetts, Black women were approximately twice as likely as white women to experience pregnancy-associated mortality, with a large percentage of these deaths reported to be preventable (3).

Methods: Using Massachusetts as a state-level comparison to national policies, we searched the US Congress and Massachusetts legislative databases for maternal health policies from 2010 to 2020. We screened 1,421 national and 360 Massachusetts bills, following set inclusion/exclusion criteria. Data analysis included (1) assessment of bill characteristics, (2) thematic analysis, and a (3) quality appraisal following an adapted model of the analytical framework for evaluating public health policy proposed by the National Collaborating Centre for Healthy Public Policy. Additionally, our data analysis identified the level of racism (internalized, interpersonal or institutional) that each policy addressed.

Results: From 2010 to 2020, 31 national and 16 state-level policies were proposed that address maternal health and racial disparities. The majority of policies addressed racism at the institutional level alone (National: $N = 19$, 61.3%, Massachusetts: $N = 14$, 87.5%). Two national and two Massachusetts-level policies became law, while two national policies passed only the House of Representatives. Our critical appraisal revealed that the majority of unintended effects would be neutral or positive, however, some potential negative unintended effects were identified. The appraisal also identified 54.8% ($n = 17$) of national policies and 68.8% ($n = 11$) of Massachusetts with positive impact on health equity.

Conclusions: There has been an increase in policies proposed addressing racial disparities and health equity in maternal health over the last 10 years. Although half of national policies proposed showed positive impact on health equity, shedding light on the work the U.S. is doing on a federal level to confront the Black maternal health crisis, only two policies made it to law, only one of which addressed racial disparities directly and had a positive impact on health equity.

Keywords: federal policies, Massachusetts (U.S.A.), racial disparities, black maternal health, maternal health policies

BACKGROUND

Non-Hispanic Black women have historically been underrepresented in both the United States legislature and in legislation, and thus their maternal health needs and priorities have not been properly addressed or prioritized (4). Non-Hispanic Black women in the United States experience maternal mortality at a three-fold higher rate than non-Hispanic white women, hereafter referred to as Black and white, respectively (1). While pregnancy-associated mortality ratios are three-four times higher in Black women in comparison to white women, this disparity is further widened for specific mortality causes (e.g., ectopic pregnancy) (2). Across 13 state Maternal Mortality Review Committees, reports state 60% of pregnancy-associated deaths were preventable (5). States vary in degree with this disparity, partially due to varying programs and policies available to pregnant people. As of 2014 in Massachusetts, Black women were 1.9 times as likely as white women to experience pregnancy-associated mortality and 24% of these pregnancy-associated deaths between 2000 and 2007 in Massachusetts were determined to be preventable (3).

From 2011 to 2015 specifically, the majority of pregnancy-related deaths in the United States (35%) were caused by cardiovascular conditions, followed by 12.5% of deaths by infection, and 11.2% of deaths due to obstetric hemorrhages (5). However, the leading clinical causes of pregnancy-related deaths differ for Black women in comparison to white women. Black women experience more pregnancy-related deaths due to cardiomyopathy, thrombotic pulmonary embolism, and hypertensive disorders than their white counterparts (6).

Racial disparities in pregnancy-related deaths persist for Black women, regardless of seemingly protective factors. Black women with college degrees are more likely to die from pregnancy-related causes than pregnant white, Hispanic, and Asian/Pacific islander women without high school diplomas (7). Black women have a pregnancy-related mortality rate that is approximately 5.2 times that of white college-educated women (6). A study hypothesizing differences in maternal mortality across race/ethnicity evaluated whether risk factors could be related to differing medical insurances, but conclusively found no association of higher maternal mortality rates among Black and Hispanic women with differing insurance types (8). Alternatively, one factor exacerbating disparities could be increased likelihood for Black and Hispanic women to deliver babies at hospitals with poorer outcomes for maternal morbidity and preterm morbidity and mortality (9). Another factor could be quality resources and hospitals allocated by ZIP code, as adverse birth outcomes can be seen from hospitals located spatially close to or within racially segregated ZIP codes (10). However, the reality is that there is much unknown: during 2000–2007 in Massachusetts, the preventability of 33% of pregnancy-associated deaths were categorized as undetermined. There is a clear need to identify and subsequently address preventable factors in order to prevent maternal deaths, particularly for Black women, with one integral risk factor begging to be addressed: that of racism, directly leading to disproportionate Black maternal deaths.

The three levels of racism—internalized, interpersonal, and institutional— branch and intertwine across sectors and disciplines including public health and medicine (11). Internalized and interpersonal racism are defined as subconscious or conscious forms of discrimination that are driven by racial bias and that are reflected among relationships with others and one's self. Institutional racism, in contrast, encompasses the inequitable policies, attitudes, and organizations that are driven by power imbalances, and furthered by a lack of comprehensive and productive representation in all facets of society (11, 12). Policymakers, public health researchers, healthcare providers, and associated stakeholders are not exempt from the perpetuation of institutionalized racism. Numerous studies and projects often report alarming rates of both implicit and explicit bias among health professionals (13–16). The presence of such discriminatory attitudes toward vulnerable populations in medicine and public health is not only a mere reflection of the institutionalized racism that exists in society, but an amplification of societal imbalances.

An effective means to make sustainable change and break through barriers of institutional racism is through legislative action. The intertwined factors that contribute to this disparity include the quality of prenatal and postpartum care and health-seeking behaviors and overall satisfaction with care (17). However, policies at the state and federal level have been presented, with some passed, to address the effects of institutional racism on Black maternal health. This includes a compilation of policies, collectively titled the Black Maternal Health Momnibus Act of 2020[1] (18)). The overwhelming lack of legislation to reduce maternal mortality and severe morbidity in Black women must be addressed in order to reduce the poor maternal health outcomes women of color face to ultimately reduce pregnancy-associated deaths. The goal of the proposed study is to analyze the interventions highlighted in current policies and their potential health impacts on Black women. These policy analyses will help to determine the opportunities needed to increase equity to prenatal and postpartum care.

Previous researchers have conducted analyses comparing local and national policies related to maternal health in England (19).

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[1] Black Maternal Health Momnibus Act of 2020, no. H.R.6142, 116th Congress (2020).

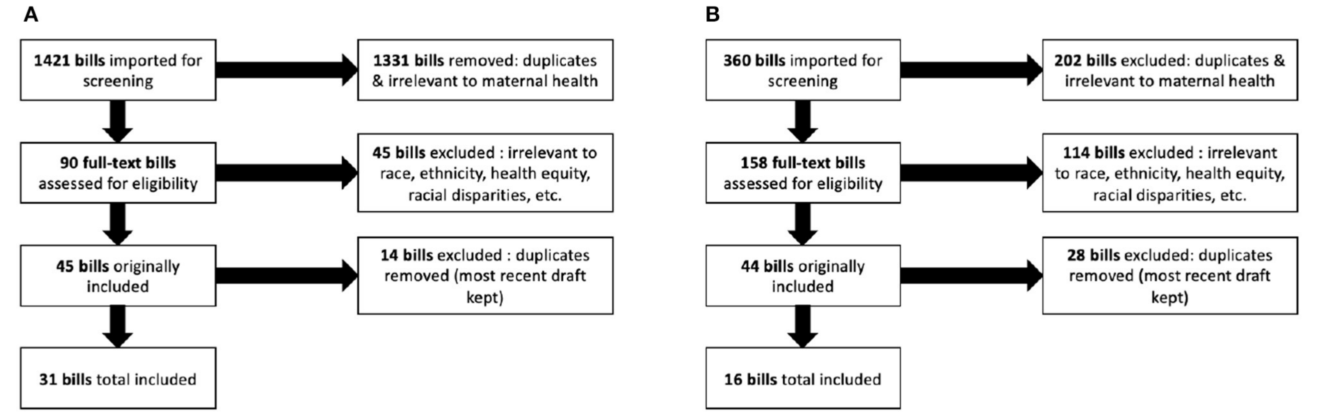

FIGURE 1 | Flow chart of inclusion of bills in review. Panel **(A)** shows the national bills inclusion process and panel **(B)** shows the Massachusetts state-level bill inclusion process.

However, to our knowledge, there is a paucity of systematic reviews of maternal health-related policies conducted in the United States, including local and national policy comparisons. Because there are differences by state in health insurance regulations, Medicaid guidelines, and racial health disparities, it is particularly important to examine local policies compared to national policies in relation to Black maternal health.

We chose to focus on comparing maternal health policies on the national level and in Massachusetts as a case study. Although Massachusetts and national maternal mortality rates are the same (17.4 per 100,000 births), racial disparities in maternal mortality are significantly lower in Massachusetts than at the national level (3). Given the difference of maternal mortality racial disparities in Massachusetts compared to the nation, we aim to understand whether there are differences in policy geared toward Black maternal health that may contribute to this difference.

METHODS

Research Question

This review investigated legislation proposed and passed to address Black maternal health in Massachusetts and at the national level from 2010 to 2020. The period examined was selected to capture recent legislative action, as racial disparities in maternal mortality have gained public and political attention.

Search Strategy

We conducted a systematic analysis of national and Massachusetts state-level proposed legislation and legislation passed between 2010 and 2020 addressing Black maternal health. Databases searched included the Massachusetts online legislative database and the United States Congress online legislative database. Key search terms included were maternal health, maternal mortality, maternal morbidity, perinatal, prenatal, and postpartum. Each term was searched independently on the databases, and duplicate results were removed from analysis.

Search Outcomes

The initial search resulted in 1,421 national bills and 360 Massachusetts state bills. Bills that did not pertain to maternal health and maternal health outcomes and duplicates were removed. Ninety national bills and 158 Massachusetts state level bills were included for in-depth full text review. Forty-five further national bills and 115 Massachusetts state level bills were excluded as they did not mention race, ethnicity, underserved communities, minority communities, health equity, or racial disparities. Prior to performing data extraction, 14 national and 28 Massachusetts state level bills were identified as duplicates or repeated drafts of bills and were excluded. We included the most recent version of each bill proposed, if multiple drafts were proposed. As shown in **Figure 1**, 31 national bills and 16 Massachusetts state bills were included in the final sample for this review. Bills were independently reviewed by four researchers.

