

A woman with long, wavy hair is leaning over a baby who is lying in a crib. The woman is wearing a dark, sleeveless top and a watch on her left wrist. She has her hand on the baby's back. The baby is wearing a patterned onesie. The background shows the wooden slats of the crib and a decorative headboard. The entire image has a blue tint.

NASHVILLE *Health*

A yellow circular graphic with a blue border, containing the text "INFANT SAFE SLEEP REPORT".

INFANT
SAFE SLEEP
REPORT

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SPECIAL THANKS

Cradle Cincinnati

Metro Public Health Department

Mt. Zion Baptist Church

Tennessee Department of Health

Infant Safe Sleep Report



NashvilleHealth.org

I. INTRODUCTION AND BACKGROUND

NashvilleHealth is a non-profit organization dedicated to improving the health of Nashvillians. Established in 2015 by former U.S. Senate Majority Leader Bill Frist, who serves as board chair, our long-term objective is to make Nashville one of the healthiest places to live in the state and the nation by achieving measurable gains in the health of all residents. In working to achieve that goal, our focus is on four intervention areas that fall within our overall mission and objective: child health, hypertension, tobacco cessation and the environment.

Nashville is ranked 83 out of 95 Tennessee counties in overall child well-being.¹ Our city's infant mortality rate of 7.5 per 1,000 live births² is higher than the national average of 5.9 per 1,000,³ with one in four of those Nashville deaths linked to unsafe sleep practices.⁴ As a piece of our work toward improving child health, NashvilleHealth is laying the groundwork for a targeted campaign to increase awareness of infant safe sleep practices.

The facts around infant mortality and SIDS (Sudden Infant Death Syndrome) are troubling. Across the U.S. about 3,500 infants die each year from sleep-related causes.⁵ SIDS is the leading cause of death in infants between one month and one year of age, and the risk for SIDS is greatest between one and four months of age.⁶ Ninety percent of SIDS deaths occur before 6 months of age.⁷

In Tennessee, 25 percent of infant deaths are due to sleep-related causes.⁸ Public health campaigns on this issue have proven to be very effective. Since the introduction of the U.S. National Institutes of Health "Back to Sleep" Campaign in 1994, the number of SIDS deaths has dropped by more than 50 percent nationwide.⁹ In 2017 Nashville made positive strides toward reducing these deaths. We believe interest

and momentum are high to continue building on the work of the Metro Public Health Department (MPHD) and the "ABCs of Safe Sleep" Campaign (baby should sleep ALONE, on his or her BACK, in a CRIB) to further improve these rates.

NashvilleHealth seeks to engage our city on the issue of infant safe sleep with the goal of reducing infant deaths from SIDS and unintentional

suffocation. We want to embark upon a multi-year campaign with targeted messages

intended to resonate strongly among our highest-risk populations. Black

families are one such population.

Specifically, 66 percent of sleep-

related infant deaths in Metropolitan Nashville in 2015 were black infants.

Data collected by the MPHD indicates that black male infants born before

38 weeks gestation (preterm) are at the

greatest risk for experiencing a sleep-related death in Nashville;¹⁰ 41 percent of preterm births in Nashville in 2015 were black infants.

Working with community, government and business partners, NashvilleHealth seeks to lead a long-term (ongoing and sustainable) citywide campaign to reduce sleep-related deaths in Nashville. Prior to beginning the research phase of the campaign, we obtained letters of support from the Mayor of

*One in four
infant deaths in
Nashville is
related to unsafe
sleep practices.*

Nashville, the MPH Director and the Overseer of Health and Wellness for the Full Gospel Baptist Fellowship and Mt. Zion Baptist Church. We also reached out to Nurses for Newborns, a not-for-profit organization with a nearly thirty-year track record of providing services to at-risk infants with the goal of preventing infant mortality. We secured their interest and willingness to collaborate as the initiative moves forward.

Our overall goal is to create a targeted awareness campaign—utilizing available data to determine the highest-risk populations in our city—that will result in a 25 percent decrease in the number of sleep-related infant deaths in Metropolitan Nashville/Davidson County, Tennessee by the end of 2020. We will achieve this goal through

a deliberate, collaborative three-year process begun with thoughtful and methodical formation of the campaign, tracking our procedures and progress along the way, and measuring project outcomes while also drawing parallels between the effectiveness of the campaign and those outcomes.

