Maternal mortality jumped 35% during pandemic's 1st 9 months, MSU study shows

New research from Michigan State University reveals that the first nine months of the coronavirus pandemic were especially harrowing during pregnancy and the early months of motherhood: Deaths in this group were more than one-third higher than the same time period in the prior year.

The rate of pregnancy-associated death from all causes from April to December 2020 was 66.9 per 100,000 live births, up 35% from the same time frame in 2019, according to the analysis of national death certificate data published in February in JAMA Network Open.

Deaths caused by drug overdoses in pregnant and postpartum people ages 15-44 rose by 55% in that time period, homicides were up 41%, deaths by obstetric causes increased by 28%, and deaths from other causes were up by almost 57%, the study showed.

'Probably an undercount' of such deaths

"We suspect that these deaths are really just the tip of the iceberg of the morbidity and suffering for pregnant and postpartum people," said Claire Margerison, an associate professor of epidemiology and biostatistics at Michigan State, who also was the study's lead author.

For example, she said, when talking about homicides, "perhaps intimate partner violence is a huge issue beneath the surface that results in a relatively small number of deaths, thankfully, but actually is affecting a lot more people."
The researchers used death certificate data for U.S. females ages 15-44. Included in the research were those for whom a box on the death certificate had been checked indicating the person was pregnant or had been pregnant in the previous year.

"If someone dies when they're pregnant, it's more likely that that box will be checked than if they were pregnant nine or 10 months ago, especially if they die from a drug-related cause or homicide or suicide ... where it might not be as obvious that they had been pregnant in the last year.

"We assume that this is probably also an undercount of the total number of these deaths."

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**Identifying people at risk and providing resources**

Margerison and Sidra Goldman-Mellor, an associate professor at the University of California Merced, who also helped lead the study, are continuing the research.

"We are looking at other types of data to try to get a handle on other measures of this," Margerison said. "So we're looking at things like emergency department visits and, eventually, we'll try to look at data that's not just people showing up in the most extreme cases" to better understand the burden of morbidity during pregnancy and postpartum.

One of the aims of the research, she said, is to identify people who are at risk and connect them with the resources they need to survive.

"There are recommendations around screening during pregnancy and postpartum, but it's not consistently carried out," Margerison said. "Then, even if it is carried out consistently in a health care scenario, most health care providers may not have the resources to help people with these types of problems. People need to be connected to specialists, other types of community resources.”

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Study was done during 'a time of population stress'

The study found a slight reduction in suicide deaths in the first nine months of the pandemic among pregnant people and postpartum people, which is reflective of what happened in the general population at that time as well. The research didn't examine the role the coronavirus played in maternal mortality during that time frame.

"We're more thinking about the pandemic as a population-level stressor, and there were other population-level things going on at that time, like economic difficulties for people, like the rise in fentanyl ... the murder of George Floyd that happened during that same time period," Margerison said. "So we're thinking about the pandemic time period as a time of population stress, not just due to the infection and sickness from the virus."

The study found that opportunities were missed to provide screening and prevention of physical, mental and behavioral health problems.

"Our study findings suggest that there is a need for prevention and intervention efforts, including harm reduction strategies, tailored to pregnant and postpartum women, particularly during times of population stress and decreased utilization of preventive care, such as a pandemic," the study said.

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