Inclusion/Exclusion Criteria

The eligibility criteria for this review included: (1) bills introduced, passed, or enacted by the U.S. Congress or Massachusetts Congress, (2) bill related to maternal health, (3) bills that explicitly referenced race, ethnicity, racial disparities, health equity, underserved communities, or minority communities, (4) bills introduced, passed or enacted into law between 2010 and 2020. We excluded sources that were not considered bills (e.g., reports, journal articles, amendments, etc.), and bills that did not include the designated key terms.

Data Extraction and Thematic Analysis

We developed a data extraction tool to document the following information from each bill: bill name, year of introduction, status in each respective congress, and content for thematic analysis and quality appraisal. We use qualitative methodology for data extraction to allow the most significant extraction of legislation content intricacies, for our thematic analysis, similar to methodology in a policy analysis of maternal health policies in Malawi (20). We used inductive qualitative analysis to determine themes of the content of the bills.

TABLE 1 | Guiding Questions from the adapted model of the evidence-informed analytical framework for evaluating public health policy by the National Collaborating Centre for Healthy Public Policy.

Effects	Effectiveness	What are the effects of the public policy under study on the targeted health problem?
		How effective is this policy in terms of its intermediate effects?
		Is the intervention logic of this policy plausible?
		How does the implementation context influence this policy's effectiveness?
		How much time is needed before effects can be observed?
		Do the effects persist over time?
	Unintended effects	What are the unintended effects of this policy?
		Does the policy under study produce unintended effects, whether positive or negative?
		How can the negative unintended effects be mitigated?
	Health equity	What are the effects (intended or unintended) of this policy on different groups?
		Does this policy create, reinforce or correct social inequalities in health?

Bills were categorized into "category 1" including bills that mention terms regarding race, racial disparities, people of color, discrimination, health equity infrequently and discuss race on an epidemiological level and into "category 2" including bills that are predominantly concerning Black maternal health, racial disparities, and health equity. Additionally, our analysis of the factor of "health equity" is inclusive of which level a policy addresses racism (i.e., internalized, interpersonal, institutional) (11).

Thematic analysis for all of the bills was conducted in two rounds by independent reviewers to ensure accuracy. Interrater reliability was determined by agreement of categories addressed in the bill, and by matching quality appraisal (i.e., negative, neutral, positive). There was 91.2% agreement across reviewers. Conflicts were resolved by a senior reviewer.

Quality Appraisal

To complete the quality appraisal we followed an adapted model of the evidence-informed analytical framework for evaluating public health policy proposed by the National Collaborating Centre for Healthy Public Policy (21). This framework follows a two-pronged method of assessing three factors to determine effects of a policy, and three factors to assess a policy's implementation. For our analysis, we adapted the framework to focus on determining the first prong, or a policy's effects by assessing (1) effectiveness (how effective the policy is at achieving its named objective), (2) unintended effects (what positive or negative effects a policy may create unrelated to the objective), and (3) health equity (if a policy creates varying effects for varying populations, and if it maintains, increases or decreases inequities of health.) Guiding questions used in the data analysis are shown in **Table 1**.

RESULTS

From 2010 to 2020, 31 national and 16 state-level policies were proposed that addressed maternal health and racial disparities and included in our analysis. Two national policies became law and two passed the House and two Massachusetts-level policies became law, while the majority of the policies included in the systematic analysis were only introduced in the respective congresses. On the national level, there has been an increase in proposed policies regarding maternal health and racial disparities in 2019–2020, while in Massachusetts there was less of a temporal trend.

The majority of policies addressed racism at the institutional level alone [National: 61.3% ($n = 19$), Massachusetts: 87.5% ($n = 14$)], while some also addressed interpersonal racism in addition to institutional racism [National: 38.7% ($n = 12$), Massachusetts: 5.9% ($n = 1$)]. The majority ($n = 18$, 58.1%) of included national policies were categorized as "category 2," meaning they were predominantly concerning Black maternal health, racial disparities, and health equity. However, the majority ($n = 14$, 87.5%) of Massachusetts-level policies were categorized as "category 1," meaning that the bills mention terms regarding race, racial disparities, people of color, discrimination, health equity infrequently and discuss race on an epidemiological level rather than being centered on racial and ethnic maternal health disparities. Detailed breakdown can be seen in **Table 2**.

National

Characteristics

From 2010 to 2020, US Congress Legislative handled 103 bills containing the key terms identified in this review. Of those 103 bills, 31 national policies met the inclusion criteria. After data extraction, the national policies selected varied in frequency during the chosen 10-year period. Of the 31 national bills, there was one in 2010, none in 2011, one in 2012, one in 2013, none in 2014, one in 2015, none in 2016, one in 2017, three in 2018, nine in 2019 and 14 in 2020. Out of the 31 national policies selected, 27 were introduced, two were Passed by the House and two national policies Became Law. The two national bills that passed were: Preventing Maternal Deaths Act of 2018[2] and PREEMIE Reauthorization Act of 2018[3] (22, 23). There was also a distribution in the levels of racism addressed amongst the selected national bills. Out of the 31 national policies selected, no policy addressed internalized ($n = 0$) or interpersonal racism only ($n = 0$). The two levels of racism addressed were institutional only (61.3%; $n = 19$) and interpersonal and institutional (38.7%; $n = 12$). No bill addressed all three levels of racism. Eighteen bills were identified as "category 2," predominantly focused on Black maternal health, racial disparities, or health equity. Thirteen bills were identified

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[2] Preventing Maternal Deaths Act of 2018, H.R.1318, 115th Congress (2017-2018), Public Law No: 115-344 (2018). Available online at: https://www.congress.gov/bill/115th-congress/house-bill/1318/text.

[3] PREEMIE Reauthorization Act of 2018, S.3029, 115th Congress (2017-2018), Law No: 115-328 (2018). https://www.congress.gov/bill/115th-congress/senate-bill/3029.

TABLE 2 | Characteristics and quality appraisal of included national and Massachusetts state-level bills.

		National (*N* = 31)		Massachusetts (*N* = 16)	
		n	**%**	***n***	**%**
Status	Introduced	27	87.10	13	81.25
	Passed house	2	6.45	0	0.00
	Passed house & senate	0	0.00	1	6.25
	Became law	2	6.45	2	12.5
Year introduced	2010	1	3.23	0	0.00
	2011	0	0.00	5	31.25
	2012	1	3.23	1	6.25
	2013	1	3.23	2	12.5
	2014	0	0.00	0	0.00
	2015	1	3.23	1	6.25
	2016	0	0.00	0	0.00
	2017	1	3.23	2	12.5
	2018	3	9.68	1	6.25
	2019	9	29.03	3	18.75
	2020	14	45.16	1	6.25
Score on addressing black maternal health	2	18	58.06	2	12.5
	1	13	41.94	14	87.5
Level of racism addressed	Institutional	19	61.29	14	87.5
	Interpersonal	0	0.00	1	5.88
	Institutional & Interpersonal	12	38.71	1	5.88
Quality appraisal: effectiveness	Positive	19	61.29	12	70.59
	Neutral	5	16.13	2	11.76
	Positive/Neutral	7	22.58	2	11.76
Quality appraisal: unintended effects	Positive	13	41.94	7	41.18
	Neutral	13	41.94	4	23.53
	Negative	3	9.68	5	29.41
	Positive/Neutral	1	3.23	0	0.00
	Negative/Neutral	1	3.23	0	0.00
Quality appraisal: health equity	Positive	17	54.84	11	68.75
	Neutral	8	25.81	3	18.75
	Positive/Neutral	5	16.13	2	12.5
	Negative/Neutral	1	3.23	0	0.00

In the category of "Scoring on Addressing Black Maternal Health," a score of 1 indicates the bill mention terms regarding race, racial disparities, people of color, discrimination, health equity infrequently, a score of 2 indicates the bill directly concerns Black maternal health, racial disparities, and health equity.

as "category 1". Full details of included national bills can be seen in **Table 3**.

Thematic Findings

After data collection and distillation of national policies concerning maternal health from 2010 to 2020, 31 national policies were identified meeting the inclusion criteria. Thematic findings include 38 themes (seen in **Table 4**), with most frequent themes including: Expanding funding for maternal health research ($n = 16$), Diversifying Healthcare Workforce/Committees ($n = 9$), Increasing insurance coverage, training and inclusion of doulas, community birth workers, childbirth educators, lactation consultants and midwives ($n = 9$), Expanding Medicaid coverage to 1 year postpartum ($n = 6$) and Improving Medical Training for Maternal Health Workers ($n = 6$).

Five policies total included in this review were proposed prior to 2018. Three policies were proposed in 2018, 9 policies in 2019, and 14 policies in 2020. Three themes identified in policies were related to the current pandemic, including: Inclusion of Pregnant People in Vaccine Development for COVID19 ($n = 2$), Funding for Research in Maternal Health & COVID19 ($n = 2$), and Occupation Risk for Pregnant People & COVID-19 ($n = 2$). Several themes were related to racial disparities and discrimination, but one theme was identified specific to Black women who give birth: Programs on education, civil rights, and maternal health for Black women and girls ($n = 1$).

The themes of the two bills that became law included (1) expanding funding for research on maternal and infant health, (2) improving data collection, and (3) implementing

TABLE 3 | Summary of quality appraisal, status, and category ranking of included national bills.

