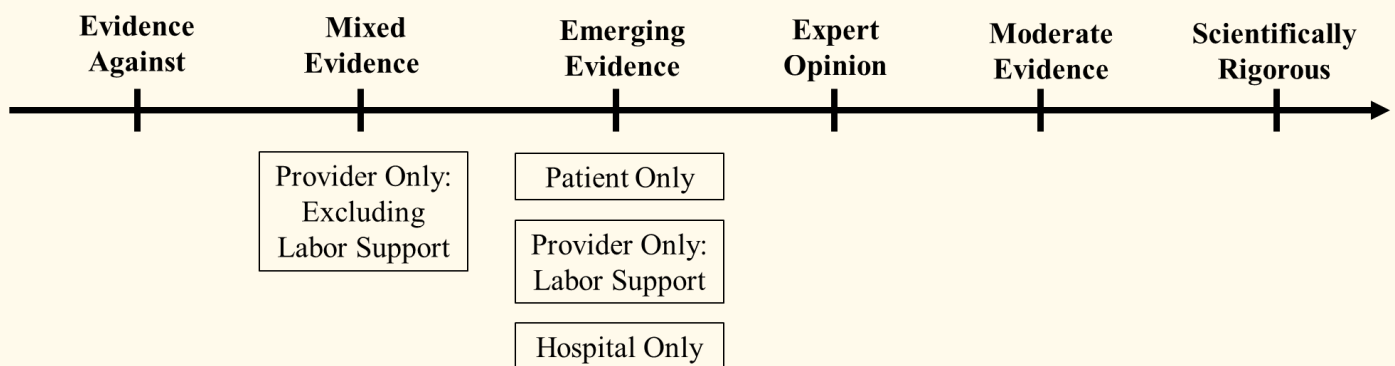


Strengthen the Evidence Base for Maternal and Child Health Programs

NPM 2: Low-Risk Cesarean Deliveries

Reduction of low-risk primary cesarean deliveries is one of fifteen Maternal and Child Health National Performance Measures (NPMs) for the State Title V Block Grant Program. The goal of NPM 2 is to decrease the proportion of cesarean deliveries among low-risk first-time mothers. Reduction of low-risk primary cesarean delivery is an important public health issue because it has implications for maternal and neonatal morbidity and mortality. This brief identifies evidence-informed strategies for State Title V programs to consider for addressing NPM 2.

The evidence review categorized reduction of low-risk primary cesarean delivery interventions along an evidence continuum from *Evidence Against* (least favorable) to *Scientifically Rigorous* (most favorable). Strategies that are characterized by *Emerging Evidence* or more favorable ratings are considered evidence-informed. *Emerging Evidence* was identified for interventions implemented at the hospital-only and patient-only levels, as well as the specific provider-only intervention of labor support. *Mixed Evidence* was found for the broader category of provider-only interventions excluding labor support.



This review was conducted as part of Strengthen the Evidence Base for Maternal and Child Health Programs, a Health Resources and Services Administration-funded initiative that aims to support states in their development and implementation of strategies to promote the health and well-being of MCH populations in the United States. The remainder of the brief summarizes the approach to the review. The full review may be found at <http://semch.org/evidence-reviews.html>.

The national cesarean delivery rate rose nearly 60% between 1996 and 2009.¹ In 2009, when the cesarean delivery rate reached an all-time high of 33%, reduction of low-risk primary cesareans was included as one of The Joint Commission’s National Quality Core Measures for hospitals.^{2,3} Recognizing the role of the clinical setting in this trend, the American College of Obstetricians and Gynecologists and the Society for Maternal-Fetal Medicine issued a joint obstetric care consensus statement providing clinical recommendations for safe prevention of primary cesarean delivery.⁴ Although the cesarean delivery rate among low-risk women declined in 37 states between 2009 and 2015, the national rate among low-risk women remains above 25%.⁵

METHODS & RESULTS

Peer-reviewed studies were identified by searching three online databases. Thirty-four studies that evaluated the effectiveness of interventions aimed at decreasing the rate of cesarean deliveries among low-risk first-time mothers were included. Studies were categorized into eight groups: “Patient Only,” “Provider Only: Labor Support,” “Provider Only: Excluding Labor Support,” “Hospital Only,” “Patient + Provider,” “Provider + Population-Based Systems,” “Hospital + Population-Based Systems,” and “Provider + Hospital + Population-Based Systems.” Examples of each type of intervention and its evidence rating are shown below.

Intervention Category	Example	Evidence Rating
Patient Only	Childbirth education classes	Emerging Evidence
Provider Only: Labor Support	Supportive care from trained doulas	Emerging Evidence
Provider Only: Excluding Labor Support	Active management of labor	Mixed Evidence
Hospital Only	Chart audit and feedback	Emerging Evidence
Patient + Provider	Childbirth education classes + Active management of labor	—
Provider + Population-Based Systems	Active management of labor + National guidelines	—
Hospital + Population-Based Systems	Chart audit and feedback + National guidelines	—
Provider + Hospital + Population-Based Systems	Active management of labor + Chart audit and feedback + National guidelines	—

— indicates insufficient number of studies to assign evidence rating

Interventions identified from peer-reviewed literature were placed along an evidence continuum to reflect whether they were: *Evidence Against*, *Mixed Evidence*, *Emerging Evidence*, *Expert Opinion*, *Moderate Evidence*, or *Scientifically Rigorous*. Specific criteria for both study type and study results informed the designation of the level of evidence for each intervention. Intervention categories with fewer than four studies were not placed on the continuum.

KEY FINDINGS

- Interventions implemented at the patient only (e.g., childbirth education classes) and hospital only (e.g., chart audit and feedback) levels appear most effective in decreasing the percentage of cesarean deliveries among low-risk first-time mothers (nulliparous women).
- Labor support, which includes supportive care from trained doulas, also appears to be an effective provider-based intervention to reduce cesarean deliveries among low-risk first births.
- The evidence of effectiveness for other provider-based interventions (e.g., active management of labor, administration of epidural analgesia) is less clear.
- Adding population-based components to interventions occurring among hospitals, providers, or patients may support the effectiveness of those interventions, as compared to interventions implemented in those categories alone.

IMPLICATIONS

- Improved monitoring of patient-specific interventions and routine in-hospital reviews of obstetric care practices and outcomes is needed to better understand the current status of strategies to reduce primary cesarean deliveries.
- Further evaluation is needed to understand how implementation of specific interventions affects the proportion of cesarean deliveries among low-risk first births.

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