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PERSPECTIVE

Racial Disparity of Coronavirus Disease 2019 in African American Communities

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The coronavirus disease 2019 (COVID-19) pandemic has unveiled unsettling disparities in the outcome of the disease among African Americans. These disparities are not new but are rooted in structural inequities that must be addressed to adequately care for communities of color. We describe the historical context of these structural inequities, their impact on the progression of COVID-19 in the African American (black) community, and suggest a multifaceted approach to addressing these healthcare disparities. (Of note, terminology from survey data cited for this article varied from *blacks, African Americans,* or both; for consistency, we use *African Americans* throughout.)

Keywords. COVID-19; coronavirus; racial disparity; SARS-CoV2; African Americans.

Coronavirus disease 2019 (COVID-19) has affected >8 million people and killed >450 000 as of 16 June 2020, sweeping through at least 200 countries [1]. The sentiment has been shared that "we are all in this together," regardless of ethnic background. However, there are profound racial disparities in those impacted in the United States; COVID-19 disproportionately infects and kills people of color. According to the Centers for Disease Control and Prevention (CDC), an analysis of approximately 1500 hospitalizations across 14 states found that African Americans comprised a third of the hospitalizations, despite accounting for only 18% of the population in the areas studied and 13% of the US population [2]. A *Washington Post* report revealed that majority-black counties had infection rates 3 times the rate of majority-white counties [3]. In Louisiana, >70% of individuals who have died of COVID-19 were African Americans, more than twice their 32% share of the state's population, and well over their 60% share of the population of New Orleans, where the outbreak is worst [4]. Furthermore, African Americans make up just 9% of the population in New York State (excluding New York City) but accounted for 17% of COVID-19 deaths [5].

Although the focus of this perspective highlights disparities in the African American community, there are emerging disturbing trends in the Latinx community that also require attention, and relatively sparse data reported on Native American communities, who are also at risk. Future assessments from this task force will address disparities in those communities too. Here, we will describe the historical basis of this racial disparity and provide our recommendations for decreasing health inequality in the African American population.

HISTORICAL CONTEXT: SOCIAL DETERMINANTS, STRUCTURAL RACISM AND HEALTH INEQUITY

The National Academies of Sciences, Engineering, and Medicine defines health equity as the state in which everyone has the opportunity to attain full health potential and no one is disadvantaged from achieving this potential because of social position or any other socially defined circumstance [6]. Health inequity, in contrast, is promulgated by the unequal distribution of social, economic, environmental and other structural resources that put a substantial economic, clinical and human toll on communities and societies globally [6, 7]. Structural racism has been in existence since the founding of colonial America, translating to various health inequities that render African Americans particularly vulnerable in the face of the COVID-19 pandemic today [8]. Reskin defines structural racism as "the totality of ways in which societies foster [racial] discrimination, via mutually reinforcing [inequitable] systems … that in turn reinforce discriminatory beliefs, values, and distribution of resources." [9]

Such systems historically have engendered racial disparities in income, unemployment, underemployment, housing, educational opportunity, food insecurity, transportation, incarceration and other key structural determinants that serve as fodder for the disproportionate impact of

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conditions such as COVID-19 on racial and ethnic minority communities today [6, 7]. These elements mediated potentially in part by fear of lost income with illness, lack of paid sick leave, inadequate housing and crowding, limited access to medically appropriate food and medication, and heightened comorbid disease, may potentiate disparities in COVID-19 exposure, acquisition, hospitalization and death. Such impact may be exacerbated further by ongoing structural barriers in access to care coupled with known disparities in the quality of care delivery for racial and ethnic minority groups [7, 10]. In the United States alone, the cost of health inequities among racial and ethnic minority populations even before the appearance of COVID-19 has been estimated to amount to several hundred billion dollars [6].

The challenge of social distancing, as recommended by the World Health Organization and the CDC, provides a concrete example of how social determinants may increase the vulnerability of African Americans during this pandemic [11]. Such mechanisms may include (1) financial instability, which can compromise stable and/or independent housing necessary to allow individuals to separate and prevent infection from each other; (2) employment demanding in-person appearance as essential workers and preventing working from home, reinforcing vulnerability to infection as people commute to work each day; and (3) disproportionate representation of African Americans in the overcrowded penal system, which supports rampant spread of infection. Various socioeconomic disparities result in vulnerability to disease, but in this particular pandemic in which social factors fuel the epidemic, those vulnerable are at even higher risk. Access to healthcare and trust in the healthcare system are vital to care for those who need it most.

