

# Limited Access to Healthcare: Examining Factors Leading to Higher COVID-19 Hospitalization and Death Rates Among Black Americans

Shichi Dhar\*

---

The novel coronavirus (COVID-19) has shed light on racial disparities in healthcare access. An analysis of hospitalization and death rates supports that Black Americans are disproportionately impacted by the pandemic when compared to their white counterparts. With no credible biological basis for this disparity, social determinants of health, specifically access to healthcare, have been examined to help explain the devastating impact on the Black community. National data demonstrates that Black Americans experience higher rates of unemployment brought on by the pandemic, leaving them without their typical employer-sponsored health insurance. Lack of Medicaid expansion across all 50 states only exacerbates this uninsured rate, leaving many without an insurance safety net. In the case of treatment and prevention services, historically segregated Black communities face a lack of access to COVID-19 tests in their own neighborhoods. Simultaneously, Black patients are more likely to access care at a later time, with many being tested for COVID-19 in a hospital rather than an ambulatory environment. Finally, the lack of cultural competency of the medical staff and workforce hinders the formation of collaborative relationships between patients and providers. This furthers feelings of dissatisfaction with one's care, perpetuating mistrust and misbeliefs surrounding vaccination and COVID-19 treatment. Access to healthcare, due to its strong ties to policy, requires policy intervention: a national effort to expand coverage across all states, dedicating health resources to historically disadvantaged communities, and providing culturally relevant information about the pandemic to marginalized populations.

---

## Keywords

COVID-19 • health disparities • healthcare access • health insurance • Black Americans

---

\*University of Michigan, shichid@umich.edu

doi: 10.3998/ujph.2319

Conflicts of interest:

The author has no conflicts of interest to disclose.



## Introduction

The severity of the 2019 novel coronavirus (COVID-19) pandemic was clear when, nearly a year after the virus's identification, the United States surpassed 500,000 known coronavirus-related deaths (Tompkins, Smith, Bosman, & Pietsch, 2021). In March of 2021, less than a year after top infectious disease experts projected an unspeakable estimate of 240,000 deaths in the upcoming year, COVID-19 became the leading cause of death in the country, outpacing cardiovascular disease and cancer (Tompkins et al., 2021). Leaving no region untouched, the virus has ravaged both heavily populated cities and rural communities, and underscored the severity of racial disparities. According to the Centers for Disease Control and Prevention (CDC), non-Hispanic Black or African American individuals are three times more likely to be hospitalized and two times more likely to die of COVID-19 when compared to their non-Hispanic white counterparts (Centers for Disease Control and Prevention [CDC], 2021). With no credible evidence that people of color have a genetic or biological predisposition for contracting the virus, the attention has shifted to social determinants of health to decipher the disproportionate impact of COVID-19 on Black Americans (Gravlee, 2020). Social factors like socioeconomic status, neighborhood and physical environment, access to quality healthcare, and occupation have undoubtedly impacted the lives of minority communities and go on to impact health outcomes like life expectancy and mortality (Artiga & Hinton, 2018). Healthcare access, in particular, is measured through the analysis of four main components: coverage, services, timeliness of care, and the competency of the workforce (Agency for Healthcare Research and Quality [AHRQ], 2016). These four components will be dissected further and used as a framework to evaluate healthcare access in the United States. The following aims to specifically explore the role of the healthcare system and its level of access for Black Americans in exacerbating Black hospitalization and death rates due to COVID-19 and how perceived racism precedes these disparities in access to care.

## Methodology

This literature review was conducted through the use of the University of Michigan Library, PubMed, JSTOR, and Google Scholar. Articles selected focused on racial disparities pertaining to COVID-19 hospitalization and death rates, centering on Black Americans. Search terms differed based on the determinant of healthcare access (coverage, services, timeliness, workforce competency) and included *COVID-19, U.S., healthcare access, disparities in healthcare access, COVID-19 testing kits, Black patients, African Americans, timeliness, cultural competency, race-concordant, Medicaid, Medicaid expansion, healthcare coverage, healthcare costs, racial disparities COVID-19, medical mistrust, and COVID-19 vaccine hesitancy*. Sources consisted of a variety of cross-sectional studies, surveys, interviews, and review articles. Further nationwide statistical data was obtained through online databases of organizations like the CDC. Additional relevant sources were gained through the bibliography of other useful sources. Due to the recency of the topic and its social implications, reputable news articles from *The New York Times* were used for introductory and background information. Pertinent information from peer-reviewed articles was used to further explore the role of racial disparities in access to healthcare as a social determinant of higher COVID-19 hospitalization and death rates among Black Americans.

