The NEW ENGLAND JOURNAL of MEDICINE

Perspective

Inequity in Crisis Standards of Care

Emily Cleveland Manchanda, M.D., M.P.H., Cheri Couillard, M.A., and Karthik Sivashanker, M.D., M.P.H.

In *Racism without Racists*, Eduardo Bonilla-Silva articulates why "color blindness," an ethos based on the belief that race is no longer relevant, is contradictory and harmful. Color-blind policies, such as race-neutral mortgage practices and Medicare and Medicaid rules, have resulted in discrimination against black people and greater burdens on communities of color. To insist on color blindness is to deny the experience of people of color in a highly racialized society and to absolve oneself of any role in the process. Many clinicians and policymakers are therefore alarmed by recent state-based crisis standards of care (CSCs) that provide a color-blind process for determining whether a patient with Covid-19 respiratory failure lives or dies.

Emerging data suggest that black Americans are being disproportionately harmed by the Covid-19 pandemic. These data are still "emerging" because many institutions and states, as well as the federal government, took a color-blind approach to data collection that doesn't adequately capture demographics. Nevertheless, we know that majority black counties have three times the infection rate and nearly six times the mortality of majority white counties.[1] And it isn't that black people have failed to take the virus seriously: black survey respondents were more than twice as likely as white respondents to view Covid-19 as a major threat, to be very concerned about its impact on their health, and to take various precautions.[1]

Covid-19 is hitting communities of color harder than others owing to social determinants of health, as noted by U.S. Representative Ayanna Pressley (D-MA). Pressley advocated for Governor Charlie Baker to rescind Massachusetts' CSCs, citing concerns about equity. "We know communities of color are more likely to have comorbidities not because of any genetic predisposition, but due to the legacy of structural racism and inequality that has resulted in unequal access to affordable health care, safe and stable housing, and quality schools and employment," she explained in a statement. "Undoubtedly, this crisis will force our physicians and frontline healthcare workers to make difficult decisions, but these decisions cannot be guided by a set of standards that devalues the lives of individuals with disabilities and people of color."

Black and Latinx Americans often have less ability to socially distance because of crowded housing conditions and essential jobs requiring in-person interaction. They have higher baseline rates of chronic illness and worse disease outcomes. They are exposed to higher levels of small-particle pollution, which is associated with chronic obstructive pulmonary disease, heart disease, and pre-

mature death. These factors put them at higher risk of contracting and dying from Covid-19.[2] Similar risks probably apply to other disadvantaged groups.

The pandemic has forced health care institutions to consider — in the absence of national guidelines — how to allocate scarce resources, including personal protective equipment, ICU access, and ventilators. CSC documents aim to provide objective guidance for allocating resources in a crisis, as an alternative to the "first come, first served" approach. Twenty-eight states have developed publicly available CSCs. Their specificity varies, but most include exclusion criteria based on the likelihood of survival, a severity-of-illness score for assigning priority, and instructions that the physician responsible for a patient's direct care should not make allocation decisions affecting that patient.[3] Nearly all algorithmic CSCs rely on the Sequential Organ Failure Assessment (SOFA) score as a marker of acute disease severity. Most also consider coexisting conditions, predicted 1- and 5-year mortality, or both.

Underlying CSCs is the principle of doing the greatest good for the most people by saving the most life-years. This principle is fundamentally identity-blind, and many states have made that fact explicit, believing that barring consideration of race and social factors will yield a fairer outcome. In reality, it will almost certainly ensure the opposite, with devastating effects on disadvantaged communities. The conditions in which people are born, grow, live, work, and age are responsible for most of the unjust, preventable, and systemic differences in outcomes among groups, including differential rates of chronic and life-shortening conditions such as hypertension, diabetes, chronic kidney disease, and chronic obstructive pulmonary disease. Some 70 to 80% of the difference in life expectancy between black Americans and white Americans can be explained by socioeconomic factors.[4]

The same factors shape people's likelihood of contracting and dying from Covid-19. In effect, CSCs that deprioritize people with coexisting conditions or with a higher likelihood of death within 5 years penalize people for having conditions rooted in historical and current inequities and sustained by identity-blind policies. In the United States, black, poor, disabled, and other disadvantaged people have shorter life expectancies than white and able-bodied Americans. If maximizing life-years is the prime directive, their lives will be consistently deprioritized as compared with already-advantaged groups.

