

# COVID-19 hospitalizations analysis shows disparities across racial and ethnic groups

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Adding to mounting evidence of COVID-19's disproportionate impact on some U.S. communities, a new analysis of hospitalization rates from the University of Minnesota shows Black, Hispanic, American Indian and Alaskan Native populations in the United States are significantly more likely to be hospitalized due to COVID-19 than whites.

Published today in *JAMA Internal Medicine*, researchers from the U of M's Carlson School of Management found significant disparities among racial and [ethnic groups](#) after reviewing nearly 49,000 COVID-19 hospitalizations over a two-month period in the 12 U.S. states that report such data for [hospital](#) patients.

"The unique clinical, financial and social impacts of COVID-19 on racial and [ethnic populations](#) that are often systematically marginalized in our society must be well understood in order to design and establish effective and equitable infrastructure solutions," said Pinar Karaca-Mandic, professor and academic director of the Medical Industry Leadership Institute in the Carlson School, and

study's lead author. Soumya Sen, an associate professor in the Carlson School, is a study co-author.

The study found that, when compared to the populations of each state, people identified as being:

- African American or Black were hospitalized at higher rates than those who were white in all 12 states reporting data, with Ohio (32% hospitalizations, 13% population), Minnesota (24.9% hospitalizations, 6.8% population), and Indiana (28.1% hospitalizations, 9.8% population) having the largest disparities;
- Hispanic were hospitalized at higher rates than those who were white in 10 of the 11 states reporting this data, with Virginia (36.2% hospitalizations, 9.6% population), Utah (35.3% hospitalizations, 14.2% population) and Rhode Island (33% hospitalizations, 15.9% population) with the largest disparities;
- American Indian and/or Alaskan Native were hospitalized at higher rates than whites in the eight states reporting data, including in Arizona where this population accounted for 15.7% of the hospitalizations, but only 4% of the state's population.

Researchers note the disparities found in other population groups are largely reversed among Asian communities. In six of the 10 states that reported data for this group, the proportion of hospitalizations was lower relative to their population representation. In Massachusetts, for example, individuals who identify as Asian comprise 7% of the population but only 4% of the COVID-19 hospitalizations.

"Our findings highlight the need for increased data reporting and consistency within and across all states," said Archelle Georgiou, M.D., chief health

officer at Starkey Hearing Technologies and study co-author. "The fact that only 12 of 50 states report this type of information clearly shows there is more to learn about why non-whites are being hospitalized at such higher rates than whites."

While consistent with previous analyses from the Centers for Disease Control and Prevention and others, this study does not adjust for age, sex, comorbidities and socioeconomic factors within each race and ethnic group that are likely related to COVID-19 hospitalizations.

The data used was extracted from the University of Minnesota COVID-19 Hospitalization Tracking Project, for a period between April 30 and June 24, 2020. Researchers calculated the percentage of cumulative hospitalizations by race and ethnic categories averaged over the study period and calculated the difference from the corresponding percentage of the state's [population](#) accounted by each race and ethnic subgroup as reported in the U.S. Census. The 12 states included in the analysis were: Arizona, Indiana, Kansas, Massachusetts, Minnesota, New Hampshire, Ohio, Oregon, Rhode Island, Utah, Virginia, and Washington.

**More information:** Pinar Karaca-Mandic et al, Assessment of COVID-19 Hospitalizations by Race/Ethnicity in 12 States, *JAMA Internal Medicine* (2020). [DOI: 10.1001/jamainternmed.2020.3857](#)

Provided by University of Minnesota

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