## Healthcare Coverage

Coverage involves one's ability to pay for the costs that accompany receiving care and is the main determinant of whether or not one will be able to enter the healthcare system (AHRQ, 2016). Those who are uninsured are more likely to delay care for financial reasons, leading to overall poor health status. Job loss, brought about by the recent pandemic, has posed a threat to the health coverage for millions of Americans. A study, focusing on Black women from Atlanta, Georgia, conducted a series of interviews to assess the perspectives of Black Americans surrounding COVID-19 (Chandler et al., 2021). When asked to rate the degree to which COVID-19 impacted their daily life, on a scale of 1 (no effect at all) to 5 (an extreme effect), 71% of participants responded with a numerical value of 5 (Chandler et al., 2021). Simultaneously, 83% of participants identified financial issues, like job loss, difficulty finding work, and altering spending habits, as a major concern due to COVID-19 (Chandler et al., 2021). For instance, a 21-year-old interviewee who recently moved to the community and lived alone responded by saying, "It's so hard for me to find a job because no jobs [are] hiring because of this [COVID-19] going on" (Chandler et al., 2021). Other women, living with a partner, expressed concerns about losing their job indefinitely and needing to rely on their partners for support (Chandler et al., 2021).

This trend is evident across the nation with employment decreasing 13% during the first months, February to April, of the pandemic, disproportionately greater among Black Americans with a 15% decrease (Sloan, Duddy-Tenbrunsel, Ferguson, & Kornfield, 2020). Analysis by Avalere Health, a healthcare consulting firm based in Washington, D.C., indicates that this decrease in employment leaves two million Black Americans vulnerable to losing their employer-sponsored health insurance (Sloan et al., 2020). Without this type of coverage, many individuals are forced to shift to different forms of insurance or settle for having no coverage at all. With programs like Medicaid being the next alternative for many unemployed Black Americans, individuals living in states that have not expanded the program are at risk of losing healthcare coverage entirely (Sloan et al., 2020). Conversely, states that have expanded the Affordable Care Act's (ACA) Medicaid Program, 36 states and the District of Columbia, have proved to be in a better position when faced with the challenges of COVID-19 (Cross-Call, 2020). This expansion provides critical coverage to all people with an income below 138% of the federal poverty line, insuring over 12 million people (Cross-Call, 2020). Especially in the case of minimizing racial disparities, states that have expanded the program have narrowed the gap in uninsured rates of white and Black adults by 51% (Cross-Call, 2020). Non-expansion states, however, have seen only a 33% decrease in the gap in uninsured rates of white and Black adults (Cross-Call, 2020). Furthermore, with 27% of Black Americans dealing with underlying health conditions, like asthma, heart disease, and diabetes, along with working low-income and frontline jobs, many Black individuals are in a particularly hazardous position (Cross-Call, 2020). The expansion provides this essential coverage for many individuals suffering from underlying health conditions and working high-exposure jobs (Cross-Call, 2020). Along with this lack of expansion of Medicaid on the state level, the federal government has not engaged in any educational efforts to alert newly unemployed individuals of their eligibility for subsidized plans (Blumenthal, Fowler, Abrams, & Collins, 2020). The absence of safety nets like Medicaid leaves those unemployed, disproportionately Black Americans, with no way to cover expensive healthcare costs, inherently reducing access to care and resulting in widespread chronic illnesses and increased vulnerability to COVID-19 (Blumenthal et al., 2020).