Title	Year	Status	Score on addressing black maternal health	Effectiveness	Unintended effects	Health equity	Level of racism addressed
Moms MATTER Act of 2020	2020	Introduced	2	Neutral	Negative	Neutral/Negative	Institutional
Maternal Health Quality Improvement Act of 2020	2020	Passed House	1	Neutral	Negative	Neutral	Institutional
Maternal Health Pandemic Response Act of 2020	2020	Introduced	2	Positive	Positive	Positive	Institutional
Data to Save Moms Act	2020	Introduced	2	Positive	Positive	Positive	Institutional & Interpersonal
Social Determinants for Moms Act of 2020	2020	Introduced	2	Positive	Positive	Positive	Institutional
IMPACT to Save Moms Act of 2020	2020	Introduced	2	Positive	Positive	Positive	Institutional
Perinatal Workforce Act of 2020	2020	Introduced	2	Positive	Neutral/Positive	Positive	Institutional & Interpersonal
Protect Black Women and Girls Act of 2020	2020	Introduced	2	Neutral/Positive	Neutral	Positive	Institutional
Black Maternal Health Momnibus Act of 2020	2020	Introduced	2	Positive	Neutral	Positive	Institutional & Interpersonal
TRICARE Coverage for Doula Support Act	2020	Introduced	1	Neutral/Positive	Neutral	Neutral/Positive	Institutional & Interpersonal
Mothers and Newborns Success Act	2020	Introduced	2	Positive	Positive	Neutral/Positive	Institutional
Mothers and Newborns Success Act	2020	Introduced	2	Neutral/Positive	Neutral	Positive	Institutional & Interpersonal
Anti-Racism in Public Health Act of 2020	2020	Introduced	2	Positive	Positive	Positive	Institutional & Interpersonal
Helping MOMS Act of 2020	2020	Passed House	1	Positive	Positive	Positive	Institutional
MOMMA'S Act	2019	Introduced	2	Positive	Positive	Positive	Institutional & Interpersonal
Maternal CARE Act	2019	Introduced	2	Neutral	Negative	Neutral	Institutional & Interpersonal
Healthy MOMMIES Act	2019	Introduced	2	Positive	Positive	Neutral	Institutional & Interpersonal
Mamas First Act	2019	Introduced	1	Neutral/Positive	Positive	Positive	Institutional & Interpersonal
Healthy MOM Act	2019	Introduced	1	Positive	Positive	Neutral	Institutional
Excellence in Maternal Health Act of 2019	2019	Introduced	2	Neutral	Neutral	Neutral/Positive	Institutional & Interpersonal
MOMS Act of 2019	2019	Introduced	1	Positive	Neutral	Positive	Institutional
MOMMIES Act	2019	Introduced	1	Positive	Neutral	Positive	Institutional
Rural MOMs Act	2019	Introduced	1	Positive	Neutral	Positive	Institutional
PREEMIE Reauthorization Act	2018	Became Law	1	Neutral/Positive	Neutral	Neutral	Institutional
Ending Maternal Mortality Act of 2018	2018	Introduced	1	Neutral/Positive	Neutral/Negative	Neutral	Institutional
Preventing Maternal Deaths Act of 2018	2018	Became Law	1	Positive	Positive	Positive/Neutral	Institutional
Save Women's Preventive Care Act	2017	Introduced	1	Neutral	Neutral	Neutral	Institutional

(Continued)

TABLE 3 | Continued

Title	Year	Status	Score on addressing black maternal health	Effectiveness	Unintended effects	Health equity	Level of racism addressed
21st Century Women's Health Act of 2015	2015	Introduced	1	Neutral/Positive	Neutral	Neutral	Institutional
MOMS for the 21st Century Act	2013	Introduced	2	Positive	Positive	Neutral/Positive	Institutional
Health Equity and Accountability Act of 2012	2012	Introduced	2	Positive	Neutral	Positive	Institutional
Maternity Care Improvement Act of 2010	2010	Introduced	2	Positive	Neutral	Positive	Institutional & Interpersonal

In the category of "Scoring on Addressing Black Maternal Health," a score of 1 indicates the bill mention terms regarding race, racial disparities, people of color, discrimination, health equity infrequently, a score of 2 indicates the bill directly concerns Black maternal health, racial disparities, and health equity.

TABLE 4 | Summary of themes in national and Massachusetts state-level bills included in the systematic review.

National (*N* = 31)			Massachusetts (*N* = 16)		
Theme	***n***	**%**	**Theme**	***N***	**%**
Expand funding for research on maternal health	16	51.61	Establish Medicare for All	11	68.75
Diversify healthcare workforce	9	29.03	Inclusion of midwives on maternity care teams	3	18.75
Increased insurance coverage, training and inclusion of doulas, community birth workers, and midwives	9	29.03	Insurance coverage for doula services	1	6.25
Expansion of Medicaid coverage to 1 year postpartum	6	19.35	Formation of a committee/taskforce to reduce racial disparities	1	6.25
Improve training of clinical professionals	6	19.35			
Improve data collection	5	16.13			
Implement implicit bias trainings	5	16.13			
Expand telemedicine	5	16.13			
Formation of a committee/taskforce to reduce racial disparities	5	16.13			
Expand funding for research on discrimination and social determinants of health	5	16.13			
Payment Reform	4	12.90			

and expanding state Maternal Mortality Review Committees (MMRCs). The themes included in the two bills that only passed the house included: (1) expanding Medicaid coverage to 1 year postpartum, (2) improving coverage of doula services, (3) implementing a bundled payment model, (4) expanding telemedicine, and (5) expanding funding for research on maternal health, specifically in rural communities.

Quality Appraisal

In utilizing a modified version of the analytical framework for evaluating public health policy described in the Methods section, data was extracted from each policy related to *effectiveness* of the policy, *unintended effects* of the policy, and *health equity*. For each of these components, a value of positive, neutral, negative, neutral/positive or neutral/negative was assigned. For evaluation of effectiveness of policies, 19 were identified as having a positive effect (e.g., supporting community-level research or encouraging diversity in committee/ task force bodies), seven identified as neutral/positive (e.g., lacking specificity of insurance expansion, but increasing services generally), and five as having neutral effect (e.g., mentioning grant programs without specifically outlining steps/directives).

For the component of unintended effects, 13 were identified as having neutral unintended effects (e.g., adding various grant programs that may or may not be effective), 13 as positive unintended effects (e.g., insurance expansion & increased access to quality care long-term), and three as having potential negative unintended effects (e.g., policy attempts at increasing diversification of task force membership asking members to serve without additional pay). One policy was classified as neutral/positive unintended effect, and one policy classified as having a neutral/negative unintended effect.

For the component of health equity, 17 policies were identified as having positive impact on health equity (e.g., policy issuing a call for increased research and initiatives to address social determinants of health, and how they affect racial disparities), eight having neutral impact on health equity (e.g., policy briefly mentioning existence of racial and ethnic disparities, but not offering solutions to racial disparities in legislation), and none were identified as having a negative impact on health equity. Four policies were classified as having a neutral/positive impact on health equity, with one policy classified as having a neutral/negative impact on health equity.

Massachusetts

Characteristics

From 2010 to 2020, the Massachusetts State Legislature handled 158 bills containing the key terms identified for this review. Of those 158 bills, 16 met inclusion criteria. Massachusetts varied in the number of bills proposed per year across this 10-year period, seen in detail in **Table 5**. During this 10-year period, two of those bills passed, while the other 14 remain with the status of being introduced. The bills that passed are (1) An Act Improving the Quality of Health Care and Reducing Costs through Increased Transparency, Efficiency and Innovation, which was signed by the Governor in 2012, and (2) An Act to Reduce Racial Inequities in Maternal Health[4], which was signed by the Governor on January 13, 2021 (24, 25). The distribution in the levels of racism addressed amongst the selected Massachusetts bills are as follows: out of the total 16, one bill addressed only interpersonal racism (5.88%), one bill addressed both interpersonal and institutional racism (5.88%) and the rest addressed only institutional racism ($n = 14$, 87.5%). Two bills were identified as "category 2," predominantly focused on Black maternal health, racial disparities, or health equity. Fourteen bills were identified as "category 1."

Thematic Findings

Sixteen Massachusetts policies were identified meeting the inclusion criteria. Of these, 14 policies were introduced, and two policies became law. Thematic findings include four themes, including: (1) Proposing Medicare for all (ex., mentions covering cost of maternity care/ family planning through perinatal), (2) Supporting midwife involvement on maternity care teams, and (3) Proposing Medicaid coverage for doula services (4) Formation of a committee to reduce maternal racial disparities. Of the two bills that became law the themes included: (1) Forming a committee to reduce maternal racial disparities and (2) expanding access to healthcare.

Quality Appraisal

For evaluation of effectiveness of Massachusetts policies, 12 were identified as having a positive effect (e.g., comprehensively standardizing abortion access and sexual/reproductive health service access for vulnerable populations), two identified as neutral/positive (e.g., legislation containing a myriad of non-maternal health parts, but additionally containing some language around expanding provider accessibility during pregnancy), and two as having neutral effect (e.g., actual implementation of policy impacted by health care context/culture.) For the component of unintended effects, five were identified as having unintended potential negative effects (e.g., allowance of disenrolled providers to continue being able to treat pregnant individuals, potentially allowing providers disenrolled for harmful reasons to work with patients), seven as positive unintended effects (e.g., broad language around maternity and fertility care allowing ability to insert abortion care and access underneath umbrella of coverage), and four as having neutral unintended effects (e.g., attempt to incentivize physicians to leave private practice in favor of CHCs.) For the component of health equity, 11 policies were identified as having positive impact on health equity (e.g., correcting social inequities through increasing representation in legislation), three having neutral impact on health equity (e.g., simple reference to culturally competent providers), and two as having a neutral positive impact on health equity (e.g., containing language noting performance benchmarks for hospitals shall include reduction of racial and ethnic disparities without clarifying disparities and consequences to hospitals that don't abide.) None were identified as having a negative or neutral negative impact on health equity.

DISCUSSION

This systematic policy review investigated legislation proposed and passed to address Black maternal health in Massachusetts and at the national level from 2010 to 2020. Specifically, we analyzed and compared policies between Massachusetts and the federal government regarding health equity in maternal care and improving Black maternal health to determine what could be implemented on a national level that Massachusetts has proposed. Overall, we found that there is a lack of legislation that would address maternal racial disparities that is passed at both the federal level and in Massachusetts. At the federal level, only two bills were passed out of 31 proposed, and in Massachusetts, only two bills were passed of the 16 proposed. Even still, the bills that have passed (National: PREEMIE Reauthorization Act of 2018 and Preventing Maternal Deaths Act of 2018, Massachusetts: An Act to Reduce Racial Inequities in Maternal Health and An Act Improving the Quality of Health Care and Reducing Costs through Increased Transparency, Efficiency and Innovation[5]) represent only initial movement toward improving maternal outcomes over time (22–25).

