



**Expectant Parent
Community of Practice**
**Integrating Infant Safe Sleep into Expectant and
New Parent Programs**

**Wednesday, January 30, 2013
2:00 to 3:00 PM ET**

Featured Speaker:

Hanan Kallash

Moderator:

Jennifer Allison

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Indiana

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Nevada

Louisiana

Rhode Island

Poll Questions

Safe to Sleep

Integrating Infant Safe Sleep into Expectant and New Parent Programs

Presented by H.Kallash, RN, MS.

National Sudden Unexpected Infant/Child
Death Program Support Center, A
Program of First Candle supported by
HRSA/MCHB.



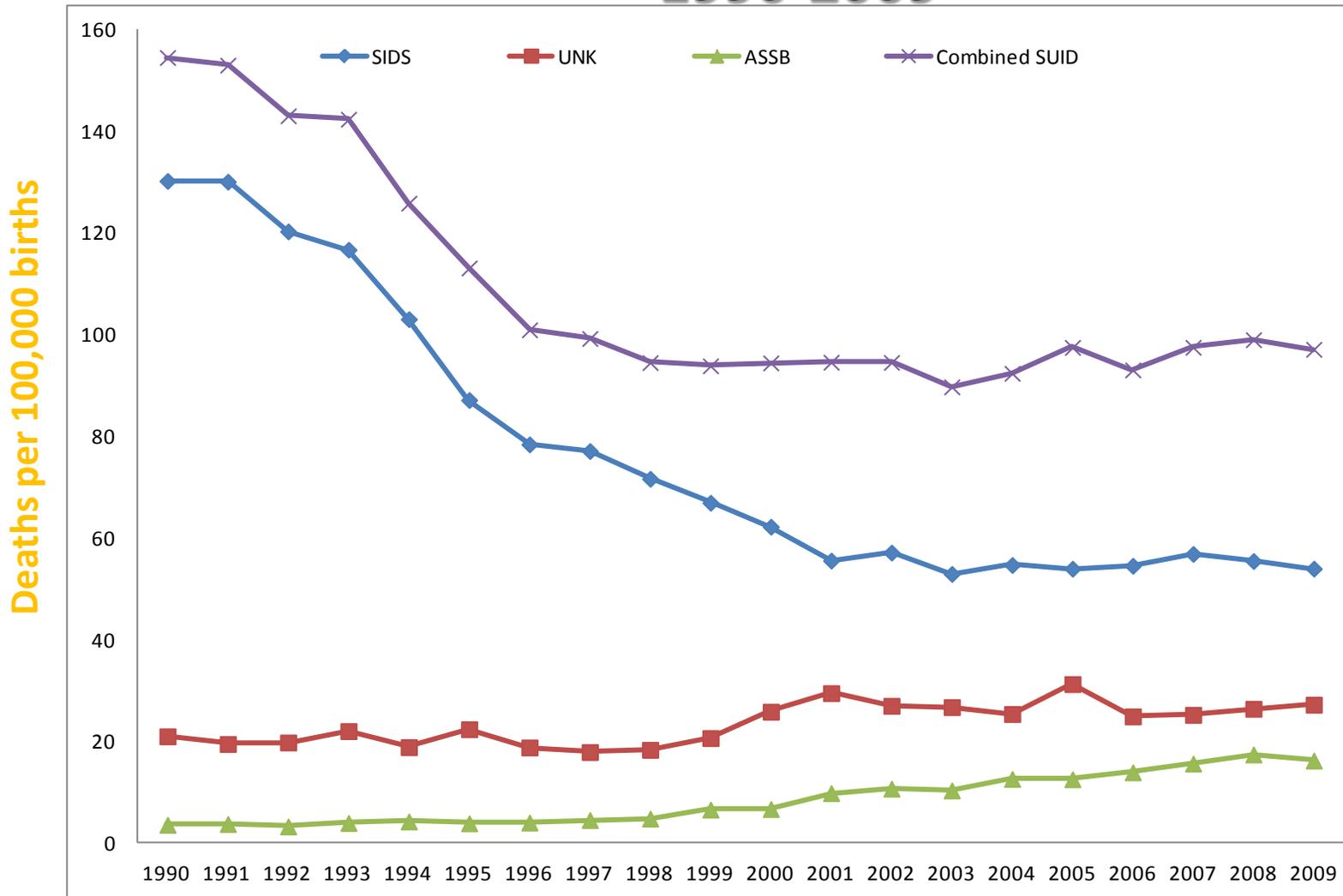
Objectives

- What is SUID, SIDS, Suffocation
- SIDS and Sleep related death risk reduction, prevention and messaging
- Ways to integrate safe sleep as a part of infant health development
- Partnering with local and regional efforts

SUID, SIDS and ASSB

- SUID
 - ~ 4600 per year
 - Rates comparable to birth defects mortality
 - About 2500 of these are SIDS
- SIDS
 - Leading cause of post-neonatal mortality
 - Third leading cause of all infant mortality
- Accidental suffocation & strangulation in bed
 - Rates have more than tripled in last decade
 - 3.7 to 12.5 deaths per 100,000 live-births from 1995 to 2005
- Potentially preventable infant mortality

US SUID-specific infant mortality rates 1990-2009

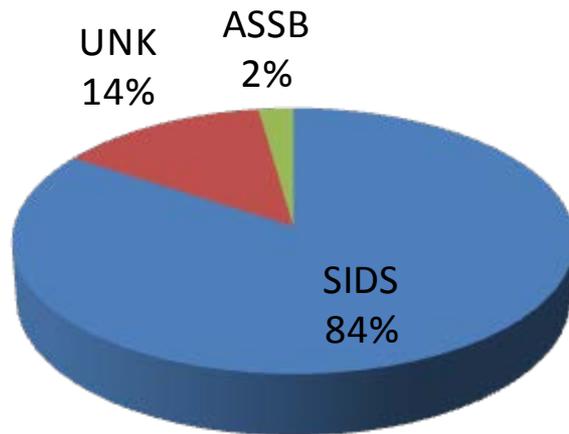


SIDS: sudden infant death syndrome, UNK: unknown cause, ASSB: accidental suffocation and strangulation in bed.

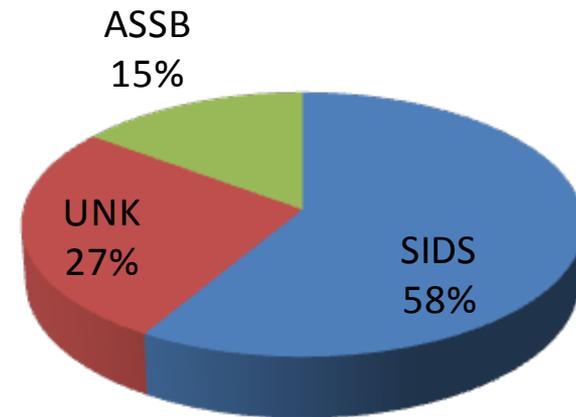
Combined SUID: SIDS+UNK+ASSB

Source: CDC WONDER, Mortality Files

Proportion of SUID



1996



2006

SIDS: Sudden infant death syndrome

UNK: Unknown cause

ASSB: Accidental suffocation and strangulation in bed

ARTICLE

US Infant Mortality Trends Attributable to Accidental Suffocation and Strangulation in Bed From 1984 Through 2004: Are Rates Increasing?

