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Perspective

Asking MultiCrit Questions: A Reflexive and Critical Framework to Promote Health Data Equity for the Multiracial Population

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Policy Points:

- Health equity work primarily centers monoracial populations; however, the rapid growth of the Multiracial population and increasingly clear health disparities affecting the people in that population complicate our understanding of racial health equity.
- Limited resources exist for health researchers and professionals grappling with this complexity, likely contributing to the relative dearth of health literature describing the Multiracial population.
- We introduce a question-based framework built on core principles from Critical Multiracial Theory (MultiCrit) and Critical Race Public Health Praxis, designed for researchers, clinicians, and policymakers to encourage health data equity for the Multiracial population.

Keywords: Multiracial, data equity, health disparities.

RACIAL INEQUITIES IN HEALTH AND WELL-BEING BEGAN IN THE UNITED States with colonization and slavery and have persisted as direct consequences of historic and ongoing systemic racism.[1,2] The use of racial categories to describe such disparities has been closely tied to the Census Bureau's definitions of race and has evolved with the changing demographics of the country.[3,4] In 2000, the Census allowed respondents to select multiple races for the first time; since then, the number of people who have done so has increased by 276%, from 9 million in 2000 to 34 million in 2020 (approximately 10% of the US population).[5] Multiracial people face some of the highest prevalences of adverse childhood experiences,[6,7] asthma,[8] obesity,[9] substance use,[10] mental illness, hopeless feelings, and serious

psychological distress[11] of all racial groups, but studies attempting to explain these patterns are rare. Today, many medical and public health researchers view race as a socially structured marker of relative (dis)advantage rather than of biological difference,[12–16] but because of long-standing institutionalized practices and for methodologic simplicity, they often continue to be measure race in mutually exclusive categories.[17] However, the growing size of Multiracial populations, whose identities do not fit neatly into these categories and which have distinct racialized social experiences, draw these practices into question.[18] A frequent line of questioning from those who work in these fields is, "What do I do about Multiracial people? Where do they fit into my work?" As a group of Multiracial epidemiologists (see positionality statements in Box 1), we are excited by and encourage greater engagement with these kinds of questions given present opportunities to improve equity through visibility in health data.[19] We hope our framework will spur conversation and help practitioners, researchers, and policymakers think through their answers to these questions as they relate to racial health equity work.

Box 1. Authors' Positionality Statements

Tracy Lam-Hine (*he*/他): I identify as a cisgender gay man and first-generation Biracial Asian American, specifically Cantonese Chinese/White. I have light brown skin, and in California, where I grew up and live, I am often racialized as Latino. Usually, only other Multiracial people can identify me accurately. My father is White American and grew up middle class in California; my mother was separated in infancy from her family (who fled from violence and starvation in Southern China to Macau) and raised by her aunt in poverty in Hong Kong. I grew up next door to and across the street from my large extended Chinese family, and from a young age, my mother made it a point to teach me about White privilege. These experiences fundamentally shaped my Multiracial identity and my views on racism in the United States. As a queer Multiracial person and a social epidemiologist, I am often most interested in the historical processes that shape social categories, biases arising from misclassification of those categories, and structural processes that shape population-level distributions of health.

Sarah Forthal (*she*/*her*): I identify as a first-generation Biracial Black and Jewish American. My mother immigrated from Ethiopia to California as an adult. My father was raised in California and is the grandson of Jewish immigrants from Poland, Germany, and Belarus. I have been racialized as Black, Biracial, Latina, and South Asian and, as a result, often struggle to place my experience in the existing health disparities literature. As a psychiatric epidemiologist in training, my work aims to identify, explain, and address the distinct mental health stressors

faced by Multiracial individuals who are typically "hidden" by conventional racial categorizations.

Candice Johnson (*she/her*): My racial identity is fluid but is typically Asian, first-generation Multiracial, or Asian/White. My father is White Canadian and spent his childhood on military bases overseas. My mother is Chinese and lived in Northern China, Hong Kong, and the United States before settling in Canada. Growing up, I lived with my mother and sisters in a neighborhood with plenty of Asian/White kids my age and where Multiracial identities were common. I immigrated to the United States for graduate school and have lived in Georgia, Ohio, and North Carolina, where I am usually perceived as White or Multiracial. Unlike in my childhood, I encounter few other Multiracial people in my daily life. As an epidemiologist interested in methodology and causal inference, I'm interested in what race means when we use it to predict health outcomes and how Multiraciality fits into our definitions of race.

Helen Chin (*she/her*): I identify as fourth-generation Multiracial. My Multiracial parents were born in Jamaica, where Multiraciality is common. Both of my grandfathers were Chinese, and my grandmothers were Multiracial Black, White, and Cuban and Black, White, and Asian Indian. I currently often choose Black and Asian when "please specify" follows my selection of Multiracial or Other but have chosen other combinations at different times. I find race and ethnicity checkboxes to be restrictive and never truly feel represented by selecting multiple single race categories. As a result of my personal experience, I have made a point to try to use alternatives to the Other race category in my research to describe individuals who identify as a minority race group but still struggle to find an inclusive alternative.