While some government-subsidized care has been provided, it appears to have fallen short. The Provider Relief Fund, established by Congress through the Coronavirus Aid, Relief, and Economic Security Act, aimed to support providers for lost revenue during the pandemic (Appleby, 2020). Under the Trump administration, this fund—indirectly assisting uninsured patients—allowed providers to apply for reimbursement after providing care to those who lacked healthcare coverage (Appleby, 2020). Even though the fund helped hospitals struggling with reduced income, many patients did not know about the existence of this coverage (Appleby, 2020). Furthermore, hospitals and providers were not required to publicize this relief package (Appleby, 2020). Aside from lack of awareness, the criteria for eligibility also posed as an obstacle. To qualify for coverage, the individual cannot have any healthcare coverage: even limited coverage, only covering family planning services, would disqualify a patient (Appleby, 2020). Additionally, “COVID-19 must be the primary diagnosis”; an initial diagnosis of a heart attack followed by a COVID-19 positive test may leave a patient ineligible (Appleby, 2020). Described as an “incomplete fix,” this program provides weak support to those eligible and neglects the health and well-being of those unaware of this critical access to care (Appleby, 2020). Per the United States Department of Health and Human Services (HHS), COVID-19 vaccines are completely free, even for those without insurance; in order to get free treatment, an uninsured individual is required to “talk to any health care provider in your area to see if they will agree to bill the federal government for other COVID-19 related care (i.e., testing and treatment)” (HHS, 2021). This leaves the option of costless care in the hands of providers who must volunteer to participate in the Health Resources and Services Administration (HRSA) Uninsured Program, reimbursing providers for providing care to the uninsured, and undoubtedly limits access to coverage, especially for those not living multiple healthcare facilities or clinics. Even with the presence of government-subsidized COVID-19 care, the incomplete implementation and follow-through leave many struggling to adapt to a reality of being uninsured, without any autonomy over their own health.

## Healthcare Services

Access to healthcare also depends on the availability of preventive services, in this case readily accessible COVID-19 tests and neighborhood testing sites (AHRQ, 2016). One’s ability to have a stable source of care, along with preventative services, is instrumental in having better overall health and reducing health disparities (AHRQ, 2016). However, one’s access to services, in this case COVID-19 testing sites, is closely linked to where patients live and how much they earn. After a large-scale review of COVID-19 testing sites, it was evident that communities of color face issues of high demand and limited supply (Vann, Kim, & Bronner, 2020). Further analysis of city and state health department databases also depicted fewer testing sites in areas populated by racial minorities when compared to white and wealthier neighborhoods (Vann et al., 2020). Testing sites in predominantly Black neighborhoods, despite serving more individuals than predominantly white locations, were scarce and distantly located, with fewer sites available per person (Vann et al., 2020). Using a measure known as potential community need or average demand of tests, investigators found majority-Black neighborhoods to have a potential community need that was 46% higher than that of majority-white neighborhoods across Dallas County, Texas (Kim, Vann, Bronner, & Manthey, 2020). Similarly, across southern Florida, majority-Black areas had a 13% larger potential community need than majority-white neighborhoods (Kim et al., 2020).

The fragmentation of service is a direct indicator of high death and hospitalization rates among people of color, specifically Black Americans. A study, attempting to understand the compounding effects of racial segregation and income equality, examined confirmed cases and deaths due to COVID-19 in numerous metropolitan areas (Yu et al., 2021). The results depicted a higher incidence rate of COVID-19 in areas with greater Black–white segregation (Yu et al., 2021). Income inequality also worsened the impact of COVID-19 in specific areas: areas with a higher GINI coefficient (higher income inequality) exhibited a higher growth rate in the case of deaths and incidence of COVID-19 (Yu et al., 2021). The researchers concluded that the combination of income inequality and racial segregation produces a “synergistic effect,” drastically deteriorating health outcomes for certain areas and demographics (Yu et al., 2021). Poor communities suffer the inevitable effects of poverty due to income inequality, and racially segregated areas experience a lack of access to social, medical, and informational resources to better control their health. Especially for Black communities, racial segregation has been legally enforced through racist housing practices and exacerbated by white flight, gentrification, and disinvestment (Yu et al., 2021). Hypersegregation only furthers long-standing inequities in access to health resources, concentrating services in predominantly upper-class, white areas and marginalizing communities of color. Access to healthcare services, while explicitly connected to the healthcare aspect of the social determinants of health, is also a nod toward one’s built environment and neighborhood atmosphere. Tying in multiple social determinants of health, access to services also inherently impacts timeliness of care, a critical aspect of care when considering a highly infectious disease like COVID-19. Overall, after examining disparities in access to health-related services, it is clear that limited access to healthcare functions at the intersection of multiple barriers to care.