Carrie K. Shapiro-Mendoza, PhD, MPH^a, Melissa Kimball, MPH^a, Kay M. Tomashek, MD, MPH^a, Robert N. Anderson, PhD^b, Sarah Blanding, MPH^a

^aDivision of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia;

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The authors have indicated they have no financial interests relevant to this article to disclose.

PEDIATRICS Volume 123, Number 2, February 2009
Coding - Kim et al March 2012

Examples of ASSB

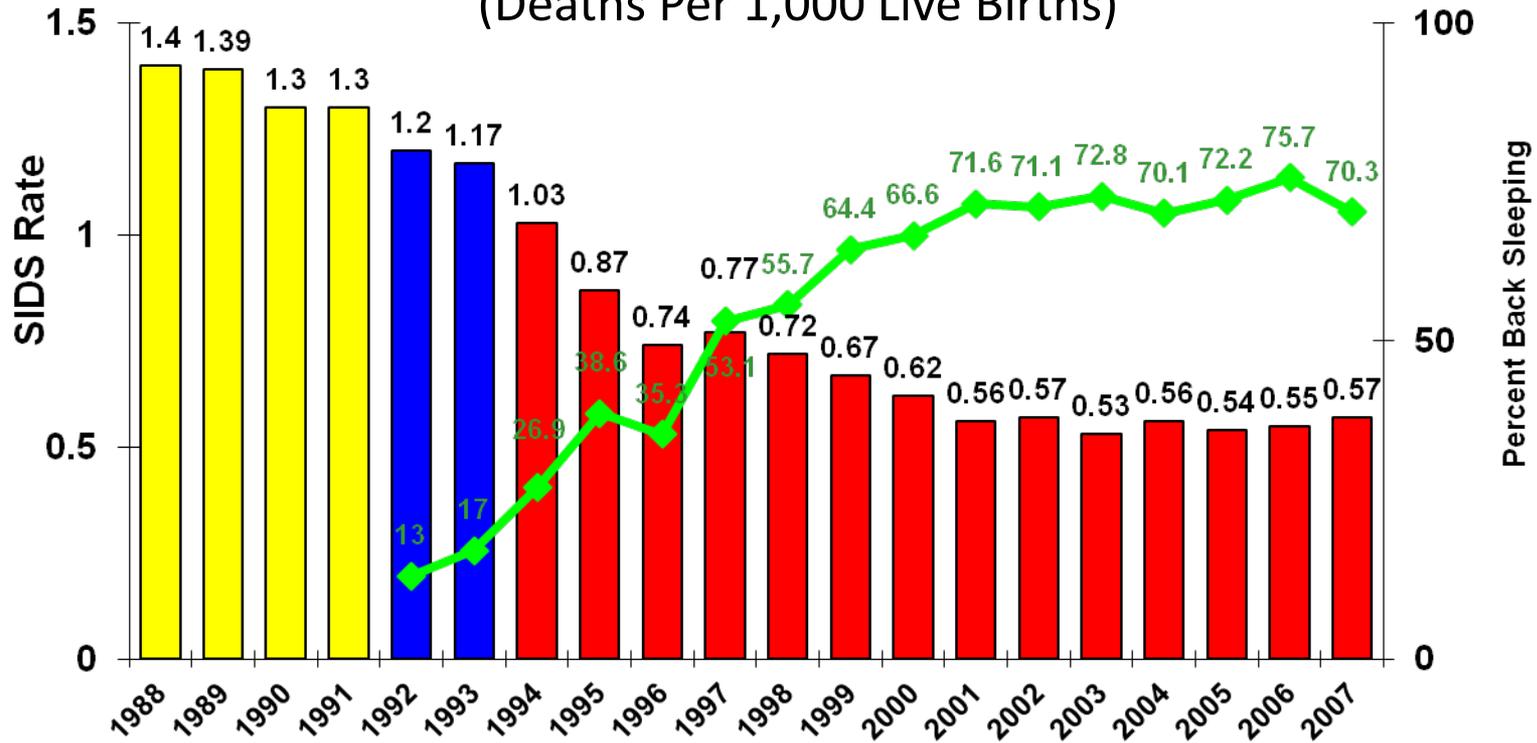
- Suffocation by soft bedding, pillow, waterbed mattress
- Overlaying (rolling on top of or against baby while sleeping)
- Wedging or entrapment between mattress and wall, bed frame, furniture
- Strangulation (infant's head and neck caught between crib railings)



SIDS Rate & Sleep Position

SIDS Rate and Sleep Position, 1988-2006

(Deaths Per 1,000 Live Births)



SIDS rates have decreased and percent of back sleeping has increased since the campaign began.

Year

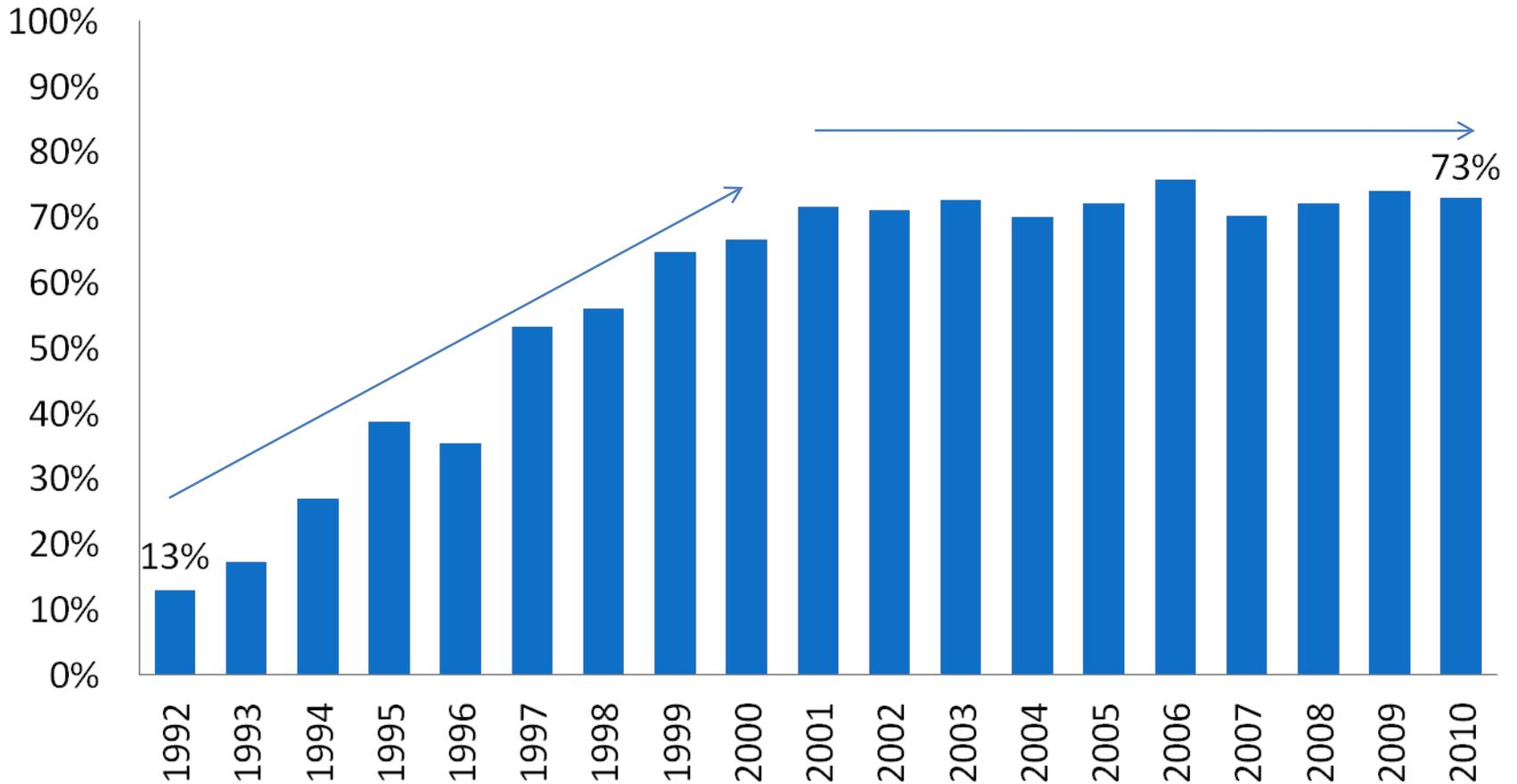
YELLOW (1988-1991) – PRE AAP recommendation

