



WHITE PAPER

how digital health can close care gaps to improve birth equity

Executive Summary

Giving birth in the U.S. can be dangerous, especially if you are Black, American Indian (AI), or Alaska Native (AN). In fact, Black, AI, and AN women are three to four times more likely to die from pregnancy-related complications compared to their white counterparts¹ — and the problem is only getting worse. The maternal death rate for Black women rose from 44 per 100,000 live births in 2019 to 69 in 2021.²

Given the urgency of the crisis, the U.S. Department of Health and Human Services (HHS), posed the HHS Racial Equity in Postpartum Care Challenge. Entrants were asked to submit innovative solutions to improve postpartum outcomes for Black, AI, and AN women beneficiaries of either Medicaid or the Children's Healthcare Insurance Program (CHIP.) These individuals often experience the worst maternal and child health outcomes due to various structural and societal barriers. HHS was especially interested in follow-up care for conditions highly associated with morbidity and mortality, including diabetes, perinatal mood disorders (PMAD) such as postpartum depression (PPD), hypertension, and substance use disorders.

To meet this challenge, Ovia Health submitted an entry highlighting how Ovia's digital health solutions enable frequent PMAD screening in the postpartum period and encourage increased attendance at the six-week postpartum healthcare visit. Ovia's analysis showed that Black, AI, and AN women beneficiaries of Medicaid and/or CHIP who use Ovia's digital tools are more likely to be screened for PMAD's and to report attending their six-week postpartum visit after giving birth.

HHS selected Ovia as a Phase 1 Winner of the Challenge, a recognition that comes with \$40,000 to continue Ovia's progress toward birth and health equity.

As Ovia's Chief Medical Officer, Dr. Leslie Saltzman, explains, "Black, AI, and AN women have some of the lowest six-week postpartum visit rates due to various structural barriers, so by participating in the HHS Racial Equity in Postpartum Care Challenge, we hope to bring attention to the disparities of this vulnerable population and get them the care they need and deserve."



Black, AI, and AN women are three to four times more likely to die from pregnancy-related complications compared to their white counterparts

Why gaps in postpartum visits and mental health screenings matter

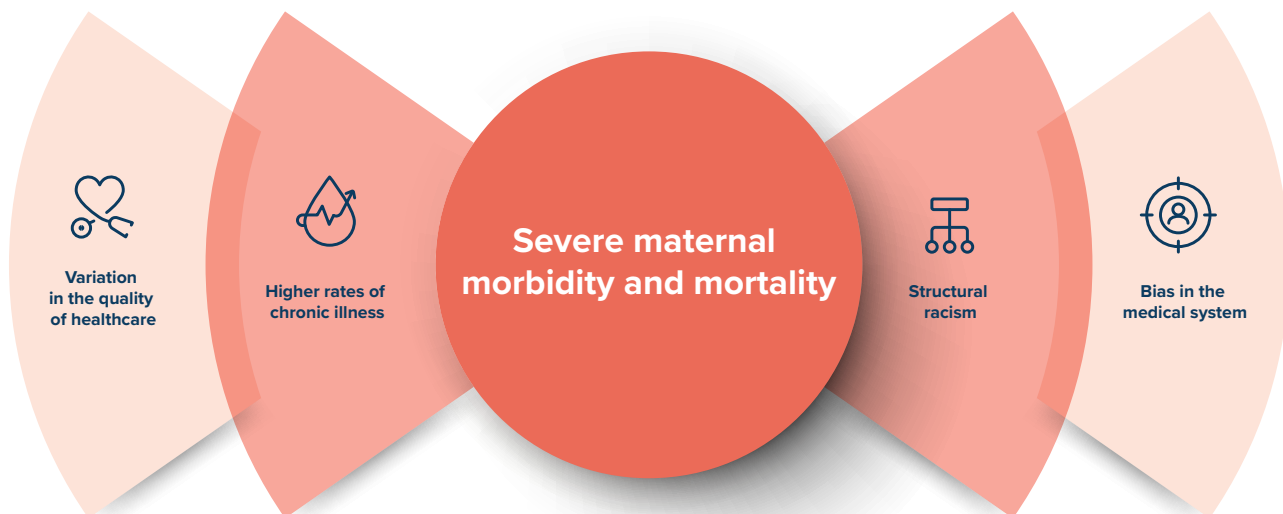
There's no single factor that accounts for the alarming disparities in birth outcomes for Black, AI, and AN women in the U.S. But key issues include variation in the quality of healthcare, higher rates of chronic illness, structural racism, and implicit bias in the medical system,³ so solutions need to take these challenges into account. Additionally, in the U.S., Medicaid covers 42 percent of all births,⁴ including nearly two-thirds of births among Black, AI, and AN women,⁵ so a solution needs to be useful and accessible to these populations. With these factors in mind, Ovia focused its HHS submission on the six-week postpartum healthcare visit and perinatal mood disorder (PMAD) screenings.