## Timeliness of Care

Along with general access to services, timely access is critical for healthcare to be of use for a patient. Specifically, timeliness of care refers to the deliverance of care when its need is recognized (AHRQ, 2016). Unfortunately, this is often not the case for Black patients who are three times more likely than their non-Hispanic white counterparts to learn of their COVID-19 positive result through an emergency room or a hospital test (Anderson, 2020). In a retrospective cohort analysis of COVID-19 patients at California’s Sutter Health, even after adjusting for sex, comorbidity, income, race/ethnicity, and socioeconomic factors, Black patients were 2.7 times more likely to be hospitalized (Azar et al., 2020). Moreover, once hospitalized, 24.6% of Black patients were transferred to the Intensive Care Unit (ICU) compared to 10.7% of non-Hispanic white patients (Azar et al., 2020). The researchers theorize that this greater admission rate is indicative of Black patients being at a more advanced stage of their illness at the time they are first tested for COVID-19 (Azar et al., 2020). This delay of care can be attributed to previously discussed factors like limited testing services in their neighborhoods since Black patients are more likely to be tested in a hospital than in an ambulatory environment (Azar et al., 2020). Reflecting on previous research of Sutter Health, the researchers also found that Black patients were more likely to access care at a later time (Azar et al., 2020). Given California’s status as a state that has expanded its Medicaid, it is unlikely that this consistent untimely access to care is solely due to lack of coverage (Azar et al., 2020). Therefore, later access to care may function independently of an individual’s state of coverage and be subject to more implicit, yet influential, factors.

In fact, unconscious biases of providers and patients' negative experiences with the healthcare system can fuel mistrust and compel Black individuals to seek care at a later stage and only in extreme circumstances (Azar et al., 2020). This was especially apparent in the Michigan COVID-19 Recovery Surveillance Study (Fleischer, Hirschtick, & Mattingly, 2021). Using a sample of 2,000 COVID-19 cases accessed through the Michigan Disease Surveillance System, researchers obtained a total of 638 surveys illustrating the experiences of Michigan residents with COVID-19 (Fleischer et al., 2021). Black respondents reported having worse experiences seeking healthcare, with 8.7% of Black patients believing their experiences were worse than those of other races and 18.9% of white respondents believing their experiences were better than individuals of other races (Fleischer et al., 2021). In fact, 10.6% of Black respondents reported feeling "emotionally upset" after receiving COVID-19 testing or treatment due to how they were treated because of their race (Fleischer et al., 2021). Finally, 23% of Black respondents also mentioned being afraid to reveal their COVID-19 status to friends or family (Fleischer et al., 2021). Similar findings through a national web-based survey inquiring about avoidance of urgent, emergency, or routine medical care relating to COVID-19 underlined the significantly higher prevalence of reported urgent or emergency care avoidance among Black adults compared to white respondents (Czeisler et al., 2020). This prevalent fear and hesitation prevent countless Black Americans from receiving the time-sensitive care they need. Especially in the case of a potentially fatal and highly contagious disease like COVID-19, time is a precious resource and critical for better health outcomes in the Black community.

## Workforce Competency

Access to healthcare relies on the workforce; a team of culturally competent and knowledgeable providers is critical for equitable access to quality care (AHRQ, 2016). Evidence suggests that diversity in healthcare providers, instrumental to the formation of race-concordant relationships between the patient and physician, is transformational in delivering meaningful and effective care (Schoenthaler, Allegrante, Chaplin, & Ogedegbe, 2012). Race concordance refers to a sharing of identity between a physician and their patient, specifically in regard to race (Shen et al., 2018). A study in New York found patients in race-concordant relationships with their provider partook in longer doctor appointments and viewed their health-related decisions as a collaborative rather than a disconnected effort (Schoenthaler et al., 2012). This collaborative communication also led to high adherence to health-related instructions like taking medication on time (Schoenthaler et al., 2012). However, this collaborative communication between provider and patient is often hindered by implicit bias by the healthcare providers, often in race-discordant relationships (Milam et al., 2020). In the case of Black patients, medical personnel may be making decisions regarding life-prolonging measures, such as encouraging "do not resuscitate" (DNR) directives despite the wishes of the patient (Milam et al., 2020). With the sudden inundation of patients and an ill-prepared healthcare system, overwhelmed providers may be influenced by their racial biases and amplify the growing health gap. This lack of cultural competency and listening to the patient's needs and experiences are detrimental to a patient's, oftentimes a Black patient's, sense of security when in a healthcare setting.

