



The Burden of COVID-19

The Unequal Burden of COVID-19 on Minority Communities

Kimberley R. Nichols, MD

Semhar Ghebremichael, MD

Nichole L. Taylor, DO

Since the SARS-CoV-2 virus, the novel coronavirus that causes COVID-19, was first confirmed in the United States on January 20, 2020 (*N Engl J Med* 2020;382:929-36), the disease has spread exponentially across the country, resulting in over 30,213,759 infections and more than 548,162 deaths as of April 1, 2021 ([asamonitor.pub/3vkk3fs](https://pubs.asahq.org/monitor/article-pdf/85/7/27/10198/20210700.0-00018.pdf)).

Impact on minority communities

Although the virus has taken a toll nationally, studies have shown that racial and ethnic groups have suffered the effects of COVID-19 disproportionately. According to the Color of Coronavirus Project from apmresearchlab.org, Black and Indigenous Americans have experienced a national death toll of greater than one in 645 and one in 475 respectively, with Black, Latinx, and Indigenous Americans having a COVID-19 death rate over 2.7 times that of White Americans ([asamonitor.pub/3xnGI9](https://pubs.asahq.org/monitor/article-pdf/85/7/27/10198/20210700.0-00018.pdf)).

Contributing factors

Health care disparities between Black Americans, Indigenous Peoples, Latinx, other persons of color, and White Americans is nothing new. We have seen similar disparities manifested in other disease processes, including cancer and HIV (*Ann Epidemiol* 2020;47:37-44). The causes of these health disparities are thought to be multifactorial and systemic in nature; racism, poverty, decreased access to adequate health care, and unfavorable environmental exposures all contribute to the disparities. Poverty itself is a large factor in predicting access to adequate nutrition, health care, and education (*Public Health Rev* 2016;37:12). Housing environments can also have an impact on the disparities seen in these populations. Additional contributing factors for these communities, such as decreased access to high-quality education, can lead to lower rates of college attendance. This, in turn, can lead to decreased job opportunities and lower wage-paying jobs such as those in health care facilities, public transportation, grocery stores, or factories, which are considered “essential work.” These types of jobs may lead to higher exposures to



COVID-19 and often do not come with paid time off or the ability to work from home that can be associated with higher paying jobs. Moreover, individuals in these types of jobs are less likely to have health insurance and/or to live in close proximity to testing centers. All of these systemic issues can have a large impact on the disproportionate development of some disease processes in these communities, including hypertension, diabetes, and obesity. This could correlate with the increased morbidity and mortality we are seeing of COVID-19 in communities of color, particularly when certain other conditions coexist.

According to the Centers for Disease Control and Prevention (CDC), individuals identifying as Black or African American, Latinx, and American Indian/Alaska Native (AI/AN) have higher rates of conditions that predispose them to more serious illness from COVID-19, such as:

- cancer
- chronic kidney disease
- chronic obstructive pulmonary disease
- obesity
- immunocompromised states due to organ transplantation

- sickle cell disease
- smoking
- diabetes mellitus type 2.

Pregnancy and immunocompromised states due to other conditions causing immune deficits can also be harbingers of more severe complications (*Ann Epidemiol* 2020;47:37-44).

Trust in the health care system

In order for the pandemic to be completely eradicated, we need to address the barriers in access to health care for minority communities. Distrust of the medical community by Black, Indigenous, and other people of color is deeply rooted in the history of mistreatment against these communities. Specifically, occurrences such as those associated with J. Marion Sims, the eugenics movements in the U.S., the Tuskegee Experiment, Henrietta Lacks, and most recently, the allegation of coerced sterilization of Latina immigrant women in an Irwin County (Georgia) detention center. These cases erode trust, and this distrust can last for generations. The result is that people in these communities may be less likely to seek health care, present in extremis when affected by diseases, and



Kimberley R. Nichols, MD

Associate Professor, Department of Anesthesiology, University of North Carolina School of Medicine, Chapel Hill.



Semhar Ghebremichael, MD

Associate Professor and Executive Medical Director – Anesthesia Services, University of Texas M.D. Anderson Cancer Center, Houston.



Nichole L. Taylor, DO

Clinical Associate Professor of Anesthesiology, and Assistant Dean of Student Affairs, Wake Forest School of Medicine, Winston-Salem, North Carolina.

may be less willing to receive a COVID-19 vaccination when it becomes available to them. To this point, according to the preliminary vaccination data as of April 1, 2021, minority communities are being vaccinated at far lower rates than non-minority groups ([asamonitor.pub/3xs8Awk](https://pubs.asahq.org/monitor/article-pdf/85/7/27/10198/20210700.0-00018.pdf)). Barriers such as trust in vaccinations, access to technology to secure vaccination appointments, and transportation to limited vaccination sites are potential contributing factors to this inequity.

Future as the pandemic recedes

Although health disparities among marginalized communities in the U.S. were already in existence, the coronavirus pandemic has exacerbated disparities in health care equity for these same communities (*Lancet Respir Med* 2020;8:659-61). The CDC recommends prioritizing vaccine allocation to individuals with the aforementioned high-risk conditions, which can affect underrepresented communities at disproportionate rates. This effort to protect those most at risk could represent a step toward building trust in those same communities. As the pandemic recedes, however, the underlying systemic factors that result in disparities must be acknowledged and addressed by the health care community as a whole. ■