The six-week postpartum visit, based on standards set by the American College of Obstetricians and Gynecologists (ACOG), is critical. It provides a comprehensive check of a patient's physical and emotional wellbeing, helping patients catch health issues early and transition from pregnancy care to care for chronic illnesses or PMADs. It's the shift from pregnancy care to care for a mother's long-term health.⁶

But the reality is that six weeks after delivery, mothers and birthing parents may be absorbed in the massive life changes of having a new baby, and many aren't able to prioritize their own health due to juggling numerous demands — return to work, expensive childcare, and reconfiguring a family structure, to name a few. Nationally, only about 60 percent of women attend their postpartum visits, and rates are even lower for beneficiaries of Medicaid or CHIP.⁷ By increasing the rate of attendance at six-week postpartum visits, we can connect more people to the care they need to prevent or treat adverse health outcomes after birth.

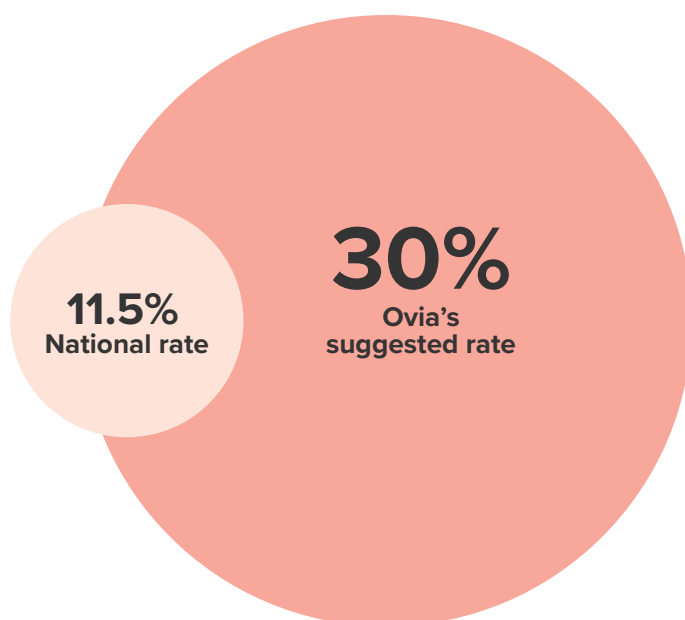
Screening for PMADs should happen at the six-week appointment, per ACOG recommendations. But we know that many miss this appointment. And even when they do attend, they may not get a mental health screening. One study found that only half of providers ask their patients about PMAD symptoms at the six-week visit.⁸ Further, even though the risk of having a PMAD is higher among racial and ethnic minorities, these groups are even less likely to be screened for PMADs, and less likely to receive mental health support.⁹ Studies also show that Medicaid beneficiaries are less likely to be screened.¹⁰

Alarming disparities in birth outcomes for Black, AI, and AN women in the U.S.



