

# Infant Safe Sleep Practices

Among Maryland Women Giving Birth 2009-2011

June 2013



The American Academy of Pediatrics recommends that infants be placed on their back for every sleep,

1. on a firm surface,
2. without soft objects and loose bedding
3. without bed-sharing
4. without exposure to second-hand smoke.<sup>1</sup>

Efforts to reduce infant mortality have led to recommendations that infants always be placed to sleep by following the ABC's of safe sleep: Alone, on their Back, in a Crib. Placing infants on their back substantially reduces the risk of Sudden Infant Death Syndrome (SIDS). When they sleep in cribs with firm mattresses, without stuffed toys, loose blankets, and

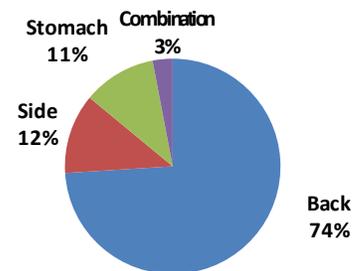
crib bumpers, the chances of suffocation are reduced. Infants sleeping alone are safer because cosleeping increases the chances that an adult may roll over on the child, smothering her/him. Finally, the prevention of maternal smoking and elimination of all exposure to second-hand smoke further reduces the risk of a SIDS death.

## Prevalence of Infant Sleep Positions

The 2009-2011 Maryland PRAMS survey included the following question: In which one position do you *most often* lay your baby down to sleep now? Check one answer

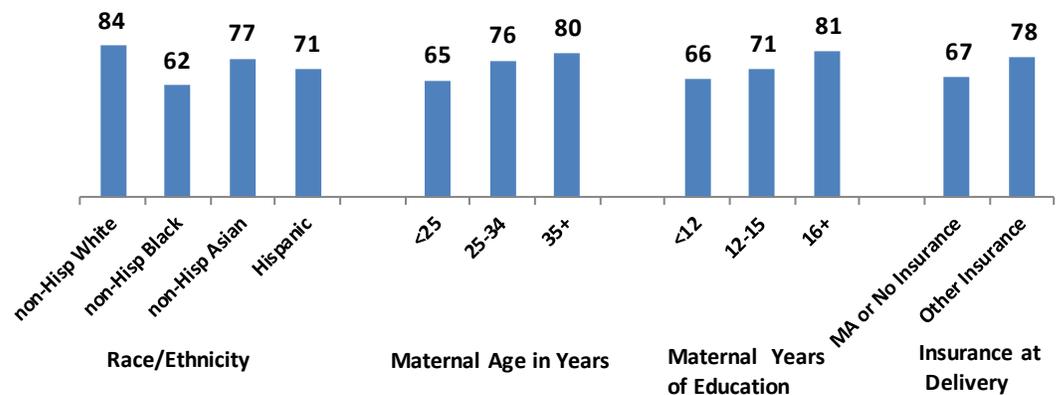
- On his or her side
- On his or her back
- On his or her stomach

Figure 1. Prevalence of Usual Infant Sleep Position, Maryland, 2009-2011



Nearly three quarters of new mothers reported most often placing their infants on their backs to sleep (Figure 1). This is the highest percentage reporting use of this optimal sleep position since the Maryland PRAMS survey was initiated in 2001. The prevalence was highest among non-Hispanic Whites (84%), older mothers (80%), women with a college degree (81%), and those with private health insurance (78%) (Figure 2).

Figure 2. Prevalence of Usual Infant Sleep Position on Back, Maryland, 2009-2011



### Prevalence of Cosleeping

The 2009-2011 Maryland PRAMS survey included the following question: How often does your new baby sleep in the same bed with you or anyone else?

Check one answer

- Always
- Often
- Sometimes
- Rarely
- Never

During the period 2009 through 2011, 60% of new mothers reported that their infant slept alone all or nearly all of the time (Figure 1). The prevalence of rarely or never cosleeping with their infant was highest among non-Hispanic Whites (72%), women 25 years or older (63%), mothers with at least a college degree (65%), and among those with private health insurance (63%) (Figure 2). (Note: This question was not asked in surveys conducted prior to 2009).

The prevalence of women reporting the use of both recommended safe sleep practices, i.e. always or almost always placing their infant on her/his back to sleep and rarely or never cosleeping with the infant was 47% (Figure 5). The percentage of women reporting both risky sleep behaviors, not usually placing their infant on her/his back and cosleeping was 13%. The remaining 40% of mothers reported using one of the safe sleep practices.

