

Five Big Takeaways from the Healthy Start Ambassadors' Training:

Reducing Infant Deaths in the Sleep Environment

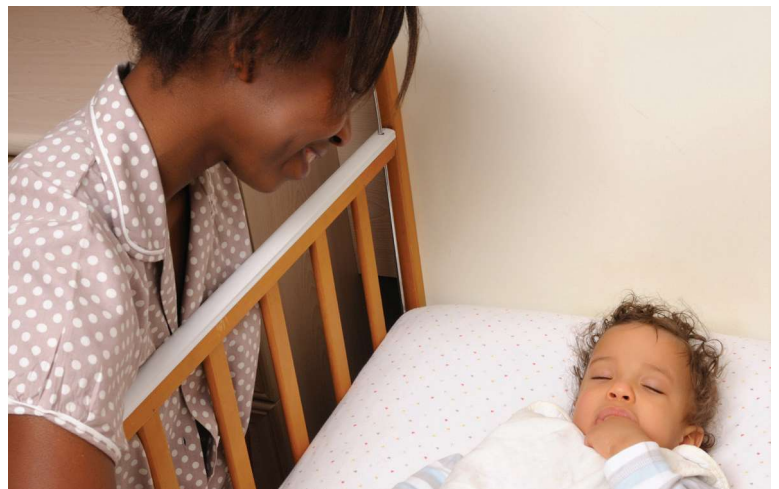


INTRODUCTION

In August 2022, the Healthy Start TA & Support Center (TASC) hosted *the Healthy Start Ambassadors' Training: Reducing Infant Deaths in the Sleep Environment*. TASC hosted the training in partnership with Stacy Scott, PhD, MPA, the founder of the Global Infant Safe Sleep Center (GISS); a long-time international and community advocate and educator for safe sleep initiatives; and Executive Project Director and Equity Lead at the National Institute for Children's Health Quality (NICHQ).

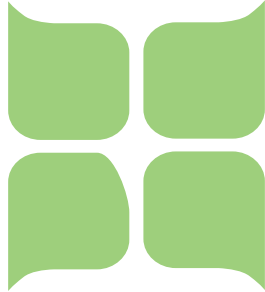
During this three-hour training, Dr. Scott shared the latest statistics, trends, and practices in safe sleep and risk reduction, including the American Academy of Pediatrics' 2022 Recommendations for Reducing Infant Deaths in the Sleep Environment. Attendees learned how sleep-related infant death is defined, the Triple-Risk Model/Vulnerability of Infants, and the impact of racial, ethnic, and social inequalities on safe sleep outcomes.

This artifact highlights five big takeaways from the training, including the importance of understanding safe sleep-related definitions; updates and trends in safe sleep; ongoing disparities in safe sleep; opportunities for education and awareness; and key resources to share.



#1: The Importance of Understanding Safe Sleep-related Definitions

Each year in the United States, thousands of babies die suddenly and unexpectedly. You have likely heard of sudden infant death syndrome (SIDS), but there are actually several types of death that can occur in the sleep environment. These deaths have various causes and it's important to know their unique definitions to understand how safe sleep contributes to infant health and safety.

