Racial Health Inequities and Clinical Algorithms
A Time for Action

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Well over a century ago, Dr. W.E.B. Du Bois (1) advanced a thesis that race is not a scientific or biologic category and that racial differences in health outcomes are due to social conditions rather than biologic differences between races. Were he alive today, Du Bois would feel validated by analyses of the human genome, which confirmed that there are more differences within racial groups than there are among racial groups (2). Despite these facts, confusion about how race could play a role in disease persists in medicine, society, and politics. We believe it is timely for leaders in politics and medicine to collaborate to advance health equity, including a critical re-examination of the misuse of race in clinical algorithms such as those in kidney care.

Race is a socially and politically constructed way of grouping people (3). Racism is a system of structuring opportunity and assigning value on the basis of how one looks, which unfairly advantages some, disadvantages others, and saps the strength of the entire society (4). The recent, groundbreaking Ways and Means Committee report, “Something Must Change: Inequities in U.S. Policy and Society,” clearly outlines the negative effects of racism across the spectrum of domestic policy.

In the setting of known racial health inequities in kidney care, the use of race in calculating kidney function can cause harm by normalizing an oversimplified racial dichotomy (Black versus non-Black), delaying kidney care and kidney transplant evaluation for Black Americans, and confusing clinicians into thinking there is a biologic difference between races. Black Americans are up to four times more likely to develop kidney failure than White Americans but are significantly less likely to receive kidney transplants (5). The modifier for Black race estimating a level of kidney function for Black patients that appears healthier than that of White patients for the same measured laboratory result delays both nephrology referral and transplant evaluation (6,7). Simply because a patient fits into a socially devised category, Black, the algorithm predicts better kidney function and delays access to assessment and treatment. This clinical tool came from research that was funded by the federal government through the National Institutes of Health, highlighting the important role of federal leadership on this issue (8).

In the past several years, numerous institutions have decided to end reporting of the race modifier used in kidney care because of these concerns. Health equity researchers have described how the race modifier normalizes racial difference in ways that advance racial stigmatization and bias (9). Misuse of race in other clinical algorithms, like the vaginal birth after cesarean calculator and pulmonary function tests, among others, faces critique for similar reasons (10). Because of rising attention on this issue and concern about racial health inequities, the Committee on Ways and Means sent letters to 13 professional societies whose expertise is related to the clinical algorithms of interest and solicited responses from the medical community at large (11).

The membership of the 13 professional societies who responded to letters from the committee represents over a half million physicians and researchers (including some allied health professionals), and the request for information generated 19 responses from various stakeholders. Most respondents agreed that the use of race and ethnicity in clinical algorithms needs to be re-evaluated and that federal leadership, federal levers for accountability for health equity, and funding for research and training on this issue are needed. Although stakeholder responses clearly suggested that professional societies should show greater leadership, in turn, professional societies often suggested that more research on the unintended consequences of removing race correctors is required. The committee will soon release a more fulsome analysis of these responses, but what is clear is that this circular lack of accountability cannot continue.

The medical community must step up to achieve consensus on paths forward. However, change must start at the very beginning of medical education, before our doctors even begin to treat patients. Medical school curricula use terminology for race that is confusing, differences in disease prevalence between races are often presented without any context, and race-based clinical guidelines are taught without historical context, all reinforcing the misconception of racial biologic differences.

More research on the benefits and risks of changing how race and ethnicity are used in clinical algorithms will be helpful, but evidence of the harms uncovered by health equity researchers is growing and calls for action. For example, cystic fibrosis is underdiagnosed in populations of African ancestry because it is thought of as a “White” disease. Rheumatologic conditions are underdiagnosed in non-White and non-Asian populations. Some researchers caution that there are few
good alternatives that do not use race when compared with the current equations that do use race. However, research shows that removing the race corrector in kidney function would avert delays in kidney care for Black persons by several years.

We cannot change skin color, but we can enact racially just policies. Data on race and ethnicity should be rigorously and consistently collected and used to measure the social and health effects of racism, not for biologic racial distinctions. Health care must be race conscious, not colorblind, if it is to succeed in ending racial health inequities. To this day, racial differences in outcomes are often misinterpreted as biologic differences instead of the result of social and structural forces. The Committee on Ways and Means’ October 2020 letter to the Centers for Medicare & Medicaid Services asking the agency to re-examine this issue is a meaningful step toward accountability. With a new administration committed to addressing health equity, we all must re-up our call to action.

Disclosures
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