What Is Health Data Equity?

Both health equity and data equity can be understood as dynamic processes as well as end-state goals. Health equity exists when systematic disparities in health and health determinants across differentially privileged groups have been eliminated.[20] Working toward health equity requires using data to assess progress toward this goal. Health data equity occurs when data systems and structures and the language used in them enable full and accurate description of the health status of and disparities across all communities in our population. Working toward data equity requires socially marginalized communities to be involved with the production, analysis, interpretation, and dissemination of health data.[19] Notably, data equity is a necessary prerequisite for health equity.[19] It is also important to contextualize the term "data equity" within the larger body of scholarship on the role of administrative systems in producing and enforcing state-sanctioned discrimination and violence against marginalized communities,[21] which we now briefly discuss.

A Brief History on Multiraciality in the United States

Post-Renaissance European philosophers, scientists, and rulers cocreated an ideology of White supremacy to justify the pillaging of lands in the Americas, the genocide of Indigenous populations, and enslavement of African peoples.[22] White supremacy undergirded the social fabric of colonies and newly established nations in the Americas, creating racist systems of inequality (including slavery and, later, Jim Crow laws) based on skin color, hair texture, and other bodily characteristics.[3,22,23] Although civil rights laws passed in the 1960s dislodged de jure racism from the US legal system, de facto racism embedded within and across our social systems continues to concentrate social advantage in the White population and disadvantage in Black and Indigenous populations. The combined effects of historical and ongoing structural racism preserve the striking inequities in indicators of health and well-being across racial groups that endure today.

Although the last state antimiscegenation laws, which criminalized interracial relationships, were struck down relatively recently by the 1967 US Supreme Court decision in *Loving v Virginia*, Multiracial populations (in the current sense) have existed on this continent since European colonization. Despite their relative invisibility in today's society, Multiracial groups were integral to the creation of a White supremacist and racially stratified social hierarchy in early US colonies.[23] Over time, racial classification laws targeting Multiracial people emerged to uphold White supremacy through, for example, hypodescent (e.g., the "one-drop rule," which assigned Multiracial Black individuals to Black race and, by extension, to enslavement)[23] and blood quantum laws limiting Indigenous sovereignty. Conversely, light-skinned Multiracial people have been advantaged by proximity to Whiteness; some have historically used this privilege to resist subordination to lower-status race, for example by claiming European ancestry in legal cases or by "passing" through life as White.[23] Evidence of structural racism's legacy on the Multiracial population today can be seen in the distribution of health risk by skin tone, with greater advantage among light-skinned compared with dark-skinned Multiracial people.[24]

State of Contemporary Health Research on Multiracial Populations

By Census counts, the Multiracial population now constitutes the fourth-largest US racial/ethnic group. There is broadening awareness and acceptance that Multiracial people often have identities and racialized social experiences, including unique racist microaggressions, that are distinct from those of monoracial people.[25] Although some

literature has framed Multiraciality as a protective psychological and mental health asset for some Multiracial subgroups,[26] substantial disparities in these outcomes exist in the overall Multiracial population. These patterns suggest greater attention is warranted to investigate the structural forces that maintain such disparities.[27,28] But historically, research on this group has centered on the attributes (e.g., identity formation) that define Multiracial *individuals*, rather than social and structural patterns of stratification that influence the Multiracial *population*, leaving gaps in population health knowledge.

A recent search of all funded National Institutes of Health grants with titles including racial/ethnic groups returned 958 results, of which just two (0.2%) matched "Multiracial," "Biracial," or "mixed race" (not including titles such as "a biracial cohort") and nine (0.9%) matched "admixed" (note that we generally discourage using "admixed," as it refers to genetic ancestry, not race[29]). Replicating this title keyword search in leading health sciences, services, and policy journals returns just three articles in the entire *Journal of the American Medical Association* (JAMA) Network,[30–32] seven articles in the *American Journal of Public Health*,[33–39] one in the entire *Lancet* network,[40] and none in *Health Affairs* or *The Milbank Quarterly*. Similarly, although an American Psychiatric Association report states that Multiracial people "[are more] likely to report any mental illness within the past year than any other race/ethnic group,"[41] the report's landing page links to tailored resources for 12 different demographic groups but none for Multiracial people.[42] The contrast between this population's size and health needs and the dearth of literature describing it is striking.