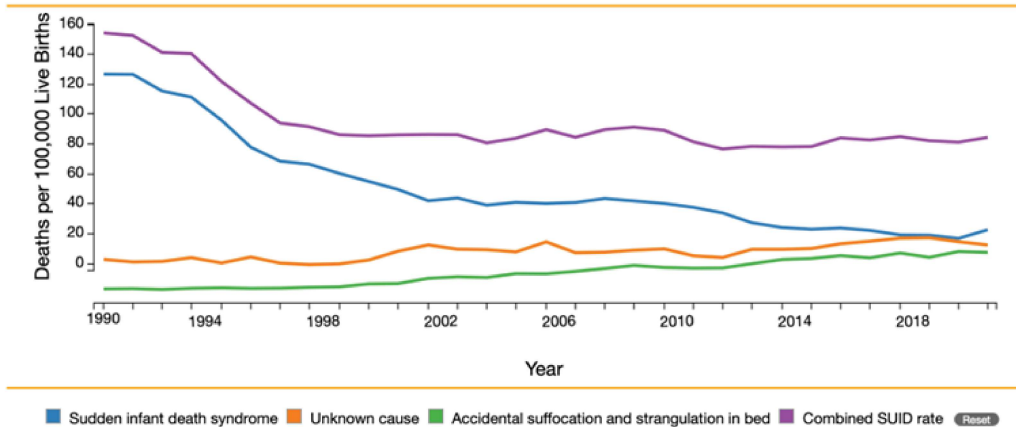


Term	Definition	Cause
Sudden unexpected infant death (SUID)	Death of an infant younger than one year of age, which occurs suddenly and unexpectedly.	Includes: <ul style="list-style-type: none"> • Deaths without a clear cause, such as sudden infant death syndrome (SIDS) • Deaths from a known cause, such as suffocation
Sudden infant death syndrome (SIDS)	The cause of death assigned when the death cannot be explained after a thorough case investigation, including a death scene investigation, autopsy, and review of the infant's clinical history	No known cause
Accidental strangulation or suffocation in bed	An explained, sudden and unexpected infant death in a sleep environment (e.g., bed, crib, couch, chair), which occurs when the infant's nose and mouth are obstructed or their neck or chest are compressed, leading to asphyxia (i.e., lack of oxygen and blood flow to the brain)	Can be caused by: <ul style="list-style-type: none"> • Soft or loose bedding • Overlay (i.e., when another person lays on or rolls on top of or against the infant while sleeping) • Wedging (i.e., when the infant gets trapped between two objects, such as a mattress and the wall).
Sleep-related infant death	A sudden, unexpected infant death that occurs during an observed or unobserved sleep period, or in a sleep environment	Risk factors include: <ul style="list-style-type: none"> • Soft or loose bedding • Sleeping on soft surfaces (e.g., adult mattress, couch, chair) • Sleeping on stomach • Getting too hot during sleep • Exposure to cigarette smoke in the womb or environment • Sleeping in an adult bed with parents, other children, or pets

#2: Updates and Trends in Safe Sleep

There was a substantial decline in sleep-related deaths in the 1990s due to the National Institute of Health’s “Back to Sleep” campaign. Now known as the [“Safe to Sleep” campaign](#), it has helped educate millions of caregivers— including parents, grandparents, aunts, uncles, babysitters, childcare providers, health care providers, and others— about ways to reduce the risk of SIDS and other sleep-related causes of infant death. Since 2000, however, the overall death rate from sleep-related infant deaths has remained stagnant and disparities persist.

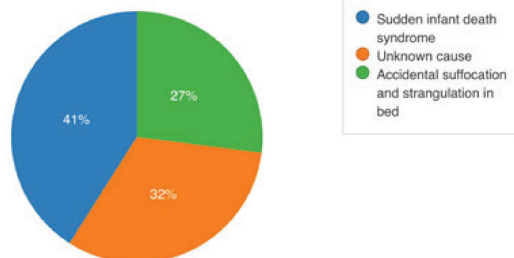
Trends in Sudden Unexpected Infant Death by Cause, 1990-2020



SOURCE: CDC/NCHS, National Vital Statistics System, Mortality Files. Rates calculated via [CDC WONDER](#).

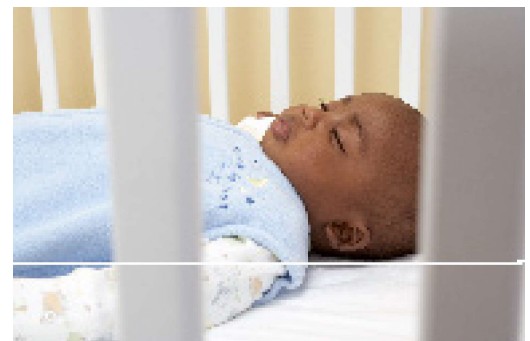
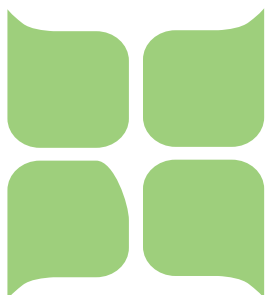
In 2020, the leading cause of SUID was SIDS, followed by unknown causes and accidental suffocation and strangulation in bed.

Breakdown of Sudden Unexpected Infant Death (SUID) by Cause, 2020



	Percentage
Sudden infant death syndrome	41%
Unknown cause	32%
Accidental suffocation and strangulation in bed	27%

SOURCE: CDC/NCHS, National Vital Statistics System, Mortality Files. Rates calculated via [CDC WONDER](#).



