

# Tennessee Safe Sleep Hospital Project

## An Innovation Station Emerging Practice

**Purpose:** This document is intended to support MCH professionals to implement a practice found in Innovation Station. This resource provides the information needed to replicate the practice and is divided into two sections: the first section provides a high-level overview of the practice while the second section describes how to implement the practice. For additional information on any of the content provided below, please reach out to the practice contact located at the bottom of this document.

### Section I: Practice Overview

Location:	Tennessee	Title V/MCH Block Grant Measures Addressed
Category:	Emerging Practice	<b>NPM #5:</b> Percent of infants placed to sleep on their backs.
Date Submitted:	February 2020	

### Practice Description

This project was designed to provide an incentive for all birthing hospitals in Tennessee to develop a safe sleep policy. All 66 birthing hospitals, in addition to 5 non-birthing hospitals, created and implemented a safe sleep policy to include teaching parents about safe sleep and modeling safe sleep in the hospital.

### Purpose

#### BACKGROUND

While Tennessee's overall infant mortality rate and number of infant deaths has been declining over the past few years, there has been an increase in the number of sleep-related deaths. In 2012, 121 (or 20%) of all infant deaths in Tennessee were due to sleep-related causes. Data from Tennessee's Child Fatality Review process shows the main contributors to sleep-related deaths in Tennessee from 2013-2018 are:

- Baby not sleeping in a crib or bassinette (82% of deaths);
- Infant sleeping with other people (60% of deaths); and
- Infant not sleeping on back (46%).

Since 98.7% of Tennessee babies are born in hospitals, hospitals play an important role in educating new parents and caregivers about ways to keep babies safe while sleeping. In late 2013, the Tennessee Department of Health invited hospitals to join a partnership to promote infant Safe Sleep.

## **PROGRAM OBJECTIVES**

The overall goal is to reduce infant mortality in Tennessee by reducing the number of preventable sleep-related deaths.

## **TARGET POPULATION SERVED**

The project scope is statewide and involves all Tennessee birthing hospitals (66 plus five other hospitals that do not deliver infants but care for infants after transfer). In Tennessee, there are approximately 80,000 annual live births, with nearly all (98.7%) occurring in hospitals.

Objectives for this project are that Tennessee birthing hospitals will:

- Develop a safe sleep policy that incorporates the latest recommendations for infant sleep as defined in the American Academy of Pediatrics 2011 Clinical Report
- Provide safe sleep training to all staff who provide care to infants (nursing, physician, care partners, etc) on at least an annual basis
- Implement safe sleep practices in the hospital per the hospital policy
- Monitor staff compliance with safe sleep policy at least quarterly

## **Practice Foundation**

Using the latest recommendations for infant sleep, as defined in the American Academy of Pediatrics 2011 Clinical Report, hospitals developed a policy to model infant safe sleep based on clinical studies that show best practices in modeling infant safe sleep in the hospital for new parents are the same behaviors parents use at home. The policies also included education for new staff and parents on infant safe sleep.

## **Core Components**

This project is part of a larger statewide campaign, originally launched by the Tennessee Department of Health (TDH) in June 2012 to increase awareness of safe sleep practices in order to reduce infant mortality in Tennessee. The hospital project was envisioned in the Summer of 2013.

As part of the project, hospitals were asked to:

- Develop a hospital Safe Sleep policy
- Implement the Safe Sleep policy, which at a minimum must include:
  - At least annual education to all perinatal staff (OB, peri/postpartum and pediatrics) on Safe Sleep recommendations
  - Requirements for staff to model Safe Sleep recommendations
  - Plan for at least quarterly internal compliance audits with hospital policy
- Submit annual report on educational activities and staff compliance to Tennessee Department of Health

Partner hospitals received:

- Free “Sleep Baby, Safe and Snug” board book for each birth in their facility
- Free TDH “ABCs of Safe Sleep” materials
- Free Recognition on TDH website
- Signed certificate from TDH Commissioner
- Press release template

The hospital associations were engaged in late summer of 2013 and books were procured from the Charlie's Kids Foundation. The hospital association staff worked to secure hospital commitment pledges throughout November and December. The messaging for campaign materials and hospital incentive bundles were developed based on materials and recommendations on infant safe sleep from the American Academy of Pediatrics. The campaign tools and resources were developed based on those published methods that had shown effectiveness in prior settings.