Several factors may contribute to this dissonance: strong cultural preferences for conceptualizing race in mutually exclusive categories,[3] assumptions about Multiracial people including how they choose to identify,[43] little exposure to theoretical grounding or methodological considerations for studying disparities in the Multiracial population,[17] and few to no frameworks on how to apply insights from these theories into everyday work. We introduce here a reflexive framework grounded in theory that may be helpful to address these limiting factors. By engaging in this framework, those working broadly in the field of public health can avoid unintentionally perpetuating macro- and microaggressions that devalue and erase Multiracial people,[25] improve the inferential validity of their studies,[44] and use their work to support health equity for all populations.[19]

Introducing Our Critical Multiracial Theory Questions Framework

We developed this framework through a collaborative and generative process, leveraging our collective experience as scholars of epidemiology, health equity, and Critical Multiracial Theory (MultiCrit),[45] and our lived experiences as Multiracial people. Our approach is grounded in MultiCrit and the Critical Race Public Health Praxis

practice of disciplinary self-critique.[46] This framework is meant for a wide array of health professionals who have already thought carefully about the mechanisms they believe connect race and health in their work.[12–16] However, these professionals—perhaps yourself included—may have at times noticed the scarcity of theoretically grounded resources on how to think about Multiraciality in public health or medical settings or that the language and norms of our daily work often ignore those who exist between or within multiple categories. Our framework offers questions and suggestions to readers without requiring them to upend the focus of their work to center Multiracial people. Instead, we encourage readers to embrace intersectionality in their work by engaging with what Critical Race Theory scholar Matsuda calls "asking the other question"[47]:

> The way I try to understand the interconnections of all forms of subordination is through a method I call "Ask the other question." When I see something that looks racist, I ask "Where is the patriarchy in this?" When I see something that looks sexist, I ask, "Where is the heterosexism in this?" When I see something that looks homophobic, I ask, "Where are the class interests in this?"

Omi and Winant write that Multiraciality lies "at the core of intersectionality practice,"[22] drawing a direct parallel between Multiracial individuals' loci of intersectional racial experiences and other axes of social oppression (e.g., gender, class, sexuality, ability, etc.). Put simply, Multiraciality is just another axis of identity along which privilege is meted. Thus, the purpose of our framework is to help readers stop, ask, and think: "When I see something that looks like racial health inequity, where/how are Multiracial people oppressed or erased in this?"

Our framework consists of three questions; question 1 lays the foundational groundwork for engaging with questions 2 and 3, which more directly concern how readers approach Multiraciality in their work. For each question, we highlight specific points via deeper discussion that we believe are salient to *The Milbank Quarterly*'s audiences. To facilitate reflection and contemplation, we have included associated tables summarizing each question's discussion.

Question 1: What Implicit Biases or Assumptions About the Multiracial Population Do You Bring Into Your Work? How Do These Biases Affect Health Data Equity?

A large and increasing body of literature in the social sciences describes the harmful impact of implicit biases—as opposed to expressed beliefs and attitudes—in medicine and public health.[48] Implicit biases can result both from unconscious positive or negative attitudes or misconceptions about another group. Implicit biases can undermine data equity efforts because they represent a misunderstanding or misrepresentation of knowledge. Although some research has explored expressed

attitudes among specific groups[49–52] and in the general population[53,54] toward Multiracial people, we are unaware of any that have studied implicit biases. Building from Root's seminal list of common experiences of Multiracial people,[55] we document in Table 1 common assumptions about the Multiracial population that we—as Multiracial epidemiologists—have frequently observed.

Several common assumptions involve demographic misinformation, for example that Multiracial people are a small fraction of the population other than in, for example, California, Texas, or Hawaii.[60] Part of the challenge here lies in the fluidity of identity for Multiracial people, who may self-identify differently depending on the context or how they are asked.[58] However, the share of Multiracial residents in 11 states (including states in the South and Midwest) is greater than the national average.[5] It is also a frequent misconception that most Multiracial people are Black–White or Asian–White, perhaps reflective of the vast majority of research and teaching about Multiracial people being traditionally focused on these groups.[26,57] In fact, the largest group by absolute size is American Indian/Alaska Native (AI/AN)–White, many of whom live in the Midwest.[5] However, individuals in this group are also the least likely to describe themselves as Multiracial,[54] potentially contributing to others' preconceived notions about where Multiracial people live. Those who select AI/AN or Native Hawaiian or Pacific Islander (NHPI) race are the most likely to also select another race on demographic forms.[19,56]

In contrast to underestimation of the Multiracial population's size, an opposing but equally flawed narrative in popular discourse posits that "if current demographic trends continue, we will all be Multiracial, and racism will no longer exist."[61] This narrative exaggerates actual demographic research, coopting Multiraciality to conjure a postracial mirage of American society that appeals to mainstream desires for a colorblind future.[61,62] The myth of colorblindness draws attention away from the social structures that have endured major demographic change and continue to reproduce racial inequity and segregation across space and time.[62] Indeed, countries such as Mexico[59] and Brazil[3] have developed entire (distinct but paralleling) national identities around an ideology of Multiraciality, and yet, racism remains deeply embedded within the social fabric of both of these nations.[63] The effect of this narrative is thus to distract from the importance of racial equity research and programs, which—if history provides any indication—will continue to be important work despite demographic changes.