BLUE (1992 – 1994) - POST AAP recommendation

RED (1994-2006) – Back to Sleep Campaign

Green Line – Percentage of back sleeping

US Infant Supine Sleep Position 1992 - 2010



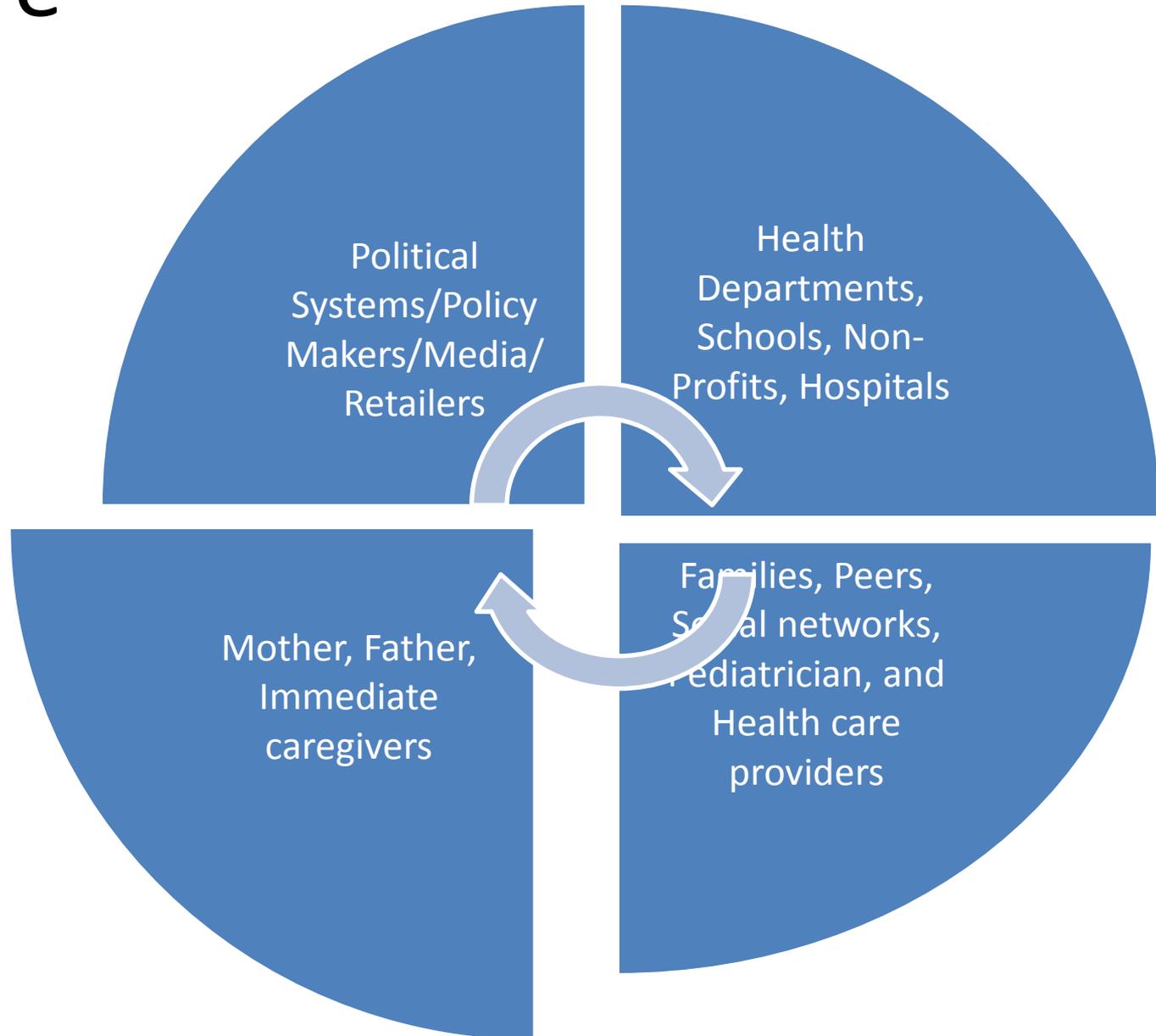
Source: National Infant Sleep Position Study

Reasons why Back (supine) Sleeping is the Safest Sleeping Position:

- Less potential for CO2 re-breathing
- Infant is easily aroused from sleep
- Less “burrowing” & moving around sleep area
- Jaw is less likely to occlude airway
- Better airway / cardiovascular mechanisms
- Less compression of vertebral arteries
- Most babies will allow their heads to lay to the left or right side without assistance.
- **Side sleepers have a 2 fold greater risk for SIDS.**



Where



One target population: Child Care

- With an increase in working mothers, there has been an increased utilization of child care services.
- 48% of infants are in child care for some portion of their day.
- 32% of infants are in child care full time.
- Two thirds of US infants younger than 1 year are in non-parental child care.
- Infants of employed mothers spend an average of 22 hours per week in child care.
- Less than 9% of SIDS deaths should occur in child care.

(Ehrle et al, 2001)

Child Care

- The actual rate of SIDS deaths in child care is more than double the expected rate.
- Approximately 20% of SIDS deaths occur while the infant is in the care of a non-parental caregiver.
- Approximately $\frac{1}{3}$ of SIDS-related deaths in child care occur in the first week, and $\frac{1}{2}$ of these occur on the first day.



Target Population: Nurses

Surveys indicated that parents were learning about infant safe sleep environments and positions from nurses – hospital setting post partum and discharge planning.

Nurses were aware of the recommendations but not modeling or practicing the recommendations in patient

Nurses CEU –NICHD -

<http://www.nichd.nih.gov/SIDS/nursecepartners/Pages/index.aspx>

Gallup poll- the most trusted profession.

Almost 96-98 percent of infants are delivered in hospitals.