Conversely, the Black community's perception of the healthcare workforce and the institution, in general, can also impact their will to access the care available. A study, examining the

relationships between COVID-19-related medical mistrust and vaccine and treatment hesitancy among Black Americans, interviewed 101 HIV-positive Black Americans about the negative impacts of COVID-19 (Bogart et al., 2021). The sample showed high levels of mistrust and hesitancy related to COVID-19, the vaccine, and potential treatment (Bogart et al., 2021). After being provided with a list of conspiracy beliefs about COVID-19, 97% of participants supported at least one mistrust belief; the most prevalent belief was regarding the government's dishonesty and withholding of information (Bogart et al., 2021). Over 50% of participants showed hesitancy regarding a future vaccine or treatment, and a third of respondents reported that they would not get vaccinated or treated (Bogart et al., 2021). In general, greater COVID-19 mistrust was significantly associated with greater vaccine hesitancy ( $P < 0.0001$ ) and treatment hesitancy ( $P < 0.0001$ ) (Bogart et al., 2021). This study supports that medical mistrust, due to historic traumatic events and structural racism, continues to be high and serves as a legitimate barrier to care, especially in the case of an infectious and life-threatening disease like COVID-19.

The foundation of the current medical system rests on a history of mistreatment and abuse of Black Americans. Inhumane experiments on enslaved people, forced sterilizations of Black women, and the devastating Tuskegee syphilis study, which withheld critical treatment from Black men so that doctors could track the course of the disease, mark the dark past of the current healthcare establishment (Hostetter & Klein, 2021). However, it is simplistic to assume that current medical mistrust is due to these historical events alone. Contemporary experiences of discrimination, racial bias, under-treatment of pain, and inequitable access to facilities and insurance fuel growing hesitancy and fear of reaching out for care (Hostetter & Klein, 2021). Simultaneously, understandably hesitant Black individuals are forced to experience a cycle of victim-blaming, "labeled as non-compliant" and unwilling to benefit from treatment (Hostetter & Klein, 2021). With the Black community already experiencing daily stressors due to deep-rooted systemic racism, mistrust of information and medical personnel only widens the health gap and prevents those most disadvantaged from getting the care they need.

## Conclusion

The healthcare system has been at the center of the COVID-19 pandemic, providing critical care and support for millions of people. However, as an institution rooted in a racist past that continues to fall short when looking at equitable access to care, it is hard to ignore its position in a country grappling with racial disparities in health, especially in the case of COVID-19 hospitalization and death rates of Black Americans. Further examination of coverage, services, timeliness of care, and cultural competency of the workforce has demonstrated a significant gap in coverage, access to COVID-19 testing sites, and timely care for Black Americans, inevitably contributing to the disproportionate burden of COVID-19 on the Black community (AHRQ, 2016). Moreover, the cultural incompetency of clinicians and the inability to form a collaborative patient-centered relationship between the provider and patient has fueled Black mistrust and lack of faith in the healthcare system, discouraging those who desperately need help from seeking it.

While these racial disparities have always existed, the devastating impact of COVID-19 across all communities has brought these deeply rooted inequities to the surface, further marginalizing communities of color. In fact, these disparities are a direct reflection of whose health and life are valued and considered a priority in American society. The national response to the pandemic should