The bills that became law on the national levels sought to address Black maternal health by identifying disparities through improved data collection, including the establishment of maternal mortality review committees (MMRC) across the country and a standardized form, the Maternal Mortality Review Information Application (MMRIA[6]), through the Centers of Disease Control and Prevention (CDC)'s "Review to Action" program (*Maternal Mortality Review Information Application, MMRIA*). This seeks to standardize the process of reporting and analyzing maternal death across the country to determine preventability, factors that contribute to the deaths, and what areas in particular need

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[4] An Act to Reduce Racial Inequities in Maternal Health, no. H.4818, 191st Congress of MA (2019-2020) (2021). Available online at: https://malegislature.gov/Bills/191/H4818.

[5] An Act Improving the Quality of Health Care and Reducing Costs through Increased Transparency, Efficiency and Innovation, no. S. 2400, 187th Congress of Ma (2011-2012) (2012). Available online at: https://malegislature.gov/Bills/187/S2400.

[6] Maternal Mortality Review Information Application (MMRIA). *Review to Action*. Available online at: http://www.mmria.org/.

TABLE 5 | Summary of quality appraisal, status, and category ranking of included Massachusetts state-level bills.

Title	Year	Status	Score on addressing black maternal health	Effectiveness	Unintended effects	Health equity	Level of racism addressed
An Act Relative to Medicaid Coverage for Doula Services	2020	Introduced	2	Positive	Negative	Positive	Interpersonal & Institutional
An Act to Reduce Racial Inequities in Maternal Health	2020	Became law	2	Positive	Neutral	Positive	Institutional
An Act Relative to Out-of-Hospital Birth Access and Safety	2019	Introduced	1	Positive	Negative	Positive	Interpersonal
An Act Advancing the Health of Pregnant Persons	2019	Introduced	2	Positive	Positive	Positive	Institutional
An Act Establishing Medicare For All in Massachusetts	2019	Introduced	1	Neutral/Positive	Negative	Positive	Institutional
An Act Establishing the Honorable Peter V. Kocot Act to Enhance Access to High Quality, Affordable and Transparent Healthcare in the Commonwealth	2018	Introduced	1	Positive	Positive	Neutral	Institutional
An Act to Strengthen Behavioral Health Integration	2017	Introduced	1	Positive	Positive	Neutral/Positive	Institutional
An Act Establishing Improved Medicare For All in Massachusetts	2017	Passed House	1	Positive	Positive	Positive	Institutional
An Act Establishing Medicare For All in Massachusetts	2015	Introduced	1	Positive	Positive	Positive	Institutional
An Act to Provide Improved Medicare For All	2013	Introduced	1	Positive	Positive	Positive	Institutional
An Act Relative to Certified Professional Midwives	2013	Introduced	1	Positive	Neutral	Neutral/Positive	Institutional
An Act Relative to Healthcare Quality Improvement and Cost Reduction Act of 2012	2012	Introduced	1	Neutral/Positive	Negative	Positive	Institutional
An Act Encouraging Nurse Practitioner and Physician Assistant Practice of Primary Care	2011	Introduced	1	Neutral	Negative	Positive	Institutional
An Act to Provide Improved Medicare For All	2011	Introduced	1	Positive	Positive	Positive	Institutional
An Act to Ensure Quality, Affordability and Access to Primary and Preventive Health Care, to Eliminate Health Disparities, and to Enhance Economic Growth Throughout the Commonwealth	2011	Introduced	1	Positive	Neutral	Neutral	Institutional
An Act Improving the Quality of Health Care and Reducing Costs Through Increased Transparency, Efficiency and Innovation	2011	Became law	1	Neutral	Neutral	Neutral	Institutional

In the category of "Scoring on Addressing Black Maternal Health," a score of 1 indicates the bill mention terms regarding race, racial disparities, people of color, discrimination, health equity infrequently, a score of 2 indicates the bill directly concerns Black maternal health, racial disparities, and health equity.

to be addressed in a more holistic manner, through the interprofessional MMRC team. Another aspect of the bills that have become law nationally is to allocate funding for research on preterm birth. Expanding funding for research on the topic has been a predominant theme amongst the included national bills.

Additionally, two bills nationally passed the House of Representatives but have not been voted upon in the Senate: The Maternal Health Quality Improvement Act of 2020[7] and The Helping MOMS Act of 2020[8] (26, 27). While it is unclear whether these two bills will become law, they address several focuses that have been commonly proposed in other bills that remained stagnant in the House of Representative or Senate.

In Massachusetts, one bill that became law, An Act to Reduce Racial Inequities in Maternal Health, established a diverse commission specifically to examine and make recommendations to reduce racial inequities in maternal health (25). The other bill that passed into law, An Act Improving the Quality of Health Care and Reducing Costs through Increased Transparency, Efficiency and Innovation, aimed to improve the quality of healthcare and reduce healthcare costs through increased transparency, efficiency, and innovation within the healthcare system (24). Lastly, the bill that passed the House but has not been passed in the Senate, An Act Establishing Improved Medicare For All in Massachusetts,[9] would enact Medicare for all residents in the state and establish a statewide healthcare trust to disburse funds for medical treatment (28).

Themes

Two of the most salient themes noted across policies were similar at the federal level and in Massachusetts. First, bills identified the need for increased roles and support for doulas and midwives. Although these bills did not directly address Black maternal health, heightening the availability, compensation, and services that doulas and midwives can offer will likely result in healthier outcomes for Black mothers. Previous research demonstrated that Black women experience lower risk for cesarean birth and intrapartum analgesia with the presence of a doula who can provide continual emotional and relational support through birth (29). Given the substantial association between doula services and labor and delivery outcomes, some states such as Oregon and Minnesota have already expanded Medicaid to support doula services (30). However, this is yet to be supported on a national level or in Massachusetts. These bills also propose Medicaid expansion for other birth and breastfeeding support roles, such as childbirth educators and lactation consultants. Studies demonstrate that attending childbirth classes reduce labor interventions and risk for cesarean birth (31). Access to lactation consultants and lactation education has been shown to increase initiation of breastfeeding and likelihood of exclusive breastfeeding, which improves health outcomes such as disease burden for both mother and child (32, 33). The bills that were included under this theme addressed two aspects of expanding the roles of doulas, midwives, lactation consultants, and community health workers. The bills both called for greater inclusion of these professions into the birth setting, policy development, MMRCs, and research while also proposing increased access to these professions by expanding insurance coverage, including Medicaid, to cover their services and establishing community-based training and recruitment efforts to increase the workforce numbers and diversity.

Another similar theme for bills at the federal level and in Massachusetts was diversification of committees to address maternal health disparities. Diversifying committees may lead to greater health equity by providing a platform for communities of color to have representation in discussions of maternal health. Federal level bills also proposed further diversifying the healthcare workforce. Studies have shown that a shared racial identity between Black mothers and providers may halve the mortality rate of Black infants (34).

One other core theme that emerged at the federal level was funding for research expansion. With the recent recognition of Black maternal health as a public health crisis, there may be a temporary surge in funding to investigate racial disparities in healthcare settings. However, for the multipronged societal intervention required to alter the underlying institutional racism that has resulted in maternal racial disparities, long-term funding will be required across many different settings and areas of study. This will include funding to create effective community-level interventions for social determinants of health, such as housing, employment, and other environmental barriers to health equity.

In Massachusetts, there was particular emphasis to enact Medicare for all, which is a single payer health care financing system for all residents. This includes coverage for prenatal, pregnancy, and postpartum services, and would allow for care beyond the current coverage of 60 days postpartum through Medicaid for women who meet poverty level financial thresholds. Medicaid prioritizes coverage for pregnant women and finances over 4 in 10 births in the United States (35). However, nearly one-third of maternal mortalities occur between 1 week and 1 year postpartum, the majority of whom are Black women (5). This therefore suggests the need for expansion of Medicaid coverage to 1 year postpartum (36). States can apply for a waiver to extend postpartum coverage, but only the federal government can alter the length of postpartum coverage. Recently, the Helping MOMS Act of 2020, a bill that proposes lengthening postpartum coverage to 1 year, has passed the House of Representatives and is one of the most common themes identified in 19.4% of bills at the federal level, but has yet to be enacted as law (citepbib700).

Massachusetts vs. National (Quality Appraisal)

Across analyses, both federal and Massachusetts level legislature were determined to have a neutral or positive effect, with most also having positive or neutral unintended effects and a positive impact on health equity. However, it is important to note that because these analyses included legislation that specifically addressed terms related to race and health equity, there may be a difference in unintended effects and health equity between bills included here and others that only mention race

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[7] Maternal Health Quality Improvement Act of 2020, no. H.R. 4995, 116th Congress (2019-2020) (2020). Available online at: https://www.congress.gov/bill/116th-congress/house-bill/4995/text.

[8] Helping MOMS Act of 2020, no. H.R. 4996, 116th Congress (2019-2020) (2020). Available online at: https://www.congress.gov/bill/116th-congress/house-bill/4996.

[9] An Act Establishing Improved Medicare For All in Massachusetts, no. H. 2987, 190th Congress of MA (2017-2018) (2018). Available online at: https://malegislature.gov/Bills/190/h2987.

in an epidemiological sense. For instance, previous research demonstrates that state-level policies that impact clinic closures and impose restrictions on gestational age for abortion increase mortality rates (37).

Institutional and/or interpersonal racism were most commonly addressed across federal and Massachusetts policies. Federal policies may be particularly effective in addressing issues of health equity and racism, as federal policies provide a minimum standard to which all states must adhere. For example, if Medicaid were extended to 1 year postpartum at the federal level, racial disparities in maternal mortality may decrease across the population (36). Although these analyses focus particularly on legislation related to maternal racial disparities, it is essential to also recognize that policies that relate to other aspects of institutional racism (i.e., housing, employment, education) also have the potential to make significant improvement in the health of Black women.

