

Reducing the Risk of Sleep-Related Infant Deaths

North Carolina Child Fatality Task Force Megan Canady, MSW, MSPH, Research Associate UNC Center for Maternal and Infant Health September 24, 2018





NC Infant Death in Sleep **Environments 2012-2016**

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Definitions

Accident manner

If known risky situation/documented overlay

Undetermined manner

- Not certain on why the baby died—other manners or causes of death cannot be ruled out, so definite cause can not be determined
- Explained in the autopsy report

Undetermined vs Natural (SIDS)

- Change in 2011 with changeover in chief
- Cases classified as Sudden Infant Death Syndrome (SIDS) cannot have co-sleeping as part of the reported history
- SIDS is a classification of exclusion

Infant

Child under 1 year of age

Co-sleeping

Sharing a sleep space with another individual (adult or child)

Unsafe sleep environment

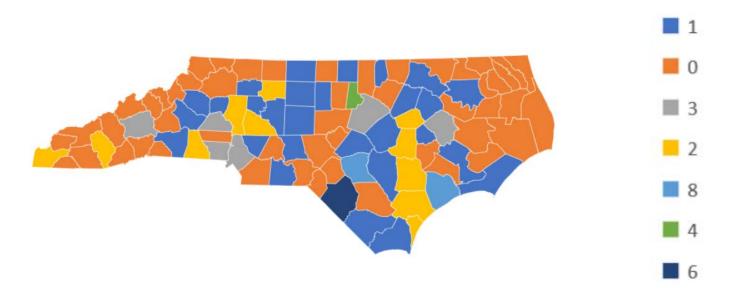
- Extra bedding
- Non-sleep related items





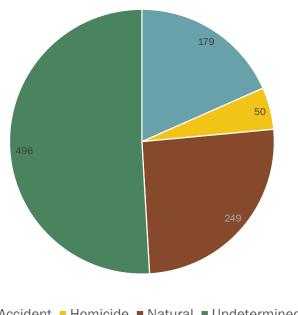


SIDS 2012-2016



(S) SafeSleepNC.org

Total Infant Fatality 2012-2016



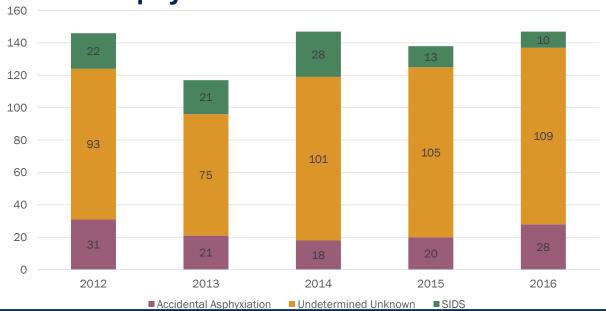
Manner	Number of Infants	Number Sleep Related
Accident	178	108
Homicide	50	
Natural	248	
Undetermined	493	436
Total	969	544

■ Accident ■ Homicide ■ Natural ■ Undetermined



Infant Fatality 2012-2016

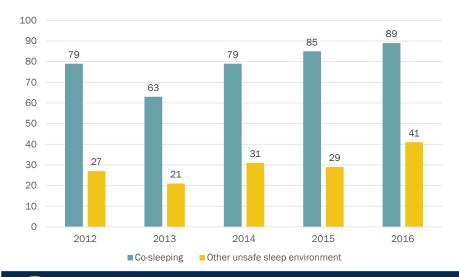
Accidental Asphyxiation---Undetermined Unknown--SIDS



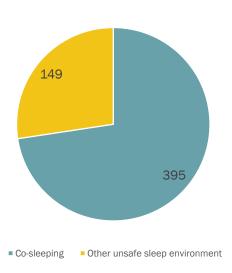


Infant Fatality Trends 2012-2016

2012-2016 Infant Fatality by Year Co-sleeping vs Other unsafe sleep environment



2012-2016 Infant Fatality Co-sleeping vs Other unsafe sleep environment





Summary 2012-2016

Total of 969 deaths of children under the age of 1 year

Of the 544,
-395 In a sleep environment
involving co-sleeping
-149 In a sleep environment that
did not involve co-sleeping but was

unsafe

Of those 969 children, 544 (56%) were related to some kind of unsafe sleep environment

Majority (52%) of infant deaths in sleep environments occurred in an adult bed (330 infants) with the presence of an adult(s) (283 infants)



Questions?

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Goal of Safe Sleep NC

To strengthen the adoption of infant safe sleep practices across the state that reduce the risk of Sudden Infant Death Syndrome (SIDS) and which prevent infant sleep-related deaths such as accidental infant asphyxiation and suffocation.