Monoracial people also sometimes assume that Multiracial people experience either (a) the same kind of racism or (b) "less" racism than groups of color with whom they share heritage.[25] But racism may operate differently depending on the targeted group (e.g., via anti-Blackness, xenophobia, colorism, or the model minority stereotype), and Multiracial people may additionally experience *monoracism*: the variant of racism that privileges monoracial identities and erases Multiracial people's experiences.[25,62] Institutional monoracism has shaped our strong preference to

Table 1. Common Assumptions About Multiracial People That May Influence Medical and Public Health Practice and Research

Common Assumption	Reality
Multiracial people are a small fraction of the population.	The 2020 Census reports that the Multiracial population is the fourth-largest racial/ethnic group in the United States: one in ten (34 million) Americans selected more than one race.[5]
Multiracial people are concentrated in California, Texas, or Hawaii but form a small share of the population in other states.	The absolute count of Multiracial people is greatest in large states like California and Texas, and the share of Multiracial residents is highest in Hawaii. However, Florida, Nevada, Arizona, Oklahoma, Colorado, Alaska, Oregon, and Washington all have a larger share of Multiracial residents than the national average.[5]
Most Multiracial people are White and Black or White and Asian.	Depending on the data source and tabulation methods, one-quarter to one-half of all Multiracial people in the United States identify as Biracial White and AI/AN, making this group the largest among Multiracial subgroups.[54] The AI/AN and NHPI groups have higher proportions of Multiracial-identifying individuals than other racial groups.[56] Additionally, the heuristic assumption that most Multiracial people are part White[57] is insidious, as it culturally erases Multiracial individuals who have no White ancestry.
People who select multiple races on demographic forms or who have parents of different races always self-identify as Multiracial.	Self-identification as Multiracial is a complex process with wide variation across individuals and racial backgrounds.[54] Additionally, the identities of Multiracial people tend to be more fluid than those of monoracial people, and Multiracial people may choose to self-identify differently in different settings or times in their lives.[58]

Continued

Table 1. (Continued)

Common Assumption	Reality
Racism shapes people's experiences, and because Multiracial people are "less" of any of their given races than monoracial people, they do not experience racism as much as monoracial people.	Some Multiracial people are afforded relative privileges based on racial ambiguity or skin tone and may not experience the same level of direct personally mediated racism as monoracial people from particularly marginalized groups. However, Multiracial people do experience racism, including in other forms e.g., Multiracial microaggressions and monoracism or the variant of racism that privileges monoracial identities and erases Multiracial people's experiences.[25]
If current demographic trends continue, we will all be Multiracial, and because everyone will be some shade of brown, racism will no longer exist.	We are unaware of any scholarly demographic projections that predict a disappearance of monoracial groups. Racism also exists in countries that have built entire national identities that parallel Multiraciality (e.g., *mestizaje* in Mexico[59] and racial democracy in Brazil[3]).

AI/AN, American Indian/Alaska Native; NHPI, Native Hawaiian or Pacific Islander.

conceptualize race using mutually exclusive categories[62]; it can look like electronic medical record systems that (in the 2020s, no less) are still not programmed to handle multiple race selections,[64–66] monoracially organized student recruitment and retention centers on college campuses,[62,67,68] or peer-reviewed studies that pathologize—rather than contextualize—the impact of Multiracial identity on health.[27,28,69–71] Everyday monoracism may manifest as *Multiracial microaggressions*, which can look like Multiracial adolescents having to defend the "authenticity" of their racial identities to monoracial relatives or peers,[50,72–74] Multiracial people allowing others to view them as monoracial to avoid confusing or drawing unwanted attention,[62] travel security agents flagging parents of Multiracial children as suspected sex traffickers,[75] health care professionals making inappropriate assumptions or comments about a Multiracial patient's racial background,[28,76] or fetishization and exotification of a Multiracial person's physical appearances.[25,73] Monoracism can also negatively impact Multiracial peoples' racial identity development and socialization,[73,74,77,78] an important protective factor for other racially minoritized groups.[79] With few clearly identified Multiracial communities for support and most monoracial people being privileged to be unaware of these experiences, monoracism's harms are often borne in isolation. We encourage those thinking about and addressing racism to consider how Multiracial people specifically are impacted and how study measures, target populations, comparison groups, and potential interventions to improve health may need to be adjusted as a result.

Although we acknowledge the unintentionality of these misconceptions, we hope that readers understand their responsibility to uncover and remove implicit biases from their professional work, which can themselves undermine data equity. Self-reflection and continuous learning are important practices for everyone working toward health equity; we encourage readers to reflect on additional assumptions not listed in Table 1.

Question 2: What Approach to Categorizing Multiracial People Maximizes Health Data Equity in Your Work?

Examining differences across social categories—such as race, gender, and socioeconomic position—is a core part of quantitative health and social science disciplines and is necessary to uncover and address injustices.[46] And yet, the validity and impact of our science and interventions require appropriate operationalization and measurement of these constructs.[16] A large body of evidence points to the threat of misclassification and measurement error of these variables to the internal validity of research and on the interpretation of study findings.[80,81] Internal validity aside, an analyst's choice of classification approach is not neutral and in fact may require strong (and difficult to test) assumptions, have deep sociopolitical implications, and meaningfully

impact results.[44,82] Despite the complexity of racial categorization, health researchers often appear to perform this task routinely without thinking critically about the implications of these actions.[83] Table 2 outlines common[24] approaches to categorizing Multiracial people and associated advantages and disadvantages with each to help readers reflect on question 2.