Figure 3. Prevalence of Cosleeping, Maryland, 2009-2011

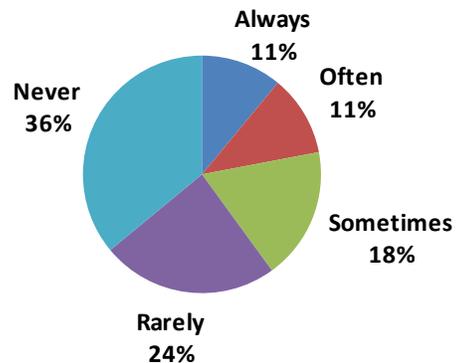


Figure 4. Prevalence of Rarely or Never Cosleeping, Maryland, 2009-2011

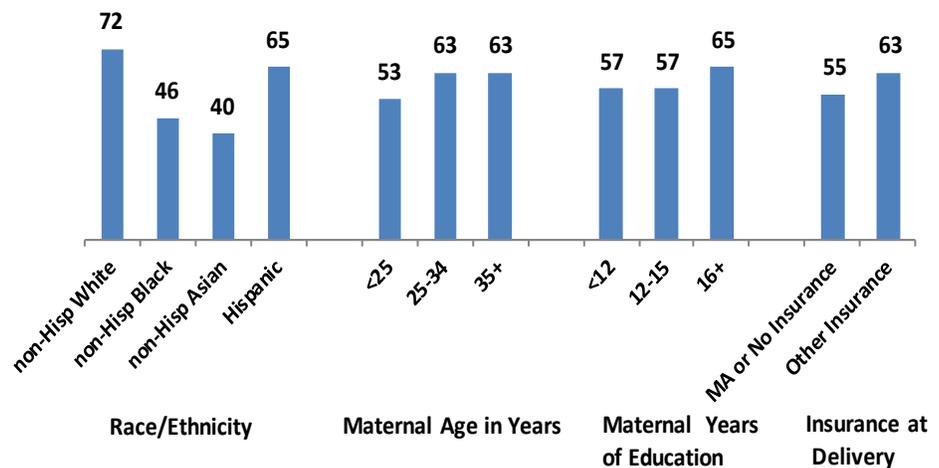
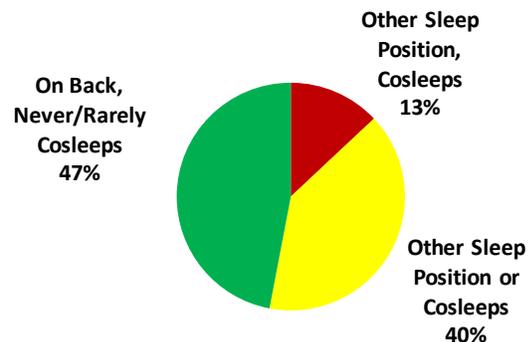


Figure 5. Prevalence of Usual Infant Sleep Positions and Cosleeping Behavior, Maryland, 2009-2011



## Factors and Safe Sleep Practices

Women who reported that their most recent pregnancy was intended were significantly more likely to use safe sleep practices than women with unintended pregnancies, as were those who received prenatal care in the first trimester (Table 1).

Those mothers who reported arguing more frequently with their partner or who reported being physically abused by their partner were significantly less likely to use safe sleep practices compared with moms not reporting problems with their partner.

### Maternal Smoking, Second-hand Smoke, and SIDS

Maternal smoking and second-hand smoke are associated with increased risk for SIDS. Eight percent of new mothers reported smoking during pregnancy and 13% smoked postpartum. Overall, 94% reported that they did not allow any smoking in their homes. Among the 13% of women who smoked postpartum, 81% reported not allowing anyone to smoke within their home.

### Discussion

The majority of Maryland mothers who delivered in 2009-2011 placed their infants to sleep primarily on their backs (74%) and never or rarely co-slept with their infants (60%). Women reporting physically abusive relationships were least likely to use these safe sleep practices.

