

## Evaluation of Community Baby Showers to Promote Safe Sleep

Carolyn R. Ahlers-Schmidt, Ph.D.<sup>1</sup>, Christy Schunn, L.S.C.S.W.<sup>2</sup>,  
Millicent Dempsey, R.N., B.S.N.<sup>3</sup>, Sheila Blackmon, R.N., B.S.N.<sup>3</sup>

<sup>1</sup>University of Kansas School of Medicine-Wichita, Department of Pediatrics, Wichita, KS

<sup>2</sup>KIDS Network, Wichita, KS

<sup>3</sup>Wichita Black Nurses Association, Wichita, KS

### Abstract

**Background.** In recent years, Kansas has ranked 40<sup>th</sup> among all states for worst infant mortality rates. For African American infant mortality, Kansas had the highest rate in the nation. Because of these statistics, initiatives have been implemented to reduce these rates by the KIDS Network, in partnership with the Black Nurses Association and the National Association of Hispanic Nurses. The purpose was to describe participants' knowledge and intentions regarding safe sleep following a Community Baby Shower.

**Methods.** The Community Baby Shower was targeted to African American women via black churches, physician offices, clinics, black sororities, word of mouth, radio, and print. All Baby Shower participants were asked to complete a brief survey following the shower.

**Results.** The majority were African American (61%) with a high school diploma or less schooling (63%). Nearly all (97%) planned to place their baby supine for sleep. However, less than half (47%) planned to have the baby sleep in the parents' room in a separate crib. Attendees exhibited high levels of safe sleep knowledge, stated intentions to utilize most safe sleep recommendations, and reported babies would have slept in unsafe environments without the portable crib.

**Conclusions.** Our Baby Showers were attended by the target audience, who exhibited high levels of safe sleep knowledge, and stated intentions to utilize most safe sleep recommendations following the Shower. However, some participants were resistant to following at least some of the recommendations. Additional venues and other educational strategies may be needed to maximize the uptake of these recommendations.

*KS J Med 2014; 7(1):1-5.*

### Introduction

Following the Back-to-Sleep campaign in the early 1990s, there was a dramatic decrease in the number of infants who die each year from Sudden Infant Death Syndrome (SIDS).<sup>1,2</sup> However, the 2010 United States infant mortality rate ranked highest of any industrialized nation at 5.98 per 1000 live births and nearly 2500 died of SIDS.<sup>3,4</sup> Further, although the number of infant deaths decreased overall secondary to supine sleep position, other types of sudden unexpected infant deaths, including accidental suffocation and strangulation, have increased.<sup>5</sup> This led, in part, to the

American Academy of Pediatrics (AAP) revising its guidelines in 2011 to emphasize sleep environment as well as positioning.<sup>6</sup>

In August of 1998, following four infant deaths from unsafe sleep environments, the Cribs for Kids campaign was launched in Allegheny County, PA.<sup>7</sup> This program distributed full-sized cribs and mattresses, along with written educational materials, to low-income families. In the first year of the program, 500 families participated. From 1998 to 2003, the local SIDS rate dropped by 46%.

In Kansas, 15% of all infant deaths are designated as SIDS.<sup>8</sup> The SIDS rate in Sedgwick County for 2010 was 8.2 infants per 1000 live births.<sup>9</sup> In recent years, Kansas has ranked 40<sup>th</sup> among all states for worst infant mortality rates. For African American infant mortality, Kansas had the highest rate in the nation. Further, over the last 20 years the African American infant mortality rate has remained more than double the Caucasian rate.<sup>8</sup> Because of these statistics, initiatives have been implemented to reduce these rates by the Kansas Infant Death and SIDS (KIDS) Network, in partnership with the Black Nurses Association and the National Association of Hispanic Nurses.

The KIDS Network holds Community Baby Showers twice per year with the goal of improving health and safety outcomes of infants. These events are designed to target groups with disproportionately high rates of infant mortality, such as African Americans and low-income families. Along with education, parents are provided resources to create a safe sleep environment, including a portable crib, wearable blanket, and pacifier. The anticipated results are that parents will know: (1) the ABCs of infant safe sleep (Alone, on their Back, in a Crib), (2) to place their infant supine for every sleep, and (3) to place infants in a safe sleep environment (i.e., crib) when they otherwise would not have.

Although the KIDS Network partners with the national Cribs for Kids initiative ([www.cribsforkids.org](http://www.cribsforkids.org)), the Baby Showers differ in several ways. To begin, parents were offered direct educational counseling to enhance understanding and retention of materials, as only 40% could explain SIDS accurately after reading Allegheny County's program materials. In addition, the cribs provided at the Baby Showers are portable pack-n-plays (safety approved by the Juvenile Product Safety Commission) that

support infant weights consistent with one-year weight ranges. The portable cribs facilitate the "shared room, separate bed" AAP recommendation. These cribs are moved easily from one room to another and fit better because they are smaller than standard cribs. Offering portable cribs to low-income, at-risk families, which could be used by other child care providers (e.g., grandparents or childcare) was identified as important. Finally, the Baby Shower format was selected as group educational luncheons for pregnant women have been shown to enhance self-esteem, reduce isolation, promote peer bonding, and provide important information.<sup>10</sup>

The purpose of this study was to describe participants' demographics, as well as knowledge and intentions regarding safe sleep, following a Baby Shower.