In 1997, the US Office of Management and Budget introduced a significant update to its Statistical Policy Directive 15 (SPD 15), establishing the two-question approach currently used by federal agencies to collect and report ethnicity and race data. The minimum ethnicity categories—regardless of race—are Hispanic or Latino or not Hispanic or Latino, and the minimum racial categories include AI/AN, Asian, Black or African American, NHPI, and White; the Census was allowed to use one additional category: "Some other race." Notably, the 1997 update to SPD 15, implemented in the 2000 Census, was the first time that respondents were allowed to select multiple races—though federal agencies have never been required to separately tabulate or report data on those selecting multiple races. To facilitate comparisons with other analyses and reporting requirements, we recommend that at minimum, researchers report self-identified race categories that roll up into SPD 15 categories.

However, the SPD 15 approach has limitations. It treats Hispanic or Latino ethnicity as independent of race despite research suggesting some (but not all) Hispanic or Latino individuals consider it to be a *racial* identity,[84] making enumeration of Multiracial Hispanic or Latino individuals in studies using SPD 15 categories difficult.[85] The 2023 proposed updates to SPD 15, which, if implemented, will take effect in 2024, recommend collapsing the two questions into a single-question format, assessing Hispanic or Latino ethnicity in the same question as race. Although some have argued that this format will lead to undercounts of certain Latino groups—particularly Afro-Latinos[86]—it is still unclear if this change will improve the enumeration of Multiracial Latinos. The 2023 proposed update also introduces the Middle Eastern/North African (MENA) category, which will increase counts of Multiracial people, both those who truly identify as Multiracial (e.g., a Biracial MENA and White person) as well as those who may select this category but not identify as Multiracial (e.g., a monoracial Black person from Egypt who selects Black or African American and MENA). More research is and will be needed to explore how these changes will impact the counting and study of Multiracial people in the United States.

For most analyses of data using SPD 15 categories, we recommend disaggregating results by Multiracial subgroup whenever feasible in order to highlight within-group heterogeneity of experiences. Strategies to enable disaggregation exist in the study design (e.g., power analyses to determine minimum sample size, targeted sampling, and oversampling in specific groups when necessary) and analysis (e.g., pooling multiple years of data) phases.[87] When disaggregation is not feasible, we recommend assigning individuals who select multiple races to a "Multiracial" category for most analyses.

Table 2. Catalog of Common Approaches for Classifying Multiracial People and Corresponding Advantages and Disadvantages

Classification Approach	Advantages	Disadvantages
Exclude from data collection or analyses based on self-identified Multiracial status	• Simplifies analyses • Appropriate when only monoracial people are population of interest	• No new information is gained about the Multiracial group or subgroups • Multiracial experiences are completely erased • People who self-identify as Multiracial but who are routinely socially assigned a single race are also excluded • May reduce counts for smaller monoracial populations with high proportion of Multiracial individuals (e.g., NHPI)
Reassign into one monoracial group based on an investigator-created algorithm	• Simplifies analyses • May be appropriate for some Multiracial groups • Can enable "bridged" comparisons of data collected before and after the 1997 update with SPD 15 • Depending on the algorithm, may better represent the influence of social exposures and the concept of socially assigned race	• No new information is gained about the Multiracial group or subgroups • Requires investigators to make strong (and difficult to test) assumptions about which monoracial categories individuals should be reassigned to • May produce distorted estimates for monoracial groups • May assume shared phenotype or experiences that are not true for all individuals • Some Multiracial people may reject the idea of being grouped into monoracial categories
Reassign into each of the monoracial groups an individual self-identifies with	• May enable more robust analyses of smaller monoracial populations with high proportion of Multiracial individuals (e.g., AI/AN, NHPI) • Does not require assumptions about which monoracial category individuals should be reassigned to	• No new information is gained about the Multiracial group or subgroups • May produce distorted estimates for monoracial groups • Totals sum to greater than 100% because Multiracial people are counted multiple times • Results may be challenging to interpret • Some Multiracial people may reject the idea of being grouped into monoracial categories

Continued

Table 2. (Continued)