Note that the first year of this project was funded by Tivity Health. Tivity's support allowed NashvilleHealth to pursue the project's initial research and exploration phase. As we near the end of Phase I of the project, this report is intended to outline the exciting work completed thus far, with thanks to Tivity for the company's generosity in making this important work possible.

II. RESEARCH METHODOLOGY

Year one of NashvilleHealth's three-year plan to create a targeted awareness campaign began with research to aid us in better understanding the driving factors behind the high incidence of sleep-related deaths in Nashville. We took a deep dive into existing city, state and national data, including the medical community's research and scholarship on infant safe sleep. We had first-hand conversations with leadership from the city's birthing hospitals and other child and maternal health-focused groups. We also explored the initiatives other cities have pursued to reduce such deaths. We sought out and employed a nationally-recognized market research firm to lead a series of focus groups, and we went on a fact-finding mission to Cincinnati, where we met with leaders of the organization Cradle Cincinnati.

Qualitative Research

Focus Groups

NashvilleHealth explored the national landscape to find qualified research expertise for the project. After this review, we contracted with RIVA Market Research to conduct a series of focus groups in February 2018. RIVA employs nationally-recognized moderators, researchers, and analysts who are known for conducting culturally-sensitive qualitative research and have produced key insights for the past 30 years. RIVA's client list ranges from

the Centers for Disease Control (CDC) and the U.S. Department of Education to Aetna and the American Cancer Society.

The focus groups interviewed 17 black mothers and pregnant women between the ages of 18 and 25. This target population was determined based on data from the Tennessee Department of Health, which demonstrates that black infants had a higher mortality rate than infants of all other races and nearly twice the mortality rate of white infants in 2016.¹¹ Additionally,

as mentioned in the introductory information, according to the MPHD, Metro Nashville/Davidson County black infants (birth to age 1) die from sleep-related causes at a higher rate than the full population of infants, and black pre-term male infants are at an even higher risk for sleep-related death after being released from the NICU. The purpose of the focus groups was to understand the perceptions, opinions, beliefs and attitudes of women whose children could be at risk for unsafe sleep practices.

Partner Visits and Interviews

Several partner groups collaborated with NashvilleHealth in this first year of research. MPHD, a leading authority on child and maternal health in the city, connected NashvilleHealth to the Nashville/Davidson County Fetal and Infant Mortality Review (FIMR) committee. We presented the plan to the committee and gathered information about the community-based process that examines the factors and issues influencing fetal and infant mortality in our community.

In order to help lay the groundwork for the project, NashvilleHealth held interviews with additional stakeholders in the community:

- The three largest birthing hospitals in Middle Tennessee (Saint Thomas Health, TriStar Centennial and Vanderbilt), to better understand

The purpose of the focus groups was to understand the perceptions, opinions, beliefs and attitudes of women whose children could be at risk for unsafe sleep practices.

the perspective of those offering first-hand labor, delivery and neo-natal care in Nashville;

- The State of Tennessee Infant Safe Sleep Coordinator, to understand past and current programs and learn about results and findings;
- The MPHD Director of the Division of Maternal Child and Adolescent Health and their Safe Sleep Coordinator;
- Mt. Zion Baptist Church, to tap into the influence and insight of the largest, and one of the oldest, black church congregations in Nashville (average weekly attendance 10,000);¹²
- Nurses for Newborns, to discuss issues surrounding high-risk families and lay the groundwork for the organization to ask clients about safe sleep practices.

Data Collection

Nashville Community Health + Well-being Survey

NashvilleHealth partnered with the MPHD to launch the Nashville Community Health + Well-being Survey, a foundational, community-wide survey of the health of Nashville residents. Working with a nationally-recognized research lab, we will survey more than 12,000 residents to more completely understand their health-related behaviors, conditions, and preventive practices and how their environments impact their opportunities for well-being. This unique project will provide the critical foundation of data to inform and enhance the work

being done today and to measurably improve the health of Nashville residents in the future—in a format that will allow for accurate data to track progress over time.

