

A Case-Based Educational Module that Promotes Screening for Urgent Maternal Health Warning Signs and Health Equity

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Introduction

Maternal mortality rates in many countries have declined over the past two decades due to healthier living conditions, improved maternity services, safer surgical procedures and access to medicines. In the setting of these clinical practice advances, giving birth in the United States is relatively safe, but in comparison to other high-resource nations there is a critical need to improve healthcare for birthing people and urgently address disparities.¹

Maternal Deaths per 100,000 Live Births

US- Black	49.5
United States	22.3
US- White	19
Chile	14.3
Canada	8.4
France	7.6
UK	5.5
Japan	3.4
Netherlands	2.8
Sweden	2.6

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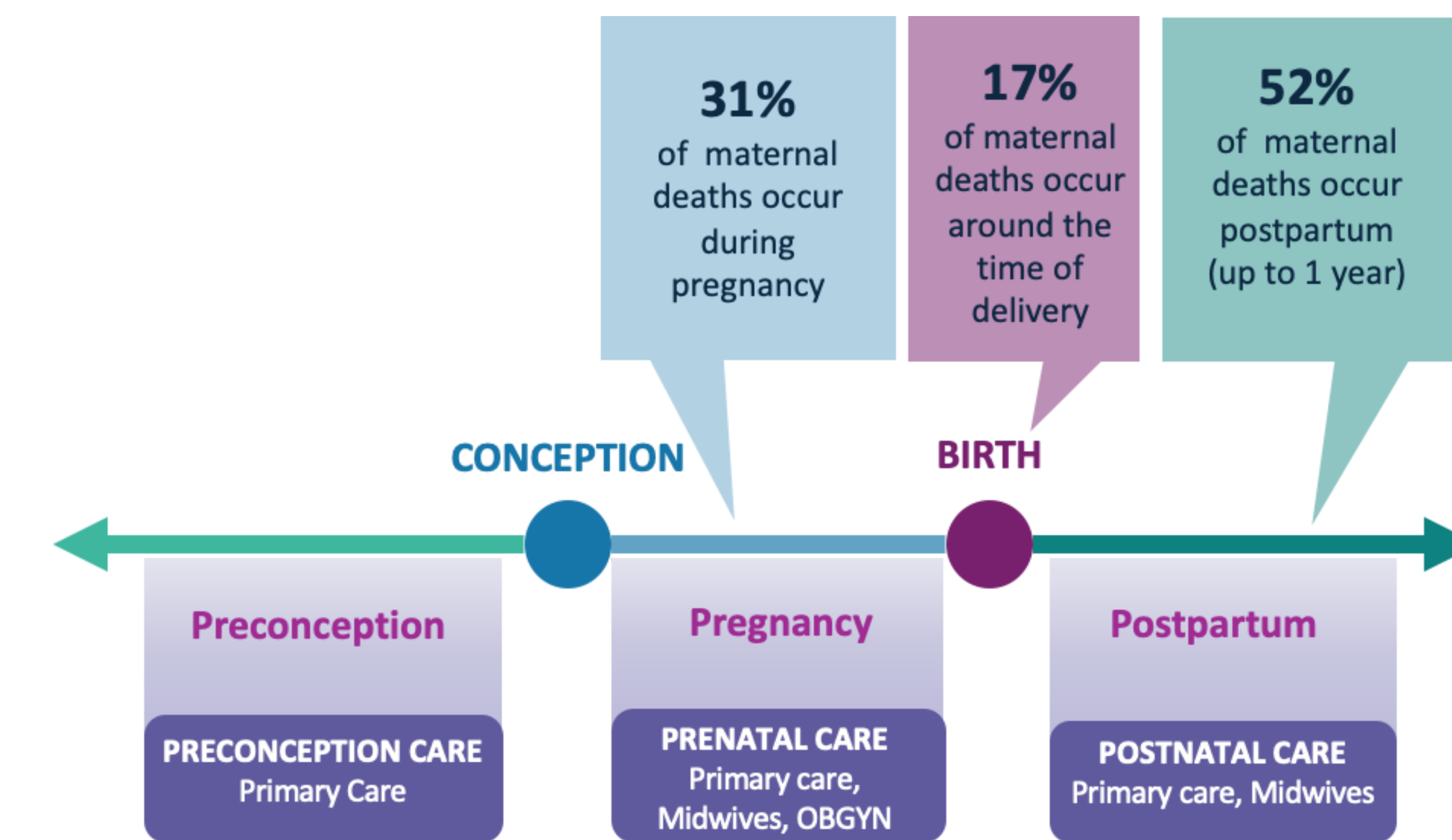
Adapted from: Insights into the U.S. Maternal Mortality Crisis: An International Comparison