Gaps Identified

At both the federal level and in Massachusetts, there are still many gaps to be addressed. In particular, postpartum depression within Black, Indigenous and People of Color (BIPOC) populations has yet to be identified as a focus within policy. However, studies suggest that there are great disparities between Black and white women in both diagnosis and treatment for postpartum depression (38). Black women are less likely than their white counterparts both to attend postpartum appointments that might result in diagnosis of postpartum depression and to attend follow-up appointments to treat postpartum depressive symptoms (39). Researchers speculate that many factors could be contributing to this outcome, including fear of racial discrimination from healthcare providers, mental health stigmas, and issues of access and practicality related to attending another appointment (40, 41). Policies are needed to ensure equitable opportunity and access to diagnostics and follow-up treatment for Black women.

Another important gap to address is funding for hospitals with poor maternal health outcomes. This is especially important in hospitals that serve communities of color and low-income communities. One study showed that location of delivery accounted for 47.7% of racial disparities in severe maternal morbidity rates between Black and white mothers, with Black mothers being more likely to deliver at high-risk hospitals for severe maternal morbidity (42). By implementing policies that allow for additional funding and resources in hospitals that primarily serve communities of color, we may begin to create more equitable systems for Black women and improve maternal outcomes.

Importantly, most policies aim to address the symptoms of institutional racism rather than the root causes. For instance, institutional racism has made it such that healthcare workers in decision-making roles are predominantly white males (43). This in turn has resulted in several bills calling for diversity within the healthcare workforce at the national level. Certainly, diversity of healthcare providers may begin to improve patient-provider relationships for Black women, but it does not heal the deep wound and impact of institutional racism entirely. A single bill does not address the inherent racial bias woven into every part of the fabric of the healthcare system and American society that has ultimately manifested in the preventable deaths of Black mothers. Rather, it is clear that many of the symptoms of institutional racism will need to be addressed at the policy level in order to begin to alter the course of action required to reverse trends in maternal racial disparities.

CONCLUSIONS

In this systematic review, we compare state-level legislation in Massachusetts to national level legislation addressing maternal health and racial disparities between 2010 and 2020. After accounting for all inclusion criteria, we found that only 31 national and 16 state-level bills were proposed. Of the proposed bills, two federal and two state-level bills were enacted into law. Although there is initial movement toward increasing bills that can focus on and address maternal health disparities, tremendous progress still remains to be seen at both the state and federal level to improve outcomes for Black women.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

AUTHOR CONTRIBUTIONS

The study idea was formulated and written by KC, AK, PM, BM, SA, and EA. Initial analyses were performed by PM, BM, SA, and EA. Final analyses were performed and reported by KC and AK. Final writing and preparation of the manuscript, including edits, were done by KC, AK, and NA-O. All authors contributed to the article and approved the submitted version.

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Expanding the Reach of an Evidence-Based, System-Level, Racial Equity Intervention: Translating ACCURE to the Maternal Healthcare and Education Systems

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The abundance of literature documenting the impact of racism on health disparities requires additional theoretical, statistical, and conceptual contributions to illustrate how anti-racist interventions can be an important strategy to reduce racial inequities and improve population health. Accountability for Cancer Care through Undoing Racism and Equity (ACCURE) was an NIH-funded intervention that utilized an antiracism lens and community-based participatory research (CBPR) approaches to address Black-White disparities in cancer treatment completion. ACCURE emphasized change at the institutional level of healthcare systems through two primary principles of antiracism organizing: transparency and accountability. ACCURE was successful in eliminating the treatment completion disparity and improved completion rates for breast and lung cancer for all participants in the study. The structural nature of the ACCURE intervention creates an opportunity for applications in other health outcomes, as well as within educational institutions that represent social determinants of health. We are focusing on the maternal healthcare and K-12 education systems in particular because of the dire racial inequities faced by pregnant people and school-aged children. In this article, we hypothesize cross-systems translation of a system-level intervention exploring how key characteristics of ACCURE can be implemented in different institutions. Using core elements of ACCURE (i.e., community partners, milestone tracker, navigator, champion, and racial equity training), we present a framework that extends ACCURE's approach to the maternal healthcare and K-12 school systems. This framework provides practical, evidence-based antiracism strategies that can be applied and evaluated in other systems to address widespread structural inequities.

Keywords: racism and antiracism, systems change in health care, community-based participatory research (CBPR), health disparities, intervention translation, racial equity, evidence base

INTRODUCTION

Factors contributing to racial inequities in the United States (U.S.) are complex, influenced by historical and contemporary social injustices (namely racism), and range from the individual to system-level (1). Regardless of the system being examined, racial inequities in outcomes are pervasive due to structural, systemic, and institutional racism (hereafter referred to as racism) embedded in policies, practices, and cultures of these systems (2). Interventions that aim to reduce racial inequities have focused largely on individual-level factors, which have limited long-term effectiveness (3, 4) and do not address the system-level factors contributing to inequities. To effectively address racial inequities produced by racism, we must develop and implement multi-faceted, system-level interventions that address multiple levels of change (e.g., individual, interpersonal, community, institutional, and policy), and utilize best practices, including fully engaging community partners in this process and incorporating interventions into existing systems (3). This article describes the Accountability for Cancer Care through Undoing Racism and Equity (ACCURE) intervention and explores how key components could be applied to the maternal healthcare and education systems to address structural barriers to racial equity.

ACCOUNTABILITY FOR CANCER CARE THROUGH UNDOING RACISM® AND EQUITY

ACCURE was a longitudinal randomized control trial (RCT) funded by the National Cancer Institute (NCI) (Grant# 1R01CA150980-01A1) to reduce racial disparities in treatment completion between Black and White patients with stage I or II breast or lung cancer at two U.S. cancer centers (5). The study implemented a multi-faceted, quality improvement intervention to address structural barriers to care that were identified in formative studies (6) and informed by a community-based participatory research (CBPR) approach (7). Evidence from routine clinical practice was used to improve quality of cancer care, which resulted in improved treatment completion for both Black and White patients, and the elimination of disparity between the two racial groups (5).

The Greensboro Health Disparities Collaborative (GHDC) is a community-medical-academic partnership working toward racial equity in healthcare (8, 9). Please see the **Supplementary Materials** for a deeper description of the partnership. GHDC developed ACCURE, an intervention unique in its application of CBPR, key antiracism principles of transparency and accountability, and system-level change, which can be translated to other systems to reduce racial inequities and improve overall outcomes. **Figure 1** depicts the key intervention components of ACCURE and how the use of electronic health record (EHR) data in combination with the real-time registry (RTR), nurse navigator, physician champion, clinical performance reports, and Healthcare Equity Education and Training (HEET) sessions led to enhanced transparency and accountability in the cancer care system (7). This figure is encapsulated within the community to signify the critical and necessary community-centered nature of ACCURE and how community members were involved at every step. Details of ACCURE are available in previous publications (9) and brief descriptions of the core components are below.

Community Partners

GHDC consists of community members, healthcare providers, and academic researchers from central North Carolina who have either been a survivor of the diseases we are studying, self-identify as a member of an underrepresented population group (by race, gender, age, and/or religious faiths), or their professional or personal work focuses on understanding and eliminating racial inequities. Each GHDC member is required to attend the Undoing Racism® Training (10) or the Racial Equity Institute (REI) Phase 1 training (11). The GHDC maintained power to review and approve deviations from ACCURE's plan, progress reports to NCI, and all dissemination products. GHDC members served on every committee involved in the ideation, formation, and design of the intervention, as well as the implementation, dissemination, and evaluation. Community member input was critical to ACCURE's success.

In ACCURE, The Partnership Project, Inc. (TPP) (12), a Greensboro, NC based non-profit antiracism training organization, served as the community partner organization. The Executive Director of TPP was designated in the grant contract as the official community partner site director. GHDC members and TPP's Board of Directors ensured that research methods and findings remained relevant to community needs.

Outcome

Eliminating racism in healthcare has long-lasting benefits on patient treatment and survival. Yet, it is critical to identify proximal outcomes with a direct impact on long-term results. The proximal outcome can serve as a leading metric since equity is a lagging metric. In oncology, completion of recommended treatment correlates with full recovery and was the outcome of interest (5).

In ACCURE, (5) there was a statistically significant racial disparity in the retrospective group's treatment completion rates (79.8% for Black patients, 87.3% for White patients, $p < 0.001$).

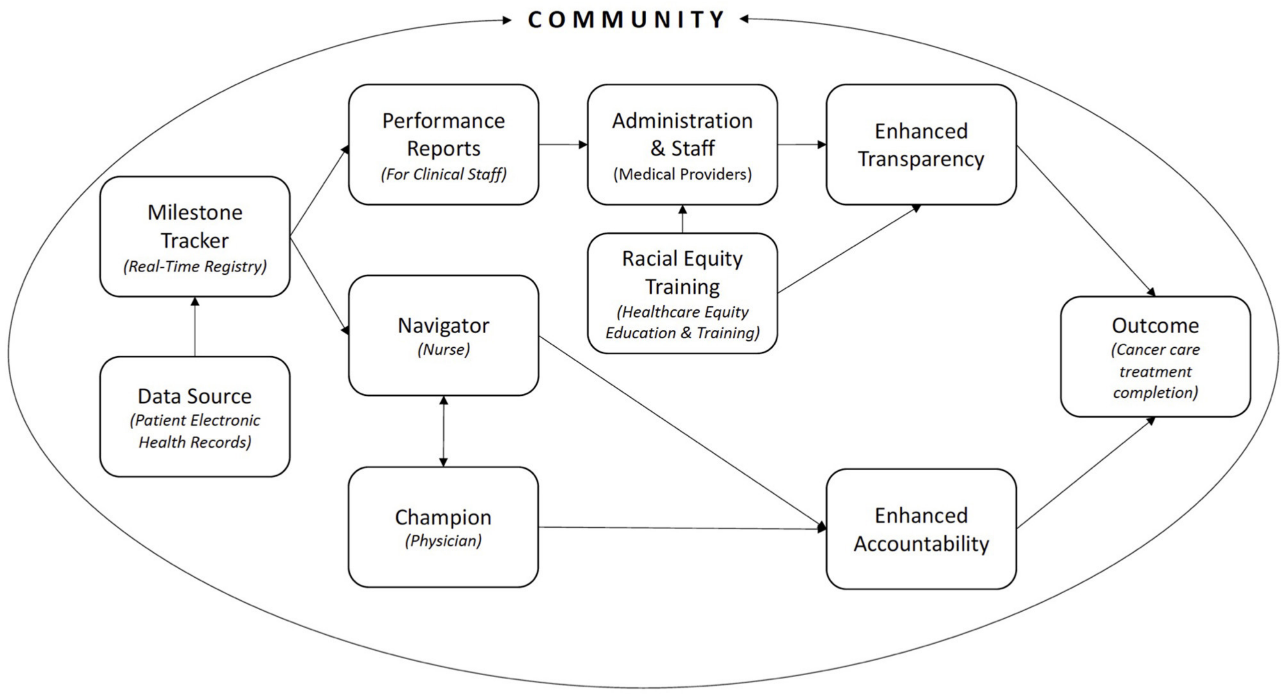


FIGURE 1 | ACCURE component: from real-world data to enhanced transparency and accountability.