NashvilleHealth felt it important to include survey questions about maternal and child health to further inform our work. We await the responses and resultant data and look forward to incorporating those findings into our safe sleep project planning as we move forward.

Peer City Research

Cincinnati

Introduced to Cradle Cincinnati by Vanderbilt University, NashvilleHealth pursued and forged a relationship with the regional organization focused on reducing infant mortality in Cincinnati with a focus on safe sleep awareness, preterm birth reduction, pregnancy support, maternal smoking cessation and reducing birth defects. Launched in 2013, the nonprofit is a partnership between Hamilton County, the City of Cincinnati and multiple health care systems in the region.

Cradle Cincinnati's activities target provider support, direct services through social workers, a public awareness campaign and data integrity—which leadership argues is essential to inform all of the organization's work. From 2015 to early 2018, Cradle Cincinnati partnered with social service organizations to distribute nearly 1,400 pack-and-

play cribs to mothers in need. In the summer of 2018, Cradle Cincinnati launched a five-year, \$25 million campaign to expand its work.

Between 2007 and 2013, Hamilton County, Ohio (the county seat of which is Cincinnati) lost an average of 16 babies per 1,000 live births per year to unsafe sleep. This dropped to a historic low of 7 deaths per 1,000 in 2014. Cradle Cincinnati leaders believe that their efforts, in coordination with their many partners throughout the county, led to this remarkable drop in deaths. Since the start of its safe sleep awareness campaign, in tandem with additional initiatives focused on decreasing infant mortality, Cincinnati's Hamilton County has reduced its infant mortality rate by 15 percent and has become the fastest improving large county in Ohio.¹³

III. KEY FINDINGS

Focus Groups – Perceptions

From the focus group discussions, NashvilleHealth and RIVA Market Research noted these key perceptions from participants:

- Support from loved ones was a key factor in how prepared respondents felt when they were pregnant. Those who had friends/family helping out felt more prepared than those who did not.
- Most participants were single and living in a multi-generational home with parents, grandparents, siblings and/or extended family. Among moms with children, several mentioned there were other young children in the home.
- There was broad confusion from participants regarding how to get a free crib; some knew where to get one, while others didn't. One group mentioned that there were many hoops to jump through to access social services.

“We never actually use cribs in my family.”

FOCUS GROUP PARTICIPANT

- Information sources for the first-time mom participants include OB/GYNs, moms, older siblings who are parents and self-learned lessons from babysitting.
- Participants across all groups mentioned Google as their number one source of information, especially when they receive conflicting information from other sources.

- Social media usage was brought up unprompted by participants with children under age three, but the topic had to be prompted for discussion with first-time mom participants.
- When queried about safe sleep, the usual response was to recite the ABCs of safe sleep: Alone, on the baby’s Back and in a Crib. This indicated that participants were aware of safe-sleeping practices, even if they didn’t necessarily practice them themselves.
- Views on co-sleeping (used in this context to mean bed-sharing with baby) indicated it was situational. They co-sleep for mom’s comfort or ease or when the baby won’t go to sleep alone.
- Respondents indicated what works for one mom might not work for another.
- Respondents challenged that others in their life have co-slept with their own babies and nothing has happened, so they will do the same.
- A sizable number of moms confided they co-sleep with their babies as a rule. For some, it was because they were breast feeding and it was too much work to get up and put the baby somewhere else when the baby finished.
- Moms invariably mentioned they were very light sleepers and made sure they stayed either awake or woke up often to check on the baby. In some ways, they thought their actions were a protection against unsafe sleep rather than a possible precipitant.



Focus Groups – Reactions

Two print ads and two TV spots were aired that underscored the dangers of infant sleeping deaths.

1. Print Ad Reactions:

- Careful attention should be placed on language when talking about the issue. For example, the word “die” came across too strongly.
- Statistics received mixed reactions. Respondents didn’t like that statistics were not in whole numbers (such as “3.5 babies die...”).
- Respondents perceived having a phone number to call or website link as helpful so that moms can reach out for more information, if needed.