#2: Updates and Trends in Safe Sleep (continued)

In 2020, the leading cause of SUID was SIDS, followed by unknown causes and accidental suffocation and strangulation in bed. Many researchers argue that finding the cause or causes of SIDS will require a deeper understanding of the development and functions of infants' brains and nervous systems. Most scientists believe that babies who die of SIDS are born with one or more conditions, which cause unexpected responses to internal and external stressors (i.e., prone sleep position, sleeping on a soft surface, bed-sharing, upper respiratory infection) common during infancy. One of the tools scientists use to try to understand SIDS is the Triple-Risk Model, which involves the intersection of three risks:

1. A vulnerable infant
2. A critical developmental period in homeostatic control
3. Outside stressors (e.g., placing infant to sleep on their stomach)

Scientists argue that all three elements must be present for SIDS to occur. If caregivers can remove one or more outside stressors, they can reduce the risk of SIDS. An example of removing an outside stressor would be placing an infant to sleep on their back rather than on their stomach.



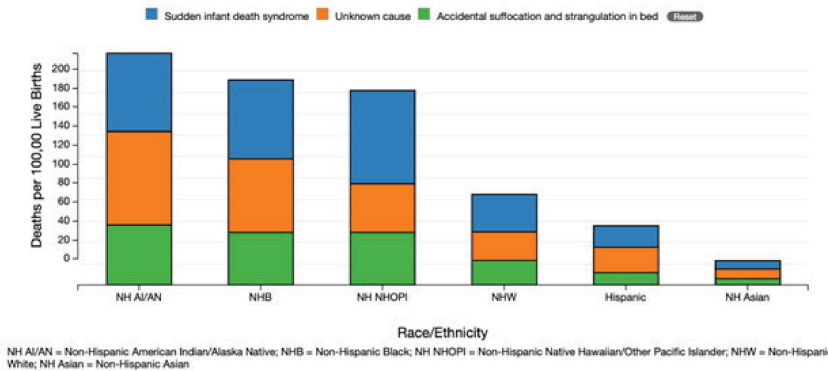
The American Academy of Pediatrics (AAP) releases evidence-based recommendations around safe sleep to help pediatricians and other health care professionals provide education and guidance to parents and caregivers on safe sleep. In 2022, the AAP released the following [updated recommendations](#) for reducing infant deaths in the sleep environment.

1. **Sleep surface:** Use a firm, flat, non-inclined sleep surface
2. **Sleep location:** It is recommended that infants sleep in the parents' room, close to the parents' bed, but on a separate surface designed for infants, ideally for at least the first 6 months
3. **Soft bedding:** It is recommended that weighted blankets, weighted sleepers, weighted swaddles, or other weighted objects not be placed on or near the sleeping infant
4. **Overheating and head coverings:** It is advised not to place hats on infants when indoors except in the first hours of life or in the NICU
5. **Education:** culturally appropriate, respectful, and nonjudgmental communication between clinicians and parents is important when discussing safe infant sleep
6. **Avoid** the use of commercial devices that are inconsistent with safe sleep recommendations
7. **Continue** research and surveillance on the risk factors, causes, and pathophysiological mechanisms of sleep-related deaths, with the ultimate goal of eliminating these deaths entirely

#3: Ongoing Disparities in Safe Sleep

There are notable and persistent racial and ethnic disparities in rates of infant sleep-related death, similar to the disparities we see among other causes of infant mortality. From 2015-2019, the SUID rates per 100,00 live births were highest among American Indian/Alaska Native (AI/AN) infants (216.0), non-Hispanic Black infants (191.2), and non-Hispanic Native Hawaiian/Other Pacific Islander (NHOPI) infants (181.4). Over the years, the mortality rates for non-Hispanic Black, AI/AN, and NHOPI infants have decreased more slowly than rates for other infants.

