

Safe Sleep Practices

Sudden unexpected infant death (SUID) is the death of a previously healthy infant (<365 days old), without an immediately obvious cause prior to an investigation. SUID deaths in unsafe sleep settings have been on the rise in recent years. Three important diagnostic categories of SUID associated with sleep include (1) SIDS (sudden infant death syndrome, when no cause emerges, even after a thorough investigation of the death scene, clinical history, and autopsy findings); (2) ASSB (accidental suffocation or strangulation in bed); and (3) other unspecified causes. Some deaths categorized as SIDS or other unspecified causes likely are also associated with unsafe sleep environments. As increasing care is given to proper diagnostic categorization by use of death-scene investigation, autopsy, and child/infant death review, greater opportunity exists to develop more specific prevention recommendations in sleep-related deaths.

In 2011, the American Academy of Pediatrics (AAP) updated its safe sleep recommendations in an effort to address the increasing proportion of sleep-related deaths.¹ These recommendations emphasize the importance of the back (supine) sleep position; stress the need for infants to sleep alone on a firm surface that is clear of soft or loose objects; and caution against the use of tobacco, alcohol, and illicit drugs during pregnancy and after birth.

Recommendations for Reducing the Risk of Sleep-related Infant Death (AAP, 2011)¹

- Place infants “back to sleep” for every sleep
- Use a firm sleep surface
- Room-share without bed-sharing
- Keep soft objects and loose bedding out of the crib, including wedges and positioners
- Avoid smoke exposure during pregnancy and after birth
- Consider offering a pacifier at nap and bed time
- Avoid overheating and covering an infant’s head
- Breastfeed
- Receive regular prenatal care
- Avoid alcohol and illicit drug use during pregnancy and after birth

Two factors are critical components of safe sleep: (1) infant sleep position and (2) whether the infant sleeps alone or with someone else.

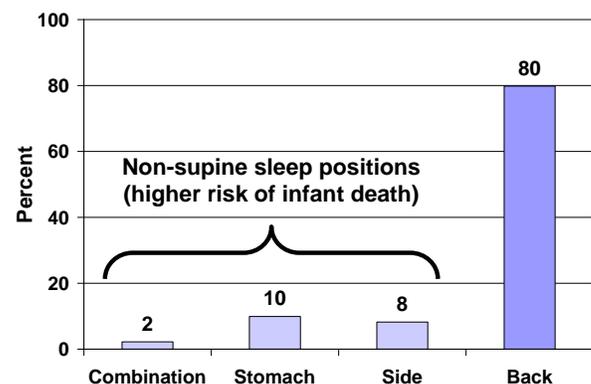
Although sleep decisions of parents and caregivers are likely the result of a variety of influences and considerations, Wisconsin PRAMS can provide some valuable information on infant sleep practices used by mothers and families in our state. Each sampled new mother receives the PRAMS survey two to three months after her baby is born. The survey asks a variety of questions, including some about the infant’s sleep environment.

1) How do you most often lay your baby down to sleep now? (On his/her side, back, or stomach.)

Since the recommendation is that infants be placed on their backs for every sleep, any mothers who answered *side*, *stomach*, or selected more than one answer were considered to be using a *non-supine sleep position*.

The national Healthy People 2020 target is to have at least 76% of infants placed to sleep on their backs.² For 2007-2008, results from Wisconsin PRAMS indicate that 80% of mothers who had a live birth reported placing their infants to sleep on their backs. This means 20% of mothers reported using a non-supine sleep position (Figure 1).

Figure 1: Infant sleep position



Source: 2007-2008 Wisconsin PRAMS, Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services.

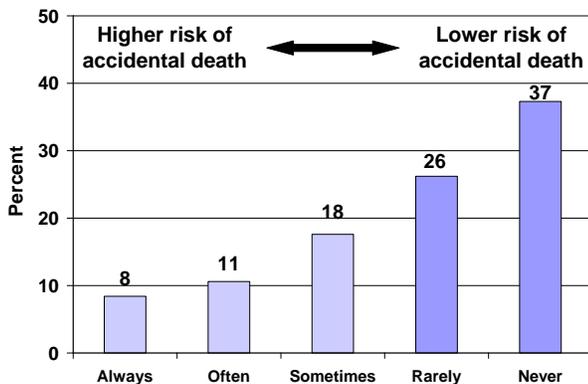
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2) How often does your new baby sleep in the same bed with you or anyone else? (*Always, often, sometimes, rarely, or never.*)

While room-sharing is recommended for infants, bed-sharing is not. Because of the documented risks associated with having an infant share a sleep surface with someone else, any mother who responded that her infant *always, often, or sometimes* slept in the same bed with someone else was considered to be using frequent bed-sharing.