2. TV Ad Reactions:

- Across the groups, the women found the visual demonstration of how to put a baby to sleep helpful.
- Personalization is key. A “real life” story made a larger impact on the respondents. Seeing that infant death could happen to a healthy baby made them think of their own child and changing their behavior.
- Radio and billboard advertisements were seen as good methods to get the message out about safe

- sleep practices. Across the groups, the women could easily name radio stations that they listened to and agreed that they would pay attention if an ad on safe sleep aired.
- The women also mentioned keeping an eye out for advertisements on buses to stay informed.

3. Key Findings:

- Messages deemed most impactful were those that did not shy away from the consequences that could occur if safe sleep practices are not followed. In fact, many of the women who had earlier revealed that they co-slept indicated they were seriously rethinking that practice, as well as realizing the risks of allowing the baby to sleep on his/her stomach.
- Respondents agreed that ads targeted to address a mother’s fear of unintentionally harming her baby with unsafe sleep practices were more compelling. These types of ads kept their attention longer than those designed to encourage moms to express their love by following safe sleeping rules.

Peer City Research Findings

After meetings with the Cradle Cincinnati team, the following key observations were made:

1. The organization is data driven.

- Cradle Cincinnati's work is keenly driven on tracking data outcomes, reducing data lag-time and utilizing uniform data sources. They worked with stakeholders to address data differences caused by collection practices and coding, as well as data lags caused by inability to communicate data back to the group quickly.
- Data is collected from multiple sources, including the State of Ohio Office of Vital Statistics, the Ohio Department of Health, Pregnancy Risk Assessment Monitoring System, the American Community Survey, the Greater Cincinnati Community Health Status Survey, FIMR, the CDC and the Ohio Pregnancy Assessment Survey. Data is analyzed by zip code in order to target public awareness campaigns and community support to high-risk areas.
- In 2016, Cradle Cincinnati led efforts in the Ohio legislature to pass the Infant Mortality Bill, legislation implementing 30 different components addressing infant mortality including data collection standards and procedures, safe sleep awareness education requirements, and supporting activities by health care providers and social service organizations.
- The organization financially supports the efforts of the county's Fetal Infant Mortality Review (FIMR) committee in order to ensure timely delivery of data.

Cincinnati achieved a 25 percent decrease in sleep-related infant deaths between 2013 and 2017.

2. The organization oversees a large-scale public awareness campaign.

- Cradle Cincinnati partners with a Cincinnati-based communications and branding firm for their campaign. Their average annual advertising budget is \$225,000.
- Campaigns target high-risk Cincinnati neighborhoods as determined by data. The advertising campaign utilizes billboard, radio and digital media, and focuses on simplifying the message delivery to communicate the ABCs of safe sleep through visuals and storytelling.
- Awareness activities are often targeted at key times of year, such as major holidays or sporting events.
- Research drives the public awareness campaign to address the misperceptions that lead to unsafe sleep practices and challenge the ABCs, including fatigue and the "It Won't Happen to Me" optimism bias.
- Digital media uses Facebook paid spots that point to further educational content on the web.
- Cradle Cincinnati has partnered with retail businesses for in-store public awareness messaging, such as floor decals. They also partner with community churches to help disseminate messages and with the United Way for crib distribution.
- Working with their community partners, Cradle Cincinnati has identified six moms who act as a continual focus group for communications messages and new campaign tactics.

IV. NEXT STEPS UNDER CONSIDERATION

With support from community, business and government partners, and backed with knowledge of the driving factors behind sleep-related infant mortality in Nashville, as well as a better understanding of how to communicate around the issue with our target audiences, NashvilleHealth is well-positioned to develop and execute a large public awareness campaign on infant safe sleep. In order to accomplish this, we are actively seeking funding to design and develop the campaign (Phase II) and to execute that campaign with broad community partnerships (Phase III). The following areas will be key pieces of this work:

1. Develop and launch a community-wide public awareness campaign.

- Further pursue insights from Nurses for Newborns partnership, and interview new moms of at-risk infants.
- Based on research, create campaign messaging and imagery for posters and handouts, social media ads, bus wraps and bus shelter signs.
- Test messaging with community stakeholders and partners, such as FIMR, March of Dimes, Nurses for Newborns and faith partners.
- Continue to work with Mt. Zion First Lady Dr. Stephaine Walker as a spokesperson for community-wide campaign launch. Support a broader Mt. Zion partnership with additional resources as necessary.
- Target messages to high-risk zip codes, if possible.
- Engage recommended radio stations for on-air ads.
- Engage Metro Transit Authority and billboard companies for advertising of the campaign.
- Develop digital media campaign on Facebook and Instagram to accompany traditional advertising with boosted and paid posts using geo-targeting to ensure we are reaching high-risk mothers.
- Secure earned media with the Tennessean and Nashville Public Radio/WPLN to heighten broad community awareness of the rate of infant deaths in Nashville among influencers and opinion leaders.
- Continue to engage a graduate student intern to support ongoing data collection and partner outreach.

