Sub-Logic Model: Increasing Safe Sleep to Reduce Infant Mortality in Kansas

Vision/ Mission: *Assuring healthy babies for all Kansans through collaborative action safe sleep*

Context/Conditions:

- Kansas ranks 40th among states in infant mortality rate
- Kansas ranks worst in Black IMR (BIMR is 2.7 times higher than WIMR)
- Highest IMR rates in high-risk places (especially in SG, WY, GE counties)

Barriers:
- Lack of urgency for reducing IMR
- Limited understanding and support/ resources for Safe Sleep messages
- Transient population
- Lack of proper scene investigation or autopsy of unexpected infant deaths
- Inadequate documentation during infant death scene investigations

Resources:
- Existing collaborative partnership for preventing IM, including among:
  - State health department (including Center for Health Disparities)
  - Health organizations (e.g., neonatal care)
  - March of Dimes
  - SIDS/Safe Sleep Coalition
  - Professional associations (e.g., Kansas Academy of Pediatrics)
  - Academic and research partners
  - Promising Community Initiatives (e.g., MCH Coalition of KC; Healthy Babies/SG Co.)
  - Sovereign nations & urban Indian populations in KS

Risk Factors:

Behavioral:
- Cultural norms and practices
- Co-sleeping and/or Bed-sharing
- Improper sleep surface
- Use of loose bedding and soft objects in sleep space
- Improper sleep position
- Alcohol, tobacco, cocaine, & other drug use

Biological/History/Experience:
- Race (African American and Native American)
- Male infant
- Living in poverty
- Being between one and six months old
- Sibling loss to SIDS
- Maternal age < 20 during first pregnancy
- Obstetric History, Medical Illnesses & Conditions
  - Premature birth
  - Low birth weight
  - Inadequate prenatal care
  - Low maternal weight gain
  - Placental Abnormalities
  - Anemia

Psychosocial & Environment:
- Environmental exposures
- Exposure to smoke
- Inconsistent safe sleep messages
- Highly transient populations
- Grandparent influence on young parents
- Poor access to safe sleep resources (i.e. proper cribs, wearable blankets, etc.) and education materials
- At-risk Families and communities with concentrated poverty
- Child care providers without proper safe sleep education
- Child care providers not adhering to safe sleep protocols

Recommended Intervention Components & Activities:

Providing information/enhancing skills:
- Educate parents, grandparents and caregivers of all infants on the AAP's safe sleep recommendations
- Distribute safe sleep DVD to parents, grandparents, and caregivers of all infants
- Advocate for the use of stickers on cribs demonstrating the safe sleep position
- Train health care providers, child care providers, and home visitors to provide AAP safe sleep recommendations
- Encourage pediatricians, primary care physicians, and staff to educate parents/caregivers about safe sleep practices during all well-baby checks
- Educate child welfare workers (e.g. SRS, family preservation, and foster care) to provide AAP safe sleep recommendations
- Promote state-wide awareness of safe sleep practices through media
- Participate in statewide education campaign on infant mortality
- Create and promote infant death scene investigation training via DVD and/or webinar
- Promote use of CDC's Sudden Unexplained Infant Death Investigation (SUIDI) form
- Emphasize the relative frequency of SIDS where positional asphyxia cannot be ruled out

Enhancing services/support:
- Require the Safe Sleep DVD be watched when a child care provider has a violation of safe sleep
- Encourage addition of a safe sleep consultation prompt to the Parents as Teachers data form(s)
- Develop culturally-tailored safe sleep awareness campaigns
- Support and encourage more frequent home health visitation for infants

Modifying access, opportunities, and barriers:
- Supply a wearable blanket to newborns
- Supply a crib (portable or other) for newborns as needed
- Collaborate with lactation consultants to promote consistent safe sleep messages

Changing Consequences:
- Build an incentive program for child care providers who implement a safe sleep policy based on the AAP's recommendations

Modifying Policies:
- Support implementation of a safe sleep policy based on the AAP's recommendations for hospitals and health care centers
- Endorse a policy for all coroners to follow the National Association of Medical Examiners (NAME) and Forensic Autopsy Performance standards manual for all infant autopsies
- Support safe sleep training regulation for new and current childcare providers
- Add a safe sleep checkbox to child care surveyor's inspection form.

Outcomes:

Behavioral Outcomes:
- Increased number of parents, caregivers, and child care providers consistently adhering to the AAP's safe sleep recommendations
- Increased number of properly conducted infant autopsies

Environmental Outcomes:
- Ensure parents have full access to safe sleep tools for newborns at hospital/birth settings
- Increased public awareness of the risk factors contributing to infant deaths
- Ensure parents have full access to safe sleep tools before leaving hospital

Population-level Health/Equity Outcomes:
- Decreased racial disparity of infant deaths
- Child safety agencies will have an increased knowledge of safe sleep practices and risk factors associated with infant sleep-related deaths
- Decreased number of infant deaths of babies born into poverty