

# Kaiser Permanente Research Roundup: Research Summaries for Policy Leaders

## Promoting better, more equitable maternal health outcomes

[A Cocoon Pregnancy Care Model to Reduce Maternal Morbidity and Mortality \(nejm.org\)](#) / *New England Journal of Medicine* / Forna, et al. / January 18, 2023



Pregnancy-related deaths have doubled in the past 2 decades in the United States, and current rates are the highest among high-income countries.<sup>1</sup> Women of color are disproportionately impacted, particularly Black women, with nearly 3 times the death rate of white women.<sup>2</sup> Many factors place Black women at greater risk for health problems during pregnancy, including higher rates of heart disease and diabetes, reduced access to high-quality health care, socioeconomic and psychosocial challenges, and racism and discrimination.<sup>3,4</sup> Yet more than 80% of maternal deaths are considered preventable, if risk factors are identified and addressed early.<sup>5</sup>

Policymakers at the federal and state levels are seeking ways to reduce high maternal mortality rates. A recent article in the *New England Journal of Medicine* highlights an integrated, multidisciplinary Cocoon Pregnancy Care Model (CPCM) developed by Kaiser Permanente physician leaders. This approach transforms the way care teams provide obstetric care for patients, and addresses questions of interest to policy audiences:

1. **What services, screenings, and outcome measures** could reduce maternal mortality and maternal health inequities?
2. How could clinical leaders **identify and use novel care models, technology, and interventions** to improve maternal access to

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care, screenings, and support for diabetes, high blood pressure, and other health needs?

## The Cocoon Pregnancy Care Model

Kaiser Permanente funded research to develop a multispecialty, patient-centered approach to ensure that patients receive the highest quality of care before, during, and after pregnancy. The “cocoon” concept places the pregnant woman at the center of a protective layer of a coordinated care team and services to optimize their health, enhance their care experience, and achieve the best possible outcomes.

Highly trained physicians, nurses, midwives, dietitians, social workers, and case managers provide high-quality, evidence-based, coordinated care informed by data and analytic systems. The team works closely with their patients to regularly monitor measures like blood pressure and blood glucose levels that enable early control of health risks such as high blood pressure and diabetes. The team uses an evidence-based guide on managing obstetric conditions and is trained to provide care without bias to address racial and ethnic disparities.

Care team members ensure that patients can reach them with any questions or concerns via secure messaging and a 24/7 call center, and they make care easily accessible through telehealth and virtual care options. The team also provides lactation support, expanded psychosocial and depression screening, counseling, linkages to community resources, and help accessing paid maternity/family leave benefits.

### Key findings:

- Remote Patient Monitoring (RPM) for high-risk conditions helped improve monitoring of blood pressure and blood glucose levels.

This is important since the Kaiser Permanente obstetric database identified that about 40% of its patients had one of these conditions.

- In November 2019, **57 to 76% of patients in the program were taking and transmitting their blood pressure daily** through remote monitoring. By early 2022, **96% to 98% of patients were taking and transmitting their blood pressure daily**, allowing early management of hypertension when needed.
- In October 2020, **73% to 88% of patients in the program were taking and transmitting their blood glucose values daily** through remote monitoring. By early 2022, **93% to 96% were transmitting their blood glucose values daily**, resulting in easier management of blood glucose levels to address preexisting or gestational diabetes.
- Both patients and their care teams found the program beneficial.
  - **97% of patients in the program rated the program highly**, and **94% said they would recommend the program** to family or friends.



- **81% of clinicians** participating in the program reported that the remote monitoring programs **improved safety and quality of care**, and **81% of participating clinicians** said that the program provided **an efficient way to manage patients' medical conditions**.

This study suggests that a multidisciplinary, patient-centered program like the CPCM can improve pregnant women's health, reducing the risk of maternal health problems or death. The integration of program elements supports these outcomes by making sure that women have access to essential layers of care and services.

## Policy Opportunities

No single study can suggest the full range of policy needs and opportunities. Based on existing research and internal discussions among Kaiser Permanente maternal health leaders, we recommend several avenues for improving maternal health outcomes:

- **Improve access to comprehensive health insurance coverage at both the federal and state level:** To receive high-quality care, such as the CPCM, women must be able to easily access care. Policymakers should support the extension of Medicaid and CHIP coverage to 12 months postpartum and streamline enrollment and eligibility verification. They should also expand Medicaid and commercial subsidies to everyone that meets eligibility criteria, regardless of immigration status.
- **Improve quality and systems of care:** Support demonstration projects to evaluate the impact of virtual care modalities (telephone or video visits) on reducing health disparities in prenatal and postpartum care. Include remote monitoring programs that promote early and regular prenatal care and help identify and manage risk factors.

- **Support research, education, and training:** Invest in culturally responsive programs, initiatives, and demonstration projects that improve public awareness of common pregnancy complications and provide implicit bias trainings for health care providers and staff to reduce care inequities. Explore increased use of paraprofessionals, such as patient navigators and community health workers, to improve care and outcomes.
- **Support access to evidence-based telehealth services and virtual care, to make access convenient and easy:** Support expanded access to telehealth and remote monitoring services, through telehealth coverage policies, expansion of broadband service to unserved and underserved areas, and subsidized internet and device access for patients with low incomes.
- **Support policies that enable payers and providers to address unmet social needs** that profoundly affect patients' health, including [food insecurity and poor nutrition](#), [housing](#), and [environmental hazards](#).



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