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BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING

Has covid-19 affected the prison population?

One of the foundational mitigation principles in the covid-19 pandemic is social distancing. Unfortunately, the prison system makes social distancing uniquely difficult. Given this context, an interesting [paper](#) was recently published in *JAMA* that examined covid-19 case rates and deaths among federal and state prisoners. The researchers used data from the UCLA School of Law “COVID-19 Behind Bars Data Project,” an extensive and nationally [comprehensive database](#) of the prison system in the United States, covering March 31, 2020, to June 6, 2020.

Astonishingly, by June 6 there were 42,107 cases of covid-19 among U.S. prisoners with a SARS-CoV-2 case rate of 3,251 per 100,000 prisoners. This case rate was approximately 5.5 times higher than that measured among the general U.S. population, a case rate of 587 per 100,000 persons during the same time period. The crude death rate was also higher in the prison population compared to the U.S. population at 39 deaths versus 29 deaths per 100,000 persons, respectively. When accounting for age and sex differences between the prison population and the general population, the adjusted death rate from covid-19 was three times greater for prisoners than the general U.S. population. Finally, the mean daily case growth rate was 8.3 percent per day in prisons versus 3.4 percent per day in the U.S. population.

This study had a few limitations that say more about the prison system in the U.S. than the research itself. First, officially reported data are the only available data on prison disease and deaths. Transparency could be an issue, though it is unknown if such issues had any effect on the data. Second, comprehensive data on testing rates were not made available. Finally, Departments of Corrections generally do not report demographic data on individuals who died. In this context, it is possible and even likely that the real covid-19 case rates and death rates are in reality substantially higher among the prison population than even these numbers suggest. National policies that improve prison conditions to prevent such outcomes are urgently needed.

—Joshua Niforatos, MD

Another study looks at covid-19 infection severity and its association with obesity.

A [study](#) published in *The Annals of Internal Medicine* looked at the association between obesity and covid-19 severity in a cohort of hospitalized patients in New York City. The association between body mass index (BMI) and in-hospital mortality was adjusted for potential predictors of in-hospital mortality from covid-19, such as age, smoking history, and existing medical conditions such as emphysema, asthma, and others. 1,687 patients were included in the study of which 31.1 percent were categorized as obese.

Interestingly, the researchers found a J-shaped pattern for in-hospital mortality based on BMI: “The fully adjusted hazard of dying was highest for underweight persons, was lowest for overweight persons, and progressively increased with higher degrees of obesity.” Looking at respiratory failure alone, however, the risk increased linearly with higher BMI class (though a similar J-shaped pattern was observed when looking at in-hospital mortality of patients with respiratory failure). Although this preliminary study conducted at two hospitals in one city warrants further investigation, it suggests that significant obesity is associated with poorer outcomes in patients hospitalized with covid-19. Although numerous limitations to this study should be noted, it may be important for hospital covid-19 planning to take into consideration the community-specific prevalence of obesity when determining ventilatory and ICU needs in areas where spikes in cases and hospitalization may be anticipated.

—Joshua Niforatos, MD

POLICY BRIEFING

Reopening schools while infections are rising.

Amidst the backdrop of multiple record-breaking [days](#) of new coronavirus cases, the Trump Administration is moving [forward](#) with plans to reopen schools in the fall, citing the return to academic normalcy as best for students. Contrasting with the United States Centers for Disease Control and Prevention (CDC)’s [announcement](#) that school guidelines will not be revised in an effort to hasten opening, and the National Institute of Allergy and Infectious Diseases director Dr. Anthony Fauci [calling](#) for a cautious, data-based approach, officials stated the risk to students’ mental health and social development outweigh the risk posed by the coronavirus. As state and school officials have opposed what is seen as an unnecessary risk due to the unknown role of asymptomatic and airborne transmission, Department of Education Secretary Betsy DeVos raised the possibility of cutting federal funding to states that do not comply with the administration’s stated wishes. *Various.*

—Joshua Lesko, MD

*Kimi Chernoby, MD, JD, Policy Section Editor. Joshua Niforatos, MD Research Section Editor
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<http://www.brief19.com/>

Twitter: [@brief_19](#)

submissions@brief19.com

Brief19 is a daily executive summary of covid-19-related medical research, news, and public policy. It was founded and created by frontline emergency medicine physicians with expertise in medical research critique, health policy, and public policy.