Classification Approach	Advantages	Disadvantages
Using self-identified "best" racial category	• If a Multiracial response category is provided, it can complement other categorization approaches (see Table 3) • May better represent the influence of social exposures and the concept of socially assigned or "street" race	• If no Multiracial response category is provided, no new information is gained about the Multiracial group • No new information is gained about Multiracial subgroups • May produce distorted estimates for monoracial groups • Some Multiracial people may reject the idea of a "best" racial category • Construct not assessed in all data sets
Reclassifying into "some other race" group	• Simplifies analyses • May produce accurate estimates for monoracial groups	• No new information is gained about the Multiracial group or subgroups • Estimates for the "Other" group rarely have any meaningful interpretation of estimates • May reduce counts of and produce distorted estimates for smaller monoracial populations with a high proportion of Multiracial individuals (e.g., NHPI)
Creating a separate Multiracial category	• New information can be gained about the Multiracial population • Acknowledges the distinct experiences shared by Multiracial people of all ancestries • Leads to greater visibility and attention for this group	• Heterogeneity of experiences in Multiracial subgroups may be masked • Some Multiracial people prefer to be grouped into a monoracial category to better reflect their everyday social experience as determined by socially assigned race • Historical and ongoing controversy over the political and social meaning of the Multiracial category • May reduce counts of and produce distorted estimates for smaller monoracial populations with a high proportion of Multiracial individuals (e.g., NHPI)

Continued

Table 2. (Continued)

Classification Approach	Advantages	Disadvantages
Disaggregating Multiracial subgroups	• Detailed information can be gained about specific Multiracial subgroups • Leads to greater visibility and attention for specific subgroups	• May require special strategies in design and/or analysis, otherwise subgroup sample sizes may be too small to present or facilitate meaningful inference • Presentation of very specific subgroups may encourage biologic conceptions of race • May reduce counts of and produce distorted estimates for smaller monoracial populations with high proportion of Multiracial individuals (e.g., NHPI)

AI/AN, American Indian/Alaska Native; NHPI, Native Hawaiian or Pacific Islander; SPD 15, Statistical Policy Directive 15.

This is especially true when studying a putative exposure, risk factor, or outcome that may be unique to or elevated among Multiracial individuals.

There are exceptions to these recommendations, however, depending on the hypothesized mechanism connecting race and health and the questions used to assess race. In some cases, reassigning specific Multiracial subgroups to monoracial categories may improve equity-focused analyses. Because of White occupation of unceded Indigenous lands, the AI/AN and NHPI populations face, on average, poor health across a wide variety of outcomes and are often erased in data because of their relatively small size. Given the large proportion of individuals in both of these groups with multiple ancestries, assigning AI/AN or NHPI individuals who also choose another race into a Multiracial (or "other") category can further render the AI/AN and NHPI populations invisible, a practice that perpetuates colonialist injustices and has been called "data genocide."[88,89] Depending on the research or program at hand, practicing health data equity could look like keeping all individuals who mark AI/AN or NHPI in those categories to prevent further erasure of these smaller and actively marginalized populations; analysts should consult with members of these populations and antiracism experts to determine the appropriate approach.[19,56,82] Similarly, research or interventions to address anti-Black racism may benefit from reclassifying Multiracial Black individuals as Black, reflecting the enduring and specific impact of anti-Blackness and hypodescent[90] on this group. These choices should be made carefully, with active consideration of theory, history, and how study findings will advance or impede justice for marginalized groups.

For several approaches in Table 2, we note as an advantage that the strategy "simplifies analyses"; however, we caution here against an overeager application of Occam's razor. Instead of following the simplest option, we encourage readers to embrace complexity, assess if scientific knowledge would benefit from understanding how the studied phenomenon operates for Multiracial people, and consider what theory has to say about it. Although no method is consistently appropriate across all situations, this catalog can help users of quantitative health data be more responsible and thoughtful about their choices' impacts on findings, practices, and interventions.

Question 3: How Might Common Activities in Your Work Perpetuate Institutional Monoracism? What Can Be Done Differently?

In our final question, we ask readers to consider instances in which institutional monoracism may lurk in their daily work activities. Returning to our discussion in question 1, we encourage professionals to consider how linguistic conventions for describing Multiracial people may reflect implicit biases about the relative primacy of monoracial groups in our society. We endorse JAMA's latest guidance for the

reporting of race and ethnicity, which states "the term *mixed race* may carry negative connotations and should be avoided, unless it was specifically used in data collection."[91] Like other terms that have been reclaimed by members of marginalized populations, Multiracial people may use the term "*mixed*" to describe themselves. However, it is not preferred—and can be considered inappropriate—for monoracial people to use this term in professional settings. We suggest as a default alternative the term "Multiracial," which—unlike the awkward phrasing "two or more races"—refers to an actual racial and social identity that people hold. We also agree with guidance from JAMA[91] and others[92] to capitalize all race, ethnicity, and tribe names, as the common practice of not capitalizing White or Black stems from White supremacy. Perplexingly, JAMA guidance does not capitalize "Multiracial"; at best, this represents a missed opportunity for acknowledgment and, at worst, is an act of erasure. Finally, we discourage describing study cohorts as "multiracial" or "Biracial" when they are in fact comprised of different groups of monoracial people, which can obscure studies of actual Multiracial and Biracial people in keyword searches. Using such qualifiers may also perpetuate the belief that study samples composed primarily of White people are an acceptable default for US medical research. For a more thorough discussion of terminology, see Atkin and colleagues.[93]

