Why We Still Don't Know Enough About Covid-19 and Pregnancy

More than six months into the pandemic there's still a lot we don't know about how the coronavirus affects pregnant women and babies.



By Christina Caron

July 10, 2020

At the end of April, Denise J. Jamieson, M.D., a member of the Covid-19 task force at the American College of Obstetricians and Gynecologists and chairwoman of gynecology and obstetrics at the Emory University School of Medicine, noted in an email that it was "remarkable" how much we still do not know about Covid-19 in pregnancy.

"Even basic questions, such as whether or not pregnant women are more severely affected by Covid-19, remain unanswered," she said at the time.

Now it's July, and little has changed.

Last month the Centers for Disease Control and Prevention released their first report on pregnant women with Covid-19, which suggested they might be at higher risk for severe illness. While the study had a large sample size, more than 8,000 women, it raised more questions than it answered and the results were difficult to interpret.

With so many new details about the novel coronavirus emerging and states wobbling toward reopening, why do we still know so little about how the virus affects pregnant women and their babies?

One of the reasons is that, when it comes to patients who test positive for Covid-19, federal public health researchers rely on a patchwork of reports on individual patients that are submitted voluntarily by various jurisdictions.

"This is where the U.S. falls short," said Heather Huddleston, M.D., a reproductive endocrinologist at the University of California, San Francisco, who blamed the country's lack of a nationalized health care system, which could offer a uniform way of tracking people.

Sascha Ellington, Ph.D., the lead author of the C.D.C. study, wrote in an email on Wednesday that the data was reported by regional health departments using a standard case report form for people infected with the coronavirus that includes a space to note pregnancy status, or through the agency's National Notifiable Diseases Surveillance System. The C.D.C. also offers health departments an optional, supplemental form that collects data on pregnant patients and their newborns.

Latest Updates: Global Coronavirus Outbreak Updated 6h ago

- The European Union agrees to a groundbreaking stimulus package to fight the pandemic recession.
- China is using a visit by the World Health Organization to extol its response to the pandemic.
- Joe Biden plans to call for \$775 billion to go toward working parents and caregivers.

See more updates

More live coverage: Markets

But, as the latest C.D.C. report illustrates, clinicians don't always have time to fill out detailed forms while also caring for patients in the middle of a pandemic.

"We were on fire taking care of pregnant patients or patients across the institution who were really, really sick," said Allison Bryant, M.D., a maternal-fetal medicine specialist at Massachusetts General Hospital in Boston and a member of the American College of Obstetricians and Gynecologists' working group on Covid-19 and pregnancy. In these conditions, the case reporting, while important, becomes less of a priority, she added.

The C.D.C.'s most recent data on pregnancy and Covid-19, which includes the full month of June, showed 10,537 pregnant women tested positive for Covid-19. But only about a quarter of the case reports noted whether those women went to the intensive care unit, or had mechanical ventilation.

This week ProPublica highlighted the "agonizing lag" in coronavirus research in the United States, noting that data collection in Britain was aided by the U.K. Obstetric Surveillance System, which quickly allowed the country to collect data on Covid-19-infected pregnant women at 194 obstetric hospitals.

Dr. Ellington said the C.D.C. is expanding a separate data collection system that gathers information on pregnant women and their children through the first three years of life to include surveillance for Covid-19 in pregnancy.

"More than 30 states and territories have reported or plan to report additional surveillance data," Dr. Ellington said.

Doctors at the Universities of California, Los Angeles and San Francisco, saw the urgent need for better information months ago.

"A lot of our recommendations are not built on solid data," said Yalda Afshar, M.D., Ph.D., a maternal-fetal medicine specialist at the Ronald Reagan U.C.L.A. Medical Center, referring to the limited data on pregnant women and babies that is guiding policymakers.

In March, U.C.S.F. and U.C.L.A. set up a nationwide registry of pregnant or postpartum women with suspected or confirmed Covid-19 that does not rely on overworked clinicians gathering data. Instead, the participants fill out questionnaires and are asked to release their medical records and, in some cases, bio specimens, like breast milk, blood, placenta and amniotic fluid.

"Unlike the data from the C.D.C., pregnancy is the primary inclusion criteria," said Dr. Afshar, who is a co-principal investigator of the U.C.S.F. and U.C.L.A. study.

Women can register for the study themselves, regardless of where they are getting care, rather than relying on a clinician referral, she added. So far, more than 950 women have enrolled from across the country, and about 60 percent of them have Covid-19.

U.C.S.F. has also started another large, national study for pregnant women in their first trimester called ASPIRE that will follow about 10,000 women and their babies from the start of pregnancy through delivery and up to 18 months postpartum.

This data is vital given that there are gaping holes in the health information used by the C.D.C.

In the C.D.C. study, the researchers found that pregnant women with Covid-19 were more likely to be hospitalized than nonpregnant women who had the virus, but it did not say whether the pregnant women were hospitalized because of labor and delivery, or because of complications from Covid-19. Data sets that the researchers would have needed to make that distinction "were not available," the study said.

The data on whether or not infected pregnant women were admitted to the I.C.U. or whether they required mechanical ventilation was missing for about 75 percent of the patients. Using the data that was available, the researchers determined that pregnant women with Covid-19 were more likely to be admitted to the I.C.U. than nonpregnant women (the numbers appeared to be slightly more than the percentage of pregnant women admitted in the past, when compared to data from a 2010 study). Similarly, the study found pregnant women with Covid-19 were more likely to end up on mechanical ventilators than infected nonpregnant women, though the differences were quite small.

"It's really hard scientifically to know what that means unless you have an appropriate control group," Dr. Huddleston, one of the principal investigators of the ASPIRE study, said. In other words, researchers also need a control group of pregnant women who are not infected.

Despite the caveats of the C.D.C. study, it remains a "signal" that pregnant women could be more susceptible to severe Covid-19 symptoms, Dr. Bryant said, adding, "it's not super surprising given what we know about other respiratory illnesses like flu."

Researchers in other countries have found similar signals, and, much like the C.D.C., their work contradicts previous reports that suggested pregnant women infected by the coronavirus have the same risk of severe complications as the general population.

A study of 53 women in Sweden published in July found that the risk of requiring intensive care "may be higher" in infected pregnant women, compared with nonpregnant women of similar age. However, not all the pregnant women were admitted for Covid-19 symptoms and there was no way to tell how many nonpregnant women were admitted for Covid-19 versus other conditions.

Data gathered from the U.K. Obstetric Surveillance System showed in May that 10 percent of 427 pregnant women with the coronavirus admitted to hospitals between March 1 and April 14 needed respiratory support. Three of them died from complications of Covid-19.

Racial disparities are another area of concern. Black and Latino people are disproportionately affected by the coronavirus across all age groups, and the C.D.C. data found a similar pattern, though race data was missing for 20 percent of the pregnant women in the study. About half of the women who gave birth in the U.S. last year were white but white women made up less than a quarter of the reported Covid-19 pregnancies this year, the C.D.C. study said. In contrast, less than a quarter of women who gave birth in 2019 were Hispanic, yet they made up 46 percent of Covid-19 pregnancies. Black women made up 22 percent of Covid-19 pregnancies and 15 percent of the women who gave birth in 2019.

Dr. Afshar said this is more evidence that race is "a big issue" that needs to be examined. "And more than that," she added, "we need to do something about it."

Continued social distancing can be fatiguing, but experts agree it's still critically important for pregnant women to remain vigilant about staying at least six feet away from others, wearing face coverings and washing their hands regularly — especially as states reopen.

"The best way to avoid severe Covid is really to avoid Covid altogether," Dr. Bryant said.