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BRIEF19

A daily review of covid-19 research and policy

RESEARCH BRIEFING

Covid-19 risks to pregnant patients. New data shows risk of serious complications are increased but remain rare.

The effect that covid-19 has on pregnant women has been closely watched. As we covered last week, premature births [may not have decreased](#) during stay-at-home periods, despite early stories suggesting that was the case. But what about the mothers themselves?

New data out in [JAMA Internal Medicine](#) compared outcomes of pregnant women who were hospitalized and were also found to have covid-19 to those who were hospitalized that did not have covid-19. We won't bury the lede: while covid-19 was associated with far higher rates of maternal death and higher rates of other worrisome medical conditions such as heart attacks and dangerous blood clots, the events remained reassuringly rare regardless.

The study followed the outcomes of over 400,000 women in the United States. Only 1.6 percent of the patients were found to have covid-19, a number that is far lower than cohorts of pregnant women who were hospitalized in "hotzones" like New York last spring.

The risk of dying in the hospital among with women who gave birth *and* had covid-19 was around one in 709. For women who gave birth but did not have covid-19, the mortality rate was on in 20,000. That means that covid-19 was associated with a 28-times greater rate of maternal mortality. Heart attacks were also around 25-times more likely among covid-19-positive mothers, but still only occurred in one of 1,000 of such patients. Blood clots, which are a known risk of pregnancy in general, were twice as likely among covid-19-positive women, rising from one in 1,000 to around one in 500. Preeclampsia, a maternal complication that is a precursor to eclampsia (which can cause seizures, liver problems and other complications) was slightly more likely in covid-19-positive mothers. Matching last week's data from Sweden, preterm birth was not associated with covid-19.

The most substantial risks for death or the need for mechanical ventilation were seen among patients with existing eclampsia (>116x), kidney disease >21.5x), stillbirth of the fetus (>7.8x), diabetes (>4.5x), morbid obesity (>3.8x), as well as blood clots.

These data underscore two important points. The first is that covid-19 can harm adults of all ages. Second, these data may move the needle towards vaccination among pregnant women. The idea that vaccination may be unsafe in pregnant women remains unproven, but also largely untested. The mechanism by which both the Pfizer and Moderna vaccine work would, in theory at least, suggest no obvious harm to a pregnant mother. Meanwhile, these data show that anything that can decrease covid-19 disease itself should be seriously considered. To my knowledge, my hospital does not routinely vaccinate pregnant women who are admitted for the hospital for prolonged periods. These new findings may change the calculus here and around the world.

—Jeremy Samuel Faust MD MS

POLICY BRIEFING

Empty words spell real consequences for vaccination rollout plans.

The federal vaccine reserve accounts for approximately half of the Pfizer/BioNTech and Moderna doses purchased by the federal government. These doses have been held back to ensure an adequate supply to complete the two-shot series among persons who receive their first jab.

After President-elect Joseph R. Biden announced his intent to release the federal vaccine reserve once his administration assumes control on Wednesday, January 20th, the outgoing Trump administration made a similar [statement](#), stating that they would immediately begin distribution along these lines. In a sense, in its waning days, the Trump administration finally followed through on a vaccine rollout promise. It was quickly determined that at the time of the announcement, there was no federal reserve of vaccines to parcel out. Thus, the administration in essence promised to release zero additional doses of the vaccines, and it therefore immediately achieved its stated goal.

State leaders began [getting](#) news on Friday that there would not be any increase in the supply of vaccines arriving, and that all of the vials that had been in reserve had been distributed as early as December. While the US Department of Health and Human Services has argued that reserves of doses are no longer necessary due to increased rate of production, states have begun [expanding](#) their eligibility pool to increase vaccine uptake.

What is reassuring is that both of the major suppliers for the United States [anticipate](#) being able to produce 200 million doses for the country by July, each, with reporting global production fifty percent higher than initial estimates. That said, unanticipated production problems and the inability to get the doses from the factory to vaccination centers may still the actual number of delivered doses to fall short. *Various.*

—*Brief19 Policy Team*

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