Sudden Unexpected Infant Death by Race/Ethnicity, 2015-2019



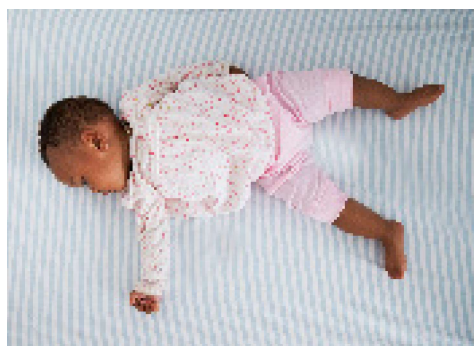
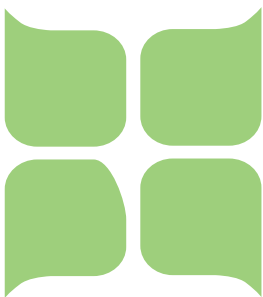
SOURCE: CDC/NCHS, National Vital Statistics System, Mortality Files. Rates calculated via [CDC WONDER](#).

Differences in the prevalence of laying babies to sleep on their back (i.e., supine positioning) and other sleep environment conditions among Black, AI/AN, and NHOPI communities may contribute to these disparities. According to the AAP, there are several factors that contribute to the marginalization of these infants and families and that are associated with a higher risk of sleep-related deaths and increased prevalence of known risk factors for these deaths. These factors include:

- Low socioeconomic status
- Unemployment
- Housing instability
- Domestic violence

Given these complex contributors, promoting safe infant sleep practices requires much more than providing education to families. It is essential to also:

- Address the impact of structural racism on communities;
- Recognize the lack of access to economic, social, and educational resources as a risk factor;
- Work closely with communities to identify possible unknown risk factors; and
- Engage health care and public health professionals in thoughtful and respectful conversations with families about safe infant sleep.



#4: Opportunities for Education and Awareness

The goal of the Healthy Start Safe Sleep Ambassador Training was to increase awareness of the impact of sleep-related infant death and overall infant mortality on Healthy Start families - especially Black, AI/AN, and NHOPI communities - and empower Healthy Start staff to reduce infant sleep-related deaths through community engagement and education. After taking the training, ambassadors are equipped to educate Healthy Start families about safe sleep practices by:

- Informing them of the dangers of sharing a sleep surface with an infant and the importance of following safe infant recommendations
- Educating parents, caregivers, and health care providers about ways to reduce the risk of SIDS and other sleep-related causes of infant death
- Support community engagement projects to increase awareness about safe infant sleep

To strengthen and enhance families' ability to implement safe sleep practices, ambassadors can help families understand the existing recommendations around safe sleep and engage them in conversations about which practices are feasible and actionable for them. This requires that ambassadors build mutual trust with families and carefully address common barriers to safe sleep practices. Examples of common barriers include the misconception that the parents' bed is the safest place for their baby or the expense of buying a separate bed for their baby. To overcome such barriers, it is important that ambassadors:

- Build a rapport and trust with families first
- Initiate conversations that stem from a sincere desire to understand these barriers
- Remain sensitive to the everyday challenges that families face
- Respect families' needs, wants, and goals around safe sleep
- Suspend biases



#5: Key Resources to Share

If you were unable to attend the training, you can still watch the recording and access the resources that were highlighted during it. We hope the training and the materials support Healthy Start staff in their efforts to educate and guide Healthy Start families in implementing safe sleep practices and reduce infant deaths in the sleep environment.

1. [Recording: Health Start Ambassadors' Training](#) - Reducing Infant Deaths in the Sleep Environment
2. Reducing Infant Deaths in the Sleep Environment [Training Kit](#), which includes many of the resources and information shared during the training
3. [Healthy Start Ambassador Sample Presentation](#), which can be used by ambassadors when educating Healthy Start participants about safe sleep
4. [Safe Sleep Brochure](#), which can be printed out and shared with participants



References

1. Caddell J. L. (2001). A triple-risk model for the sudden infant death syndrome (SIDS) and the apparent life-threatening episode (ALTE): the stressed magnesium deficient weanling rat. *Magnesium research*, 14(3), 227-238.
2. Data Access - Vital Statistics Online. (2022). National Center for Health Statistics. Retrieved 2022, from https://www.cdc.gov/nchs/data_access/Vitalstatsonline.htm
3. GISS Center - Empowering the World's Communities by Achieving Equity in Infant Survival. (2022). GISS Global Infant Safe Sleep Center. Retrieved 2022, from <https://gisscenter.org/>
4. Moon, R. Y., Carlin, R. F., & Hand, I. (2022). Sleep-Related Infant Deaths: Updated 2022 Recommendations for Reducing Infant Deaths in the Sleep Environment. *Pediatrics*, 150(1). <https://doi.org/10.1542/peds.2022-057990>