

Understanding Risks, Protective Factors, and Promising Practices to Address Sleep-Related Infant Death Among American Indian and Alaska Native Populations

Sudden Infant Death Syndrome (SIDS) is one of the leading causes of infant death in the United States. American Indian and Alaska Native (AI/AN) people experience SIDS and other Sudden Unexpected Infant Deaths (SUID) more than any other racial/ethnic group nationwide. The *Healthy Native Babies Project* (HNBP), with funding from the *Eunice Kennedy Shriver National Institute of Child Health and Human Development* (NICHD), provides local support and training to health care providers and community health and outreach workers with culturally appropriate SIDS risk reduction messages for AI/AN families. The HNBP conducted a literature review focused on recent studies of SIDS and SUID, related risk and protective factors, and promising practices among AI/AN communities. This brief provides highlights from these findings. The full report with detailed methods and citations is available at: https://safetosleep.nichd.nih.gov/sites/default/files/in-line-files/HNBP_Lit_Rev_Summ_4.16.21_508.pdf.



In recent decades, the overall SIDS rate in the United States has declined by more than 50%. However, racial/ethnic disparities remain. In 2017, the rate of SIDS among AI/AN infants was more than double that of white infants. Further, between 1995 and 2013, there was no significant change in SUID rates among AI/AN people, with rates consistently higher than any other racial/ethnic group. These numbers are likely underestimated, as racial misclassification of AI/AN people in medical and vital records is a documented issue.

While race is often identified as a risk factor for SIDS, race is a social construct and not a biological factor. Racial disparities in SIDS and SUID are related to historical oppression and trauma, and ongoing systemic racism. Social injustices impact families' abilities to provide safe infant sleep environments and directly contribute to negative birth outcomes. To effectively support SIDS and SUID risk reduction policies and practices, it is critical to understand how AI/AN people live and raise their families and to build on strengths within Tribal populations to protect infants in AI/AN communities.

What are SUID and SIDS? SUID is a category that includes the death of an infant under one year of age that occurs suddenly and unexpectedly. This includes accidental suffocation in a sleeping environment, and other deaths from known and unknown causes. SIDS is a type of sleep-related SUID that remains unexplained after a complete investigation.

Safe Sleep Risks and Recommendations

While we do not know the exact causes of SIDS, researchers believe there is a link between underlying genetic or biological factors and environmental factors. Although we have little or no control over biological risk factors, we can address potential risks in an infant's physical environment that may reduce the risk of SIDS and other sleep-related deaths.

The American Academy of Pediatrics (AAP) identified and addressed these risk factors in its 2016 recommendations for a safe infant sleeping environment (see sidebar).

Many risk factors addressed by the AAP are more common in AI/AN communities. For example, AI/AN mothers report lower use of separate sleep surfaces for infants and more commonly report sleeping on a couch or armchair compared to the general population. AI/AN mothers are also less likely to avoid soft bedding and have higher rates of an infant sleeping with a blanket. In many cases, parents may be aware of safe sleep recommendations, but lack access to safe sleep spaces for their babies. Further, where and with whom babies sleep is a matter of long-held values, beliefs, and cultural practices, and this should be taken into consideration in safe sleep outreach efforts with AI/AN people.

Breastfeeding is associated with a reduced risk of SIDS. Compared to other racial/ethnic groups, AI/AN mothers have the second lowest rates of breastfeeding initiation and even lower rates at six months. Many AI/AN communities are encouraging the cultural role of breastfeeding and promoting policies to provide needed family support in hospitals, workplaces, and other community settings.

Commercial tobacco and alcohol use are risk factors for SIDS. Both AI/AN men and women have the highest prevalence of smoking compared to any other population group in the United States. Tobacco companies target AI/AN communities through extensive promotions, sponsorships, and advertising campaigns. Further, select studies show AI/AN women are less likely to receive assistance for smoking cessation during prenatal care.

Culturally appropriate prenatal care is critical to improve maternal and infant health outcomes among the AI/AN population. However, in 2020, compared to non-Hispanic white mothers, a lower proportion of AI/AN mothers nationwide received prenatal care in the first trimester, and a higher proportion received late or no prenatal care. AI/AN people experience persistent barriers to quality health care, including problems with provider communication due to cultural differences, discrimination, perceptions of bias and mistrust, lack of confidence in ability to get health care, differences in beliefs and attitudes about health care, and cost. The U.S. government's unique responsibility to provide the AI/AN population with medical care is based in established treaties and laws, however, funding for health care is lacking, leaving high proportions of AI/AN people without access.

Social and Cultural Context

The presence of increased risks for SIDS/SUID among the AI/AN population can be linked to the root causes of historical oppression and trauma, and systemic racism. It is equally important, however, to recognize the cultural strengths that serve as protective factors against these injustices and provide opportunities for culturally relevant and applicable safe sleep practices.