In 2007-2008, 37% of new mothers in Wisconsin reported frequent bed-sharing for their infants (8% always, 11% often, and 18% sometimes) (Figure 2). Another 37% of Wisconsin infants *never* shared a bed. PRAMS may underestimate the proportion of infants who co-sleep on any surface, because the survey asked mothers only about infants sharing a *bed*; many infant deaths related to co-sleeping occur in places other than an adult bed, such as a couch or recliner.

Figure 2: Infant bed-sharing frequency



Source: 2007-2008 Wisconsin PRAMS, Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services.

When the two indicators are combined, only half (52%) of Wisconsin infants were reported to consistently be placed to sleep on their backs AND in their own sleep space.

Unsafe sleep practices by maternal characteristics

Safe sleep practices are not used by all groups at the same rate, and Wisconsin mothers with some characteristics are more likely to engage in unsafe sleep practices than others (Table 1). Although every mother and family is unique, understanding the

characteristics of mothers using unsafe sleep practices can help health care and service providers understand the barriers that families might face and design appropriate outreach and programmatic efforts that will result in behavioral change.

Younger mothers and mothers who have completed less education are more likely to use unsafe sleep practices than older mothers and those with more education. More than a quarter of mothers under 20 years of age reported using a non-supine sleep position (28%) for their infants and more than half reported bed-sharing (58%). Non-Hispanic black mothers were more likely to report using non-supine sleep positions (36%), compared with 20% or less of mothers of other racial and ethnic groups. Non-Hispanic black, Hispanic, and other (non-white) non-Hispanic mothers were more likely to report bed-sharing than non-Hispanic white mothers.

Mothers with lower household incomes, those who had no prenatal care or started care after the first trimester, and those without health insurance all reported higher rates of using unsafe sleep practices than other mothers. Higher rates of using unsafe sleep practices were also reported by women who were not married, had unintended pregnancies, or had been abused by a partner before or during pregnancy.

Some maternal characteristics were associated with bed-sharing but not sleep position. Mothers who breastfed, those on WIC, and those with depressive symptoms were all more likely to report infant bed-sharing than other mothers. Smoke exposure is itself a risk for sleep-related infant death. Mothers who reported that someone smokes in their house had slightly higher (although not statistically different) rates of non-supine sleep and bed-sharing than those without smoking in the house.

Barriers to safe sleep practices

There may be multiple reasons why some infants are not currently experiencing safe sleep environments. Parents, health care workers, and other caregivers all want what is best for the infant. If providers have a better understanding of safe

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Table 1. Unsafe Sleep Practices by Selected Maternal Characteristics, Wisconsin PRAMS, 2007-2008

Maternal Characteristic	Significant associations (see note)	Non-Supine sleep position		Bed-sharing (always/often/sometimes)	
		Percent	C.I. [±]	Percent	C.I. [±]
Total All Mothers		20	±2	37	±2
Maternal Age					
Under 20 years*		28	±8	58	±9
20-24 years	 	23	±4	41	±5
25-34 years	 	20	±3	33	±3
35 years and older		13	±5	33	±6
Maternal Education					
Less than high school	 	27	±5	54	±6
High school	 	22	±4	36	±4
Some college or college graduate		18	±3	33	±3
Maternal Race/ethnicity					
White, non-Hispanic		18	±3	29	±3
Black, non-Hispanic	 	36	±5	60	±5
Hispanic	 	18	±4	54	±5
Other, non-Hispanic*		20	±5	57	±6
Household Income					
Less than \$10,000		23	±5	53	±6
\$10,000 – \$49,999	 	22	±3	40	±4
\$50,000 or more	 	17	±3	25	±4
Prenatal Care					
Began in first trimester	 	18	±2	34	±3
Began after first trimester or no PNC	 	28	±5	48	±5
Health Insurance at Delivery					
Private or employer insurance		17	±3	31	±3
Medicaid	 	24	±3	44	±4
Uninsured (personal income)*	 	39	±13	49	±13
Marital Status					
Married	 	19	±2	32	±3
Not married	 	24	±3	47	±4
Pregnancy Intention					
Intended	 	19	±3	32	±3
Unintended	 	23	±3	45	±4
Abuse by Partner					
Abuse before or during pregnancy*	 	28	±8	50	±9
No abuse	 	20	±2	36	±2
Breastfeeding					
Never breastfed		22	±4	29	±5
Ever breastfed		20	±2	39	±3
WIC During Pregnancy					
Received WIC		22	±3	46	±4
Did not receive WIC		19	±3	31	±3
Postpartum Depressive Symptoms					
Reported depressive symptoms		24	±6	45	±6
No reported depressive symptoms		20	±2	35	±3
Smoke Exposure					
Smoking in the house*		27	±8	45	±9
No smoking in the house		20	±2	36	±2

