Household Crowding and Poverty Raise COVID-19 Risk

Among pregnant women, household density was the strongest predictor of this potentially severe respiratory illness.

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Certain socioeconomic factors make people more likely to be diagnosed with and die of COVID-19. Now, new findings published in the Journal of the American Medical Association suggest this might explain the higher number of coronavirus cases in communities where low-income Black and Hispanic individuals live in large households, according to the Columbia University Irving Medical Center.

For the study, researchers at Columbia University assessed how the coronavirus and neighborhood characteristics affected 396 women who gave birth at NewYork-Presbyterian/Columbia University Irving Medical Center or NewYork-Presbyterian Allen Hospital during the peak of the COVID-19 outbreak.

Since March 22, every woman admitted to these hospitals for delivery is given a coronavirus test, which has allowed scientists to detect all infections in a defined population.

Findings revealed that household density was the strongest predictor of COVID-19 among study participants. Women who lived in neighborhoods with a high number of household members were three times more likely to contract the virus.

These women were also twice as likely to develop COVID-19 if they resided in neighborhoods with an elevated poverty rate. (Researchers found no link between infection and population density.)

According to Cynthia Gyamfi-Bannerman, MD, a maternal-fetal medicine specialist at the Irving Medical Center and a coauthor of the study, COVID-19 risk is “related more to density in people’s domestic environments rather than density in the city or within neighborhoods.”

For this reason, Gyamfi-Bannerman suggested that expectant mothers planning to bring other family members home to help during their pregnancies or postpartum should be counseled about COVID-19 risk.

“The knowledge that [the new coronavirus] SARS-CoV-2 infection rates are higher in disadvantaged neighborhoods and among people who live in crowded households could help

public health officials target preventive measures, like distributing masks or culturally competent educational information to these populations," she said.

For related coverage, read "Why Are Black Communities Hit Hardest by COVID-19?" and "How States Are Addressing COVID-19 Racial Disparities."

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