2. Build a cadre of stakeholders to amplify the public awareness campaign.

- Work with community groups, government and citizens to fine tune messaging and imagery.
- Engage MPHD home visitors, Nurses for Newborns and faith partners to share information and campaign materials.
- Identify and secure the following partnerships:
 - Birthing hospitals and NICUs to share information and display campaign posters, with attention to high-risk families.
 - Crib partners, such as MPHD and United Way, to amplify existing availability and access to free cribs.
 - National partners such as March of Dimes for expertise and collaboration on best practices.
 - Retail partners with health-related interests, such as CVS, Walgreens and Kroger.
- Explore new partnerships with nonprofit social service organizations, State and Metro government, businesses, health providers, retail, and community organizations and churches to help distribute campaign messages to their constituents.

3. Leverage, understand and utilize data resources.

- Better understand current data sources and methods for data collection in Davidson County, including evaluating and addressing data discrepancies, followed by organizing and streamlining data collection, potentially using Cradle Cincinnati's approach as a model.

- Work with Metro and other stakeholders to support timely information dissemination on relevant websites, like www.healthynashville.org.
- Become more familiar with the work of FIMR and request FIMR expert feedback on evolving campaign.
- Consider leveraging principal relationships of NashvilleHealth to engage the Tennessee General Assembly on legislation—setting parameters around data collection on infant mortality, expanding education of infant safe sleep practices.
- Refine resource direction, such as simplifying the system for obtaining a free crib. This will

be integral in offering an actionable item for the awareness campaign (in order to measure response to campaign engagement).

- Utilize infant sleep practices data findings from the Nashville Community Health + Well-being Survey.

4. Consider partnering with Cradle Cincinnati.

- Cradle Cincinnati has begun a program to offer consulting and partnership services to other communities. Such a partnership could range from general consulting to implementation of a full public awareness campaign for Davidson County.

V. TIMELINE AND ACTIVITIES

2018 Review

Phase I Objectives Achieved (December 2017-November 2018)

- Received \$50,000 contribution from Tivity Health for first phase of project.
- Evaluated top market research firms and contracted with RIVA Market Research.
- Conducted focus groups for qualitative research.
- Traveled to Cincinnati on fact-finding mission with Cradle Cincinnati, Cincinnati Children’s Hospital and Cradle’s advertising firm.
- Conversations with Nurses for Newborns to better understand safe sleep practices of their clients, and explore data collection partnership.
- Connected with the MPHD regarding current available data.
- Attended FIMR committee meeting to present about project, gain feedback and learn about FIMR processes and activities.
- Reviewed current MPHD safe sleep programs, outreach and awareness activities.
- Conducted interview with State of Tennessee Safe Sleep Coordinator to learn about past and current activities and best practices/lessons learned.
- Conducted analysis of recent safe sleep ad campaigns, nationally and internationally.
- Developed overview of key infant mortality facts and insights in Nashville and Tennessee.
- Reached out to Metro Transit Authority regarding potential partnership for advertisements on bus wraps and shelters.
- Distributed onesies with safe sleep messaging at the Nashville Community Baby Shower held at Meharry Medical College on March 17, 2018; nearly 275 expectant parents were in attendance.¹⁴
- Held photo session with Mt. Zion First Lady and Chief Health Overseer Dr. Stephaine Walker and advisor Kiara Young and their children for images to use in campaign.
- Developed handbill with messaging and imagery for congregation based on insights from focus groups and ad review.
- Partnered with Mt. Zion for two public awareness events held during two separate church services at different locations (North Nashville and Antioch); imagery and safe sleep handbills developed and shared with church congregation in person and online.