## Methods

The Community Baby Showers were targeted to African American women via black churches, physician offices, clinics, black sororities, word of mouth, radio, and print. All Baby Shower participants were asked to complete a brief survey following the shower. The study was approved by two local Institutional Review Boards.

## Results

Of the 184 participants in the Baby Showers, 180 (98%) completed the surveys. Ninety-seven (53.9%) attended the October 2011 shower and eighty-three (46.1%) attended the January 2012 shower. Attendees were born between 1963 and 1996, with 50.5% (91) born in the 1980s and 33.9% (61) born in the 1990s. Seven (3.9%) chose not to provide their birth year. The majority were black (109; 60.6%) with a high school diploma or less (114; 63.3%; see Table 1). Most mothers reported not smoking during pregnancy (155; 86.1%).

Table 1. Participant characteristics.

Characteristic	N (%)
<b>Race</b>	
Black	109 (60.6%)
White	45 (25.0%)
Other	6 (3.3%)
No Response	20 (11.1%)
<b>Ethnicity</b>	
Hispanic	18 (10.0%)
Non-Hispanic	29 (16.1%)
No Response	133 (73.9%)
<b>Education Level</b>	
Some High School	34 (18.9%)
High School Diploma	65 (36.1%)
GED	15 (8.3%)
2-Year Community College Graduate	20 (11.1%)
4-Year College Degree	12 (6.7%)
Graduate School Degree	3 (1.7%)
Other	18 (10.0%)
Missing	1 (0.6%)
<b>Intention for Pacifier Use</b>	
Always	14 (7.8%)
Almost Always	22 (12.2%)
Sometimes	120 (66.7%)
Never	17 (9.4%)
No Response	7 (3.9%)
<b>Intention to Breastfeed</b>	
Yes	115 (63.9%)
No	36 (20.0%)
No Response	29 (16.1%)

Knowledge of safe sleep. Parents were asked five questions regarding Safe Sleep based on the information presented at the Baby Shower. Responses to individual questions are presented in Table 2. Because responses did not differ significantly between the October and January Baby Showers they are reported together. Of the 157 participants completing the knowledge items, 53.5% (84/157) correctly answered all five items, 38.2% (60/157) answered four, 7% (11/157) answered three, and 1.3% (2/157) answered two.

Table 2. Correct responses to knowledge items regarding SIDS and safe sleep.

Question	N of 157 (%)
What are the ABCs of safe sleep? (Alone, Back, Crib)	125 (79.6%)
SIDS is the leading cause of death of infants between 1 month and 1 year of age. (True)	156 (99.4%)
After traveling, babies can stay sleeping in their car seat when at home. (False)	148 (94.3%)
The safest place for babies to sleep is in the same room with parents. (True)	115 (73.2%)
Child care providers should create a Safe Sleep policy and communicate it with all parents. (True)	153 (94.5%)

Intentions for baby care and safety. Few mothers (16/175; 9%) planned to continue to smoke after pregnancy, but the majority of those (14/16; 87.5%) planned to smoke only outside. In addition, 21.7% (38/175) reported other members of the household smoked, but mainly outside (32/38; 84.2%). Most planned to breastfeed (115/151; 76.2%) and for their baby to use a pacifier (156/180; 86.7%; see Table 1). Nearly all (152/157; 96.8%) planned to place their baby supine for sleep. However, 52.9% planned for baby to sleep in a separate room (82/155). The remainder (73/155; 47.1%) planned for baby to sleep in a separate crib in the parents' room.

Attendees reported that if they had not received a crib from this program their babies would have slept in an adult bed (137/171; 80.1%), car seat (2/171; 1.2%), sofa (2/171; 1.2%), or other unsafe sleep environments (30/171; 17.5%). Other sleep

areas listed included laundry basket, dresser drawer, floor on a sleeping bag, in bed with other kids, or sleep location was undetermined before the shower. Items that were already in the baby's sleeping areas at home included blankets, bumper pads, pillows, and stuffed toys (33/85; 38.8%). However, 69.2% (101/146) of attendees stated that they would make changes to their baby's sleeping area based on the information received at the Baby Shower.

Intentions for dissemination of knowledge. Participants (144/157; 91.7%) stated that the Safe Sleep for Babies DVD was helpful; the remaining 8.3% left the question blank. In addition, 99.4% (156/157) planned to share the DVD with others. All but one participant, (156/157; 99.4%) felt comfortable sharing safe sleep information with everyone who would be caring for their baby, including child care providers, grandparents, friends, and family. The majority of attendees were Very Satisfied (59.1%; 88/149) or Satisfied (24.8%; 37/149) with the Baby Shower, while the remainder were Neutral (7/149; 4.7%) or Very Dissatisfied (17/149; 11.4%).