In the intervention group, this racial gap not only disappeared, but the treatment completion rates improved for both Black and White patients (88.4 and 89.5%, $p = 0.77$).

Milestone Tracker

The real-time registry (RTR), derived from patients' EHR data, was developed for ACCURE to track patient milestones by race. This database was updated daily to track anticipated milestones in each patient's cancer treatment journey. The RTR alerted the navigator and physician champion (both roles described below) about missed appointments and unmet milestones [i.e., standards of care; (5)].

Navigator

Navigators assist patients through the complex levels of institutional procedures (e.g., setting appointments, connections with organizational resources, providing health education, and/or advocating for patient's concerns to providers). ACCURE Navigators were nurses (with minimally a Bachelor of Science in Nursing and management experience) who went through additional training in antiracism analysis and patient-centered care protocols [i.e., the Teach Back method, Kleinman's Patient Model, and instructions on using the RTR; (13)].

ACCURE Navigators assisted cancer patients from diagnosis through their active treatment completion journey. Whereas, usual-care navigators serve as advocates for providers (a one-way link) to ensure patient compliance/adherence to medical regimen, ACCURE Navigators served as patient advocates and a two-way liaison between patients and providers.

Champion

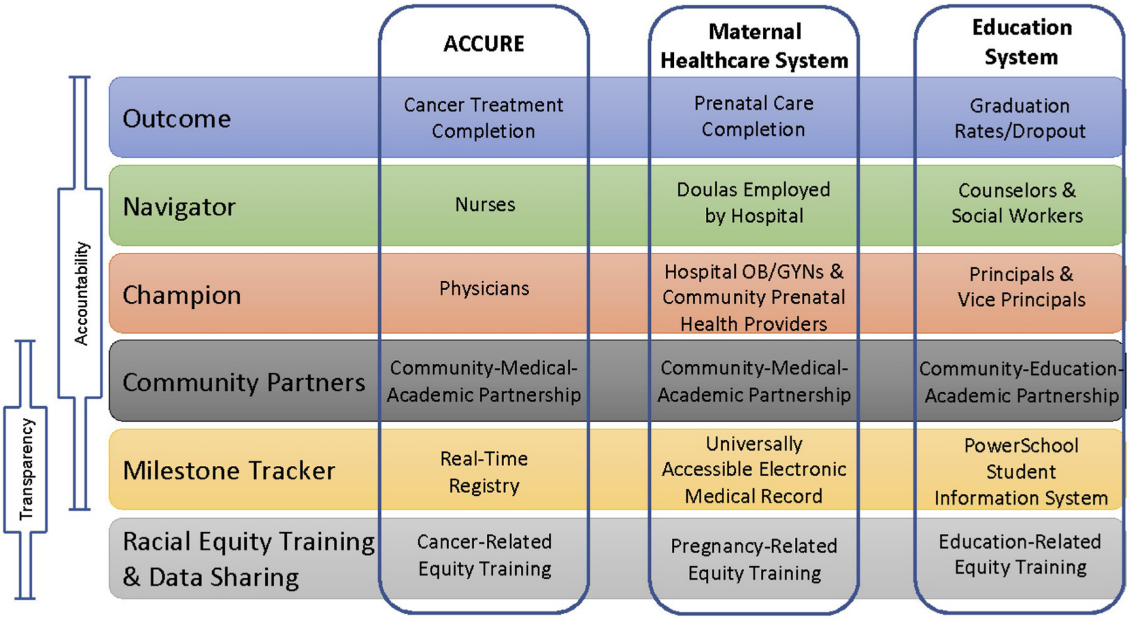
In ACCURE, this role was filled by established powerholders within the institution - cancer care physicians. They advocated for and promoted the intervention, as well as directly supported the ACCURE Navigator. They communicated study updates and reports regarding individual performance to their cancer care teams using institutional language and relationships. Ultimately, the Champions lend credibility to the project among institutional peer partners.

Racial Equity Training

Concepts from REI's antiracism trainings were adapted into healthcare system-specific focused sessions, delivered quarterly for cancer center providers and staff. These Healthcare Equity Education and Training (HEET) sessions covered antiracism topics (e.g., transparency, accountability, and gatekeeping) and presented site-specific Clinical Performance Reports on patient outcomes by race (13). This component allowed for transparent discussions among multidisciplinary institutional members, so that further solutions and action could be implemented to address systemic racism within their institutions.

Purpose of This Article

"Real-world data," (RWD) an umbrella term used to describe the benefit, risk, and resource use of health data that are not collected through conventional RCTs (14), are increasingly used to make decisions in healthcare because they capture nuances in patient journeys (15). RWD can be generated from routine clinical practice observations or collected retrospectively from a variety of sources such as EHR data, claims/billing activities, and patient-reported outcomes (14).



	ACCURE	Maternal Healthcare System	Education System
Outcome	Cancer Treatment Completion	Prenatal Care Completion	Graduation Rates/Dropout
Navigator	Nurses	Doulas Employed by Hospital	Counselors & Social Workers
Champion	Physicians	Hospital OB/GYNs & Community Prenatal Health Providers	Principals & Vice Principals
Community Partners	Community-Medical-Academic Partnership	Community-Medical-Academic Partnership	Community-Education-Academic Partnership
Milestone Tracker	Real-Time Registry	Universally Accessible Electronic Medical Record	PowerSchool Student Information System
Racial Equity Training & Data Sharing	Cancer-Related Equity Training	Pregnancy-Related Equity Training	Education-Related Equity Training

FIGURE 2 | Core components of ACCURE and representative examples in the maternal healthcare and education systems.

ACCURE utilized RWD to eliminate racial disparities in cancer care (**Figure 1**) and can be applied beyond healthcare to address the antiracism principles of transparency and accountability in other systems. The maternal healthcare and education systems are two systems where People of Color can have widely varying experiences and outcomes compared to their White counterparts. In this article, we propose translating the key components of the ACCURE intervention into the maternal healthcare and education systems to address racism. **Figure 2** shows the core components of ACCURE with the related applications to maternal healthcare and education described in greater detail below.

TRANSLATION TO THE MATERNAL HEALTHCARE SYSTEM

Racial inequities in maternal health outcomes are well-documented. Black women are three times more likely to experience maternal mortality than White women and have worse incidences of severe maternal morbidity (16, 17). College educated Black women have pregnancy-related mortality rates that are worse than White women who have not completed high school (17). The racism that persists in our maternal healthcare system contributes to poor maternal health outcomes among women of all races and ethnicities in the U.S. compared to our peer countries (18), demonstrating the importance of translating ACCURE to the maternal healthcare system.

Addressing racial inequities in maternal healthcare can improve outcomes for all pregnant people in a similar way that ACCURE eliminated Black-White racial gaps in treatment completion and improved cancer care for all patients in the study. While the maternal healthcare system has some similarities to the cancer care system, there are appreciable differences.

Community Partners

Similar to ACCURE, a community-medical-academic partnership that includes people who have experienced pregnancy and their partners, maternal healthcare providers [e.g., doulas, midwives, nurses, obstetrician/gynecologists (OB/GYNs), and administrative staff], community organizers, and academic researchers with CBPR and racial equity expertise will be crucial for success. Champions, described below, should be members of the partnership as well.

Outcome

An important maternal healthcare outcome is reducing racial disparities in completion of prenatal care visits among pregnant people with hypertension. While prenatal care visits are important for monitoring health and well-being, these visits are vital for people at increased risk of pregnancy complications due to hypertension or preeclampsia which occurs in 1 in every 12–17 pregnancies (19, 20). Hypertension complicates pregnancy by increasing the likelihood of seizures, strokes, maternal mortality, and other ailments during delivery (21). Black women experience pregnancy- related death due to preeclampsia at 3.1 times the rate of White women (19) and risk for preeclampsia does not lessen for Black women with higher SES (22). If detected early, caregivers can facilitate the reduction of these risks by prescribing treatments to lower a patient's blood pressure or discussing lifestyle changes to help regulate stress (21). Prenatal care visits provide caregivers with regimented schedules to assess and monitor the health of pregnant people and their developing babies, to obtain accurate medical histories and prepare in advance for potential delivery complications (23).

Milestone Tracker

We recommend the use of EHR data that contains relevant information about social demographics, health, and prenatal care of pregnant people and their developing babies, and records of patients' receipt of universally accepted standards of care for hypertension during pregnancy (5). This real-time data source must be housed and programmed at the hospital and accessible to both prenatal care providers (e.g., primary care and reproductive healthcare providers) and hospital OB/GYN providers for data entry and monitoring. The universally accessible EHR will help to improve health outcomes for pregnant people and babies by (1) measuring the rate at which patients complete the full regimen of prenatal care visits, (2) ensuring transmission of relevant health information (e.g., blood pressure history and stress levels) between prenatal care providers and regional delivery centers, and (3) communicating alerts of missed prenatal care appointments or procedures. RWD must report health outcomes and missed appointments and procedures by race to increase transparency about racial inequities in maternal healthcare.

