

HEALTH

INDIGENOUS AFFAIRS

Babies born to mothers from rural Alaska areas are more likely to be preterm, study finds

A comprehensive study by UAA researchers of childbirths over two decades shows geographic disparities and numerous risk factors, some of them cumulative

BY: **YERETH ROSEN** - APRIL 14, 2025 8:25 AM

















⚠ A mother with her newborn baby in the hospital. Mothers from northern and Western Alaska are more likely than other Alaska mothers to give birth preterm, and the travel that many rural Alaska women undertake for prenatal care and childbirth is one of the contributing factors, a UAA study has found. (Photo by Thanasis Zovoilis/Getty Images)

Mothers in Alaska's northern and western regions are more likely than other Alaska mothers to give birth to preterm and underweight babies, and their travel from rural Alaska to get care in bigger communities is a factor that contributes to those outcomes, a new study has found. The study, by researchers at the University of Alaska Anchorage, analyzes the more than 218,000 childbirths recorded in the state from 2000 to 2020. It revealed striking geographic disparities in the rates of preterm and very preterm births, defined respectively as births before 37 and 32 weeks' gestation, as well as the cases of low birth weight.

Preterm births are associated with numerous health problems, including breathing and heart problems, long-term complications like cerebral palsy and higher rates of sudden infant death syndrome, according to the Mayo Clinic.

The factors that are associated with adverse childbirth impacts are numerous, the UAA study found. They include tobacco use during pregnancy, mothers' pre-pregnancy diabetes or hypertension, mothers' ages and a lack of adequate prenatal care.

For many women, the factors associated with adverse impacts are cumulative, said study co-author Micah Hahn, an epidemiologist at UAA's Institute of Circumpolar Health.

"It's kind of like a constellation of things that contribute to preterm birth," Hahn said.

One important factor for Alaska newborns is their mothers' need to leave home, the study found.

Nearly 40% of babies born during the two-decade period had mothers who traveled outside of their home communities for childbirth, the study found. That travel is itself a stressor, the study said.

Routine prenatal care for rural Alaska women can also require travel, making such care more difficult to obtain prior to childbirth.

For rural Alaska women, where communities are predominantly Alaska Native, "it takes so much more effort to go to prenatal care," Hahn said.

Beyond the travel itself, which can be expensive, the women need child care and supportive partners, family members or friends to take on various duties, she said. Those women need extra time as well, she added. In contrast to her experience as an expectant mother in Anchorage, driving a couple of miles to her doctor's office, women flying in from rural Alaska can take two or three days to get their appointments, she said.

Often, the factors associated with adverse birth outcomes overlap, the study found.

Rural women with more high-risk pregnancies may be directed to travel to cities or hub communities to give birth, while women with low-risk pregnancies may be able to stay home. But travel and the prolonged stays in settings that might be unfamiliar add complications to pregnancies that already may be of higher risk, it said.

"If a mother travels to a service hub for prenatal care or delivery, they will incur costs for flights, accommodation, food, and missed work, which may not be covered by insurance," the study said "They may need to have difficult conversations about whether their partner will travel with them or stay at home to work and care for other children. These stressors are compounded by a lack of social support and living in an unfamiliar place."

Improvements, policy ideas and further study

There is good news revealed in the study.

Rates of prenatal care for Alaska Native women have increased in recent years, the study found. By 2020, about 40% of pregnant Native women get at least 11 prenatal visits, a substantial increase from the 2005-2010 period, the study found. In comparison, more than half of pregnant white women had at least 11 prenatal visits in 2020.

"You can see that one good news story is that in Alaska we are closing the gap on prenatal care utilization by race," Hahn said.

And while babies born to mothers from northern and Western Alaska are more likely to have adverse outcomes than the state average, the rates for those rural women are not worse than the national rate, she pointed out.

About 1 in 10 babies in the United States are born preterm, the study notes. That is about the same as the rates the study found for babies born to northern and Western Alaska women.

Hahn said the study can guide health policies in the state to help women and their babies.

Tobacco-cessation programs can be useful, she said. So could anything that reduces pregnant women's need for travel or makes travel, when it is necessary, easier and more comfortable.

Telehealth could be used for some prenatal care for rural women, though certain visits would still have to be conducted in person, Hahn said.

A bill pending in the Alaska Legislature, Senate Bill 83, is aimed at making telehealth more available. It would require that insurers fully reimburse health providers for telehealth services.

Other ways to reduce risks of adverse birth outcomes involve holistic approaches that consider rural and Alaska Native needs and cultures, Hahn said.

One organization that has been helpful to that end, she said, is the Alaska Native Birthworkers Community, a network of Indigenous midwives, doulas, breastfeeding consultants and other health experts. The community provides prenatal and postpartum support and education.

Not considered in this new study are environmental factors that may affect birth outcomes.

Those will be addressed in a different study by Hahn and her research partners that is expected to be published later in the year. They are examining the impacts of wildfire smoke on childbirth outcomes.

Wildfire smoke is a well-known health hazard. It has already been shown to increase risks of preterm birth elsewhere, in California and Brazil, for example.

In Alaska, climate change is causing wildfire seasons to become longer and more intense, and wildfire smoke problems in Alaska communities have increased over time, according to University of Alaska Fairbanks researchers.

In Fairbanks, for example, smoke-free summers were common prior to 2000, but those have occurred only twice since then, according to a new report led by UAF's Alaska Fire Science Consortium.

According to the report, titled Alaska's Changing Wildfire Environment 2.0, Fairbanks for the first time had three consecutive summers, from 2022 to 2024, with at least 100 hours of smoke that was thick enough to degrade air quality.

Hahn said wildfire smoke is not just a Fairbanks or Interior Alaska problem. "Even if that's where the wildfires are, smoke is affecting most of Alaska during the really bad years," she said.



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