IMPACT OF PREEXISTING HEALTH CONDITIONS ON SUSCEPTIBILITY TO COVID-19

For decades, health-related disparities have been reported among various populations, especially those living in areas of lower socioeconomic means where there is difficulty in accessing medical care, under crowded living conditions, in neighborhoods that are food deserts, and where the majority of the population rely on public transportation to get to and from work [12, 13]. Owing to several genetic, environmental, socioeconomic, and other factors, there is a higher incidence of underlying health conditions in these populations, such as diabetes mellitus, hypertension, obesity, asthma, and cardiovascular disease, with African Americans disproportionally affected [6].

The CDC has identified a number of underlying health conditions that predispose an individual to severe COVID-19 (severe acute respiratory syndrome–coronavirus 2) infection. These include diabetes mellitus, chronic lung disease, chronic kidney disease and dialysis, cardiovascular disease, immunocompromising conditions, age ≥65 years (especially for those living in long-term care facilities), morbid obesity (body mass index ≥40 [calculated as weight in kilograms divided by height in meters squared]), and smoking [2, 14]. A significant proportion of individuals requiring hospitalization or who died from COVID-19 disease had ≥1 of these underlying conditions [2, 14].

In the COVID-NET report, the catchment area demographics show that 59% of the population was white, 18% African American, and 14% Hispanic. However, among 580 hospitalized patients, 33% were African Americans [2]. African Americans have also accounted for more than one-third of all the reported deaths (those for which data exist). Based on the existing mortality data, African Americans are 2.6 times more likely to die of COVID-19 compared with the their overall population share [2]. This has been noted in multiple states. In Michigan, African Americans are 3.8 times more likely to die of COVID-19; this ratio is 3.3 in Illinois, 2.5 in Wisconsin, and 2.2 in Louisiana [15].

We reviewed publicly available data from all 50 states and found that 26 states (and the District of Columbia) provided detailed information on COVID-19 cases and associated hospitalization or deaths by race/ethnicity. Of the states reporting this information, significant health disparities were observed in 20 states. The vast majority of those disparities negatively affect African American communities (Figures 1 and 2) [16, 17]. These differences suggest that the African American population is significantly disproportionately affected by COVID-19. This can be attributed, in part, to socioeconomic and environmental factors that were in place before the epidemic and which fuel the spread of the infection.

RECOMMENDATIONS

We recommend implementing a nationwide analysis to estimate the impact of COVID-19 in the United States. All state health departments should be required to provide data on race/ethnicity versus outcomes in individuals undergoing COVID-19 testing. In addition, states should provide data on testing availability and accessibility, targeting testing in areas of vulnerable populations. There must be a long-term commitment and intentional effort to decrease healthcare disparities in minority communities through collaboration with local and federal governments by addressing structural inequities.

We recommend the following: (1) engaging key community leaders (including faith-based leaders, thought leaders, and regional or national celebrities) early on to disseminate information regarding infection transmission and prevention [18] and promote evidence-based best practices for preventing COVID-19 transmission and avoiding cultural stigmatization; (2) leveraging the power of technology to optimize communications with all healthcare providers (including integrative medicine) and provide tailored prevention messages as well as safe patient care [19]; (3) making information accessible in multiple languages through all social media and messaging platforms, including simple