## Discussion

The Kansas Cribs for Kids program has educated nearly 200 Sedgwick County parents through the Community Baby Showers in the last year. The majority of participants were from our target audience, those with risk factors for SIDS (e.g., young, African American, lower education, non-breastfeeding, without a crib). In addition, these families have received tool kits including a crib, wearable blanket, pacifier, ABCs of Safe Sleep DVD, and other educational materials. Survey results suggested participants had high levels of knowledge following the Community Baby Shower, however, there was still room for improvement. Participants were least likely to know that the safest place for a baby to

sleep is in the same room with parents. This may be due to confusion over the difference between room sharing (which is recommended) and bed sharing (which is not recommended).<sup>6,11</sup> However, participants reported that their babies would be sleeping in unsafe locations had they not received a crib from this program. These results were similar to the Allegheny County program where parents reported that without the Cribs for Kids program babies would have slept in the adults' bed (38%), a bassinet (25%), and the remainder on the floor or in a playpen.<sup>7</sup>

The majority of our participants intended to follow safe sleep recommendations and place baby supine, alone, and in a crib. However, small numbers of parents reported plans to place their babies in non-supine positions. It is not clear from this study why participants would choose sleep positions other than supine and should be evaluated further. Less than half of participants intended to have baby in a separate bed in the parents' room. This may be due to confusion over the recommendation (based on response to the knowledge item), or to other, unidentified barriers and also should be examined in future studies.

Finally, participants reported feeling comfortable sharing the safe sleep recommendations with family or other caregivers for their baby. Nearly all reported plans to share the ABCs of Safe Sleep DVD with others. This may indicate that providing parents with tools to enhance their ability to share complete and accurate information with others is important.

Limitations of this study include the self-report nature of the survey, especially due to the fact that survey responses were not anonymous and missing data may have affected our results, in particular those related to race/ethnicity. In addition, we are limited by the lack of pre-intervention knowledge measures, and lack of follow-up

to see if parents actually implemented safe sleep recommendations, utilized the crib, and shared the ABCs of Safe Sleep DVD and educational materials with others. However, results from the Allegheny County survey indicated 100% (n=105) of babies were placed in the cribs to sleep, although only two-thirds of parents reported using the supine position.<sup>7</sup>

In conclusion, our Baby Showers were

attended by the target audience, who exhibited high levels of safe sleep knowledge, and stated intentions to utilize most safe sleep recommendations following the Shower. However, some participants were resistant to following at least some of the recommendations. Additional venues and other educational strategies may be needed to maximize the uptake of these recommendations.

## References

- <sup>1</sup> The National Institutes of Health, Eunice Kennedy Shriver National Institute of Child Health and Human Development. Last updated 06/26/2013. Available at: <http://www.nichd.nih.gov/sids/>.
- <sup>2</sup> American Academy of Pediatrics AAP Task Force on Infant Positioning and SIDS: Positioning and SIDS. *Pediatrics* 1992; 89(6 Pt 1):1120-1126. PMID: 1503575.
- <sup>3</sup> Central Intelligence Agency. The World Factbook. 04/07/2013. Available at: <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2091rank.html>.
- <sup>4</sup> American SIDS Institute. Welcome to the American SIDS Institute. 2009. Available at: <http://sids.org/>.
- <sup>5</sup> Shapiro-Mendoza CK, Kimball M, Tomashek KM, Anderson RN, Blanding S. US infant mortality trends attributable to accidental suffocation and strangulation in bed from 1984-2004: Are rates increasing? *Pediatrics* 2009; 123(2):533-539. PMID: 19171619.
- <sup>6</sup> Task Force on Sudden Infant Death Syndrome. SIDS and other sleep-related infant deaths: Expansion of recommendations for a safe infant sleeping environment. *Pediatrics* 2011; 128(5): 1030-1039. PMID: 22007004.
- <sup>7</sup> Carlins EM, Collins KS. Cribs for Kids: Risk and reduction of sudden infant death syndrome and accidental suffocation. *Health Soc Work* 2007; 32(3):225-229. PMID: 17896680.
- <sup>8</sup> Kansas Department of Health and Environment. Selected Special Statistics Stillbirths and Infant Deaths Kansas, 2009. Available at: <http://www.kdheks.gov/hci/IMR/IMR2009.pdf>.
- <sup>9</sup> Kansas Blue Ribbon Panel on Infant Mortality. Infant Mortality in Kansas. Available at: <http://www.sedgwickcounty.org/healthdept/Project%20Imprint/Infant%20Mortality%20Fact%20Sheet%20Blue%20Ribbon%20Panel.pdf>.
- <sup>10</sup> Canuso R. Low-income pregnant mothers' experiences of a peer-professional social support intervention. *J Community Health Nurs* 2003; 20(1):37-49. PMID: 12581942.
- <sup>11</sup> Scheers NJ, Rutherford GW, Kemp JS. Where should infants sleep? A comparison of risk for suffocation of infants sleeping in cribs, adult beds and other sleeping locations. *Pediatrics* 2003; 112(4):883-889. PMID: 14523181.

*Keywords:* sleep, infant mortality, sudden infant death, African Americans, infant equipment