- U.S. pregnancy-related mortality has more than doubled over the last 30 years²
- The mortality ratio spiked during the Covid-19 pandemic, while it has decreased from the pandemic high in 2021 it has yet to return to the pre-pandemic ratio²
- More than 60,000 women experience severe maternal morbidity each year³
- 676 pregnancy-related deaths were reported in 2023²
- Over 80% of pregnancy-related deaths are preventable⁴
- Significant racial disparities in maternal mortality exist, with Black birthing people 3 times more likely to die than their White counterparts, this disparity persists when controlling for income and education^{2,5}

Data and recommendations from Maternal Mortality Review Committees across the U.S. have identified delayed recognition and treatment as major contributors to preventable deaths highlighting an urgent need for interventions that address provider-level knowledge gaps.⁴

Methods and Future Direction

This project aims to develop and evaluate an educational module on urgent maternal warning signs for primary care providers. To date, we have created a digital module informed by a survey of over 110 family medicine healthcare providers, published literature and practice guidelines with plans to conduct a focus group with primary care physicians and residents to evaluate its effectiveness in improving awareness of warning signs. By targeting provider education, this project seeks to strengthen early recognition and timely intervention in health complications during the pregnancy and postpartum periods.



Adapted from: Maternal Mortality in the United States: A Primer

- Half of all pregnancy-related deaths occur after the day of birth⁶
- Efforts to reduce maternal mortality emphasize areas of care where primary care providers, particularly in family medicine and pediatrics, have a significant impact⁶:
 - Early identification of high-risk pregnancies
 - Assisting pregnant people with health insurance coverage
 - Continuity of care after childbirth
 - Well-child visits - many new parents prioritize baby's health over their own

These interactions can serve as critical points of contact between the health system and new parents throughout the care continuum. Improving provider knowledge of urgent maternal health warning signs has the potential to reduce preventable maternal morbidity and mortality, narrow disparities, and enhance outcomes for birthing people across the U.S.

What Can We Do To Improve Maternal Health Outcomes?

Accurate and timely identification and treatment of urgent maternal health warning signs

- If a pregnant or postpartum patient is experiencing any of these signs or symptoms it may indicate a serious life-threatening pregnancy-related complication
 - Postpartum – up to 1 year following pregnancy
- It is critical to be able to be able to identify these signs and symptoms and assist patients in seeking immediate medical care



Urgent Maternal Warning Signs Educational Materials – CDC HEAR HER Campaign

Urgent Maternal Health Warning Signs



Vision Changes

- Patient reports flashes of light, bright or blind spots or a period of total vision loss
- Blurred vision, difficulty focusing or double vision



Fever of 100.4°F (38°C) or higher



Extreme swelling of hands or face

- Swelling of hands that interferes with bending fingers or wearing jewelry
- Swelling of face, periorbital edema
- Swelling and or loss of sensation in mouth or lips
- **How this differs from typical pregnancy:** Swelling is persistent and does not resolve with rest, may be accompanied by the following abnormal vital signs BP >160/>100

Sources



Acknowledgement

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