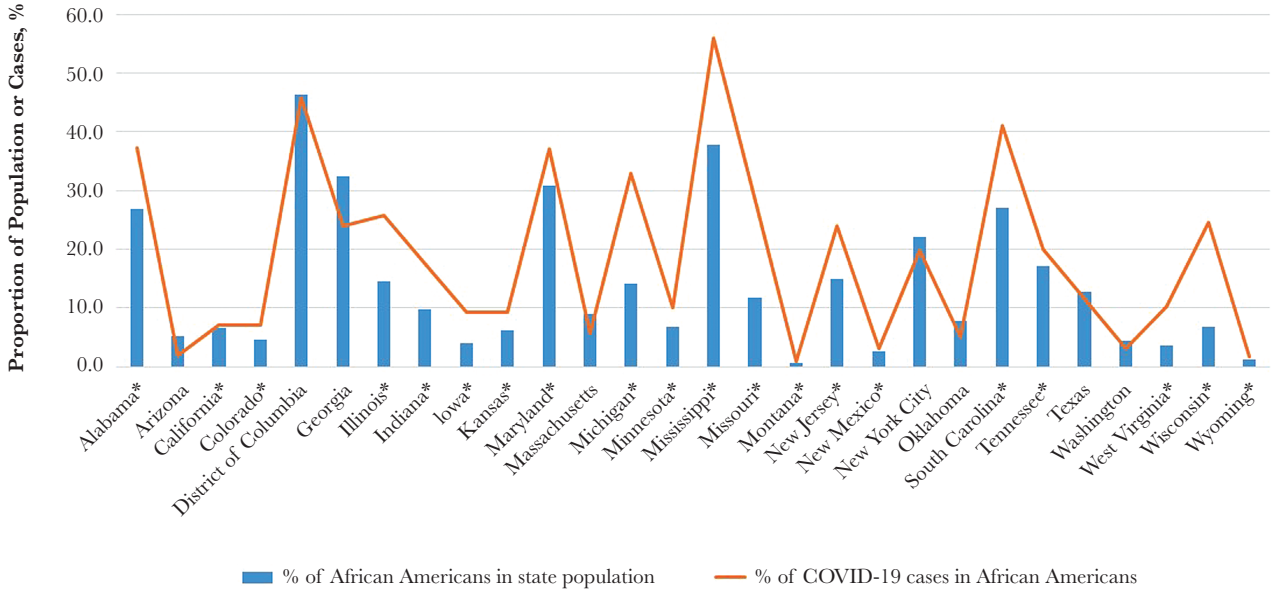

Figure 1. Proportion of coronavirus 2019 (COVID-19) cases in African Americans versus proportion of African Americans in state population, from states reporting preliminary data. COVID-19 data are from the COVID Tracking Project [16], and state poulation demographic data from the US Census [17]. Asterisks denote states reporting a disproportionate percentage of COVID-19 cases in African Americans, relative to their proportion of the state population. (Note that data from some states are incomplete, and data from New York City are shown separately, consistent with reporting from the New York Department of Health. States not reporting race-disaggregated data are not included.)

infographics for messaging, assuring that they are culturally acceptable to the community; (4) implementing programs to decrease food, financial, childcare, and job insecurities and increase access to primary healthcare; (5) supporting Medicaid expansion in all states, as this expanded access to healthcare coverage can reduce some disparities related to structural determinants of health [20]; and (6) encouraging African Americans to participate in research (as both researchers and subjects); as people from African American and Latinx communities are overrepresented in COVID-19 disease incidence, they need to be recruited into clinical trials evaluating prospective treatment and preventive modalities. Furthermore, government,

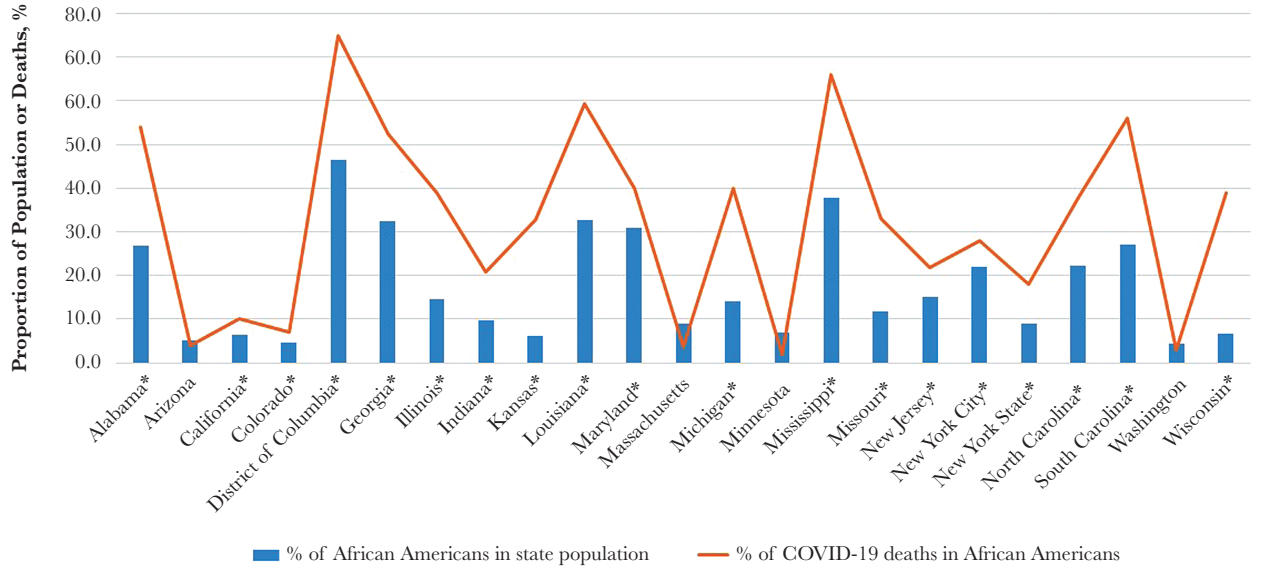

Figure 2. Proportion of deaths from coronavirus 2019 (COVID-19) in African Americans versus proportion of African Americans in state population, from states reporting preliminary data. COVID-19 data are from the COVID Tracking Project [16], and state poulation demographic data from the US Census [17]. Asterisks denote states reporting a disproportionate percentage of COVID-19 deaths in African Americans, relative to their proportion of the state population. (Note that data from some states are incomplete, and data from New York City and New York State [excluding New York City] are shown separately, consistent with reporting from the New York Department of Health. States not reporting race-disaggregated data are not included.)

pharmaceutical industries, academia, and medical societies need to work together to ensure thoughtful, evidence-based understanding of and action to counter racial disparities related to the effects of COVID-19.