The Safe Sleep Hospital project was unveiled on January 10, 2014 with the Tennessee with the arrival of 86,000 copies of the *Sleep Baby Safe and Snug* board book onboard the Charlie's Kids Foundation delivery truck. Since that time, hospitals who have submitted their policies (67 of 71 total) are distributing educational materials and the board books. The TDH staff also provide technical assistance to hospitals on how to adapt policies and trainings and use educational materials.

### Practice Activities

Core Component	Activities	Operational Details
<b>Policy Development</b>	Assist hospitals to develop a hospital safe sleep policy which includes educating all perinatal staff, modeling safe sleep, and conducting quarterly crib audits.	Provide hospitals guidelines and technical assistance to develop a safe sleep policy.
<b>Distribution</b>	Provide Sleep Baby Safe and Snug books and other safe sleep educational materials to all birthing hospitals.	Reach out to hospitals about the distribution of safe sleep materials. Ask them how often they would like to receive Sleep Baby Safe and Snug Books and provide them with a safe sleep order form to order other safe sleep educational materials.
<b>Recognition</b>	Recognize hospitals for implementing a safe sleep policy and educating staff and patients about safe sleep.	Provide recognition through the TDH website and a signed certificate from the TDH commissioner. Create a press release template for hospitals to develop a press release to distribute to the media.

### Evidence of Effectiveness (e.g. Evaluation Data)

As this project is still underway, the evaluation is ongoing. Initially, evaluation focused on a process measure of hospital pledge and participation. By the project launch (January 2014), 71 hospitals (66 birthing hospitals plus five other hospitals that do not deliver but that take care of infants) pledged to participate in this project. Nine months into the project, 67 of 71 hospitals (94.4%) submitted their policies and were receiving the books for distribution. All hospitals in Tennessee were asked to participate (voluntarily); all were included on the invitation emails. All chose to participate.

Longer-term evaluation includes:

- 1) Process evaluation from hospitals—based on their annual report and will include information on the number of books submitted, number of staff trained and methods used to train staff, and results of hospital compliance monitoring (“crib audits”).
- 2) Parent behavior data from PRAMS—TDH will examine pre/post measures related to sleep position and bed-sharing. It is anticipated that more parents would put their babies on their back to sleep and fewer parents would bed share after the start of the project compared to pre-project.

Sleep-related death count data from Vital Statistics and Child Fatality Review— TDH will examine the trends for sleep-related infant deaths pre- and post-project. Vital statistics data will provide a closer-to-real-time access to a count (using ICD-10 codes R95, R99, and W75). Child fatality data will take longer to compile, but give much richer information on specific circumstances surrounding.

Since the start of this project additional evaluation data has become available. There are currently 59 birthing facilities in Tennessee, all are providing safe sleep education to staff and families along with the Sleep Baby Safe and Snug books.

The overall observance of infants who were found with any risk factors for unsafe sleep in the hospitals decreased 45.6% from the first crib audit to the last crib audit in 2014. Significant decreases were noted for specific risk factors, including infants found asleep not on their back, with a toy or object in the crib, and not sleeping in a crib. Significant improvements were observed at hospitals where printed materials or video were utilized for training staff compared to face-to-face training. Statewide implementation of the hospital policy intervention resulted in significant reductions in infants found in unsafe sleep situations.

## Section II: Practice Implementation

### Internal Capacity

The Hospital Safe Sleep Project is a partnership between the Tennessee Department of Health and the Tennessee Hospital Association. The Tennessee Department of Health staff involved in the project are the Injury Prevention and Detection Section Chief, Child and Infant Fatality Program Director, Infant Mortality Reduction Coordinator, and an Epidemiologist. The role of the Infant Mortality Reduction Coordinator is to collect safe sleep reports from hospitals to keep a record of safe sleep crib audits, the type of safe sleep trainings for staff and patients, and safe sleep policies from hospitals. The Tennessee Hospital Association helps to recruit and communicate with hospitals to be involved.

