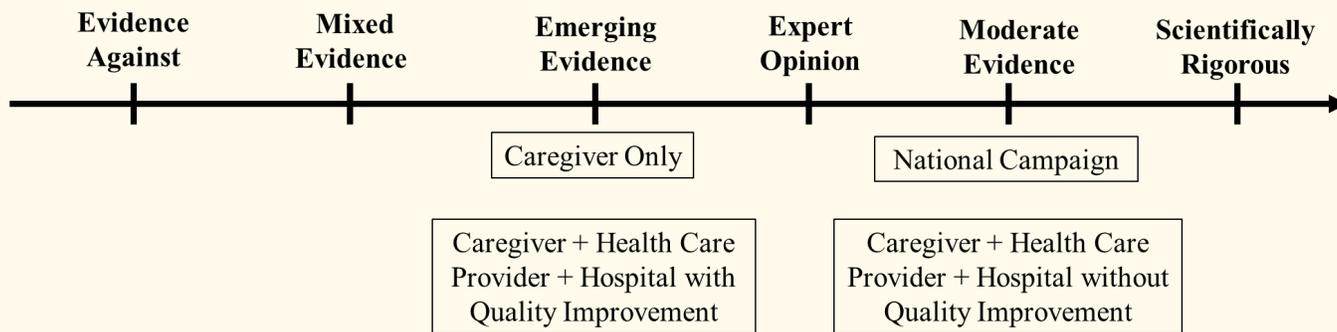


Strengthen the Evidence Base for Maternal and Child Health Programs

NPM 5: Safe Sleep

Safe Sleep is one of fifteen MCH National Performance Measures (NPMs) for the State Title V Block Grant program. The goal is to increase the number of infants placed to sleep on their backs. Infant sleep position is a serious public health concern as it is strongly related to sudden unexpected infant death, including sudden infant death syndrome, the leading cause of death in infants 1 to 12 months old.¹ This brief identifies evidence-informed strategies that State Title V programs might consider implementing to address NPM 5.

The evidence review categorized safe sleep interventions along an evidence continuum from *Evidence Against* (least favorable) to *Scientifically Rigorous* (most favorable). Interventions that are characterized by *Emerging Evidence* or more favorable ratings are considered evidence-informed. *Moderate Evidence* was identified for a combination of interventions at the caregiver, health care provider, and hospital levels without quality improvement, as well as for national campaigns. *Emerging Evidence* was found for interventions implemented at the caregiver level only and those implemented at the caregiver, health care provider and hospital levels with quality improvement. The lower evidence rating for interventions with quality improvement components reflects, in part, that many existing studies report high baseline rates of infants placed to sleep on their backs. This makes it difficult to observe increases in favorable outcomes.



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 2016 policy statement on safe sleep released by the American Academy of Pediatrics (AAP) states that infants should be placed to sleep in a supine position (on the back) for every sleep by every caregiver until 1 year of age. Preterm infants should be placed supine as soon as possible. Prone positioning (on the stomach) during sleep can only be considered in infants with upper airway disorders. However, once an infant can roll from supine to prone and vice versa, the infant can be allowed to remain in the sleep position assumed.¹

According to the most recent national estimates from 2013, 78.5% of mothers report laying their babies down to sleep on their backs most often.² From 1993 through 2007, supine sleep increased from 16.9% to 71.7%.³

METHODS & RESULTS

Peer-reviewed studies were identified by searching three online databases. Twenty-three studies that evaluated the effectiveness of interventions to increase supine sleep positioning were included. The report *“SIDS and Other Sleep-Related Infant Deaths: Evidence Base for 2016 Updated Recommendations for a Safe Sleep Environment”* released by the AAP was included as a gray literature source.¹ Studies were categorized into six groups by target audience: “Caregiver Only,” “Child Care Provider Only,” “Health Care Provider Only,” “Caregiver + Health Care Provider + Hospital without Quality Improvement,” “Caregiver + Health Care Provider + Hospital with Quality Improvement,” and “National Campaign.” Examples of each type of intervention and its evidence rating are shown below.

Intervention Category	Example	Evidence Rating
Caregiver Only	Caregiver education	Emerging Evidence
Child Care Provider Only	Child care provider education	—
Health Care Provider Only	Health care provider education	—
Caregiver + Health Care Provider + Hospital without Quality Improvement	Caregiver education + Health care provider education + Hospital safe sleep policy	Moderate Evidence
Caregiver + Health Care Provider + Hospital with Quality Improvement	Caregiver education + Health care provider education + Hospital safe sleep policy + Quality improvement	Emerging Evidence
National Campaign	Mass media	Moderate Evidence

— indicates insufficient number of studies to assign evidence rating

Interventions identified from both peer-reviewed and gray literature (e.g., technical report) 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 unless the category included three peer-reviewed studies along with evidence from the gray literature.

KEY FINDINGS

- Interventions targeting caregivers only appear to be somewhat effective.
- Interventions implemented at the caregiver, health care provider, and hospital levels without quality improvement initiatives appear to be effective.
- Interventions implemented at the caregiver, health care provider, and hospital levels with quality improvement appear to be somewhat effective.
- National campaigns appear to be effective.
- Due to the limited number of studies, there is less clear evidence of the effectiveness for interventions targeting health care providers or child care providers only.

IMPLICATIONS

- Interventions implemented at the caregiver, health care provider, and hospital levels without quality improvement as well as national campaigns appear to be most effective in increasing exclusive supine sleep position in infants.
- Future evaluations should assess the effectiveness of evidence-informed interventions by race/ethnicity as there is substantial variation in adherence to safe sleep recommendations among subgroups.
- In addition to supine positioning, it is critical to adhere to additional safe sleep recommendations that were not examined in this review, including the use of a firm sleep surface, room-sharing without bed-sharing, and avoidance of soft bedding and overheating.

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