Navigator

A navigator identifies and intervenes on structural issues complicating the patients' use of prenatal care and serves as a two-way liaison between patients and care providers during prenatal, perinatal, and postpartum time periods. A doula on staff at the hospital could function as navigator and must be trained in antiracism principles and using the milestone tracker. Having access to the EHR milestone tracker allows the navigator to identify racial inequities in outcomes in real-time which can increase accountability by affording the maternal healthcare system an opportunity to efficiently tackle structural barriers contributing to the inequities. Access to the milestone tracker is critical for the champion as well.

Champion

In the case of maternal healthcare where people may have multiple providers both within and outside of the hospital, multiple champions will be necessary. Within the hospital system, the champion should be an OB/GYN with leadership responsibilities. Within the primary care system, the champion should be a physician, nurse midwife, or physician assistant, who has a leadership role and network connections to other providers in the community. Some local health departments provide access to prenatal care as well, requiring an additional champion identified within the health department. Champions, in addition to navigators, must monitor the EHR milestone tracker to identify and act on racial inequities that arise in real-time.

Racial Equity Training

The historical and contextual foundation of racial disparities in maternal health outcomes is significant and substantive. Racial Equity Training that enables understanding of the structural and systemic origins of racial inequities (i.e., racism) in maternal and child health must be created to provide hospital and clinic employees with knowledge of the problem through a racial equity lens. This training must include a presentation of monthly reports, disaggregated by race, on prenatal visit completion and relevant clinical measures, which would mirror the race-specific transparency data or "Clinical Performance Reports" in ACCURE.

TRANSLATION TO THE EDUCATION SYSTEM

As a social determinant of health, education affects social and economic opportunities, physical health and well-being, and life trajectories. School dropout is associated with worse self-reported health and use of illicit drugs (24), asthma, diabetes, and heart disease (25). Education is regarded as the great equalizer, yet the racial gap in academic outcomes is vast. Translating ACCURE to this system may address these inequities.

Community Partners

Schools are often closely connected to coalitions of community stakeholders. These coalitions are essential to holding the institution accountable for equitable practices and can include advisory councils, affinity groups, parent councils, students, and residents. Community partners should ensure that racial equity practices that create accountability are adopted and sustained in the school processes. Creating transparency with administrators, teachers, and community members is essential to building accountability for equity.

Outcome

Since there are no comprehensive national standards for graduation requirements and states set them individually, ACCURE's proximal outcome cannot be perfectly translated to the education system. Graduation and dropout rates could be substitutes, though they are not an exact match to ACCURE's outcome. The data show inequities in graduation and dropout rates by race. White, Black, and Hispanic/Latinx students' dropout rates are 4.2, 6.4, and 8.0%, respectively (26). In the case of high school graduation, reports from the National Center for Education Statistics show that the adjusted cohort graduation rate for White students is higher than that of Black, Indigenous, and Hispanic/Latinx students by 10, 15, and 8%, respectively (26). These numbers demonstrate the need for new approaches to meet the needs of students of color in the academic environment.

Milestone Tracker

Using North Carolina as an example, PowerSchool, a real-time data tracking tool, is used in public and private schools to manage student data and school processes and could serve as a milestone tracker. This tool gives parents, students, teachers, and administrators access to real-time data such as students' grades, attendance, and assignments. An important variable to track that is a leading indicator for graduation or dropout is truancy (i.e., excessive, repeated, and/or unexcused absences), which may negatively affect a child's ability to learn, grow, and graduate (27). According to the U.S. Department of Education, White, Black, and Hispanic absenteeism rates are 14.5, 20.5, and 17.0%, respectively (28). Black students are 40% more likely to lose 3 weeks of school compared to their White counterparts (28). The NC Department of Instruction suggests chronic absenteeism is an effective and actionable measure to serve as an early warning indicator to identify students with high truancy (27) and using this RTR could be an important tool to increase transparency about racial inequities. Strategies to reduce absences and truancy must not simply address systemic issues with individualized approaches, such as individualized plans for students, as the education system has historically done. Such strategies do not address root causes of racial inequities and are not effective. Highlighting system-level problems, such as differences in absenteeism across race, will lay the groundwork for new and system-focused solutions which can increase transparency and accountability in systems. Importantly, solutions must not involve police or additional punishment as this may increase long-lasting racial inequities in youth incarceration and justice involvement.

Navigator

In the education system, school counselors and social workers (SCSWs) support students in completing their education. SCSWs are the frontline for student support, providing social, and emotional support *via* relationship-building with students, and instrumental support to help them navigate the system. They can also make suggestions for how systems can work more effectively for students. SCSWs as navigators must be trained in antiracism principles and in how to use the real-time milestone tracker PowerSchool. SCSWs must then help students navigate the complex structure of the education system while encouraging two-way communication between school personnel and students and their families.

Champion

Within schools, school leadership, such as the principals and assistant principals, should serve as champions. Principals and assistant principals would receive notifications from PowerSchool about absences and truancy and share these data with teachers and school leaders. Ideally, any administrator at each individual or group of schools who has the power to enforce racial equity- centered interventions and ensure that all students receive equitable opportunities to succeed, should serve as champions. These leaders could set the tone for equity by ensuring race-specific data are collected, monitored, and used as the basis of decision-making. School administrator champions should work closely with and support the efforts of SCSW navigators.

Racial Equity Training

School districts that provide professional development to teachers and administrators on a regular basis should include education-specific racial equity training. These trainings would need to include a historical and contextual analysis of race and racism in education, perhaps building on current tools, such as Root Cause Analysis, which helps teachers delve into the underlying and systemic causes of suspension rate disparities to prevent teacher bias from explaining away these disparities (29). Absence and truancy data, disaggregated by race, should also be shared during these trainings. Resources must be put in place to build an equitable school environment. The application of the ACCURE components to the education system provides an opportunity to think through how education systems can be accountable for decreasing racial disparities in graduation rates.

DISCUSSION

Racism is prevalent and pervasive in all systems. Recent global events, such as the coronavirus pandemic, have made the public more aware of racism and its impact on the lived experiences of minoritized populations and low-income communities. Yet, there is ample opportunity to use decades of lessons learned from racial equity scholars and community organizers in a variety of fields to assist with measuring and intervening on racism.

The success of ACCURE exemplifies how implementing system-level changes can ultimately lead to elimination of racial disparities in cancer care. In this article, we have described core components of ACCURE and proposed how these components can be translated in the maternal healthcare and K-12 education systems. We have noted key people that should be involved in and lead efforts to monitor RWD and implement equitable policies and practices that reverse past racial inequities produced by these systems. Above all, we stress the importance of the communities most impacted by these issues serving as core partners and leaders in every step of the process. Those who are most proximate to problems within systems must be equipped with the institutional knowledge, resources, and tools to translate ACCURE to their systems. In order to achieve equitable outcomes, each system must have transparent conversations about how racial inequities show up in their institutions. This can take the form of institutions analyzing their own data by race, as well as educating employees and communities being served about systemic racism, so that effective, accountable solutions can be developed to eliminate inequities.

Achieving racial equity will not happen overnight. Although eliminating racism and preventing racial inequities are our ultimate, long-term goals, it is imperative that we monitor leading, proximal outcomes (e.g., cancer treatment completion, prenatal care completion, and absenteeism/truancy) by race to identify where racial inequities are appearing. This continuous surveillance of short-term outcomes will allow us to intervene on racial inequities before they become severe or even fatal. We hope that the lessons learned from ACCURE will be translated to other systems to intervene in innovative ways against racism.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/**Supplementary Material**, further inquiries can be directed to the corresponding author.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by University of North Carolina Institutional Review Board. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

SB led the writing team through the conceptualization, development, and writing of the manuscript, was responsible for streamlining edits, recommendations and final submission, and also led the Maternal Healthcare section. KB and CD were part of the leadership team and met with SB to provide additional guidance. KB led the Introduction and CD led the Education System section. SB, KB, CD, CY, HM, PM, MM, JH, IG, AG, EE, DB, CB, KA, and AL contributed to the conceptualization, writing, editing, feedback, and approval of the final manuscript. All authors contributed to the article and approved the submitted version.

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SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpubh.2021.664709/full#supplementary-material

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Racism and Structural Violence: Interconnected Threats to Health Equity

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In 2020, the continuing murder of Black Americans by police officers received widespread media attention and sparked global outrage. Public health responses to these events focused on discrimination by police and structural racism in broader society. However, police violence is but one of many forms of racialized violence propagated by structural racism and anti-Black racism in particular. We aim to expand the current public health dialogue by describing how structural racism and structural violence are deeply interrelated; embedded in institutions, systems, and processes; and threaten health, safety, and well-being across the life course for racialized minority groups. Structural racism and structural violence are threats to health equity and anti-racist public health work.

Keywords: racism, equity, public health critical race praxis, violence, anti-Black racism, systems-level, social epidemiology

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> "Until American society can commit to full racial justice and the abolishment of structural violence, people will continue to protest, disrupt, and demand. Toward this end, the charges we give to ourselves and the health professional community below are necessary first steps to stop and reverse the injustices that sit at the intersection of racism and violence." – COVID-19 Task Force on Racism & Equity (1).