Poll Question:

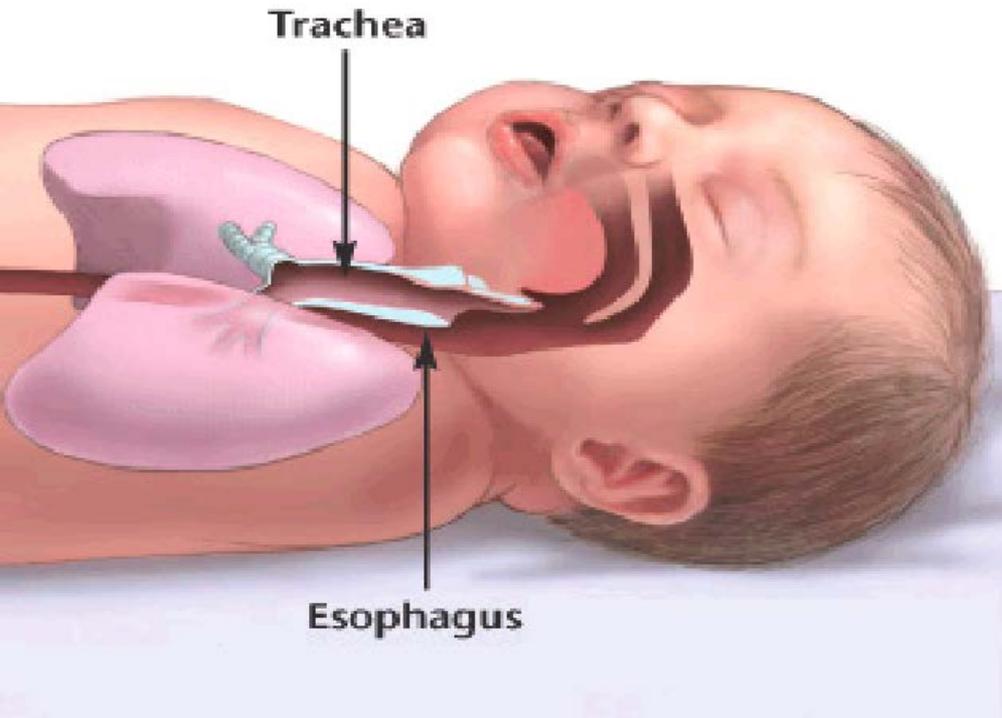
- Why do families choose to not follow the safe sleep recommendations?

Common Beliefs/Misconceptions

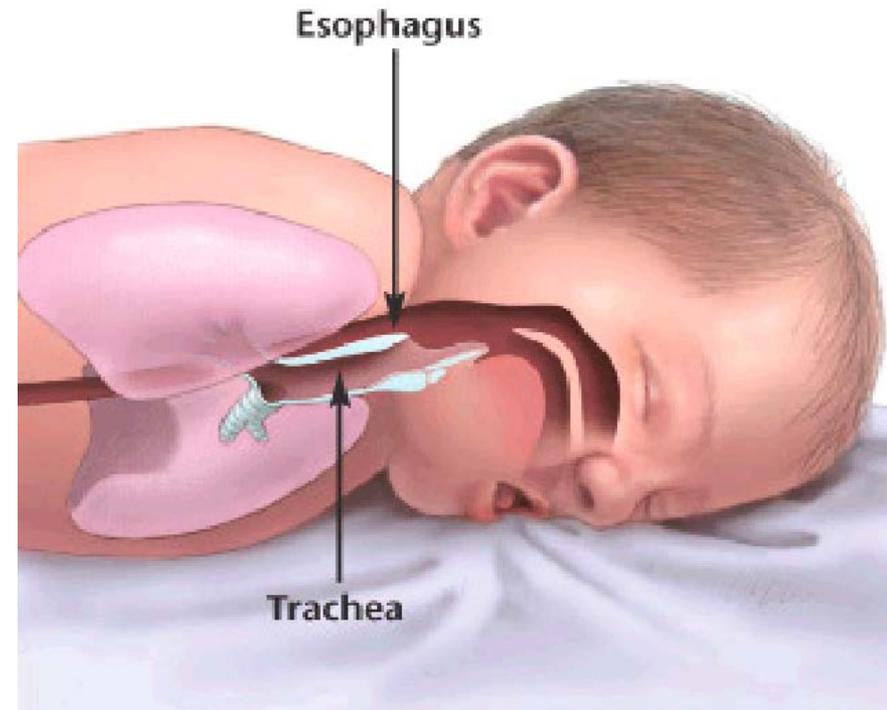
Concerns that parents might have about putting babies on their backs for sleep:

- Fear of choking or aspiration.
- They think babies sleep “better” and are more comfortable because they sleep longer & more deeply when they are on their stomachs.
- The baby will get a flat head if the baby sleeps on the back.
- The baby will get a bald spot from sleeping on the back.
- The risk of SIDS is very small.
- **Challenging – these statements are not false.**

Fear of Aspiration or Choking



In the supine position, the trachea lies on top of the esophagus. Anything regurgitated or refluxed from the esophagus has to go against gravity to be aspirated into the trachea.



Conversely, when a baby is in the prone position, anything regurgitated or refluxed will pool at the opening of the trachea. This makes it much easier for the baby to aspirate!

Fear of Aspiration or Choking

“Data show no evidence of an increased risk of death from aspiration (choking) as a result of the ‘Back to Sleep’ program.”

(Trends in Post neonatal Aspiration Deaths & Reclassification of Sudden Infant Death Syndrome: Impact of the ‘Back to Sleep’ Program, Michael H. Malloy, M.D., M.S., Pediatrics, April 2002)

Comfort of the Infant

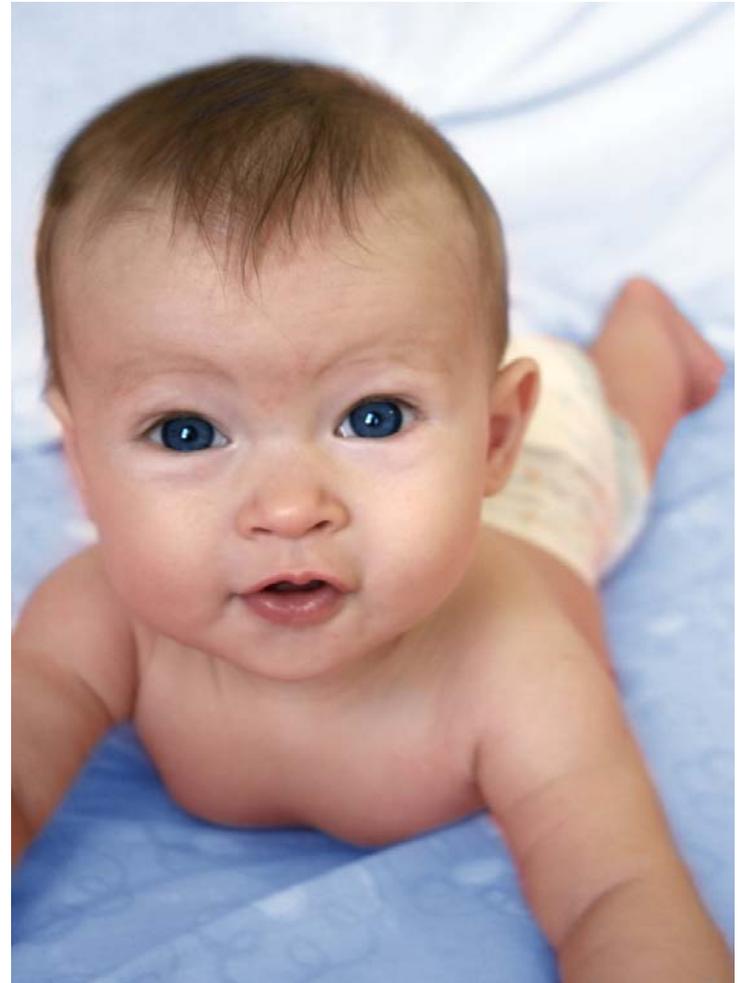
- Babies sleeping on their backs do not sleep as deeply as those who lie on their stomachs.
- Babies sleeping on their stomachs sleep more deeply:
 - Less reactive to noise
 - Experience less movement
 - And less easily aroused than back sleepers
 - All place infant at higher risk of SIDS
- Babies will get used to back sleep position over time.