### Collaboration/Partners

Along with the Tennessee Department of Health and Charlie’s Kids Foundation, partners in this project include the Tennessee Hospital Association, the Children’s Hospital Alliance of Tennessee, the Hospital Alliance of Tennessee, and the Tennessee Chapter of the American Academy of Pediatrics. A list of participating hospitals is available online at [https://www.tn.gov/content/dam/tn/health/documents/Hospital\\_Partner\\_List.pdf](https://www.tn.gov/content/dam/tn/health/documents/Hospital_Partner_List.pdf).

## Practice Cost

Staff time was contributed in-kind by TDH, including the MCH/Title V Director and the Injury Prevention staff, the hospital associations and hospitals. The total cost of the materials was \$95,809, including the Sleep Baby Safe and Snug books, safe sleep door hangers, safe sleep flyers, educational flipcharts and frames for the hospital certificates. With approximately 80,000 births in Tennessee per year, this equals \$1.20 per birth to provide safe sleep education to hospital staff and caregivers. The educational materials and books are funded by different funding sources including TennCare (TN's Medicaid program) and the Title V Maternal and Child Health Block Grant fund.

Budget			
Activity/Item	Brief Description	Quantity	Total
Baby Sleep Safe and Snug Books	The children's educational books are from Charlies Kids Foundation are distributed to hospitals to educate families about the importance of safe sleep.	79,841	\$79,841
Safe Sleep Door Hangers	Safe sleep Check list	79,841	\$9581
Safe Sleep Flyers	Education on safe sleep	79,841	\$4863
Safe Sleep Flipcharts	Used by providers as a script for safe sleep education	118	\$1524
<b>Total Amount:</b>			<b>\$95,809</b>

## Practice Timeline

Practice Timeline				
Phase	Description of Activity	Date/Timeframe	# of hours needed to complete/oversee activity	Person(s) Responsible
Planning	Develop budget to determine funding needed	June 2013	2 hours	TDH Injury Prevention /Child Fatality Staff
	Develop pledge for the safe sleep project	June 2013-December 2013	2 hours	TDH Injury Prevention /Child Fatality Staff

	Develop safe sleep educational materials	June 2013	6 months	TDH Injury Prevention /Child Fatality Staff
	Order the sleep baby safe and snug books from Charlie's Kids	June 2013	2 hours	TDH Injury Prevention /Child Fatality Staff
<b>Implementation</b>	Reach out to hospitals about the hospital safe sleep project	January 2014	2 hours	TDH Injury Prevention /Child Fatality Staff and Tennessee Hospital Association
	Collect Safe Sleep Policies from hospitals	January 2014- October 2014	9 months for 71 hospitals	TDH Injury Prevention /Child Fatality Staff
	Follow-up with hospitals that did not submit policies	December 2013- January 2014	10 hours	Tennessee Hospital Association
	Review policies submitted and send books to those meeting criteria	January 2014 – October 2014	100 hours	TDH Injury Prevention /Child Fatality Staff
	Collection of Safe Sleep Audits for the 1 <sup>st</sup> and 3 <sup>rd</sup> quarter and safe sleep policy	January 2014- Ongoing	70 hours annually	Infant Mortality Reduction Coordinator
<b>Sustainability</b>	Continue to Recognize Hospitals for safe sleep efforts	October 2014- Ongoing	10 hours annually	CFR Program Director, Infant mortality reduction Coordinator and Tennessee Hospital Association
	Contact hospitals about the safe sleep educational	January 2014	4 hours	CFR Program Director and Infant mortality

	materials and safe sleep and snug books			reduction Coordinator
	Provide technical assistance to hospitals to continue to update their safe sleep policies	January 2014 - Ongoing	5 hours	CFR Program Director and Infant mortality reduction Coordinator

## Resources Provided

All of the resources can be found on the project website: <https://www.tn.gov/health/health-program-areas/fhw/vipp/safe-sleep/safe-sleep-hospital-project.html>

These include:

- Educational Flip Chart (Available in English, Spanish or Arabic)
- Sample Training Presentation for Staff (PPT and Speaker's Notes)
- Model Safe Sleep Policies
- Safe Sleep Resources
- Hospital Pledge form



Additional TN safe sleep campaign materials can be found at: <http://safesleep.tn.gov>.

