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Rural COVID-19 Mortality Rates are Highest in Counties with the Largest Percentages of Blacks and Hispanics

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Blacks and Hispanics have suffered a disproportionate burden of COVID-19 in the United States.¹ So far, most attention to racial/ethnic disparities in COVID-19 has been focused on cities. Less attention has been given to racial/ethnic disparities in rural areas. Rural does not automatically equate to white. Racial/ethnic minorities account for 20% of the U.S. rural population, are geographically isolated, and face significant health challenges.²

Despite lower average infection rates in rural than in urban areas thus far, [COVID-19 may ultimately hit rural areas harder](#) because rural populations are older and in worse health and have fewer health care resources than urban areas.³

This brief summarizes the results of our [recently published research study](#)⁴ where we compared the average daily increase in COVID-19 mortality rates by county racial/ethnic composition - percent non-Hispanic (NH) Black and percent Hispanic - across rural counties in the U.S. We controlled for several factors that may also influence COVID-19 mortality rates, including county age composition and median household income, adjacency to a metropolitan area, county health care availability, and state-level factors.

KEY FINDINGS

- COVID-19 mortality risk is not distributed equally across the U.S.
- Among rural counties, the average daily increase in COVID-19 mortality rates has been significantly higher in counties with the largest percentages of Black and Hispanic residents.
- Compared to rural counties with the lowest percent black populations (bottom quartile), rural counties in the top quartile of percent Black have had a 70% higher average daily increase in their COVID-19 mortality rate.
- Compared to rural counties with the lowest percent Hispanic populations (bottom quartile), rural counties in the top quartile of percent Hispanic have had a 50% higher average daily increase in their COVID-19 mortality rate.

COVID-19 Deaths in Rural Counties

There were 9,431 documented COVID-19 deaths across all U.S. rural counties between March 2 and July 26, 2020. Forty-two percent of rural counties had no documented deaths as of July 26. Among rural counties, COVID-19 deaths have been concentrated in the southern and southwestern U.S., which are rural regions with large shares of Blacks and Hispanics (Figure 1).

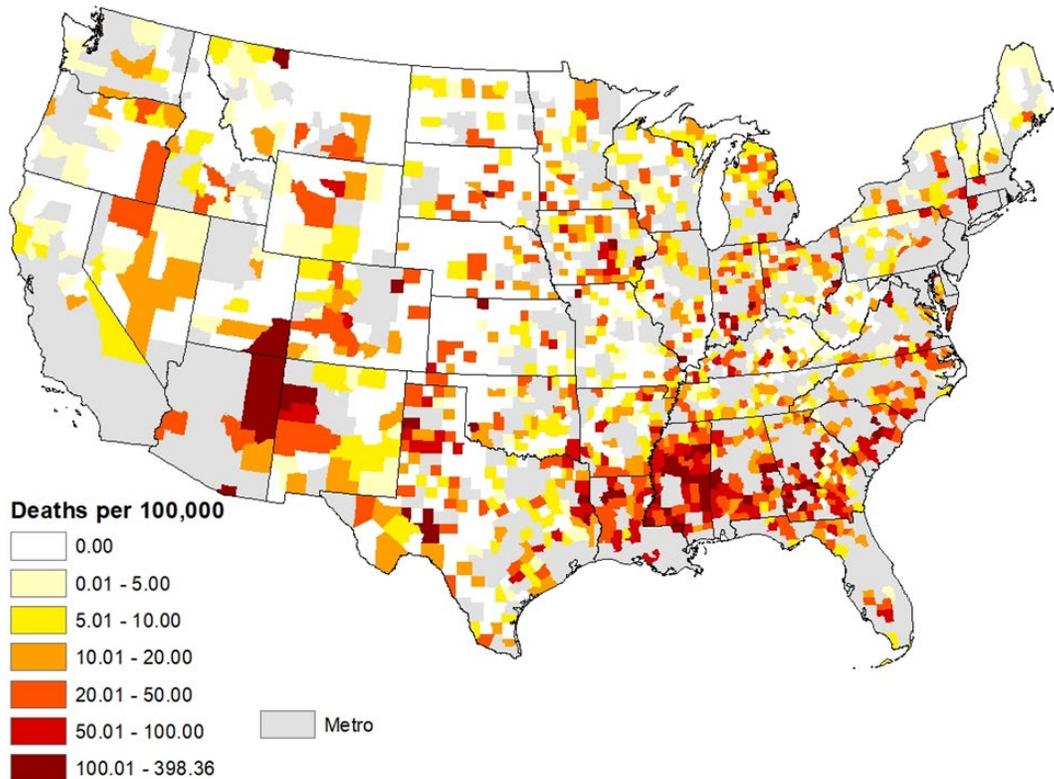


Figure 1. COVID-19 Mortality Rates (deaths per 100,000 persons) in Nonmetro Counties

Note: Map created by Yue Sun. The map includes rates for the 1,976 nonmetro counties in the contiguous U.S. and represents deaths as of 07/26/20.

Figure 2 shows average daily COVID-19 mortality rates by quartile of percent NH Black and percent Hispanic. The figure demonstrates that the average daily COVID-19 death rate has been consistently higher in counties with larger percentages of Black and Hispanic residents. The differences, while larger across the percent black quartiles than across the percent Hispanic quartiles, are stark for both. Compared to rural counties with the lowest percent black populations (bottom 25th percentile), rural counties with the highest percent Black populations (top 25th percentile) have experienced a 70% higher average daily increase in their COVID-19 mortality rate. Compared to rural counties with the lowest percent Hispanic populations (bottom 25th percentile), rural counties with the highest percent Hispanic populations (top 25th percentile) have experienced a 50% higher average daily increase in their COVID-19 mortality rate.