Flat Head/Bald Spot

- Back sleeping can contribute to a flattening of the back of the head.
- This condition is temporary.
- As babies grow and become more active, their skulls will round out.
- Bald spot - the loss of hair on the back of a baby's head can be unsightly but temporary.
- As the baby grows, becomes more mobile, and begins to sit up, the hair on the back of the baby's head will have less wear and tear.
- Tummy time will help to decrease the friction on the back of the head that leads to plagiocephaly and the temporary bald spot.

Supervised Tummy Time

It is developmentally important for infants to have “Supervised Tummy Time.”



Tummy to Play & Back to Sleep

- **Supervised tummy time when babies are awake:**
 - Promotes healthy physical and brain development.
 - Strengthens neck, arm, and shoulder muscles.
 - Decreases risk of head flattening and bald spots.
 - Encourages bonding and play between the supervising adult and the baby.
 - Have tummy time 2 to 3 times a day and increase the amount of tummy time per day as the baby gets stronger.
- **Back to sleep**
 - Reduces the risk of SIDS
 - Comfortable and safe

AAP Recommendations - 2011

- **Place your baby to sleep on his back for every sleep.**
- **Place your baby to sleep on a firm sleep surface. Always place the baby on his/her back to sleep.**
- **Keep soft objects, loose bedding, or any objects that could increase the risk of entrapment, suffocation, or strangulation out of the crib.**
- **Place your baby to sleep in the same room where you sleep but not the same bed.**
- **Breastfeed as much and for as long as you can.** Studies show that breastfeeding your baby can help reduce the risk of SIDS.
- **Schedule and go to all well-child visits.**

AAP Recommendations - 2011

- **Keep your baby away from smokers and places where people smoke.**
- **Do not let your baby get too hot.**
- **Offer a pacifier at nap time and bedtime.**
- **Do not use home cardiorespiratory monitors to help reduce the risk of SIDS.**
- **Do not use products that claim to reduce the risk of SIDS.**
- **www.sidscenter.org**

Safe to Sleep



<http://www.nichd.nih.gov/sids/>

Poll Question: When should we talk to families about sleep environment and position?

What?

- Do you know what the message is in your community?
- Is it appropriate?
- Is it consistent ?
- What data do you have?
- Where are families accessing information?
 - internet, family, health professionals, social media, retailers

What are the programs that exist in your community that can perpetuate the message throughout the first year of life?

Integration

- Weaving the message into existing programs
- Prenatal and Parenting class not as a separate topic but as part of the bigger picture. Starting with the third trimester and beginning the discussion about where the baby will be sleeping, then how, and what.
- Discharge planning – once again not just as a separate topic but as overall appropriate guidance.
- Into each well and more importantly sick visit! Providing anticipatory guidance which appreciates the challenges at different developmental milestones

Existing programs- pre, ante and post baby

- Prenatal classes
- Breastfeeding and Lactation consultant programs
- Doulas
- Current babysitting programs – Red Cross, do they address the topic appropriately, including grandparent classes
- Parenting classes
- Mommy and Me groups
- Hospital Discharge programs-promotion of Kangaroo care
- CDR
- Child Care centers and policies

Well and Sick visits

- 86 percent of families post delivery are interested in information about soothing baby and sleep. (www.kaboose.com)
- When a baby is sick and fussy is when a parent will choose a different sleep situation – position and where – usually for reasons of safety and care.
- At different points in the first six months of life there are different risks- highest risk between 2-4 months. Messaging should be constant, consistent and appropriate.

Development

- Development happens in a predictable pattern from head to toe
 - For example, infants develop head control before they learn to sit or stand
- Development skills are attained within a predictable age range
 - For example, a newborn is unable to hold their head steady. By six months most infants can sit and by 1 year, they begin to walk

Developmental Milestones

Age	Gross Motor	Fine motor
4-5 months	Rolls F→B	Hands come together
6-7 months	Sits without support Rolls B→F	Transfers from hand to hand
9 months	Crawls, pulls to stand	Pincer grasp
12 months	Walks	Pat-a-cakes, takes objects out of a box

Newborn



1 month old



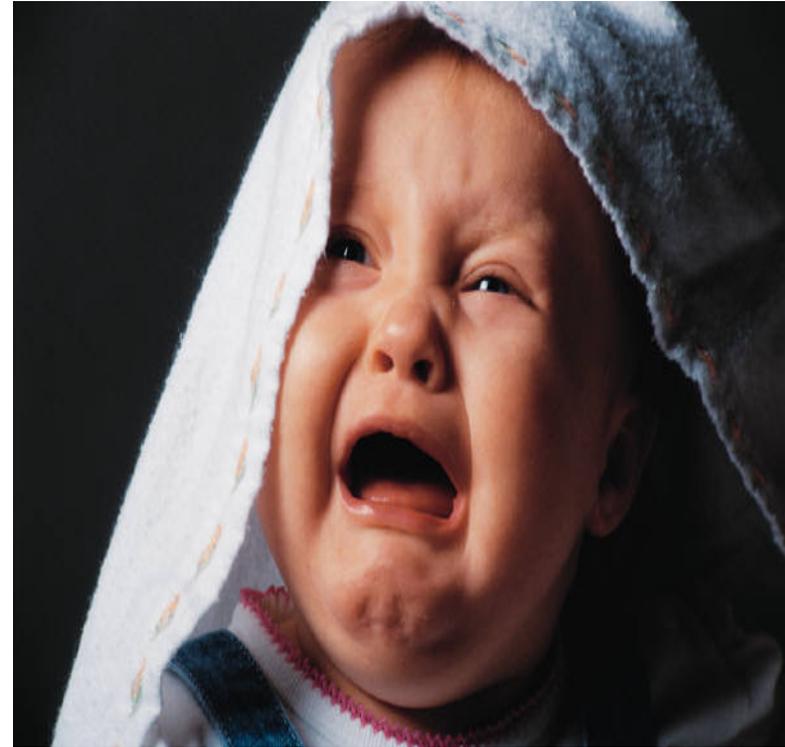
2 month old



Sleep Problems

- Difficulty initiating (settling into sleep)
- Difficulty maintaining sleep (waking up during the night with difficulty returning to sleep)