Unfortunately, health care has a poor track record in incorporating race and other social factors into resource allocation. For example, race has been used to "correct" for differences in the estimated glomerular filtration rate (eGFR), a surrogate for renal function. Ideally, any correction should mitigate observed inequities in time to dialysis and kidney transplantation for black patients. Unfortunately, this correction was developed on the basis of ostensible biologic differences without accounting for equity concerns, and it may contribute to worsening black patients' access to dialysis and transplantation. Meanwhile, though SOFA scores include renal function in prioritizing patients for resources, no eGFR race correction is used; SOFA relies on unadjusted creatinine levels. Using the race correction would skew CSC prioritization in favor of black patients with chronic kidney disease. Thus, we accept the use of race-based corrections when it favors white over black patients and reject it when it would favor black over white patients.

Since both ignoring identity and explicitly including it carry risks, CSC developers must consider identity as well as systematically apply an equity lens to understand how social factors unfairly benefit some people. It's important to recognize both that structural inequities shorten black life expectancy and that overemphasizing life-years will exacerbate the problem. Inclusion or omission of race- or ability-based adjustments and inequitably distributed social and medical attributes should be considered in CSC development, lest we inadvertently worsen inequities.

It's not too late to improve CSCs. In Massachusetts, advocacy efforts led to fairer standards, though problematic criteria such as 5-year mortality remain in place. Even if it could be accurately predicted, consideration of 5-year mortality biases decisions against older people, those with disabilities who have excellent quality of life, poor people, and people of color who experience more structural disadvantages leading to more chronic disease.

Moreover, the prioritization system used by Massachusetts and other state CSCs may fail to accurately predict short-term survival. SOFA scores were not developed to predict individual-level mortality, and one study found that nearly half of ICU patients with a SOFA score in the worst category survived.[5] Furthermore,

SOFA scores incorporate the Glasgow Coma Scale score, which is based on motor, eye, and speech ability. People with disabilities may have a markedly lower Glasgow Coma Scale score despite excellent baseline quality of life. In Massachusetts, CSC guidance was clarified to address this concern. SOFA scoring should be applied with careful consideration of limitations, and alternative scoring systems integrating concepts of equity should be explored.

Although the scoring system is intended to be objective, subjective judgments will inevitably play a role. To mitigate the risk of implicit bias, triage officers and appeals-committee members should be required to have some expertise in equity and to come from diverse backgrounds. At a minimum, facility-level CSC training should be designed with input from clinicians well versed in equity issues. And although prioritization decisions may need to happen quickly, there are ways to include a fair appeals process (e.g., patients intubated in the emergency department may be temporarily maintained on transport ventilators). Massachusetts' revised CSCs incorporate language that other states may find helpful in this regard.

Finally, in some states, clinicians are given special consideration in prioritization. Such consideration should be extended to hospital staff from environmental services, transportation, security, and other areas. These staff provide services essential to hospital functioning, and they, too, risk their health by working every day. Thanks to strong advocacy, Massachusetts has broadened its special-consideration clause accordingly.

Although CSCs should have been developed with engagement from diverse communities, substantial improvements can be made. But the real question is whether we will return to business as usual when the pandemic ends or instead use this historic moment to reflect with humility and curiosity on what went well, and what did not, and on how we can do better next time.

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

From the Department of Emergency Medicine, Boston University School of Medicine and Boston Medical Center (E.C.M.), the Departments of Quality and Safety and Diversity, Inclusion, and Experience, Brigham and Women's Hospital (K.S.), and the Institute for Healthcare Improvement (K.S.) — all in Boston; and the Brandon Residential Treatment Center, Natick, MA (C.C.).

This article was published on May 13, 2020, at NEJM.org.

1. Kendi IX. Stop blaming black people for dying of the coronavirus: new data from 29 states confirm the extent of the racial disparities. Atlantic. April 14, 2020 (https://www.theatlantic.com/ideas/archive/2020/04/race-and-blame/609946/).
2. Adams ML, Katz DL, Grandpre J. Population-based estimates of chronic conditions affecting risk for complications from coronavirus disease, United States. Emerg Infect Dis 2020 April 23 (Epub ahead of print).
3. Technical Resources Assistance Center and Information Exchange (TRACIE). State level crisis standards of care. Washington, DC: Department of Health and Human Services Assistant Secretary for Preparedness and Response (https://files.asprtracie.hhs.gov/documents/4-9-20-state-level-csc-plans-guidance-policy.pdf).
4. Geruso M. Black-white disparities in life expectancy: how much can the standard SES variables explain? Demography 2012;49:553-74.
5. Grissom CK, Brown SM, Kuttler KG, et al. A modified Sequential Organ Failure Assessment score for critical care triage. Disaster Med Public Health Prep 2010;4:277-84.

DOI: 10.1056/NEJMp2011359