

Data from 10 cities show COVID-19 impact based on poverty, race

AUG 5, 2020

Tanya Albert Henry

Contributing News Writer

Neighborhood income and other structural factors have significant impacts on whether an individual in the area has been infected with or died from COVID-19, a new national study finds.

Areas with high populations of marginalized and minoritized populations that have historically been disinvested in were the hardest hit by the virus early in the pandemic, according to the research letter, “Assessment of Community-Level Disparities in Coronavirus Disease 2019 (COVID-19) Infections and Deaths in Large US Metropolitan Areas,” published in *JAMA Network Open*.

The research looked at data from the combined statistical areas (CSAs) of 10 major U.S. cities – Atlanta, Boston, Chicago, Detroit, Los Angeles, Miami, New Orleans, New York City, Philadelphia and Seattle. Learn more about states tracking COVID-19 race and ethnicity data.

In counties where the population was substantially non-white with a median income defined as \$60,240, the COVID-19 death rate was more than nine times higher when compared to counties that are substantially white with the same median income. And the infection rate was nearly eight times higher for the more racially and ethnically diverse counties that authors called “more-poverty areas.” More investigation needs to be done to understand why there is inequitable access to opportunities and resources that cause non-whites to have lower incomes.

But racial inequities didn’t disappear in higher-income counties where the median income was \$79,834, which means that larger structural factors are at play that cause marginalized and minoritized groups to have worse outcomes. The COVID-19 infection and death rates were nearly three times higher in substantially non-white counties with higher median incomes when compared to substantially white, higher income counties that study authors called “less-poverty counties.”

“We knew from news reports and other smaller studies that have been coming out here and there that the African-American population, the Latino population and South Asian communities were being hit pretty hard by the virus,” said the study’s corresponding author Samrachana Adhikari, PhD, an

assistant professor in the Division of Biostatistics within the Department of Population Health at New York University Grossman School of Medicine.

“But looking at the high-poverty areas, they were being hit nine times higher and that was a stark number. The differences in less-poverty areas is pretty stunning and it surprised us as well,” said Adhikari, adding that there is no biological or genetic basis for why these inequities would exist.

More studies needed

For this study, researchers only had access to county-level information on poverty to assess community-level inequities. But with data showing that “COVID-19 infections and deaths existed beyond those explained by income,” Adhikari and her co-authors from New York University Grossman School of Medicine conclude that studies that “leverage community information with individual-level health data are likely to provide additional insights.”

Future research also needs to consider structural factors and social determinants of health inequities.

In an interview, Adhikari said it would be beneficial to look at data on household crowding, the proportion of essential workers, the number of people taking public transportation, access to health care and testing, as well as other data to help explain differences in infection and death rates.

“If we can include these in the analysis, we will have even stronger evidence of whether and how much structural racism plays in the disproportionate differences in infections and death between communities that are more diverse and communities with higher non-Hispanic, white residents,” Adhikari said.

That level of data will also be important in addressing disparities through policy, she said, noting that “the narrative is going to be very important.”

It is vital that more is done to challenge the dominant narratives that non-whites are poorer and thus is the cause of their worse health outcomes. Additionally, as the pandemic reaches into more rural and suburban counties, Adhikari said it will be interesting to see if the same patterns exist there as the ones they found in the large metropolitan areas.

Learn more from the AMA about why national COVID-19 patient data is vital to fixing inequity.

Other AMA COVID-19 resources

Another recent research letter in *JAMA Network Open*, “Comparison of Weighted and Unweighted



Population data to Assess Inequities in Coronavirus Disease 2019 Deaths by Race/Ethnicity Reported by the US Centers for Disease Control and Prevention,” further explores COVID-19 inequities based on race and ethnicity.

The AMA continues to compile critical COVID-19 health equity resources to shine a light on the structural issues that contribute to and could exacerbate already existing inequities. Physicians can also access the AMA’s COVID-19 FAQs about health equity in a pandemic.

You can stay up to speed on the AMA’s COVID-19 advocacy efforts and track the fast-moving pandemic with the AMA’s COVID-19 resource center, which offers a library of the most up-to-date resources from JAMA Network™, the CDC, and the World Health Organization.