AAP Recommendations for a Safe Infant Sleeping Environment

- *Back to sleep for every sleep.*
- *Use a firm sleep surface.*
- *Breastfeeding is recommended.*
- *Room-sharing with the infant on a separate sleep surface is recommended.*
- *Keep soft objects and loose bedding away from the infant's sleep area.*
- *Consider offering a pacifier at naptime and bedtime.*
- *Avoid smoke exposure during pregnancy and after birth.*
- *Avoid alcohol and illicit drug use during pregnancy and after birth.*
- *Avoid overheating.*
- *Pregnant women should seek and obtain regular prenatal care.*
- *Infants should be immunized in accordance with AAP and CDC recommendations.*
- *Do not use home cardiorespiratory monitors as a strategy to reduce the risk of SIDS.*
- *Health care providers, staff in newborn nurseries and NICUs, and childcare providers should endorse and model the SIDS risk-reduction recommendations from birth.*
- *Media and manufacturers should follow safe sleep guidelines in their messaging and advertising.*
- *Continue the "Safe to Sleep" campaign, focusing on ways to reduce the risk of all sleep-related infant deaths, including SIDS, suffocation, and other unintentional deaths.*
- *Pediatricians and other primary care providers should actively participate in this campaign.*

Source: Task Force on Sudden Infant Death Syndrome, 2016

Historical Trauma and Oppression. Historical trauma from colonialism and federal policies have undermined the social and cultural fabric that once supported strong and intact AI/AN families. Exposure to stressful life experiences over the course of a woman's life negatively affects birth outcomes associated with SIDS risk, such as low birthweight and prematurity. AI/AN women in 19 states have reported traumatic stressors just before or during pregnancy at rates higher than any other racial/ethnic group.

Systemic Racism. Systemic racism is embedded in policies and funding for life's basic needs, which has led to disparities in rates of poverty, hunger, unemployment, and lower levels of education, affecting the way AI/AN people live and raise their families. For example, in California, mothers of AI/AN infants are homeless or do not have a regular place to sleep at night during their pregnancies at a rate nearly three times that of the state overall.



The stress of racial discrimination is also a significant risk factor for negative birth outcomes. For AI/AN people in urban areas, loss of connection to Tribal social networks can result in lack of social support, high stress, and diminished cultural ties. In a 2016 study, AI/AN parents in four urban areas highlighted community patterns, such as alcohol and commercial tobacco use, adolescent parenting, and violence, as challenges to creating safe environments for their infants. Other reported barriers to infant health and safety practices were lack of money, housing, transportation, and childcare, as well as social isolation and stress, especially for adolescent parents.



Culture as Medicine. Despite experiences of historical trauma and systemic racism, AI/AN communities have always had strengths that promote healing and well-being. These include connection with the land and nature, traditional practices and ceremonies, cultural identity, language and symbols, extended family, spirituality and religion, community activities, and humor. Connection to Native culture and identity is a protective factor that could help against increased risk for SIDS/SUID. AI/AN parents have described a strong Native identity, access to

Native-specific resources, control over their own environments (such as stable housing and determining who they allow around their infants), shared values among caregivers, and social support as protective factors for keeping their infants healthy and safe, and breaking unhealthy patterns.

Promising Practices

Consistently high rates of SIDS/SUID among the AI/AN population show that risk reduction efforts are not addressing the most critical factors, are not reaching AI/AN communities, and/or are not presented effectively for AI/AN people. Further, there is a need for more AI/AN-led research on SIDS risk reduction efforts. Examples of safe sleep education with AI/AN communities are briefly described in this section within social-ecological groupings to support future efforts.

Influencers and Organizations. Groups cited as influential for caregiver decision-making about infant sleep environments include home visiting programs, extended family, friends, and fathers. Example home visiting programs that have reported positive outcomes among AI/AN communities include *Family Spirit*, the *Nutaqsiivik Program*, and *Safe Sleep, Sweet Dreams*. Multiple programs have successfully adapted HNBP materials for parents, providers, and Tribal home visitors, including the Inter-Tribal Council of Michigan's *Infant Safe Sleep Resource Site*, *1,000 Grandmothers: Infant Safe Sleep Project*, and *Healthy Alaska Babies*.

Traditional infant sleep practices, such as using cradleboards, are likely highly protective. Many Tribes and urban Indian centers offer classes on making and using cradleboards with safe sleep education and social support to help AI/AN families connect with their cultures. One example is the *Native American Women's Dialog on Infant Mortality*, a collective of community members, social service and medical providers, and allies.

Community. Programs that build-in local Indigenous community investment, ownership, and sustained participation most successfully impact a diverse range of prenatal and child health outcomes. Efforts should incorporate AI/AN cultural concepts and practices to build on community strengths. For example, the *Native Generations* infant mortality prevention campaign promoted protective factors, such as Native-specific health care, support services, and programs; and connection to Native identity, culture, and community for urban-dwelling AI/AN people. Emphasizing strength-based concepts, such as political and cultural sovereignty, self-determination, and spirituality, is an effective way to counteract the historical trauma and cultural oppression that impact AI/AN communities.

Policy and Society. Consistent messaging on safe infant sleep specific to AI/AN populations is important for successful outcomes, but more so when supported by health and social services and essential material needs. Funding for material resources, such as cribs and culturally appropriate safe sleep spaces, are critical. One example, the *Bedtime Basics for Babies* program, reported success in providing cribs and education to AI/AN families. The circumstances that affect individuals' and communities' abilities to implement positive change must be considered in any culturally relevant SIDS/SUID risk reduction effort. Interventions should address the root causes of infant mortality through policies that tackle poverty and discrimination, commercial tobacco cessation, substance use disorder prevention, and access to culturally appropriate health care to have an impact on SIDS/SUID risk.

To access HNBP resources, visit: <https://safetosleep.nichd.nih.gov/activities/outreach/HNBP>

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