Many women with diabetes and high blood pressure during pregnancy did not receive appropriate postpartum care to reduce their future risk of cardiovascular disease, a study at one health system has found.
"Many patients I see were not aware that (one of these pregnancy complications) was a risk factor for developing cardiovascular disease even after their pregnancy ends," said the study's senior author Dr. Courtney Jordan Baechler, a cardiologist and medical director for Health Equity and Health Promotion at the Minneapolis Heart Institute Foundation. "It's important to get appropriate risk reduction during and after pregnancy."

The American College of Obstetricians and Gynecologists says new mothers should see their OB-GYN several times during the 12 weeks after giving birth—the so-called fourth trimester. The first health checkup should happen within three weeks of childbirth, or within three to 10 days for women who had high blood pressure, or hypertension, during pregnancy.

The new study, published Monday in the journal Circulation: Cardiovascular Quality and Outcomes, included 13,218 deliveries in 2021 at Allina Health hospitals in Minnesota and western Wisconsin. More than 1 in 7—or 2,029 women—had been diagnosed with gestational hypertension; gestational diabetes, when blood sugar levels get too high during pregnancy; and/or preeclampsia, a condition that causes high blood pressure and can affect all the organs.

The study found that 64% of women overall saw an OB-GYN at least once within six months of delivery. But only 29% of those who had gestational diabetes received blood glucose screening, and about 1 in 4 of them still had elevated blood glucose. Yet only 11% were prescribed medications and 21% were referred to a cardiologist, primary care provider, dietitian or lifestyle behavior change program.

Among women who had gestational hypertension, most—90%—had their blood pressure measured at a postpartum visit. More than a third still had elevated blood pressure, half of whom were prescribed
medications and 8% received a referral.

Most women with preeclampsia had their blood pressure measured postpartum, and it was still elevated in 41% of them. But not all received prescriptions, and few received a referral.

"Our study found that many women who developed these risk factors did not have evidence-based follow-up to adequately reduce their long-term risk," said Jordan Baechler, who pointed out that American Indian and Black women as well as women insured by Medicaid were disproportionately affected.

What experts hope will help close that gap is a new option for states to extend Medicaid postpartum coverage from 60 days to 12 months. The new option took effect in April 2022, and so far 41 states have implemented extended coverage and another five states plan to do so.

Because the new study looked at one Midwest health system and because "Minnesota is known to have some of the best cardiovascular outcomes and health care in the country," the lack of evidence-based follow-up care could be worse in other parts of the country, Jordan Baechler said.

Dr. Cornelia Graves, a maternal fetal medicine specialist who was not involved in the study, said the results are not surprising.

"Pregnancy has long been looked at as an isolated incident in a woman's life cycle, and postpartum follow-up has been used more as a check-in for birth control and for permission to return to normal activities," said Graves, the medical director of Tennessee Maternal Fetal Medicine in Nashville and co-director of the Perinatal Cardiac Center at Ascension Saint Thomas. "There is an urgent need to increase awareness of the need for long-term follow-up in patients with pregnancy complications. This education should not only be targeted at providers but also to
patients to improve health equity."

Cardiovascular disease is the leading cause of maternal death in the U.S. and is responsible for more than a third of all pregnancy-related deaths, the study notes. Rates of pregnancy-related complications have been climbing, with Black women disproportionately affected, according to a recent AHA scientific statement. Such complications have been shown to increase the risk for cardiovascular disease later in life for mother and child.

While the statistics are alarming, the first step is awareness followed by systemic change, Jordan Baechler said. "Providers and health care leaders need to identify the barriers to completing postpartum visits and work with women and their families to improve access to care."

For example, she said, health care systems should offer appointments at various times of day and at convenient locations.

"The goal is to support women, many of whom are balancing young children, careers, suboptimal insurance coverage, health care distrust, lack of transportation and other known social barriers of heart health and care access," Jordan Baechler said.

**More information:** Delaine Teabout Thomas et al, Fourth Trimester: Assessing Women's Health Equity and Long-Term Cardiovascular Outcomes in a Large Midwestern Health System in 2021, *Circulation: Cardiovascular Quality and Outcomes* (2023). [DOI: 10.1161/CIRCOUTCOMES.123.010157](https://doi.org/10.1161/CIRCOUTCOMES.123.010157)

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