How Does Provider Advice Change Practices of Safe Sleep Among Tennessee Mothers?

Tennessee Pregnancy Risk Assessment Monitoring System, 2016-2020

Sudden Unexpected Infant Death (SUID) is the sudden and unexpected death of an infant under 12 months of age, the cause of which is not understood before investigation.[1] It is the leading cause of death among infants aged 1-12 months, and the fourth leading cause among all infants in the U.S.[1]

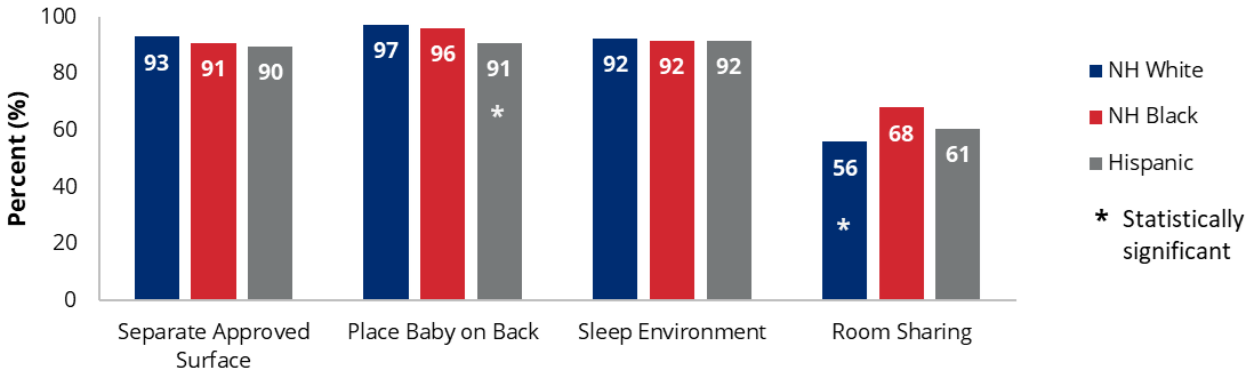
Starting in 1992, the American Academy of Pediatrics (AAP) began making recommendations for safe infant sleep practices.[2] Since then, occurrences of SUID have drastically decreased from about 130 deaths per 10,000 live births in 1991 to 38 deaths per 10,000 live births in 2020.[2,3] Despite this decrease, SUID remains one of the leading causes of infant mortality in the U.S.

Between 2016-2019, Tennessee had one of the highest SUID rates in the U.S., and infant deaths were highest among non-Hispanic Black infants in 2019.[4]

While the effect of race/ethnicity and social determinants of health on safe sleep practices* are understood, little is known about how provider recommendations differ by race/ethnicity within Tennessee. This fact sheet explores the receipt of health care provider advice and its association with various safe sleep practices by race/ethnicity using data from the 2016-2020 **Tennessee Pregnancy Risk Assessment Monitoring System (PRAMS).**

Provider Advice Differed by Race/Ethnicity

Figure 1: Receipt of Safe Sleep Advice by Race/Ethnicity among Women with a Recent Live birth in Tennessee (2016-2020)



Source: TN PRAMS, 2016-2020

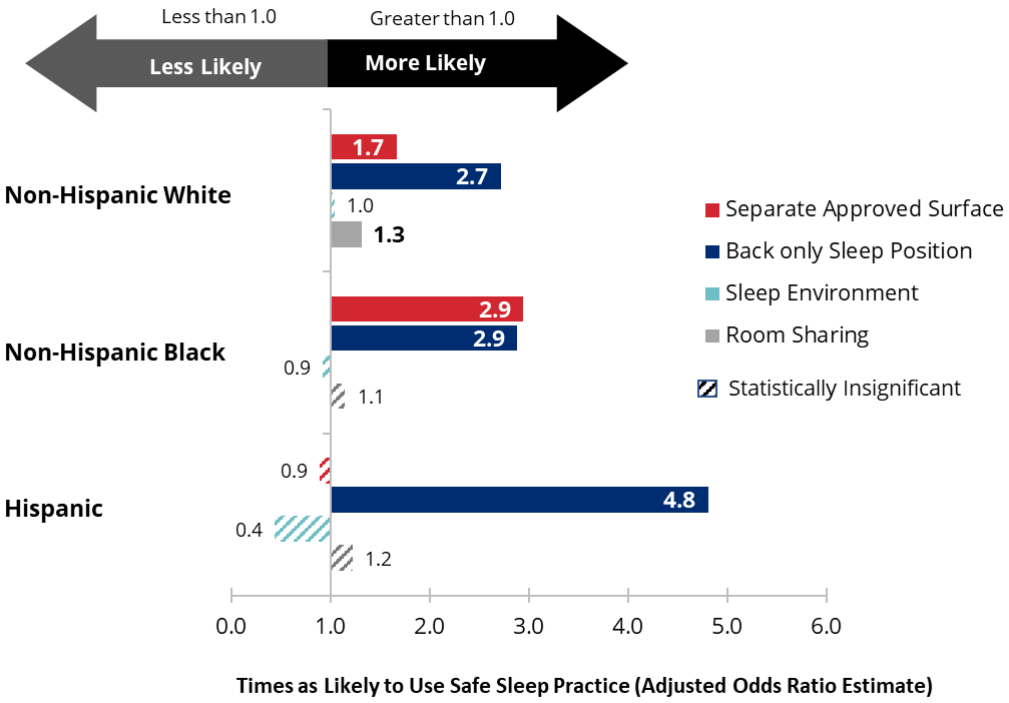
Nearly all women were educated on **placing their babies or their infants to sleep on their back,** however, significantly fewer Hispanic women **(91%)** reported receiving this advice compared to non- Hispanic Black (96%) and non-Hispanic White women (97%; *figure 1*).