Source: Diagnostic Classification 0-3



Causes of sleep problems

- Medical Problems
- Regulatory Disorders
- Attachment Disorders
- **Poor Sleep Hygiene**

Medical Problems Which Interfere With Sleep

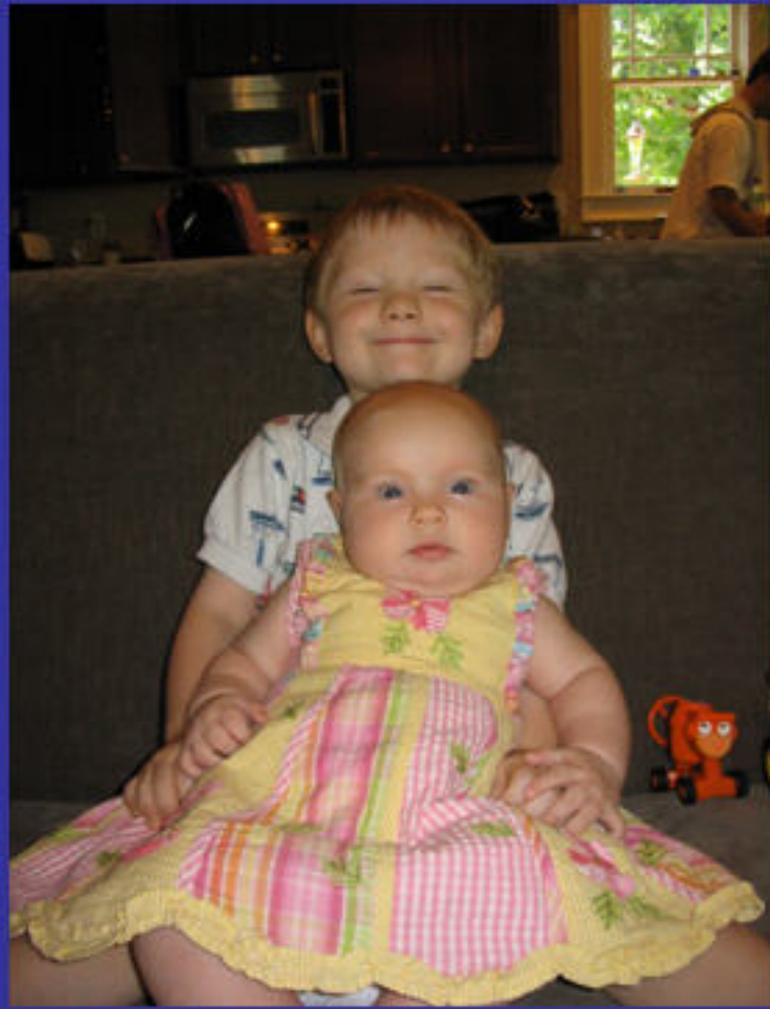
1. Obstructive sleep apnea syndrome (OSAS)
2. Respiratory conditions, e.g. asthma, CF
3. Food allergies
4. Ear infections

What Is Self Regulation?

“The mastery of tasks that were accomplished by the mother’s body or in concert with the mother’s body when the child was in the womb, but must now be accomplished by the child’s body and through signaling needs to responsive adults.”

Source: From Neurons to Neighborhoods, 2000.

3 month old



Upper body and arm strength



2 month old



3 1/2 month old



5 month old

Upper body and arm strength



2 month old



3 1/2 month old



5 month old

4-5 month old



Developmental Milestones of Self Regulation In Infancy

- Regulation of arousal and sleep-wake cycles
- Responsive interactions with others
- Attempts to influence others
- Begins to anticipate and participate in simple routines

Source: Bronson, Martha. (2000). Self Regulation in Early Childhood. New York: Guilford Press.

Role of Adults in Infant Self Regulation

- Being sensitive to infant signals and “state”
- Being responsive to infant’s signals
- Engaging in warm positive interactions
- Participating in predictable sequences of caregiving, social and play routines that the infant can learn and participate in

Source: Bronson, Martha. (2000). Self Regulation in Early Childhood. New York: Guilford Press.