The problem isn't just that postpartum women don't always get a PMAD screening — the protocol of a single screening may be insufficient. In the U.S., the national diagnosis rate for PMADs is 11.5 percent, but Ovia's research suggests that the true rate of PMADs is as high as 30 percent.¹¹ It's clear that cases of postpartum depression, anxiety, OCD, and psychosis are being missed — and timing may be a factor. In a study of over 160,000 Ovia members, we found a notable increase in PMAD mental health screener scores three to twelve months postpartum, which extends beyond the typical six-week screening window. People are likely falling through the cracks when their symptoms appear later.¹² The American Academy of Pediatrics recently amended their infant well-child visits to add in additional PMAD screening, but adherence to this guideline is spotty given restricted patient interaction time and focus on the child, not the parent. Given missed and insufficient screenings, we have an opportunity to close gaps in mental health condition identification by offering more frequent PMAD testing beyond the clinical setting.

Diagnosis rate for PMADs



Notable increase in PMAD mental health screener scores three to twelve months postpartum

How Ovia closes the gaps

Ovia removes cost barriers to reproductive education and helps mothers and parents understand the care they need so they can take control of their own health journeys. We do this by giving all members evidence-based clinical content tailored to their specific needs and risks, and by providing members with simple, convenient tools to track their health before, during, and after pregnancy.

In the case of PMADs, Ovia's digital health solutions can act as a safety net for those whose providers or circumstances don't deliver frequent mental health screenings. Members are delivered the universally validated Edinburgh Postnatal Depression Scale (EPDS) while using the Ovia Pregnancy and Ovia Parenting apps. Members are prompted to take the EPDS during the first and third trimesters of pregnancy, and at least twice within the first six months after birth.

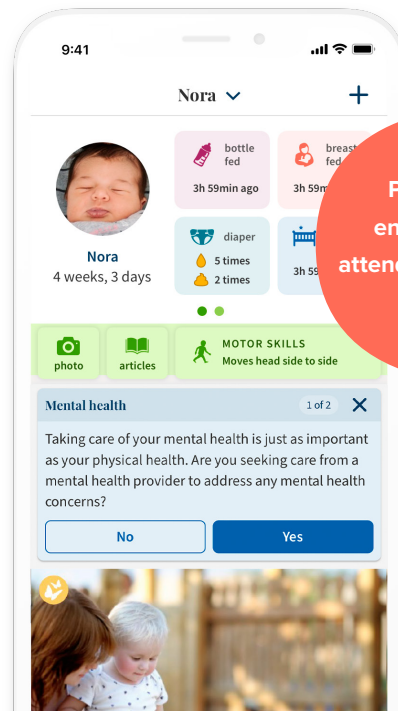
The EPDS is the same validated tool that providers use in a clinical setting, but Ovia members take the screener via their own smartphones. This allows them to screen more often, regardless of whether their doctors provide it, and even if they miss a healthcare visit. There's another benefit to answering questions at home through an app. Studies suggest that members may under-report depression symptoms in a setting where they feel uncomfortable or discriminated against — such as a doctor's office.¹³ By screening at home, members may report their symptoms more accurately.

When members take the EPDS through Ovia's solution, we offer them vital recommendations quickly. They receive an interpretation of their score right away, and when the score is high — indicative of a potential PMAD — they receive a recommendation to contact their provider for care.

In addition to PMAD screenings, the Ovia app uses education and push notifications to encourage members to attend a six-week postpartum healthcare visit. During the third trimester, the Ovia Pregnancy app automatically provides information about what to expect at the appointment and

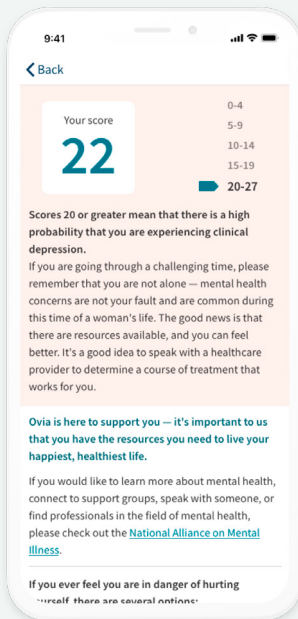
important questions to ask the provider. This information is shared again as soon as a member downloads the Ovia Parenting app.

By communicating early and often about the value of the six-week postpartum appointment, Ovia educates the member of the importance of attending this appointment, reminds the member of the upcoming appointment, and normalizes postpartum care, which ultimately increases the likelihood of attendance.