Linguistic ambiguity can also directly impact individuals' and populations' well-being; ironically, these consequences are often especially evident in racial equity programs, policy, and research. Diversity scholarships, recruitment and retention programs, and affinity groups frequently determine eligibility based on self-identified membership in a monoracial group[62,67,68]; this framing may lead potential applicants who identify with one of these groups and with an noneligible group to doubt their overall eligibility. Indeed, empirical studies have shown that Biracial candidates with both marginalized and nonmarginalized identities are perceived as less worthy for such scholarships.[94] Framing scholarship eligibility in monoracial terms may lead individuals to demur application and forfeit potential financial support, which could in turn affect their chances of continuing and completing their education. Similarly, research study recruitment materials describing eligibility criteria in monoracial terms could deter Multiracial people from enrolling, potentially resulting in selection bias and missed opportunities for Multiracial individuals to benefit from scientific advancements.

To avoid perpetuating harm, we recommend researchers, clinicians, and policymakers critically assess when institutional monoracism may arise in their work's activities, starting with their conceptualizations of how race and health are connected; to the design of programs, policies, and studies; to data analysis; and, finally, to communicating findings. Table 3 summarizes recommendations for common activity areas for each stakeholder group to improve data equity for the Multiracial population. Our stakeholder-specific recommendations are only a guide; all recommendations should be considered by each stakeholder group when appropriate.

Table 3. Recommendations to Stakeholders[a] by Activity Type to Improve Health Data Equity for the Multiracial Population

Recommendation	Researchers	Clinicians	Policymakers
Conceptualizing Multiraciality			
Be clear about the pathways that you hypothesize link race and your outcome of interest.	x	x	x
Avoid pathologizing Multiracial (or any racial) identities; consider the social and structural construction of race and racial identity.	x	x	x
Research the specific histories and experiences of Multiracial people who share ancestry with the monoracial or monoethnic communities you are interested in.	x	x	x
Study, intervention, and policy design			
Recruiting study participants			
Be clear about whether or not your inclusion or recruitment criteria include Multiracial individuals.	x	x	

Table 3. (Continued)

Recommendation	Researchers	Clinicians	Policymakers
Use power analyses to determine sufficient sample sizes for subgroup disaggregation; employ targeted sampling and oversampling when necessary.	x		
Collecting race data			
Ask respondents about as many aspects of race (self-identified race, socially assigned race, ancestry, etc.) as is feasible.	x	x	
If possible, ask about race using both closed (predetermined) and open-ended questions.	x	x	
If collecting data on socially assigned or "street" race, be specific about who the hypothetical third party assigning race is.	x	x	
If collecting data on "best" race, explain the importance of racial categorization in research, ask how participants would like to be categorized for the purposes of research, and include "Multiracial" as an option.	x	x	
Explore data linkages to improve data quality in data sets in which race is not self-identified (e.g., death certificates).	x	x	x
Designing policies or programs			
State explicitly how all aspects of the program or policy are intended to apply to Multiracial populations; do not leave room for interpretation in implementation.		x	x
Determining resource allocation or treatment algorithms			
Avoid using race as an input to these activities without thinking critically about equity and consulting experts in racism and monoracism.		x	x

Continued

Table 3. (Continued)

Recommendation	Researchers	Clinicians	Policymakers
Data analysis			
Descriptive analyses			
Use categories that roll up into the most current SPD 15 definitions.	x	x	x
Avoid using a "Some Other Race" category unless required to protect confidentiality.	x	x	x
Avoid recategorization except if in support of health equity for marginalized subgroups.	x	x	x
Disaggregate subgroups to examine disparities; pool multiple years of data if needed.	x	x	x
Causal analyses			
Avoid specifying race as an exposure or controlling for the "effects of race" in causal models; instead, investigate differential exposures by race.	x		
When racism is the exposure of interest, also consider the effects of monoracism (and related systems of oppression, such as ableism, gender binarism, heterosexism, etc.).	x		

Table 3. (Continued)

Recommendation	Researchers	Clinicians	Policymakers
Race imputation			
Use race imputation judiciously and be transparent about methods.	x		
If curating or producing data sets for secondary analysis, create imputation flags so that users understand which missing observations were imputed.	x		
Conduct sensitivity and bias analyses; compare postimputation distributions with expected population distributions, highlighting any areas of major difference.	x		
Communication			
Describing racial groups or populations			
Use the term "Multiracial" to describe people identifying with more than one race unless other terms were already used.	x	x	x
Capitalize "Multiracial" and "Biracial" when referring to people or the population.	x	x	x
Avoid describing study cohorts composed of multiple groups of monoracial people as "multiracial" or "biracial."	x	x	
Do not assume that all Multiracial people identify with, feel belonging, or find acceptance in monoracial or monoethnic communities with whom they share ancestry.	x	x	x
Reporting statistics and interpreting findings			
Specify how race was assessed and constructed into categories in methods or technical sections of communications.	x	x	x
When reporting descriptive statistics from data with imputed race, acknowledge that they may not reflect the true distribution of race in the underlying sample.	x	x	x

SPD 15, Statistical Policy Directive 15.
[a] Stakeholder-specific recommendations are a guide; all recommendations should be considered by each group as appropriate.

