

# Racial disparities in COVID-19 mortality wider than reported

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More than a year into the pandemic, the disproportionate burden of COVID-19 among racial and ethnic minorities in the US has been well documented. But a new study by Boston University School of Public

Health (BUSPH) reveals that previous research has underestimated the true extent of racial disparities in COVID-19 deaths—as well as the extent to which structural racism contributes to these deaths.

Published in the *Journal of Racial and Ethnic Health Disparities*, the paper is the first to quantify the state-level differences in racial disparities in COVID-19 mortality among Black and White populations, using directly standardized, age-adjusted [death](#) rates. When comparing these age-adjusted rates, the study found that the Black-White disparity in COVID-19 mortality rates across states was substantially greater than what has previously been reported.

Until now, few studies on COVID-19 deaths have taken the age distribution of different populations into account, or explicitly compared race-specific mortality rates at the state level. But age is perhaps the single most important predictor of COVID-19 mortality, says study lead author Dr. Michael Siegel, professor of community health sciences at BUSPH. Different racial and ethnic groups have different age distributions, and comparing crude COVID death rates instead of age-adjusted rates can be misleading, he says.

"Because of structural racism, chronic diseases are much more common among the Black population compared to the White population, and for this reason, life expectancy for Black people is substantially less than that for White people," says Siegel. The shorter life expectancy means that the Black population of a state is going to be considerably younger than the White population for that state, he says.

"If you ignore this fact, then it is going to appear that the COVID death rate is much higher among the White [population](#) because there are so many more older people," Siegel says. "To get an accurate idea of the true disparity in death rates, you need to compare the COVID death risk of Black people and White people in a state at the same age."

The study is also the first paper to measure structural racism at the state level, and model this racism as a direct, quantifiable predictor of racial disparities in COVID-19 deaths across states.

Siegel and a team of researchers used data from the Centers for Disease Control and Prevention to calculate both crude and age-adjusted COVID-19 mortality rates for non-Hispanic White and non-Hispanic Black populations in 35 states. Then they compared these age-adjusted rates in order to quantify the racial disparity in mortality rates. Using linear regression analyses, they examined the potential relationship between a previously defined structural racism index and the racial disparity in COVID-19 mortality. The team also utilized linear regression analysis to explore potential mediating effects of exposure based on occupation, prevalence of underlying conditions, and disparities in healthcare access. This analysis yielded the following key findings:

- For all 35 states, the Black-White disparity in COVID-19 mortality rates was substantially greater when examining age-adjusted rates compared to crude rates. Thus, relying on crude death rates severely underestimates the true magnitude of the Black-White disparity in COVID-19 mortality rates.
- A high level of structural racism was a robust predictor of increased racial disparities in COVID deaths. All 35 states showed a pattern of increasing racial disparities as the state structural racism index increased.
- The five states with the highest structural racism indices had an average disparity ratio of 2.7, compared to 2.1 for the five states with the lowest racism indices.
- Structural racism appears to be a root cause of the Black-White disparity in COVID-19 [mortality](#).

"Even if we could somehow equalize comorbidities between the White

and Black populations, our results suggest that the racial [disparity](#) in COVID-19 [death rates](#) would still persist," says Siegel. "These findings suggest that the only way to fully address the consequences of structural racism is to dismantle structural [racism](#) itself."

**More information:** Michael Siegel et al, Actual Racial/Ethnic Disparities in COVID-19 Mortality for the Non-Hispanic Black Compared to Non-Hispanic White Population in 35 US States and Their Association with Structural Racism, *Journal of Racial and Ethnic Health Disparities* (2021). [DOI: 10.1007/s40615-021-01028-1](https://doi.org/10.1007/s40615-021-01028-1)

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