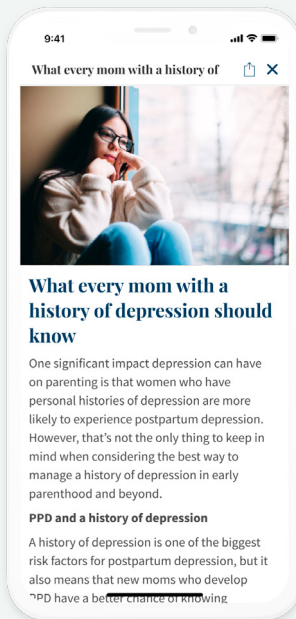


Ovia's algorithms, health programming, & experts at work

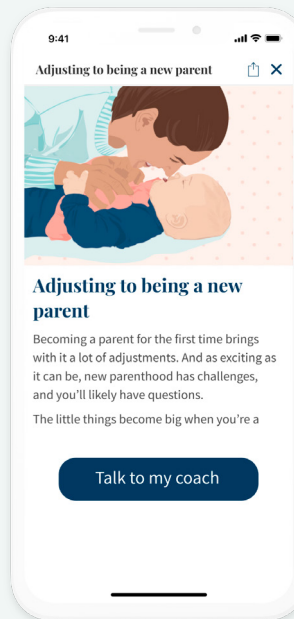
Risk stratification PHQ-9 & EPDS delivery



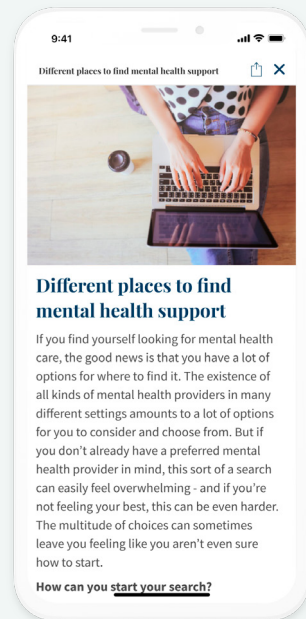
Clinical education to inform & destigmatize



Unlimited access to coaching (LICSW & PsyD)



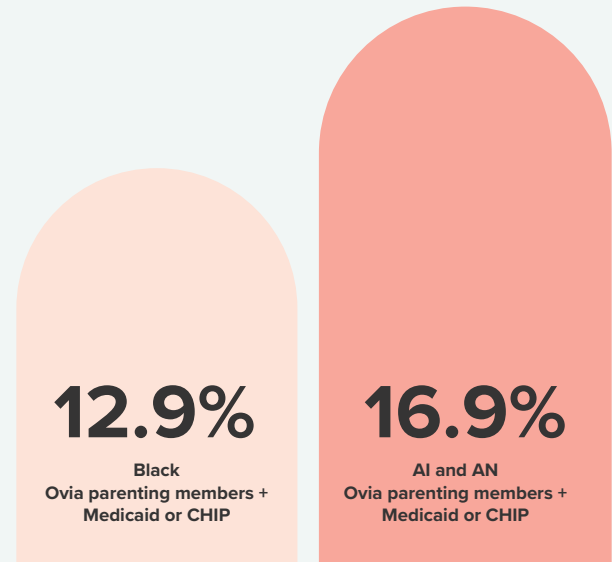
Digital interventions & timely navigation to the Health Plan



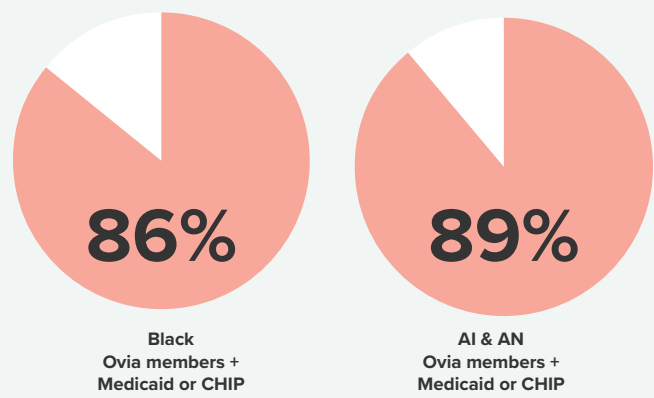
Ovia's HHS study findings

For the HHS Challenge, Ovia investigated the impact of our solutions on PMAD screenings and postpartum visit attendance among Black, AI, and AN beneficiaries of Medicaid or CHIP between June 1, 2021 and December 31, 2021. The analysis included almost 3,000 Ovia members, and the data collected included race/ethnicity, insurance status, EPDS completion, and postpartum visit attendance. We found that:

- The EPDS completion rate for Black Ovia Parenting members enrolled in Medicaid or CHIP was 12.9 percent — notably higher than the mental health care initiation rate of 4 percent for Black women with Medicaid.¹⁴ In fact, Black members of Ovia Parenting who were beneficiaries of Medicaid had the highest EPDS completion rate among all Black Ovia Parenting members, regardless of insurance status.
- The EPDS completion rate for AI and AN Parenting members enrolled in Medicaid or CHIP was 16.9 percent — 67 percent higher than privately insured AI and AN Ovia Parenting members.
- Postpartum visit rates were 86 percent among Black Ovia members enrolled in Medicaid or CHIP and 89 percent for AI and AN Ovia members enrolled in Medicaid or CHIP. Both groups had significantly higher attendance than the national average of about 60 percent.



EPDS completion rate



Postpartum visit rate

Our results demonstrate the Ovia solutions' efficacy in engaging Black, AI, and AN beneficiaries of Medicaid or CHIP to help close healthcare gaps. Through validated mental health screeners, we connect more mothers and birthing parents to the mental health support they need. And by reaching members early about the importance of postpartum care, we increase their attendance at the six-week postpartum appointment and allow them to arrive at their medical visits well informed and ready to advocate for their care.

By choosing Ovia as Phase 1 Challenge winner, HHS recognized our work empowering vulnerable populations and improving maternal health outcomes. In response, we invested the award funds toward making perinatal mental health screeners available to members through the Ovia apps. Now, members can access these mental health screeners at any time in the Ovia solutions, access historical scores, and retake the screener as frequently as every two weeks to assess their mental health on an ongoing basis.

Ovia closes care gaps to make birth and parenting safer. Ovia's solutions also create real, tangible benefits for employers and payers.

To learn more about Ovia's comprehensive women's and family health programs, including 1:1 coaching, physician-developed clinical programs, and personalized health and wellness education, visit www.oviahealth.com.

1. Clinical Obstetrics and Gynecology: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5915910/>
2. U.S. Government Accountability Office (GAO): <https://www.gao.gov/products/gao-23-105871>
3. Clinical Obstetrics and Gynecology: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5915910/>
4. March of Dimes: <https://www.marchofdimes.org/peristats/data?reg=99&top=11&stop=154&lev=1&slev=1&obj=18>
5. March of Dimes: <https://www.marchofdimes.org/peristats/data?reg=99&top=11&stop=653&lev=1&slev=1&obj=1>
6. The American College of Obstetricians and Gynecologists (ACOG): <https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/05/optimizing-postpartum-care>
7. American College of Obstetricians and Gynecologists (ACOG): <https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/05/optimizing-postpartum-care>
8. Centers for Disease Control and Prevention (CDC): <https://www.cdc.gov/mmwr/volumes/69/wr/mm6919a2.htm>
9. National Alliance on Mental Illness: <https://www.nami.org/Blogs/NAMI-Blog/July-2021/Addressing-the-Increased-Risk-of-Postpartum-Depression-for-Black-Women>
10. Archives of Women's Mental Health: <https://pubmed.ncbi.nlm.nih.gov/33855652/>
11. Bradley et al., 2020. Risk of perinatal depression among women screened within a mobile application. The International Marce Society for Perinatal Mental Health conference.
12. Bradley D, et al. 2019. Risk of perinatal depression among women screened within a mobile application. Presented at the American Psychiatric Association annual conference.
13. Journal of Personality Assessment: <https://pubmed.ncbi.nlm.nih.gov/12584064/>
14. Psychiatric Services: https://doi.org/10.1176/ps.62.6.pss6206_0619