For example, we recommend in the design phase to clarify whether Multiracial people are eligible for the study, program, or policy and to collect data on the multiple dimensions of race, including self-identified race, ancestry, socially assigned or "street" race[95] (i.e., likelihood of experiencing racism), and single "best" race.[24] For many monoracial individuals, selecting a single racial group on a survey may accurately capture all of these dimensions; however, a Multiracial person may not feel that their selection represents any of these dimensions for them. When asking about socially assigned or "street" race, investigators should be clear about the hypothetical situation in which race is being assigned, as the answer to this question for Multiracial people may vary depending on social and geographic context.[55,62,96] Similarly, if asking what single race respondents "most" identify with or "best" represents them (as does the Behavioral Risk Factor Surveillance System), it may be beneficial to first explain to respondents that research sometimes requires placing people in single categories before asking respondents which category they would like researchers to assign them to for research purposes.[97] Whenever assessing single "best" race, investigators should always include "Multiracial" as an option.

Sometimes, self-identified race data are not readily available—such as with death certificates—raising concerns of racial misclassification.[98] Death certificates are used to produce official mortality and life expectancy estimates, important indicators of population health. Funeral directors are responsible for assigning demographic information to the decedent[99]; however, a 2002 study found that half of surveyed funeral directors reported receiving no formal training to do so, and half reported assigning race solely based on visual observation instead of asking next of kin, per Centers for Disease Control and Prevention (CDC) guidance.[100] A study using 2000–2001 California death certificate data found that death rates for Multiracial populations were implausibly low—one-sixth that of monoracial populations—suggesting that Multiracial people were being routinely recorded on death certificates as monoracial.[101] Compounding these difficulties, it was not until 2018 that all US death certificates allowed selecting more than one race for Multiracial decedents.[102] One workaround for death certificate analyses is the Census Numident file, which enables individual-level linkage between death records and Decennial Census data, including self-identified race.[103] Exploring new linkages and leveraging existing ones such as the Numident file can help reduce unnecessary misclassification of race, which, in the case of death records, seem to bias mortality and life expectancy estimates for Multiracial populations.

In the analysis phase, we provide and cite recommendations for both basic and more advanced approaches. Our recommendations for descriptive analyses, which largely center around categorization approaches, mirror the discussion in question 2. For etiologic or causal analyses, we agree with Jones's long-standing recommendations to study racism rather than race as an exposure to avoid controlling away the "effects of race" and to investigate drivers of differential exposures by race.[104] For data sets

with large amounts of missing data, imputation methods—such as those using name and geolocation to impute missing race/ethnicity—can help reduce bias in statistical models in which racial disparities are broadly of interest.[105] Although these methods perform adequately for some groups (70%-80% correlation for Asian, Hispanic, Pacific Islander, White, and Black groups), they perform very poorly for Multiracial (2%) and AI/AN (11%) groups[105]; Multiracial or AI/AN race is thus rarely imputed.[106] Curators of data sets in which missing race has been imputed should provide clear guidance on proper usage and interpretation of the data, including creating flags for users indicating where missing values were imputed and providing suggested language detailing the limitations of descriptive statistics derived from imputed data. Such safeguards will only become more important for racial equity as reliance on big data (in which race may be missing or inaccurate) increases.[107]

Finally, when communicating statistics and findings, investigators should always report how race was assessed and how race variables were constructed,[83] including disclaimers if applicable that descriptive statistics of imputed race variables may not reflect the true distribution of self-identified race in the underlying sample and using the previously discussed acceptable terminology when describing the Multiracial population.

Conclusion

Population-level systems of social stratification, including racism, have produced marked disparities in the distribution of health and health determinants across differently privileged groups. Simultaneously, racism and monoracism have also fundamentally shaped the language, tools, and data structures we use to study, understand, and address disparities, which has led to some groups being excluded, overlooked, and left behind. Because achieving health equity requires data equity for all communities in our population, researchers, policymakers, and health care professionals must seriously consider their responsibility to marginalized communities that have historically been rendered invisible in our data. Preventing erasure requires engagement with these communities; we represent just one such community, but there are many others with whom we share the goal of data and health equity.[19,56,87]

We hope that this framework will generate conversation, critical thinking, and future research to provide further clarity and guidance for studying and discussing Multiraciality in population health. Honoring the complexity of Multiraciality requires a nuanced approach, and there is no one "right" way to consider Multiraciality in research or practice. We hope that this paper's framework introduces a basic but principled structure for people whose work in health equity does not normally center around Multiracial people and for the research community more broadly. This framework should not be seen as static, and we hope that it evolves to meet the needs of

researchers, practitioners, and policymakers as new issues, methodologies, and questions emerge over time. Ultimately, we hope that this paper motivates greater scientific, clinical, and policy attention and efforts to dismantle systemic barriers to health equity for this important but historically overlooked population.

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