CONCLUSIONS

This pandemic has unveiled longstanding disparities in the outcome of the disease among African Americans. With most cities and states not reporting race along with counts of confirmed cases and fatalities, we propose a call to action for states to disclose such information to the public. Without a vision of health equity and a universal commitment to tackle structural racism, health disparities will continue. Rising to the challenge is imperative in this pandemic to create conditions in which those traditionally left behind can survive and thrive.

Notes

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References

1. Johns Hopkins University of Medicine. Coronavirus resource center. https://coronavirus.jhu.edu/map.html. Accessed 14 April 2020.
2. Garg S, Kim L, Whitaker M, et al. Hospitalization rates and characteristics of patients hospitalized with laboratory-confirmed coronavirus disease 2019 — COVID-NET, 14 states, March 1–30, 2020. MMWR Morb Mortal Wkly Rep **2020**; 9:458–64.
3. Thebault R, Ba Tran A, Williams V. The coronavirus is infecting and killing black Americans at an alarmingly high rate. Washington Post. 7 **2020**. https://www.washingtonpost.com/nation/2020/04/07/coronavirus-is-infecting-killing-black-americans-an-alarmingly-high-rate-post-analysis-shows/?arc404=true. Accessed 1 April 2020.
4. Wendland T. Black communities are hit hardest By COVID-19 in Louisiana and elsewhere. New Orleans Public Radio. 6 April **2020**. https://www.wwno.org/post/black-communities-are-hit-hardest-covid-19-louisiana-and-elsewhere. Accessed 1 April 2020.
5. New York Department of Health. Fatalities. https://covid19tracker.health.ny.gov/views/NYS-COVID19-Tracker/NYSDOHCOVID-19Tracker-Fatalities?%3Aembed=yes&%3Atoolbar=no&%3Atabs=n. Accessed 13 April 2020.
6. National Academies of Sciences, Engineering, and Medicine. Communities in action: pathways to health equity. Washington, DC: The National Academies Press, **2017**.
7. Williams DR, Cooper LA. Reducing racial inequities in health: using what we already know to take action. Int J Environ Res Public Health **2019**; 16:606.
8. Krieger N, Bassett M. The health of black folk: disease, class, and ideology in science. Mon Rev **1986**; 38:74–85.
9. Reskin B. The race discrimination system. Annu Rev Sociol **2012**; 38:17–35.
10. Cooper LA, Hill MN, Powe NR. Designing and evaluating interventions to eliminate racial and ethnic disparities in health care. J Gen Intern Med **2002**; 17:477–86.
11. Bailey ZD, Krieger N, Agénor M, Graves J, Linos N, Bassett MT. Structural racism and health inequities in the USA: evidence and interventions. Lancet **2017**; 389:1453–63.
12. Riley WJ. Health disparities: gaps in access, quality and affordability of medical care. Trans Am Clin Climatol Assoc **2012**; 123:167–74.
13. Fiscella K, Franks P, Gold MR, Clancy CM. Inequalities in racial access to health care. JAMA **2000**; 284:2053.
14. Centers for Disease Control and Prevention. Groups at higher risk for severe COVID-19 illness. https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html. Accessed 14 April 2020.
15. APM Research Lab. The color of coronavirus. 10 April **2020**. https://www.apmresearchlab.org/covid/deaths-by-race. Accessed 14 April 2020.
16. The COVID Tracking Project. Updated 16 April 2020. https://covidtracking.com/data. Accessed 16 April 2020.
17. US Census data. Updated **2019**. https://www.census.gov/quickfacts/fact/table/US/PST045219. Accessed 16 April 2020
18. Centers for Disease Control and Prevention. Interim guidance for administrators and leaders of community- and faith-based organizations to plan, prepare, and respond to coronavirus disease 2019 (COVID-19). **2020**. https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/index.html. Accessed 14 April 2020.
19. Park A. The tech that could be our best hope for fighting COVID-19—and future outbreaks. Time. 19 March **2020**. https://time.com/5805622/coronavirus-pandemic-technology/. Accessed 14 April 2020.
20. Guth M, Garfield R, Rudowitz R. The effects of Medicaid expansion under the ACA: updated findings from a literature review. The Kaiser Family Foundation. https://www.kff.org/medicaid/report/the-effects-of-medicaid-expansion-under-the-aca-updated-findings-from-a-literature-review/. Accessed 16 April 2020.