Moving Forward

Phase II

- Secure funding for Phase II.
- Further develop creative materials for use during preliminary campaign launch.
- Gain better understanding of the current channel(s) for crib distribution in Nashville prior to attaching this as an action in campaign messaging or as a tracking device for campaign reaction.
- Maintain connections with MPHD, FIMR, the Tennessee Department of Health and Mt. Zion for insights on evolving campaign.
- Create social media presence with accounts specific to campaign.
- Expand the reach of campaign materials with non-digital visual impressions and the addition of foundational media.
- Invite executive director of Cradle Cincinnati to travel to Nashville and brief community stakeholders on their work.
- Revisit stakeholders and thought leaders to gather their insight on work completed thus far and next steps to be taken.
- Add data collected from Nurses for Newborns' surveillance to further inform the direction of the campaign.
- Plan for campaign targeting (via zip codes or other community-distribution plan) in order to ensure impressions reach the highest risk populations.
- Target ads for awareness months and high-risk times (times of year when sleep-related infant deaths typically rise).
- Track the response rate (and increases from the year prior to the launch of the campaign) to our partners providing actionable items related to safe sleep needs, such as free bassinets and pack-n-plays.

Our objective is to achieve a 25% decrease in the number of sleep-related infant deaths in Nashville.

Phase III

- Secure funding for Phase III.
- Expand the reach of campaign materials with additional non-digital visual impressions and media placements.
- Achieve 20% increase in social media engagements.
- Track the campaign response rate to our partners providing actionable items related to safe sleep needs.
- Convene community focus group to continue to refine message.
- Reconvene creative team to hone campaign materials according to lessons learned from quantitative evaluation results.

Phase IV

- Garner support for ongoing adjustments and distribution of campaign materials, in order to continue changing behaviors (and sustaining successful gains) around this issue in Nashville well into the future.
- Focus on decreasing sleep-related infant deaths in Nashville by 25% to move toward the infant mortality target provided by Healthy People 2020: 6 infant deaths per 1,000 live births.

ADDENDA

TABLE OF CONTENTS

Key Takeaways from Focus Groups

Advertisements Featured in Focus Groups

Partnership with Mt. Zion Baptist Church

Infant Mortality Fact Sheet

The following are drawn from a series of focus groups conducted by RIVA Market Research for the benefit of NashvilleHealth’s initiative to reduce sleep-related infant mortalities in Nashville. The purpose of the focus groups was to understand the perceptions, opinions, beliefs and attitudes of women whose children could be at risk for unsafe sleep practices. The groups included 17 black mothers and pregnant women between the ages of 18 and 25. This target population was chosen because the number of deaths among black infants with mothers less than 25 years of age is higher than the overall infant mortality rate. Below is a sampling of participant responses.

Perceptions

- A healthy pregnancy is one where the mom eats right, takes her prenatal vitamins, sees the doctor regularly, avoids stress, and manages the conditions that can lead to premature delivery, such as high blood pressure and gestational diabetes.
- Support from loved ones was a key factor in how prepared respondents felt when they were pregnant. Those who had friends/family helping out felt more prepared than those who did not.
- Most women were single and living in a multi-generational home with parents, grandparents, siblings and/or extended family. Among moms with children, several mentioned there were other young children in the home with their baby.
- There was broad confusion in moms regarding where to get a free crib: some knew where to get one; others didn’t. First time moms automatically thought of a “free crib” as something they can get from a family member and didn’t name WIC or similar programs.
 - One group mentioned that there were many hoops to jump through for avenues like social services (having to leave a message and wait for a return phone call).
- Information sources for first time moms include: OB/GYNs, moms, older siblings who are parents, self-learned lessons from babysitting siblings and cousins.
 - Moms across all groups mentioned Google as their number one source of information,

especially when they received conflicting information from other sources.

- Social media usage was brought up by moms with children under 3 unaided, but had to be prompted for first time moms.
 - While moms with children under 3 mentioned social media unaided, they were quick to debate which platform worked for them. Some liked Twitter, while others did not.
 - Overwhelmingly, for first time moms, Facebook groups were seen as most helpful due to the open discussion format, interactive features, ability to get specific answers to their questions, and the opportunity to communicate with others “like themselves.”
 - Snapchat, although used, was not seen as a good platform for advertising.