Significantly more non-Hispanic Black women **(68%)** reported receiving **advice on room sharing without bed sharing** compared to other races and ethnicities (*figure 1*).

Advice on **use of approved sleep surface** and advice on **safe sleep environment** did not differ significantly by race/ethnicity. About **92%** of women overall reported receipt of each of these advice topics.

Provider Advice Associated with Safe Sleep Practices

Figure 2: Likelihood* of Safe Sleep Practices among Those Reporting Provider Recommendation among Tennessee Women with a Recent Live Birth, 2016-2020



Source: TN PRAMS, 2016-2020
**Compared to women with out a recommendation.*
Regression models (estimates) accounted for for maternal age, education level, and marital status

Non-Hispanic White women and Non-Hispanic Black women were nearly **3 times as likely** to report use of a **separate, approved sleep surface** when they were advised to do so by their provider compared to those who didn't receive advice for the same practice (*figure 2*).

Women of all racial/ethnic groups that received advice from their provider to place her baby on their back were **more likely to place her baby to sleep on their back** (*figure 2*) compared to those who didn't receive advice for the same practice:

- Non-Hispanic White women were **1.7 times as** likely;
- Non-Hispanic Black women were nearly **3 times as** likely; and
- Hispanic women were nearly **5 times as** likely.

Non-Hispanic White women were nearly **1.3 times as likely** to report **room sharing without bed sharing** compared to those who didn't receive advice for the same practice (*figure 2*). The association was insignificant among Non-Hispanic Black and Hispanic women.

Safe sleep environment was not significantly associated with provider advice among any racial/ethnic groups (*figure 2*).

Main Findings

Receiving provider advice did influence the use of safe sleep practices, but the strength of the influence changed depending on the practice and varied by race/ethnicity.

These results could be due to differences in cultural attitudes/beliefs, perceptions of mistrust in health care providers, or implicit bias from the health care provider.

Lastly, room sharing without bed sharing may have been not as strongly affected by provider advice because it was only recently added to the AAP recommendations; public awareness might not have had time to catch up to patients' confidence in the advice being given to them.

It is important to continue trying to improve and promote community awareness and better understand what specific barriers might be hindering the practice of safe sleep behaviors within racial/ethnic groups.

Regardless of disparities, however, provider advice has shown to be invaluable to increasing the use of safe sleep practices (including room sharing) among all patients.

How did PRAMS define safe sleep practices?*

- **Use of separate, approved sleep surface**
  - Baby always/often slept alone in a crib, bassinet, or pack and play.
- **Placing baby to sleep on their back**
  - Mothers who only placed her baby to sleep on their back.
- **Safe sleep environment**
  - Baby usually slept without blankets, toys, cushions/pillows, or crib bumper pads.
- **Room sharing without bed sharing**
  - Baby *always* slept on a separate approved surface *and* in the same room as their mothers.

**Calculations based on CDC-provided guidance for sleep practices described by Hirai et al, 2019.*

What is the Tennessee Pregnancy Risk Assessment Monitoring System?

The Pregnancy Risk Assessment Monitoring System (**PRAMS**) is a state-run program that collects information on the experiences, feelings, and health of women with a recent (within 2-6 months at the time of survey) live birth. For questions related to Tennessee PRAMS, contact the **TN PRAMS Coordinator** at TNPRAMS.Health@tn.gov.

References

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