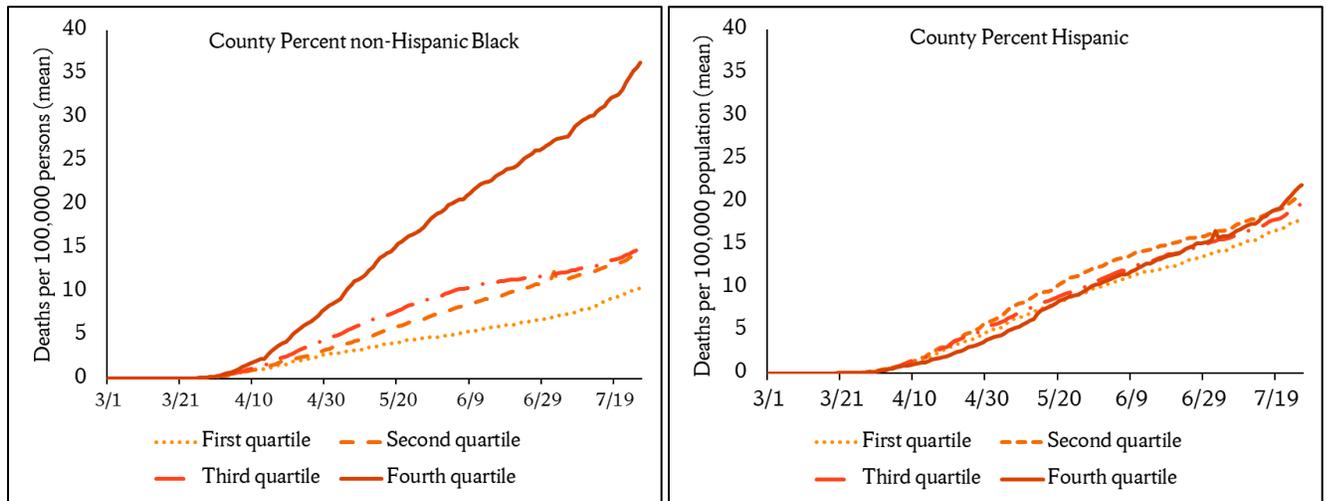


Figure 2: Average daily COVID-19 mortality rates (deaths per 100,000 persons) by county quartiles of percent non-Hispanic Black and percent Hispanic

Data Source: USAFacts and U.S. Census Bureau American Community Survey (1,976 nonmetro counties). Rates are current as of July 26, 2020.

Potential Explanations for Geographic Disparities in COVID-19 Deaths

Our study shows that COVID-19 mortality is not distributed equally across the rural U.S., and the COVID-19 race penalty is not restricted to cities. There are many potential explanations for these findings. As with urban areas, the rural U.S. has a long legacy socioeconomic and health care inequities. COVID-19 is the latest in a long line of inequities that disproportionately affects racial minority populations. Compared to both rural whites and urban Blacks, rural Blacks have higher poverty rates,⁴ higher rates of the same chronic diseases that increase risk of death should one contract COVID-19 (e.g., heart disease, diabetes, respiratory diseases),⁵⁻⁹ and shamefully low access to health care.¹⁰ During the early spread of COVID-19 in the U.S., we found that [testing rates were lower in states with higher shares of Black residents](#). These factors all increase risk of COVID-19 death. Although Hispanics have lower chronic disease rates compared to Whites, they face higher poverty rates¹⁷, less access to healthcare¹², and fears of deportation that discourage using healthcare.¹³ Large proportions of Blacks and Hispanics work in service occupations that require face-to-face contact with other employees and customers or in manufacturing plants with little ability to socially distance.¹⁴ These factors increase risk of COVID-19 spread in rural and urban areas alike.

How to Address these Disparities

Several interventions are needed to reduce these geographic and racial/ethnic disparities. First, we must increase access to free COVID-19 testing in rural areas generally, but especially in rural areas with vulnerable population groups. Second, local governments should work with trusted community-based organizations, including the faith-based community, to help educate, conduct testing and contact tracing, and provide necessary personal protective resources to Black and Hispanic residents. Working with trusted community partners may facilitate access to conduct testing and contact tracing and to provide education and services to racial minority populations who have a long history of distrust in the health care system. Ultimately, any policy intervention

that aims to prevent or mitigate COVID-19 in rural America must prioritize places with the least resources and the most vulnerable populations.

It is important to note that our study examined county-level mortality rates overall, rather than race-specific mortality rates. We were unable to calculate race-specific mortality rates with the data currently available. It is possible that Whites also have higher COVID-19 mortality rates in counties with larger shares of Blacks and Hispanics if the conditions in these counties increase risk of transmission and death generally (e.g., insufficient testing, poor health care access, lack of social distancing). We encourage state and county health departments to release COVID-19 testing, infection, and mortality data by race/ethnicity so researchers can identify intersections between geographic and racial/ethnic inequities.

Data and Methods

We examined mortality rates for the 1,976 nonmetropolitan counties in the contiguous U.S. COVID-19 daily death counts from March 2 to July 26, 2020 were obtained from USAFacts. County racial/ethnic composition came from the 2014-18 American Community Survey. We used regression models that accounted for population size and controlled for county-level age composition, median household income, county adjacency to a metropolitan area, county designation as a health care professional shortage area, per capita availability of physicians and hospital beds, and state-level factors. For more details about the data and regression models, see the peer-reviewed publication "[COVID-19 Death Rates are Higher in Rural Counties With Larger Shares of Blacks and Hispanics](#)" in the *Journal of Rural Health*.

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