Campaigns such as “Back to Sleep”, “Safe Sleep” and Baltimore City’s “B’More for Healthy Babies Safe Sleep Initiative” have raised awareness among mothers about infant sleep factors that prevent deaths due to SIDS or other sleep-related causes<sup>1,2</sup>. According to Maryland PRAMS data, there has been a significant and steady increase in mothers placing their infants to sleep on

**Table 1. Factors Associated with Infant Sleep Position and Cosleeping, Maryland, 2009-2011**

| Factor                          | % Placing Infant on Back to Sleep | Stat. Sig. Diff? | % Rarely or Never Cosleeping | Stat. Sig. Diff? |
|---------------------------------|-----------------------------------|------------------|------------------------------|------------------|
| Overall                         | 74                                |                  | 60                           |                  |
| Unintended Pregnancy            |                                   | *                |                              | *                |
| Yes                             | 68                                |                  | 56                           |                  |
| No                              | 79                                |                  | 64                           |                  |
| 1st Trimester Prenatal Care     |                                   | *                |                              | *                |
| Yes                             | 76                                |                  | 62                           |                  |
| No                              | 66                                |                  | 54                           |                  |
| Ever Breastfed                  |                                   |                  |                              | *                |
| Yes                             | 74                                |                  | 58                           |                  |
| No                              | 73                                |                  | 71                           |                  |
| Argued w/Partner                |                                   | *                |                              | *                |
| Yes                             | 64                                |                  | 50                           |                  |
| No                              | 77                                |                  | 63                           |                  |
| Partner Didn't Want Pregnancy   |                                   | *                |                              | *                |
| Yes                             | 66                                |                  | 53                           |                  |
| No                              | 75                                |                  | 61                           |                  |
| Partner Abuse Bef/Dur Pregnancy |                                   | *                |                              | *                |
| Yes                             | 52                                |                  | 40                           |                  |
| No                              | 75                                |                  | 61                           |                  |
| Binge Before pregnancy          |                                   | *                |                              |                  |
| Yes                             | 78                                |                  | 63                           |                  |
| No                              | 72                                |                  | 59                           |                  |
| Infant Stay in NICU             |                                   |                  |                              |                  |
| Yes                             | 78                                |                  | 63                           |                  |
| No                              | 73                                |                  | 60                           |                  |
| Postpartum Smoking              |                                   |                  |                              |                  |
| Yes                             | 69                                |                  | 61                           |                  |
| No                              | 75                                |                  | 60                           |                  |
| Postpartum Depression Diagnosis |                                   |                  |                              | *                |
| Yes                             | 80                                |                  | 69                           |                  |
| No                              | 74                                |                  | 59                           |                  |

their backs over the past decade.

Starting in June 2013, the sale of crib bumpers will be banned in Maryland. Crib bumpers, along with other soft objects and loose bedding in the crib, may increase the risk of suffocation.



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## PRAMS Methodology

Data included in this report were collected through the Pregnancy Risk Assessment Monitoring System (PRAMS), a surveillance system established by the Centers for Disease Control and Prevention (CDC) to obtain information about maternal behaviors and experiences that may be associated with adverse pregnancy outcomes.

In Maryland, the collection of PRAMS data is a collaborative effort of the Department of Health and Mental Hygiene and the CDC. Each month, a sample of approximately 200 Maryland women who have recently

delivered live born infants are surveyed by mail or by telephone, and responses are weighted to make the results representative of all Maryland births.

This report is based on the responses of 4,548 Maryland mothers who delivered live born infants between January 30, 2009 and December 31, 2011 and were surveyed two to nine months after delivery.

## Limitations of Report

PRAMS data are retrospective and therefore subject to recall bias. It is also based on the mother's perception of events and may not be completely accurate.

This report presents only basic associations between maternal risk factors and infant sleep practices. Unexamined interrelationships among variables are not de-

scribed and could explain some of the findings in the report.

Studies have shown that surveys of maternal smoking and alcohol use may underestimate the prevalence of these behaviors by a significant amount, due to factors related to social desirability.

## Resources

<sup>1</sup> American Academy of Pediatrics. SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment. *Pediatrics*. 2011. available at: <http://pediatrics.aappublications.org/content/early/2011/10/12/peds.2011-2284>

<sup>2</sup> B'more for Healthy Babies, Safe Sleep. Baltimore City Health Department. 2013. Available at: <http://www.healthybabiesbaltimore.com/parents-and-caregivers/safe-sleep>



Maryland Department of Health and Mental Hygiene  
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