be rooted in ensuring existing health-related racial disparities are not exacerbated. On the federal level, purposeful efforts to expand healthcare coverage to the uninsured across all 50 states must be prioritized (National Association for the Advancement of Colored People [NAACP], n.d.). Policy interventions should also aim to prevent further restrictions on Medicaid, providing those recently unemployed with a sense of security when it comes to paying for the costs of healthcare (NAACP, n.d.). Historically underserved communities should be supported with resources dedicated to education, prevention, and treatment services, improving the fragmentation of healthcare access in segregated neighborhoods (NAACP, n.d.). The Black Coalition Against COVID (BCAC), for instance, is dedicated to providing credible and relevant COVID-19 information to minority communities (BCAC, 2022). Working with influential figures in communities across the country, networking with subpopulations including faith, small business, community service organizations, and medical and academic institutions, BCAC focuses on combatting misinformation and promoting scientifically supported COVID-19 prevention recommendations (i.e. vaccination) (BCAC, n.d.). Along with other Black health advocacy groups, BCAC has reached out to the Biden administration requesting the availability of testing kits to local faith-based organizations for distribution to residents in the Washington, D.C., area (BCAC, n.d.). The Coalition also hosts town halls spotlighting Black medical professionals to debunk myths and provide culturally appropriate information about COVID-related care and building community trust (BCAC, n.d.). The BCAC is a powerful example of simultaneous political lobbying and the boosting of community education. Societal change, coupled with equitable access to healthcare while focusing on historically targeted and disadvantaged communities of color, is imperative for the current system of care to be effective in addressing the needs of all Americans.

## References

- Agency for Healthcare Research and Quality. (2016, May). *Chartbook on access to healthcare*.
- Agency for Healthcare and Research Quality. (2016). <https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/access/elements4.htm>
- Anderson, C. (2020, May 25). Sutter health finds black patients get coronavirus diagnoses at later stage than white peers. *The Sacramento Bee*. <https://www.sacbee.com/news/coronavirus/article242969276.html>
- Artiga, S., & Hinton, E. (2018, May 10). *Beyond health care: The role of social determinants in promoting health and health equity*. Kaiser Family Foundation. <https://www.kff.org/racial-equity-and-health-policy/issue-brief/beyond-health-care-the-role-of-social-determinants-in-promoting-health-and-health-equity/>
- Appleby, Julie. (2020, October 2). Trump's COVID program for uninsured people: It exists, but falls short. *Kaiser Health News*. <https://khn.org/news/fact-check-president-trump-executive-order-covid-program-for-uninsured-people-falls-short/>
- Azar K. M. J., Shen Z., Romanelli R. J., Lockhart, S. H., Smits, K., Robinson, S., Brown, S., & Pressman, A. R. (2020, May 21). Disparities in outcomes among COVID-19 patients in a large health care system in California. *Health Affairs*, 39(7), 1253–62. <https://doi.org/10.1377/hlthaff.2020.00598>
- Black Coalition Against COVID-19 [BCAC]. (n.d.). *National efforts*. <https://blackcoalitionagainstcovid.org/national-efforts/>