Upper body and arm strength



6 month old



Sitting

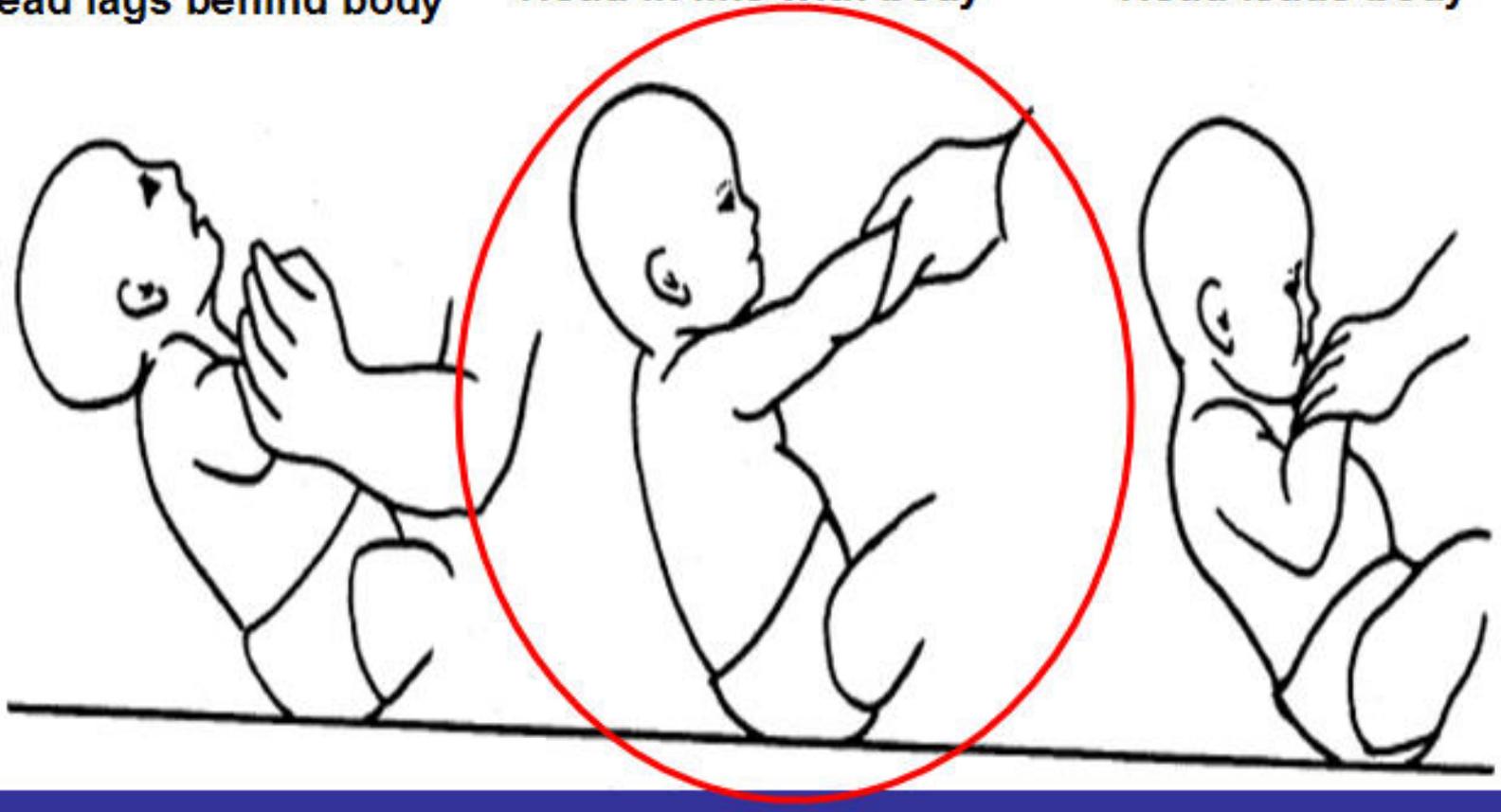


Pull to Sit

Head lags behind body

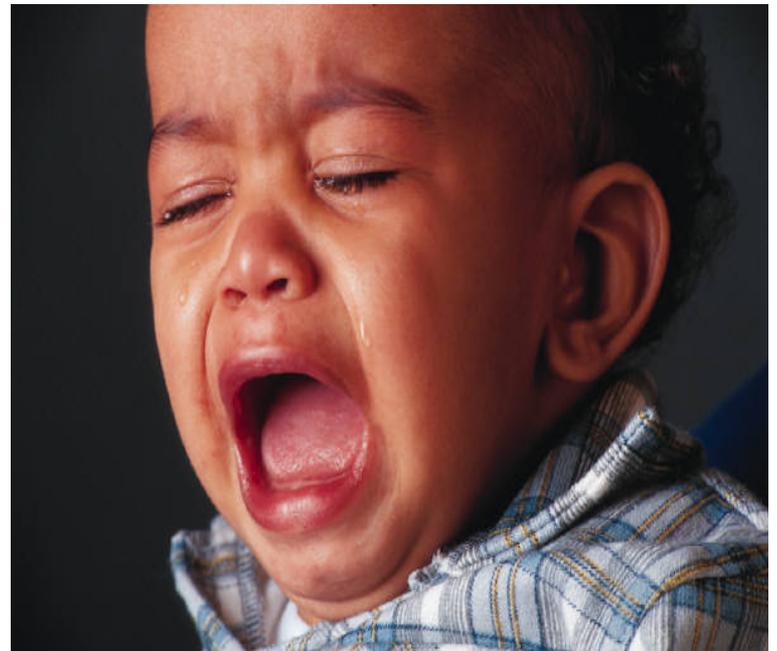
Head in line with body

Head leads body



Sleep Problems Occur in Children with Regulatory Disorders

- **Hypersensitive**
Over-reactive to touch or sound
Difficulty settling or getting comfortable
- **Motorically Disorganized**
Craves vestibular stimulation Can only fall asleep with movement or vibration



Poor Sleep Hygiene

- Feeding a baby every time it cries
- Parent soothing vs. self soothing



7-8 month old



9 month old



All Fours

Props on
forearms



Supports
self on
hands



Infant on
hands and
knees



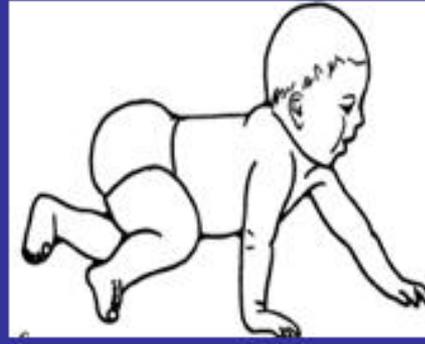
Infant on
feet and
hands



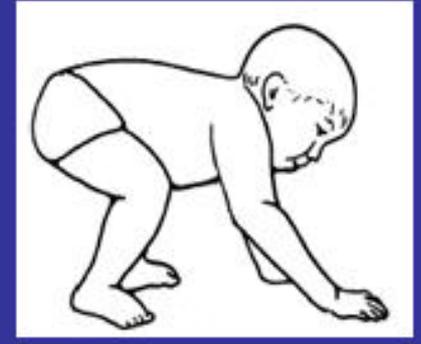
3 ½ month old



5 ½ month old



7 to 9 month old



10 to 12 month old

10 to 12 month old



Babies Do Cry More When on Their Backs

Sleep is lighter.

They awaken more easily.

**These things help protect
infants from SIDS.**



Babies Who Sleep on their Backs

- Swallow more often
- Have fewer ear infections at 3 and 6 months
- Have less stuffy noses at six months



Source: Carl Hunt, M.D., et. al. *Arch Pediatr Adolesc Med.* 2003;157:469-474.

Parental Behaviors That Help to Regulate Infant Sleep/Wake Cycles

- “Kangaroo Care”
- Breastfeeding
- Swift, consistent response to crying from birth to four months
- Play games such as Peek-a-boo to help with separation

Calming Strategies for Fussy Babies

- Swaddling
- Shhhh Source: Harvey Karp, M.D.
- Rhythmic, repetitive sounds
- Comfort sucking (fingers, fist, pacifier)
- Massage

Source: Charles E. Schaefer, Ph.D.