## Lessons Learned

Since 2010, TDH staff, with input from local and regional staff, as well as various community partners and members of the general public, developed a statewide campaign to promote safe sleep practices. The high-level support of Departmental leadership (Commissioner, Chief Medical Officer, and Assistant Commissioner) have been instrumental in the launch and ongoing success of this project. Additionally, the First Lady has been involved and has even included safe sleep in her most recent parent newsletter.

The Charlie's Kids Foundation is a partner on the hospital project and produced the *Sleep Baby Safe and Snug* board book. Charlie's Kids was established in 2011 after Sam and Maura Hanke lost their first son, Charlie, to sudden infant death syndrome. Charlie's Kids was founded with the purpose of increasing safe sleep awareness and education with the ultimate goal of reducing the SIDS mortality rate.

Furthermore, the TDH is participating in a national Collaborative Improvement and Innovation Network (CoIIN) to Reduce Infant Mortality. As part of this quality improvement effort, TN participates on the Region IV/VI strategy team focused on "reducing Sudden Infant Death Syndrome and Sudden Unexplained Infant Deaths by promoting safe sleep." One of TN's strategies in this area is to increase the number of birthing hospitals that have a safe sleep policy in place.

Challenges during the implementation included:

1. Determining the vendor was a sole source and getting permission to order the books from that vendor (state government procurement rules)
2. Having all the materials at the start of the project was a challenge due to time needed for printing approvals.
3. Performing in-depth outreach to all the hospitals would have been challenging for state health department staff to complete without the support, encouragement, and groundwork of the hospital association staff.

All Departmental sections that worked with ordering products were involved in the beginning to get approval to order the books. The printed material such as the educational flipchart was made available online for hospitals to download until the hard copies were printed. Having the support of high-level leadership within our Department (Commissioner, Chief Medical Officer, Assistant Commissioner), helped to push resolution of any challenges. Staff from the hospital association worked diligently to recruit hospitals to participate, in many cases making personal visits or phone calls to recruit hospitals.

To date, the project has gone very smoothly with very few minor complications. One aspect for others that create this project to keep in mind is to plan for more staff time in the beginning of the project. With 71 participating hospitals, there were numerous questions and requests for materials. Another lesson learned is to allow more time to have all the materials created before starting the project. Hospitals were eager to develop their policies and some of them turned in their policies before we had the books and educational flipcharts ready. A third lesson would be to send a sample audit tool and provide more explanation to all participating hospitals in the beginning of the project as the quarterly audit was the requirement that caused the most confusion among hospitals. Several hospitals were not sure what we were actually asking them to do for the audits.

## Next Steps

TDH plans to provide the Sleep Baby Safe and Snug books each year to the hospitals that participate in this project. Various funding sources including TennCare (Medicaid) infant mortality grant funds and Title V/MCH Block Grant funds will be used to purchase the books. It is anticipated that infant mortality will be a continued priority for TN's Title V/MCH Block Grant and could thus provide support for this project.

In 2017, the Tennessee Department of Health partnered with Tennessee Health Association to implement the Best for Babies in Tennessee Award to recognize hospitals in their efforts to reduce infant mortality. Hospitals had to accomplish the following criteria to be considered for the award:

- Maintain a baby-friendly designation or have an increase of 5% breastfeeding initiation rate from one year to the next
- Have 5% or less aggregate rate for the prior year based on the Joint Commission's definition for Perinatal Care Core Measure PC-01
- Must have Cribs for Kids designation at a minimum of bronze level or submit documentation that a policy is in place meeting current American Pediatric Guidelines and must submit documentation of one crib audit in the first and third quarter with a minimum of 10 cribs audited per quarter.

Twenty-seven hospitals have received the Best for Babies in Tennessee Award.

### Practice Contact Information

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