INTRODUCTION

Within policy and scientific forums, there are ongoing conversations on whether America is a racist society and to what extent the country grapples with the presence and implications of racism. As a collective of women of color, anti-racist health scholars we unequivocally assert that America is, and has always been, a racist country. In fact, racism is quintessentially American. And America is an exceptionally violent society. These two truths are not often discussed in tandem, especially within dominant public health narratives. An equity-driven outlook recognizes that intersecting forms of oppression (e.g., racism, sexism, heterosexism, classism) have prevailed since the founding of the United States (U.S.). These structural inequities have become so deeply engrained within the country's social, political, and economic fabric and a timeline enumerating the many examples is beyond the scope of this paper. However, events within the last 12 months including the violent January 6th attack on the U.S. Capitol, the disproportionate death rates due to COVID-19 in Indigenous, Black, and Pacific Islander communities (2), the excessive rates of fatal shootings by police officers in Black, Indigenous, and Latinx communities (3), and the rise in anti-Asian violence including physical assaults, harassment, and other hate incidents (4), are examples of violence fueled by white supremacy. Together, these recent events and a historical perspective, lay bare that racism and violence are deeply intertwined and normalized facets of everyday life that prevail in both overt and covert forms to harm and threaten the lives of racially marginalized populations. In this article, we underscore the need for the field of public health to adopt a broader understanding of structural racism and structural violence in order to adequately address health inequity.

Police violence is increasingly recognized as a public health issue (5). However, police violence is but one of many forms of racialized violence propagated by structural racism and anti-Black racism in particular. The symbiotic relationship between structural racism and structural violence is long standing with origins dating back to European colonialism. Throughout history and across global contexts, structural violence is the mechanism that carries white supremacist principles forward, impeding health equity through genocide, human rights violations and widespread detainment, and exploitation of people of color. Together, structural racism and violence have created, sustained, and exacerbated social, economic, and health inequities and influence policies, practices, and scientific knowledge production processes (6, 7). To confront these fundamental barriers to health equity, public health's conceptualization and analysis of structural forms of racism and violence must be broadened. Furthermore, an intersectional perspective is required to elucidate the ways racism and violence intersect with various social locations (e.g., gender, sexual orientation, and class) to create different health risks and consequences, particularly among marginalized groups (8). While this paper focuses on the U.S. context, the racist and violent underpinnings of American policies (both domestic and foreign) have global implications that undermine safety and health among some of the most vulnerable populations and continue to uphold oppressive systems and structures around the world.

DEFINING STRUCTURAL RACISM AND STRUCTURAL VIOLENCE

The field of public health is charged with the ultimate goal of pursuing health equity, defined as the "assurance of the conditions for optimal health for all people" (9). To address the roots of health inequities, we encourage the field to adopt explicitly structural definitions of racism and violence. For example, Ruth Wilson Gilmore describes racism as "the state-sanctioned or extralegal production and exploitation of group-differentiated vulnerability to premature death" (10). This definition is particularly helpful for viewing racism through a structural lens (i.e., as a product of state-sanctioned and extralegal exploitation) and underscores the central role of structural racism in perpetuating health inequities (i.e., group-differentiated vulnerability to premature death). Gilmore's definition clearly ties racism to health inequities and life-threatening harm. As H. Jack Geiger explained nearly 25 years ago, it is this "result in predictable harm to the physical and mental health of large populations" that makes structural racism inherently violent (11).

In a recent commentary on the history of medical racism and violence in the U.S. (12), Paul Farmer et al. define structural violence as "social arrangements that put individuals and populations in harm's way. The arrangements are *structural* because they are embedded in the political and economic organization of our social world; they are *violent* because they cause injury to people" (13). Despite efforts to examine violence as a structural concept (14), the public health field tends to understand violence as a problem of individual crime, behavior, and risk, which is evident in conventional violence prevention frameworks. However, like racism (15), violence operates on multiple levels. A structural analysis acknowledges that racism and violence do not solely or primarily depend on the intentions or (in)actions of individuals. Rather, the damaging manifestations of structural racism and violence are often the consequence of white supremacist ideologies entrenched in (and across) systems (e.g., education, housing, healthcare, immigration systems).

Racial inequities in health are exacerbated by capitalism, an economic system that has historically exploited people of color. Capital (e.g., land, resources, labor) continues to be accumulated through violent means—war, colonization, seizure and dispossession of land—and is central to systems of slavery, segregation, genocide, incarceration and migrant exploitation (11, 16, 17). Racial capitalism disproportionately exposes communities of color to environmental hazards, insufficient funding for resources such as schools and parks, limited healthy food options, and inadequate access to healthcare services (18). In short, racial capitalism itself is a form of structural violence that bolsters the social and commercial determinants of health inequities. Racism and violence are so deeply embedded within structures that they are difficult to recognize because they have become normalized. In other words, structural racism and violence are foundational to the creation, maintenance, and normal operation of systems within which people live.

Health equity scholars, practitioners and policymakers must constantly ask and answer the question, "How are racism and violence operating here?", "In what ways do our research, practices, policies, and norms disproportionately harm people and communities of color and disproportionately benefit people and communities racially classified as white?" As Camara Jones suggests, addressing questions like these "can be a powerful approach to identifying levers for potential intervention" (19). In the next section we describe four examples of the intersection between racism, violence, and health: 1) the education system, 2) child welfare systems, 3) the weaponization of data, and 4) predictive technologies.

STRUCTURAL RACISM AND STRUCTURAL VIOLENCE OPERATING ACROSS INTERCONNECTED SYSTEMS

Education

State-sanctioned violence against Black communities extends beyond the carceral state (e.g., criminalization, mass incarceration and hyper-surveillance) (20, 21) and operates through systems of education (22) and child welfare (23). For instance, the presence of law enforcement in schools has permitted police to violently discipline children. This practice not only physically and mentally hurts children, it has resulted in the normalization of the school-to-prison pipeline and the disproportionate arrest of Black students (24). Student arrests are associated with an increased risk of continued contact with law enforcement and the judicial system (25), lower likelihood of graduating from high school (26) and lower employment opportunities (27); all of which have short- and long-term social and economic ramifications that undermine the health of Black youth and families (28).

Child Welfare

For its role in disrupting Black families and inflicting racial harm on poor people of color (29), the child welfare system and mandated reporting procedures constitute "policing by another name" (30). Black children and families have been overrepresented in the child welfare system for over 50 years and experience worse outcomes than their white counterparts in every major case decision and milestone. For example, Black children are more likely to be separated from their families and placed in foster care and less likely to be reunified with their biological parents (31). Although explanations for the disproportionate representation of Black children in the child welfare system are multifactorial, Dettlaff and Boyd call out "structural and institutional racism, both within the child welfare systems and society at large" (pp. 257) as the fundamental cause (32). The cumulative effects of the physical and psychological trauma Black youth face at the hands of these systems may continue well into adulthood and old age.

Data Weaponization

The weaponization of health data refers to the ways data collection, analysis, interpretation, and application are used to harm and exploit people. Numerous COVID-19-related examples of data weaponization against communities of color exist. For one, public health agencies rarely collect or share comprehensive race data on COVID-19 cases, testing, hospitalizations, and fatalities (33). As Indigenous Peoples and Indigenous Studies scholars have repeatedly and thoroughly explained, the lack of data on racialized groups "effectively erases their existence" (34). This data invisibility is a form of erasure, and "erasure is a kind of violence, and violence is one of the tenets of white supremacy" (35). A second example of data weaponization in public health is the traditional epidemiologic frame that focuses on an individual's biological and behavioral risk factors rather than the structural conditions that drive differential health outcomes. Without a critical and race-conscious perspective (36), narratives about COVID-19 that emphasize "pre-existing medical conditions" among Black, Latinx, and Indigenous communities obscures the role that systems, institutions, and practices play in increasing their odds of contracting the virus (37, 38).

Predictive Technologies

Predictive technologies represent a more contemporary form of structural violence. Increasingly health scientists are developing and using advanced technologies including artificial intelligence (AI), machine learning, and algorithmic tools. At face value, these technological advancements have the potential to enhance our prediction of social phenomena. However, as with any statistical model, they can also reproduce bias (39). Colorblind coding schemas employ proxy indicators (e.g., educational status) that are emblematic of racialized social hierarchies, a practice sociologist Ruha Benjamin coined the "New Jim Code" (40). This is concerning given the wide use of algorithms across public and private sectors including immigration agencies, healthcare, and criminal justice. The current COVID-19 context presents another timely and concerning example of the uncritical adoption of new technologies. Blanket statements, even among health disparities researchers, for "more data" and contact tracing lack an understanding of: 1) how communities of color are threatened by ongoing, excessive forms of hyper-surveillance and 2) how the lack of an equity-driven approach to data collection and data sharing across governmental agencies can threaten the health and safety of racialized communities. Like other forms of structural racism and violence, the presence and utilization of these technologies have become deeply embedded and normalized in our processes and institutions to the extent that many of us are unaware of their presence in our daily lives nor how they further perpetuate racial inequities in health.

CONCLUSION

Structural racism and violence take on many forms, evolving over time and becoming harder to detect; they easily become institutionalized and consequently invisible to the uncritical eye and thus unchallenged. The invisibility and ordinariness of these structures bolsters white supremacy and further harms marginalized communities (41).

The work of addressing structural racism and structural violence is a constant and collective struggle. To directly engage in and support anti-racist and anti-violence initiatives it is imperative that we develop equitable and interdisciplinary partnerships beyond the academy; collaborations that are not "solely for the purpose of data collection" (42), but to understand and intervene on the "levers" at play that Jones describes. The public health community must learn from collectives such as Black Lives Matter (43), Cops Off Campus (44), and Critical Resistance (45) about the very real harm that current systems, policies, and practices (e.g., criminalization of school discipline) inflict on communities of color and importantly, about alternative strategies to counter violence and build healthy and safe communities through abolitionist movements. Similarly, public health researchers and practitioners can follow the lead of data scientists, racial justice activists, and community organizers who use data as a tool for liberation and social change. The Algorithmic Justice League (46), Data for Black Lives (47), Stop AAPI Hate (48), Stop LAPD Spying Coalition (49), and We All Count (50), that advocate for data transparency and accountability, and engage in the critical and intentional use of data for social justice action (e.g., gather disaggregated race data, disseminate findings to impacted communities, etc.). These are just a few examples of where we can thoughtfully and intentionally engage in partnership and solidarity to dismantle structural racism and structural violence and move us closer toward the goal of equity.

A broader conceptualization of violence and a comprehensive understanding of the interrelationship between racism and violence is long overdue. Until the public health community acknowledges the centrality of structural racism and its inherent violence, we will consistently fall short of our health equity goals and social justice mandate.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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