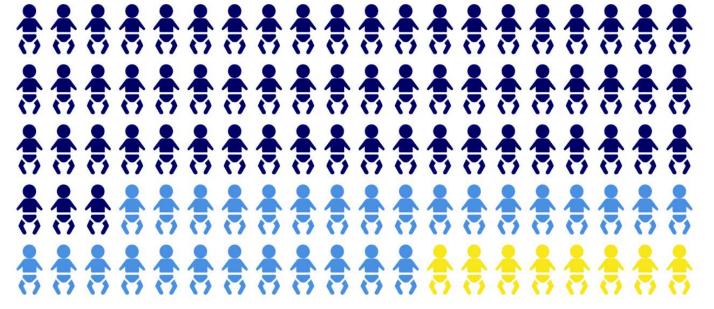
Leading Causes of Infant Death, NC 2016

Cause Category:	Deaths	Percent
Prematurity/Low Birth Weight	180	20.6
Birth Defects	166	19.0
Other Unknown Causes	104	11.9
Maternal complications	87	10.0
Other perinatal conditions	84	9.6
Respiratory Distress	67	7.7
Infections	50	5.7
All Other Causes (Residual)	41	4.7
Accidental Suffocation/Strangulation in Bed	22	2.5
Respiratory diseases	21	2.4
Circulatory diseases	17	1.9
SIDS	13	1.5
Accidents	13	1.5
Homicide	8	0.9

Source: North Carolina State Center for Health Statistics, 2016 Infant Mortality Repo



Sleep Environment Association to Infant Deaths, 2016



Unsafe Sleep: Bed Sharing Assoc.(91)

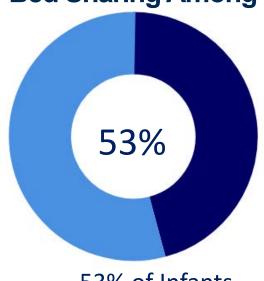
Unsafe Sleep: Not Bed Sharing Assoc.(42)

NOT Unsafe Sleep Assoc. (11)

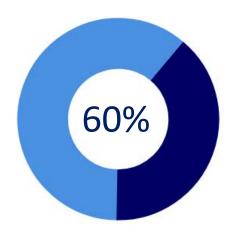
Source: Office of the Chief Medical Examiner-Division of Public Health North Carolina Department of Health and Human Services



Bed Sharing Among North Carolina Infants. 2016



53% of Infants Bed Share



60% of Low Birth Weight Infants Bed Share

Source: North Carolina Pregnancy Risk Assessment Monitoring System Survey Results 2016



Circumstances in Which Bed Sharing is Very Dangerous

- When the infant is younger than 4 months
- If the infant was born premature or had low birth weight
- If the bed-sharer uses tobacco or if the mother used tobacco during pregnancy
- If the bed-sharer has taken illicit drugs or medicine that causes drowsiness
- If the bed-sharer has consumed any alcohol

- If the bed-sharer is not the parent
- If there are multiple bed-sharers (including other children)
- If the sleep surface is soft, such as an old mattress, waterbed, or pillow-top mattress
- If the sleep surface is a couch, sofa, or recliner
- If there is soft bedding, such as pillows or blankets, present in the bed.





Current Safe Sleep NC Activities

\$45,000 from Title V funds

- Coordinate quarterly Safe Sleep Advisory Committee
- Develop and disseminate new patient and provider resources
- Provider training
- Partner with initiatives focused on the care of high risk infants



Safe Sleep Advisory Committee

Composed of members from the following agencies:

- DHHS NC Child Care Health and Safety Resource Center
- DHHS Child Fatality Prevention Team
- DHHS Pregnancy Care Management
- DHHS Children and Youth Branch
- DHHS Women's Health Branch
- DHHS State Center for Health Statistics
- DHHS Department of Social Services
- Office of the Chief Medical Examiner

- · Carolina Global Breastfeeding Inst.
- Atrium Health, Injury Center
- Safe Child NC
- Welcome Baby
- NC Maternal, Infant and Early
 Childhood Home Visiting (MIECHV)
- Cribs for Kids
- · Wake County Human Services



Available North Carolina Patient Resources (English and Spanish)





Provider Training



- Limited onsite training
- Webinars and Recorded training
- Conferences

Partnering with Infant NC Plan of Safe Care



Will include safe sleep information in all of the information shared with parents identified through Plan of Safe Care because these infants are at higher risk of SIDS and other sleep-related death.



Upcoming Consumer Campaign



Awarded one-time gift of \$40,000 from Blue Cross Blue Shield for a Consumer Campaign

- Mainly Focused on High-Priority Counties and High-Risk Populations
 - Social and Traditional Marketing
 - Local Community Engagement
 - Patient Education Materials
- Consumer-Facing Safe Sleep NC Website





Enhanced Training Needed for Healthcare Providers

What's Missing?

Providers have asked for more support on engaging parents & caregivers in nuanced conversations about sleep.

Requested additional funds (\$85,000) will support the development and dissemination of online training modules for key providers.