Safe Sleep

- When queried about safe sleep, the usual response was to recite the ABCs of safe sleeping: Alone, on the baby’s back, and in a crib. This indicated that Respondents were aware of safe-sleeping practices, even if they didn’t necessarily practice them themselves.
- Views on co-sleeping indicated it was situational—they co-sleep for mom’s comfort or ease or when the baby won’t go to sleep alone.
- Respondents indicated what works for one mom might not work for another:
 - Respondents challenged that others in their life have co-slept with their baby and nothing has happened so they will do the same.
 - A sizable number of moms confided they co-slept with their babies as a rule. For some, it was because they were breast feeding and it was too much work to get up and put the baby somewhere else when the baby finished. They invariably mentioned they were very light sleepers and made sure they stayed either awake or woke up often to check on the baby. In some ways, they thought their actions were a protection against unsafe sleep rather than a possible precipitant.

During the focus groups, two print ads and two TV spots that talked about the dangers of infant sleeping deaths were shown. Key takeaways from the reactions to the ads were as follows:

- Messages deemed most impactful were those that did not shy away from the consequences that could occur if the guidelines are not followed. In fact, many of the women who had earlier revealed that they co-slept indicated they were seriously rethinking that policy, as well as realizing the risks of allowing the baby to sleep on his/her stomach.
- Respondents agreed that ads targeted to address a mother’s fear of unintentionally harming her baby with unsafe sleep practices were more compelling. These types of ad kept their attention longer than those designed to encourage moms to express her love by following safe sleeping rules.

- Print Ad Reactions (as pictured here):
 - Careful attention should be placed on language when talking about the issue. For example, the word “die” came across too strongly.
 - Statistics received mixed reactions. Respondents didn’t like that statistics were not in whole numbers (such as “3.5 babies die...”).
 - Respondents perceived having a phone number to call or website link as helpful so that moms can reach out for more information, if needed.
 - Be aware of sensory overload and use of too many colors.

respondents. Seeing that infant death could happen to a healthy baby made them think of their own child and changing their behavior.

- Radio and billboard advertisements were seen as good methods to get the message out about safe sleep practices. Across the groups, the women could easily name radio stations that they listened to and agreed that they would pay attention if an ad on safe sleep came up. The women also mentioned keeping an eye out for the advertisements on buses to stay informed.



- TV Ad Reactions:
 - Across the groups, the women found the visual demonstration of how to put a baby to sleep helpful.
 - Personalization is key. A “real life” story made a larger impact on the

Partnership with Mt. Zion Baptist Church

As a portion of Phase I work toward creating a targeted campaign to increase awareness of infant safe sleep practices, NashvilleHealth collaborated with Mt. Zion First Lady and Chief Health Overseer Dr. Stephaine Walker to develop infant safe sleep imagery and messaging. These materials were shared with the church congregation in person, from the pulpit and online. Average weekly attendance at Mt. Zion Baptist Church is 10,000.



NashvilleHealth participated in public awareness events held during church services at Mt. Zion Church locations in October and November 2018.



These safe sleep handbills, featuring Dr. Stephaine Walker and her infant son, were developed based on insights from focus groups and distributed to Mt. Zion congregants.

