

Coronavirus Disease 2019 (COVID-19) Disparities: A Call for Equity in Health Outcomes and Clinical Research

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(See the Major Article by McCarty et al on pages e4131-8.)

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Coronavirus disease 2019 (COVID-19) is a mirror, forcing the United States to stare at its reflection. The reflection we see is a society wrenched by disparity and social unrest. The statistics are well known: Black, Latinx, and other non-White individuals account for 60% of COVID-19 deaths [1], though they constitute 40% of the population [2]. A recent Centers for Disease Control and Prevention analysis identified racial disparities in COVID-19 outcomes in 92% of the hotspot counties in the United States [3].

When COVID-19 disparities emerged, a debate followed. Some suggested that COVID-19 differences in outcomes could reflect characteristics of the virus or the host that put people of color at high risk for poor outcomes. Others were skeptical, and instead pointed to structural racism, which increases the prevalence of comorbidities among Black and Latinx people with COVID-19, and also impacts their ability to physically distance and seek care.

This issue of Clinical Infectious Diseases provides a quantitative analysis to answer questions about the roles of race and racism in determining COVID-19 outcomes. Researchers employed electronic health records to study COVID-19 outcomes. In a retrospective cohort of hospitalized patients with COVID-19, they employed multi-variable regression modeling to determine the demographic and clinical factors associated with mortality after admission for COVID-19. If there is a genetic or physiologic reason that COVID-19 is a more serious infection among Black or Latinx people than White people, then race or ethnicity should be an independent predictor of mortality. If, however, race and ethnicity are social constructs that confound true, underlying relationships between comorbid conditions, access to care, and COVID-19 death, then race or ethnicity should cease to be a significant predictor of death when adjusted for comorbid conditions and access to care.

The analysis includes 379 individuals: 14% were Black, 30% Latinx, and 50% White. Almost all participants (99%) had health insurance, with 40% having public insurance alone. The paper's primary finding is that once individuals are hospitalized and the analysis is adjusted for comorbidities, race and ethnicity do not predict COVID-19 death. In other words, COVID-19 disparities are not about genes, enzymes, or physiologic mechanisms. Disparities in COVID-19 deaths are the result of structural racism.

This paper is important. First, its findings contribute to the national discussion about disparities. Black and Latinx people do not die from COVID-19 due to physiology or biology. They die from COVID-19 because of racism. Disparities in COVID-19 deaths are a manifestation of racism.

Yet, as powerful as that finding is, it is only the first level of interpreting the work. The paper has an added dimension of impact. Beyond its findings, its very existence and the context in which the research occurs catalyzes discussion about the US health-care system.

The analysis employs data from a large, not-for-profit hospital network that includes several globally leading research institutions, a rich network of philanthropic donors, and 1 of the largest National Institutes of Health (NIH) funding bases in the nation [4]. The COVID-19 population within that network included 50% Black and Latinx patients, with a majority of commercial payers. More than 99% had health insurance. In comparison, many hospitals overwhelmed by COVID-19 are caring for a population in which more than 80% of patients are black and Latinx and nearly all have public insurance or are uninsured. Further, those hospitals have

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little or no NIH funding or resources to conduct research.

The narrative of this paper does not really belong to this study team. It is the lived experience of thousands of healthcare providers and patients who do not have the time or resources to conduct research, largely because the same structural racism that results in COVID-19 mortality in Black and Latinx communities also leads to safety-net hospitals struggling to survive, with limited capacity for conducting research. It is the study team's privilege to have electronic health records, informatics, supported research time, and statistical resources. We must acknowledge that privilege is established and maintained by the same system of disparate reimbursements and unequal care that generated COVID-19 disparities in the first place.

Once we open the box to examine privilege, we should be comprehensive and honest about all voices in the conversation, including our own. Dr Linas is a White male physician working at a major university. Dr Cunningham is a woman of color also working at a major academic medical center. We both work at safety-net hospitals that care for majority Medicaid populations, but we bring only our perspectives. Yet again, many of those who have lived the COVID-19 disparity as health-care providers or patients are absent. A lack of resources and support exclude them from researching their patients' experiences and telling their stories.

What is the call to action? How can we translate these observations into constructive change? We can do so by demanding equity in the distribution of federal research funding. Currently, federal agencies grant research funds through a careful system of equality.

Investigators propose projects, which are peer-reviewed, considering significance, innovation, investigators, and approach. The system is not perfect, but it effectively ensures that important concepts, rigorous approaches, and strong investigative teams attain funding. It is also a system that concentrates resources among a subset of investigators and institutions. This process purports to focus on delivering the best science. What this process does not deliver is equitable distribution of resources that ensures that stakeholders have a voice in designing research and sharing insight from lived experiences.

Before COVID-19, we might have considered the tradeoff between "best science" and "equitable distribution of resources," and decided that NIH funding should solely focus on "best science." However, the best science requires diverse voices and participation. Science that systematically excludes broad segments of our health-care system is not generalizable, does not always focus on the most relevant questions, and lacks adequate perspective to formulate the best hypotheses. In other words, science that is exclusive is not the best science. The time has come for funders to include equity in decision-making about research. Federal funding agencies should require established research institutions to partner with community and safety-net hospitals, and they should support those partnerships with dedicated funding. Funding agencies should ensure that enrollment targets include representation of women and people of color, and studies not meeting demographic enrollment goals will be terminated, similar to studies not reaching overall recruitment milestones. In short, it is time to evolve beyond equality, and attain equity in research funding processes. Inclusion matters, not only because it is the right thing to do, but also because it is essential to delivering the best science.

To be clear, none of this discussion about privilege casts a shadow on the outstanding individuals who conducted the aforementioned study. In fact, quite the opposite. These researchers should be applauded for leveraging resources to highlight disparity and seek solutions. This is exactly the kind of project needed to destabilize the status quo and affect change. Therefore, the paper is a fascinating and powerful microcosm of the very dynamics it seeks to investigate. We can all learn profound lessons from this work, both by reading the results and by engaging directly with its complicated perspective on our social fabric. Ultimately, working at all levels to attain equity is necessary to move us all forward.

Notes

Potential conflicts of interest. The authors: No reported conflicts of interest. Both authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest.

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References

- Wortham JM, Lee JT, Althomsons S, et al. Characteristics of persons who died with COVID-19–United States, February 12-May 18, 2020. MMWR Morb Mortal Wkly Rep 2020; 69:923–9.
- US Census Bureau. Quick facts. Available at: https://www.census.gov/quickfacts/fact/table/US/ PST045219. Accessed September 2, 2020.
- Moore JT, Ricaldi JN, Rose CE, et al. Disparities in incidence of COVID-19 among underrepresented racial/ethnic groups in counties identified as hotspots during June 5–18, 2020–22 states, February–June 2020. MMWR Morb Mortal Wkly Rep 2020;69:1122–6.
- Massachusetts General Hospital Rssearch Institute by the Numbers. Available at: https://www.massgeneral. org/research/about/research-institute-by-thenumbers. Accessed 6 October 2020.