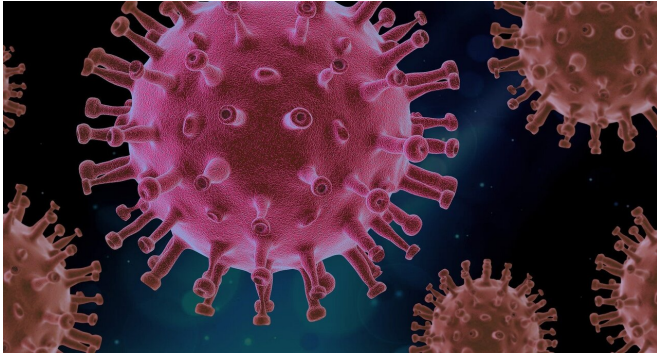


Stark disparities in COVID-19 hospitalization and death rates among New Yorkers

29 April 2020



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With more than a million confirmed cases of COVID-19 in the United States, there is growing concern that low-income communities and racial/ethnic minorities may be disproportionately shouldering the burden of the pandemic. A new study, led by researchers at Beth Israel Deaconess Medical Center and published in the *Journal of the American Medical Association (JAMA)* suggests that substantial differences in COVID-19-related hospitalizations and deaths have emerged along racial and socioeconomic lines in New York City.

"Prior studies have shown disparities in [health outcomes](#) across New York City's five boroughs—Brooklyn, the Bronx, Manhattan, Queens, Staten Island," said the study's lead author Rishi K. Wadhera, MD, MPP, MPhil, an investigator at the Richard A. and Susan F. Smith Center for Outcomes Research and physician at BIDMC and Harvard Medical School. "We wanted to evaluate whether similar patterns have also emerged amid the COVID-19 pandemic."

New York City is the epicenter of the COVID-19 pandemic in the United States, with more than 15 percent of total cases nationally. Using data from the U.S. Census Bureau and from the American

Hospital Association, Wadhera and colleagues looked at population characteristics (e.g. race/ethnicity), socioeconomic characteristics (median household income, poverty, education), and hospital bed capacity across the five boroughs. They then evaluated rates per 100,000 people of COVID-19 testing, COVID-19 patient hospitalizations, and COVID-19-related deaths according to patients' borough of residence based on data from the NYC Health Department, last updated on April 25, 2020.

The research team found that COVID-19 hospitalization and [death rates](#) varied considerably across New York City boroughs. The Bronx—the borough with the highest proportion of racial and ethnic minorities, the most persons living in poverty, and lowest levels of educational attainment—had higher rates of hospitalization and death related to COVID-19 than all other boroughs. In contrast, hospitalization and death rates were lowest in Manhattan, the most affluent borough, which is comprised of a predominately white population. The number of COVID-19 deaths per 100,000 persons was nearly two times greater in the Bronx than in Manhattan.

"The substantial differences in COVID-19 death rates across New York City boroughs are concerning," said Wadhera. "We need to understand the extent to which underlying comorbid illnesses, occupational exposure, socioeconomic determinants of health, and race-based structural inequities explain the disparate outcomes among boroughs, to help shape ongoing public health strategies and policies that aim to mitigate and contain COVID-19."

More information: Rishi K. Wadhera et al. Variation in COVID-19 Hospitalizations and Deaths Across New York City Boroughs, *JAMA* (2020). [DOI: 10.1001/jama.2020.7197](https://doi.org/10.1001/jama.2020.7197)

Provided by Beth Israel Deaconess Medical
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