Feedback from Parents



- Receive inconsistent messages about infant sleep practices
- Trust healthcare providers most for safe sleep information
- Feel that they cannot be honest about their infant's sleep environment

Source: https://www1.nichd.nih.gov/cbt/sids/nursececourse/Welcome.aspx



Research Supports that Healthcare Providers Do Make a Difference

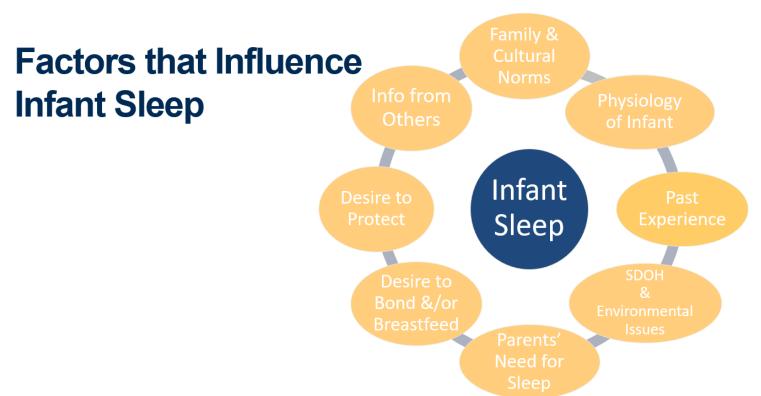
It is important that healthcare providers:

- ✓ KNOW about safe sleep information,
- ✓ SHOW safe sleep practices, &
- ✓ ENGAGE with parents effectively about safe sleep



Source: https://www1.nichd.nih.gov/cbt/sids/nursececourse/Welcome.aspx









Questions?





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References

American Academy of Pediatrics, 2016 SIDS and other sleep-related infant deaths: Updated 2016 recommendations for a safe infant sleeping environment

Pediatrics, 138 (5) (2016), pp. 1-12, 10.1542/peds.2016-2938

Carpenter R, McGarvey C, Mitchell EA, et al Bed sharing when parents do not smoke: is there a risk of SIDS? An individual level analysis of five major case—control studies BMJ Open 2013;3:e002299. doi: 10.1136/bmjopen-2012-002299

Centers for Disease Control and Prevention, 2016 Sudden unexpected infant death and sudden infant death syndrome

Krouse et al., 2012 A. Krouse, J. Craig, U. Watson, Z. Matthews, G. Kolski, K. Isola Bed-sharing influences, attitudes, and practices: Implications for promoting safe infant sleep Journal of Child Health Care, 16 (3) (2012), pp. 274-283, 10.1177/1367493511432300

Moon et al., 2016 R.Y. Moon, F.R. Hauck, E.R. Colson Safe infant sleep interventions: What is the evidence for successful behavior change? Current Pediatric Reviews, 12 (1) (2016), pp. 67-75, 10.2174/5733 96311666151026110148

Moon and Hauck, 2017 R.Y. Moon, F.R. Hauck Are there long-term consequences of room-sharing in infancy? Pediatrics, 140 (1) (2017), pp. 1-4, 10.1542/peds.2017-1323

Moon and Task Force on Sudden Infant Death Syndrome, 2016 R.Y. Moon, Task Force on Sudden Infant Death Syndrome SIDS and other sleep-related infant deaths: Evidence base for 2016 updated recommendations for a safe infant sleep environment Pediatrics, 138 (5) (2016), pp. e1-e34, 10.1542/peds.2016-2940

North Carolina Pregnancy Risk Assessment Monitoring System Survey Results 2016, Bed sharing https://schs.dph.ncdhhs.gov/data/prams/2016/SLEEPB.html North Carolina State Center for Health Statistics 2018. Causes of Infant Mortality, 2016.

Office of the Chief Medical Examiner-Division of Public Health North Carolina Department of Health and Human Services, 2018. Sleep-Related Death Infant Investigations 2016 Paul et al., 2017 I.P. Paul, E.E. Hohman, E. Loken, J.S. Savage, S. Anzman-Frasca, P. Carper, ..., L.L. BirchMother-infant room-sharing and sleep outcomes in the INSIGHT study Pediatrics, 140 (1) (2017), pp. 1-23, 10.1542/peds.2017-0122

Rholdon, 2017 R. Rholdon Understanding the risks sitting and carrying devices pose to safe infant sleep

Nursing for Women's Health, 21 (3) (2017), pp. 225-230, 10.1016/j.nwh.2017.04.006

Safe to Sleep Campaign, 2018. Risk Reduction for Sudden Infant Death Syndrome (SIDS) and Other Sleep-Related Causes of Infant Death: Continuing Education Activity for Nurses. https://www1.nichd.nih.gov/cbt/sids/nursececourse/Welcome.aspx

Salm Ward and Balfour, 2016 T.C. Salm Ward, G.M. Balfour Infant safe sleep interventions, 1990–2015: A review. Journal of Community Health, 41 (1) (2016), pp. 180-196, 10.1007/s10900-015-0060-y

