

## Insights

# Boxing Out Unsafe Sleep Practices for Babies

Despite only being 2 feet long, 1.5 feet wide and less than a foot tall, Finland's baby boxes have had a dramatic impact on the country's infant mortality rate. In the 1930s, Finland's infant mortality rate reached [65 deaths](#) per 1,000 live births, leading to the 1938 introduction of baby boxes—kits that include a mattress, bedding, diapers, a box that serves as a crib and other necessities. By 2015, that rate had dwindled to an estimated [2.52 deaths](#) per 1,000 live births.

In 2014, there were [3,500 sudden unexpected infant deaths](#) in the United States, 25 percent of which were caused by accidental suffocation or strangulation in bed. This staggering statistic is why improving safe sleep practices is one of the six key priority areas of the NICHQ-led Collaborative Improvement and Innovation Network to Reduce Infant Mortality ([Infant Mortality CoIIN](#)). Learning from Finland's success, organizations in the U.S. are beginning to offer their own baby boxes to new families.

"We liked the baby box idea from Finland, partly because of the story behind it. It's a wonderful story with graphs and data showing the drastic reduction in infant mortality; although we know there are other factors that play into that reduction," says Dyann Daley, MD, a pediatric anesthesiologist at Cook Children's Medical Center in Fort Worth, Texas, and the executive director of the Center for Prevention of Child Maltreatment. "We thought that the baby box would raise awareness in a way that ties back to that very positive story, and that it would provide a safe sleep surface."

Once the program is finalized, every family with a newborn in Fort Worth will be eligible to receive a box, which will include many of the same items as Finland's kit. The hospitals participating in the initiative have also collaborated on educational materials about proper sleep techniques. The unified approach ensures that the same language is used in each facility to provide clear recommendations and avoid confusion among new parents.

Other baby box programs in the U.S. are more localized, addressing specific needs as well as general infant safety. In Johnson County, Iowa, an organization called Johnson County Empowerment/Early Childhood Iowa Area (JCE/ECIA), which primarily serves families with limited incomes, has found that baby boxes help parents welcome their babies home safely.

"One reason the baby box is so appealing to me is that often the families we serve are living in

tight quarters and the parents' bedroom isn't big enough for a bed and a crib. Research shows that babies who sleep in the room with their parents, but not in the same bed, have better health outcomes," says Laurie Nash, an early childhood specialist with JCE/ECIA. "The baby box is a great way for families to have babies in the bedroom with the parents but still keep the baby safe in its own sleep environment."

Parents have to opt-in to JCE/ECIA's program, and some choose to use traditional cribs instead. Nash believes this is because the box "concept is too new," but that more families will take boxes once they're more common and familiar. In either case, the boxes are really more than just replacements for cribs—they're teaching tools.

### **Reinforcing the Right Techniques**

The contents of the box and that that box can act as a crib may encourage parents to accept the kits, but the education and follow-up will make the real difference in infant mortality and children's safety over time.

"We know that if we give a family the baby box but they don't use it or they still put baby in there with blankets or stuffed animals or on their tummy, we haven't achieved the goal of safe sleep," says Nash. "It's not enough to just provide families with items, we must ensure that those items are being used correctly and that all safe sleep practices are followed."

In order to receive a box, families must work with one of JCE/ECIA's partners for education and follow-up. Part of the preparation includes completing the Safe Sleep Checklist, so providers can learn about the families' current sleep practices. The checklist is also filled out after the baby is born to ensure that safe sleep practices are followed.

Fort Worth's program is similarly centered on education and has yielded positive results before distributing baby boxes: One hospital reported a 12 percent reduction in reported bed-sharing.

Ultimately, eliminating unsafe practices and improving behaviors will reduce overall infant mortality; baby boxes just start the conversation between healthcare providers and parents.

"The distribution of the box itself is part of the solution, but we don't think it's the whole solution," says Daley. "It will help raise awareness in a useful way. The educational materials and follow-up procedures for parents are crucial to ensure that safe sleep practices become the norm and that children are safe while asleep."