

## **Key Question Posting Document for Health Benefits of Breastfeeding in Infants and Children**

### **Background**

The 2007 AHRQ review on "[Breastfeeding and Maternal and Infant Health Outcomes in Developed Countries](#)" has been critically important in building federal efforts to support breastfeeding in the U.S. and in helping to inform the Centers for Disease Control and Prevention (CDC) program development. In 2018, AHRQ updated the report partially, focusing only on the maternal health benefits of breastfeeding.

There have been numerous studies published in the past seventeen years, many addressing the health outcomes of infants and children as evaluated in the 2007 AHRQ review. In addition, there have been studies on other health outcomes that were not part of the 2007 review. These include the association of breastfeeding with patterns of infant growth. There is also a diagnostic shift from Sudden Infant Death Syndrome to Sudden Unexpected Infant Death, which broadens the definition for this nature of infant deaths. Furthermore, the recent COVID-19 pandemic has generated interest in outcomes related to coronavirus-related infections and their impact.

Current evidence of health outcomes of breastfeeding for infants and children are needed for continued support of efforts to improve the health of the population in the U.S. including racial/ethnic minorities and other vulnerable populations.

AHRQ will conduct an evidence-based review to examine the morbidity and mortality associated with breastfeeding, including infectious and chronic disease outcomes in infants and children in developed countries. A new report will also inform CDC's program development activities related to this topic.

### **Draft Key Questions**

KQ1. What are the benefits and harms for infants and children among those who mostly breastfeed, mostly formula feed, and mixed feed; and how are these outcomes associated with duration of the type of feeding?

KQ2. Do the harms and benefits differ for any specific subpopulations based on socio-demographic factors?

## PICOTS

### Population:

Healthy term infants in developed countries; preterm infants in developed countries

### Intervention:

Breast feeding, breast milk feeding (maternal milk for term and preterm infants, banked milk for term and preterm infants, fortified or unfortified), exclusive or mixed feeding

### Comparator:

Formula feeding (formula for preterm or term infants, fortified or unfortified)

### Outcomes:

#### Term Infant Outcomes

- short-term outcomes,
  - infectious diseases (such as otitis media, diarrhea/GI infection, upper and lower respiratory tract infections including. COVID-19)
  - sudden infant death syndrome/ sudden unexpected infant death
  - infant mortality
- longer term outcomes such
  - Childhood development milestones (cognitive/social/emotional, speech/language, motor skills)
  - childhood cancer (including leukemias),
  - Type I and II diabetes,
  - Allergic triad: asthma, atopic dermatitis, allergic rhinitis
  - Cardiovascular disease (including hypertension),
  - Hyperlipidemia
  - Obesity
  - Inappropriate weight gain during infancy
  - Celiac disease
  - Inflammatory bowel syndrome

#### Preterm infant outcomes

- Necrotizing enterocolitis (NEC)
- Childhood development milestones (cognitive/social/emotional, speech/language, motor skills)

### Study Design:

Systematic reviews, experimental (randomized controlled trials) and observational studies (prospective cohort and case-control studies only)

## Analytic Framework