Infant Mortality Fact Sheet

- According to the CDC, the **U.S. infant mortality rate in 2016 was 5.9 deaths per 1,000** live births. That is comparable to the infant mortality rate in the country of Serbia. The U.S. is doing almost doubly worse than South Korea (3/1,000) and Bermuda (2.5/1,000) (unicef.org 2015 data).
- Nationally, **9.2 of 1,000 babies with moms between the ages of 15 and 19 die before they turn one**, and the male to female ratio of infant deaths is 60:40 (Frontiers in Neurology 28 October 2016 | <https://doi.org/10.3389/fneur.2016.00180>).
- The Tennessee infant mortality rate in 2016 was **6.9 deaths per 1,000** live births (America's Health Rankings).
- Davidson County's infant mortality rate in 2016 was **7.5 deaths per 1,000** live births (healthynashville.org).
- 5.5 of 1,000 white infants in Tennessee (5.8 in Davidson County) die before reaching their first birthday, while **11.3 of 1,000 black babies in Tennessee** (12.1 in Davidson County) **die before celebrating a birthday** (America's Health Rankings and healthynashville.org).
- **Tennessee's rate of black infant deaths is in line with the overall infant death rate in the nation of Libya.** Davidson County's rate of black infant deaths is equal to the overall rate in Albania, the country known as "third world Europe" (unicef.org 2015 data).
- According to the CDC, the sudden death of an infant under the age of one, caused by suffocation in a sleeping environment, is termed sleep-related infant death.
- There are **3,500 sleep-related deaths among U.S. babies each year**; that is 15% of all infant deaths in America (cdc.gov).
- **Sleep-related deaths represent approximately 25% of all infant deaths in Tennessee** and one-third of all infant deaths in Metropolitan Nashville/Davidson County (healthynashville.org and tn.gov 2011-2015 safe sleep data).
- Approximately **66%** of 2015 sleep related deaths in Nashville were **black infants** (MPHD, 2015).
- Data indicates that **black male infants born before 38 weeks gestation (preterm) are at the greatest risk** for experiencing a sleep-related death in Metropolitan Nashville (MPHD, 2015).
- **41% of preterm births in Nashville in 2015 were black infants** (MPHD, 2015).
- Review of sleep-related infant deaths in Tennessee, as reported in the tn.gov Safe Sleep Statistics report, reveal that the primary factors contributing to sleep-related infant deaths include:
 - Baby **not sleeping in a crib** or bassinette: 77%
 - Baby **sleeping with other people**: 55%
 - Baby **not sleeping on his back**: 51%
- Medical research demonstrates that infants are less likely to experience a sleep-related death, particularly in the first 6 months of life, when they are **placed on their back and in their own crib without any items** such as blankets, toys, etc. present while they sleep (American Academy of Pediatrics).

NOTES

1. Tennessee Commission on Children and Youth. (2016). Kids Count: The State of the Child in Tennessee. Retrieved from www.governorsfoundation.org
2. Metro Public Health Department Healthy Nashville web portal. (2016). Davidson County Infant Mortality Rate. Retrieved from www.healthynashville.org
3. Tennessee Department of Health. (2018). Child Fatality Annual Report-2016 Data: Understanding and Preventing Child Deaths in Tennessee. Retrieved from www.tn.gov
4. Metro Public Health Department Nashville/Davidson County. Safe Sleep. Fetal and Infant Mortality Review. Retrieved from www.nashville.gov
5. Bombard JM, Kortsmitt K, Warner L, et al. Vital Signs: Trends and Disparities in Infant Safe Sleep Practices — United States, 2009–2015. Morbidity and Mortality Weekly Report. (2018; 67:39–46). Retrieved from www.cdc.gov/mmwr
6. National Institute of Child Health and Human Development, National Institutes of Health, US Department of Health and Human Services. Fast Facts About SIDS. Retrieved from www.safetosleep.nichd.nih.gov
7. National Institute of Child Health and Human Development, National Institutes of Health, US Department of Health and Human Services. Fast Facts About [sic] SIDS. Retrieved from www.safetosleep.nichd.nih.gov
8. Tennessee Department of Health. (2016). Safe Sleep Statistics. Retrieved from www.tn.gov
9. National Institute of Child Health and Human Development, National Institutes of Health, US Department of Health and Human Services. Progress in Reducing SIDS. Retrieved from www.safetosleep.nichd.nih.gov
10. Metro Public Health Department Nashville/Davidson County. 2015 data obtained directly from MPH. (2017, November).
11. Tennessee Department of Health. (2016). Safe Sleep Statistics. Retrieved from www.tn.gov
12. Allison, Autumn. (2016, March 28). 10 Largest Churches in Nashville Area. Tennessean, Retrieved from www.tennessean.com
13. Cradle Cincinnati. (2018, February 8). Safe Sleep Initiatives in Hamilton County. Retrieved from www.cradlecincinnati.org
14. Meharry Medical College. (2017). Free Community Baby Shower at Meharry Benefits Many Expectant Parents. Retrieved from home.mmc.edu



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