- Blumenthal, D., Fowler, E. J., Abrams, M., & Collins, S. R. (2020). Covid-19 — implications for the health care system. *New England Journal of Medicine*, *383*, 1483–1488. DOI: 10.1056/NEJMsb2021088
- Bogart, L. M., Ojikutu, B. O., Tyagi, K., Klein, D. J., Mutchler, M. G., Dong, L., Lawrence, S. J., Thomas, D. R., & Kellman, S. (2021). COVID-19 related medical mistrust, health impacts, and potential vaccine hesitancy among black Americans living with HIV. *Journal of Acquired Immune Deficiency Syndromes*, *86*(2), 200–207. <https://doi.org/10.1097/QAI.0000000000002570>
- Centers for Disease Control and Prevention. (2021, March 12). *Risk for COVID-19 infection, hospitalization, and death by race/ethnicity*. Centers for Disease Control and Prevention. [https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html?CDC\\_AA\\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcommunity%2Fhealth-equity%2Fracial-ethnic-disparities%2Finfographic-cases-hospitalization-death.html](https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcommunity%2Fhealth-equity%2Fracial-ethnic-disparities%2Finfographic-cases-hospitalization-death.html)
- Chandler, R., Guillaume, D., Parker, A. G., Mack, A., Hamilton, J., Dorsey, J., & Hernandez, N. D. (2021). The impact of COVID-19 among black women: Evaluating perspectives and sources of information, *Ethnicity & Health*, *26*(1), 80–93, DOI: 10.1080/13557858.2020.1841120
- Cross-Call, J. (2020, October 21). *Medicaid expansion has helped narrow racial disparities in health coverage and access to care*. Center on Budget and Policy Priorities. <https://www.cbpp.org/sites/default/files/atoms/files/10-21-20health2.pdf>
- Czeisler, M. E., Marynak, K., Clarke, K. E. N., Salah, Z., Shakya, I., Thierry, J. M., . . . Howard, M. E. (2020). Delay or avoidance of medical care because of COVID-19–related concerns — United States, June 2020. *Morbidity and Mortality Weekly Report*, *69*(36), 1250–1257. <http://dx.doi.org/10.15585/mmwr.mm6936a4>
- Fleischer, N., Hirschtick, J., & Mattingly, D. (2021, January 29). *Michigan COVID-19 recovery surveillance study. Data report 2: Black-white differences in access to care, recovery, and the social impact of COVID-19*. University of Michigan School of Public Health. <https://sph.umich.edu/mi-cress/>
- Gravlee, C. (2020, June 7). Racism, not genetics, explains why Black Americans are dying of COVID-19. *Scientific American*. <https://blogs.scientificamerican.com/voices/racism-not-genetics-explains-why-black-americans-are-dying-of-covid-19/>
- Health and Human Services [HHS]. (2021, December). *COVID-19 care for uninsured individuals*. U.S. Department of Health and Human Services. <https://www.hhs.gov/coronavirus/covid-19-care-uninsured>
- Hostetter M., & Klein S. (2021, January 14). Understanding and ameliorating medical mistrust among Black Americans. *The Commonwealth Fund*. <https://www.commonwealthfund.org/publications/newsletter-article/2021/jan/medical-mistrust-among-black-americans>
- Kim, S. R., Vann, M., Bronner, L., & Manthey, G. (2020, July 22). Which cities have the biggest racial gaps in COVID-19 testing access? *FiveThirtyEight*. <https://fivethirtyeight.com/features/white-neighborhoods-have-more-access-to-covid-19-testing-sites/>
- Milam, A. J., Furr-Holden, D., Edwards-Johnson, J., Webb, B., Patton, J. W., Ezekwemba, N. C., . . . Stephens, B. C. (2020). Are clinicians contributing to excess African American COVID-19 deaths? Unbeknownst to them, they may be. *Health Equity*, *4*(1), 139–141. <https://doi.org/10.1089/heq.2020.0015>

- National Association for the Advancement of Colored People. (n.d.). *Respond to coronavirus with equitable health care access*. NAACP. <https://naacp.org/coronavirus/respond-to-coronavirus-with-equitable-health-care-access/>
- Schoenthaler, A., Allegrante, J. P., Chaplin, W., & Ogedegbe, G. (2012, June). The effect of patient-provider communication on medication adherence in hypertensive black patients: does race concordance matter?. *Annals of Behavioral Medicine*, 43(3), 372–382. <https://doi.org/10.1007/s12160-011-9342-5>
- Shen, M. J., Peterson, E. B., Costas-Muñiz, R., Hernandez, M. H., Jewell, S. T., Matsoukas, K., & Bylund, C. L. (2018). The effects of race and racial concordance on patient-physician communication: A systematic review of the literature. *Journal of Racial and Ethnic Health Disparities*, 5(1), 117–140. <https://doi.org/10.1007/s40615-017-0350-4>
- Sloan, C., Duddy-Tenbrunsel, R., Ferguson, S., & Kornfield, T. (2020). COVID-19 projected to worsen racial disparities in health coverage. *Avalere*. <https://avalere.com/press-releases/covid-19-projected-to-worsen-racial-disparities-in-health-coverage>
- Tompkins, L., Smith, M., Bosman, J., & Pietsch, B. (2021, March). Covid-19: U.S. surpasses 500,000 Covid-19 deaths, a monumental loss. *The New York Times*. <https://www.nytimes.com/live/2021/02/22/world/covid-19-coronavirus>
- Vann, M., Kim S. R., & Bronner, L. (2020, July 22). White neighborhoods have more access to COVID-19 testing sites: ANALYSIS. *ABC News*. <https://abcnews.go.com/Politics/white-neighborhoods-access-covid-19-testing-sites-analysis/story?id=71884719>
- Yu, Q., Salvador, C. E., Melani, I., Berg, M. K., Neblett, E. W., & Kitayama, S. (2021). Racial residential segregation and economic disparity jointly exacerbate COVID-19 fatality in large American cities. *ANNALS of the New York Academy of Science*. <https://doi.org/10.1111/nyas.14567>