

# Neighborhoods most affected by racism and COVID-19 pandemic stressors at a greater risk for preterm births, study finds

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A new cohort study follows women through pregnancy and birth to study if a SARS-CoV-2 infection, the virus that causes COVID-19, is

associated with poor pregnancy outcomes. In this part of the study, Mount Sinai researchers specifically examined how existing structures of racism and socioeconomic inequity, as well as pandemic-related social and economic stressors, influence COVID-19 infection during pregnancy and adverse birth outcomes.

The study concluded that structural [racism](#) is associated with both increased risk of COVID-19 infection and preterm births. The researchers say their study is the first to show this using antibody test results—a very reliable measure of infection—instead of COVID-19 testing data.

Women in mostly Black, [low-income neighborhoods](#) had nearly three times the risk of COVID-19 infection as those in White, wealthy neighborhoods. Among birthing people in the most disadvantaged neighborhoods: 94% were non-White, 50% had public insurance, 41% were obese, 32% had COVID-19 antibodies, 11% delivered preterm, and 12% delivered an infant small-for-gestational-age. In contrast, birthing people in neighborhoods with the lowest structural disadvantages were: 38% were White, 17% had public insurance, 15% were obese, 9% had COVID-19 antibodies, and 6% delivered preterm. Their analysis found that structural racism and community unemployment were associated with both COVID-19 infection and preterm births.

The researchers also found that communities with the highest increases in unemployment in the first wave of the pandemic experienced 60% higher increased risk of preterm birth, compared to those with the lowest increase. This study is among the first to demonstrate a link between the COVID-19-related unemployment crisis and preterm birth. However, the team found no links between COVID-19 infection, coupled with structural racism or socioeconomic stress, on birth outcomes.

The researchers analyzed data for nearly 1,000 patients from a cohort of pregnant persons treated at the Mount Sinai Health System in New York City, comprised of White (38%), Black (17%), Latina (30%), Asian (9%), and unknown (5%) race and ethnicity backgrounds. The researchers evaluated structural racism (social structural disadvantage and racial-economic segregation) and pandemic-related stress (community COVID-19 mortality and community unemployment rate increase) in quartiles by zip code. They also examined [medical records](#) to determine if patients experienced preterm birth or delivered a newborn small-for-gestational-age, and reviewed blood test results that measured COVID- 19 antibodies.

Given that social and economic impacts of the COVID-19 pandemic are associated with an increased risk of preterm [birth](#)—especially among communities of color—[policy makers](#) are encouraged to consider this latest data when considering measures to mitigate structural racism and inequities. Physicians should also consider these findings when developing a plan of care for patients from communities that face high pandemic-related unemployment and stressors, and thus, an increased risk of preterm births.

Mount Sinai's Dr. Teresa Janevic says that "in our study of pregnant persons in New York City, the same neighborhoods most affected by structural racism and pandemic stress experienced the highest risk of [preterm birth](#). Nonetheless, our study, demonstrates that pregnant persons of color are disproportionately impacted by COVID-19 infection and pandemic-related community stressors. Future interventions on mitigating structural racism and socioeconomic inequity could reduce the impact of the pandemic on pregnant persons."

The research was published in the *American Journal of Obstetrics & Gynecology* *MFM*

**More information:** Teresa Janevic et al, The influence of structural racism, pandemic stress, and SARS-CoV-2 infection during pregnancy with adverse birth outcomes, *American Journal of Obstetrics & Gynecology MFM* (2022). [DOI: 10.1016/j.ajogmf.2022.100649](https://doi.org/10.1016/j.ajogmf.2022.100649)

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