Source: 2007-2008 PRAMS, Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services.

Note: Icons indicate a significant association between the maternal characteristic and non-supine sleep position () or bed-sharing (); Chi-square test p<0.05. *Indicates caution against over-interpretation, because less than 10% of Wisconsin births have this characteristic.

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sleep barriers that families might be facing, it could help them to better meet family needs and help ensure a safer sleep environment.

- Lack of access to a crib or portable play yard (e.g., Pack ‘n Play®)
- Friends, grandparents, other family members or caregivers may encourage non-supine sleep or co-sleeping
- Concerns that a separate sleep space will harm breastfeeding
- Worries about safety of the infant alone in a crib (may be related to SIDS, fear of “crib death,” or violence in the home/neighborhood)
- Personal or cultural beliefs about co-sleeping or other sleep practices
- Caregiver exhaustion
- Lack of knowledge of current recommendations
- Desire to be close to the baby, especially for mothers suffering from postpartum depression
- Lack of awareness of how alcohol and/or drugs impair caregiver awareness of infant during sleep
- Confusing or mixed messages about infant sleep from health care providers

How can we help families assure a safer sleep environment for their infants?

- Ensure all caregivers (including grandparents, family, day care providers) are aware of and follow safe sleep recommendations.
- Discuss the risks of infants sleeping (alone or with others) on couches, chairs, or adult beds.
- Listen to parents and work to understand their situation in order to better address their needs.
- Connect families with resources to overcome safe sleep barriers.
- Encourage the use of safe, awake “tummy time.”

About Wisconsin PRAMS

Prepared in the Division of Public Health, Wisconsin Department of Health Services. Wisconsin PRAMS is a statewide survey conducted by mail with telephone follow-up. It is designed to monitor the health and experiences of women before, during, and just after pregnancy. Every year, almost 1,900 women who delivered a live infant are randomly selected to participate. The 2007-2008 combined data file includes 2,059 mothers who responded to the surveys. The combined response rate was 55%.

<http://dhs.wisconsin.gov/births/prams/>

References:

1. American Academy of Pediatrics, Task Force on Sudden Infant Death Syndrome Policy Statement. SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment. *Pediatrics* 2011; 128:1030-1039. Available at <http://pediatrics.aappublications.org/content/early/2011/10/12/peds.2011-2284>. Accessed March 26, 2012.

2. Healthy People 2020. Maternal, Infant, and Child Health Objective 20. Available at: <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=26>. Accessed March 26, 2012.

Resources: (All accessed March 26, 2012)

Wisconsin Department of Health Services. Reducing the Risk of Sleep-related Infant Death. Available at: <http://www.dhs.wisconsin.gov/publications/P0/P00105.pdf>.

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AMCHP, ASIP, and PRAMS. Issue Brief: Data-Driven Decisions: Using Surveillance Data to Inform Infant Safe Sleep Programs Available at: <http://www.amchp.org/programsandtopics/womens-health/resources/Pages/AMCHP-Publications.aspx>. Accessed March 26, 2012.

National Institute of Child Health and Human Development. Safe sleep resources at <http://www.nichd.nih.gov/sids/>; Safe Sleep for All Babies at <http://www.nichd.nih.gov/news/resources/spotlight/101811-safe-sleep-for-all-babies.cfm>.

Comments from Wisconsin mothers

- *Every choice you make the baby has no say-so! So make good choices!*
- *Portable cribs should be available to low-income mothers.*