Routines Help to Regulate Arousal



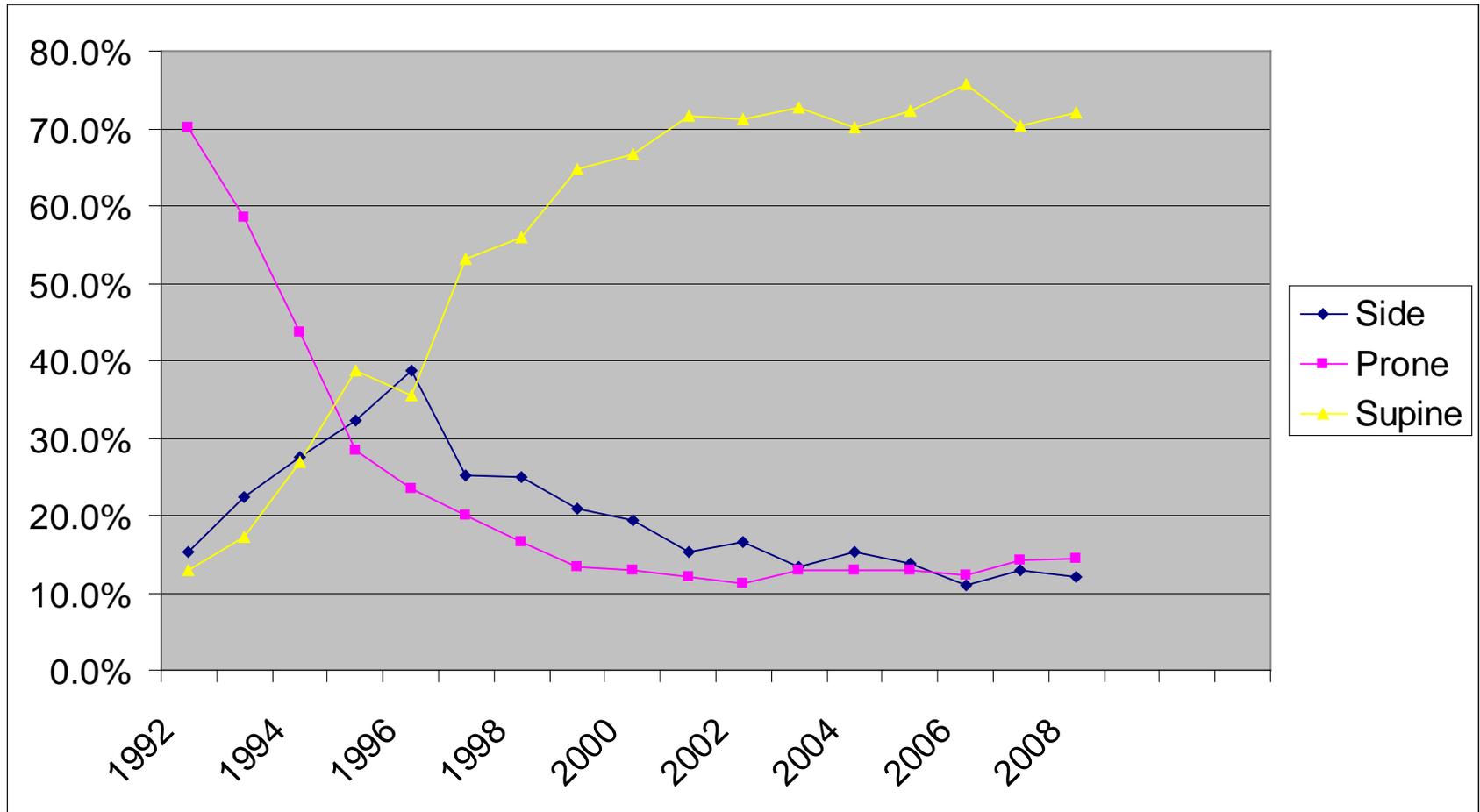
- Predictable and consistent nap and bedtime routines
- Quiet hour before bedtime
- Bed time ritual

Techniques for Helping Infants Transition into Sleep State



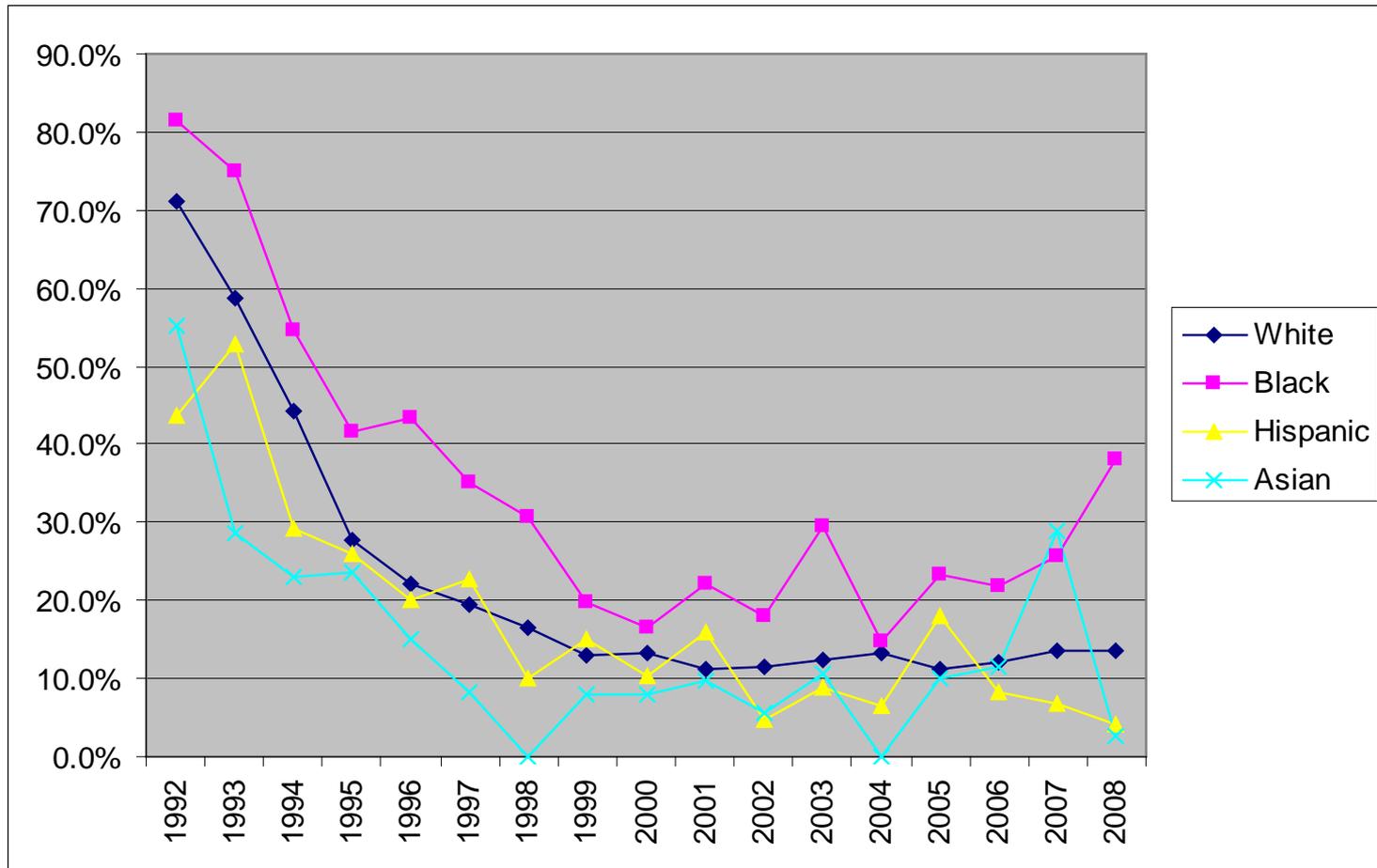
- Place baby in the crib drowsy but still awake
- Help child attach to a security object
- Make middle of the night feedings brief and boring

Sleep Position Prevalance



Source: NISP, 2008

Prone Prevalence by Race/Ethnicity



Source: NISP, 2008

Poll Question: Did you bed share with your
baby?

The New York Times

A Quiet Revolt Against the Rules on SIDS

By: Brian Braker, 10/18/05

In homes across the country, parents like Mrs. Stanciu are mounting a minor mutiny against the medical establishment. For more than a decade, doctors have advocated putting babies to bed on their backs as a precaution against Sudden Infant Death Syndrome, or SIDS.

Increasingly, however, some new parents are finding that the benefits of having babies sleep soundly - more likely when they sleep on their stomachs - outweigh the comparatively tiny risk of SIDS.

Current Issues

1. Racial/ethnic disparities
2. Increasing prone sleeping rates
3. Increasing rates of other sleep-related deaths
 - **Accidental suffocation**
 - **Entrapment**
 - **Undetermined**
 - **Most (80->90%) of these occur in unsafe sleep environments**
 - **Bedding**
 - **Bed sharing with others**

The New York Times

Shhh...My Child Is Sleeping (in My Bed, Um, With Me)

By TARA PARKER-POPE
Published: October 23, 2007

“Ask parents if they sleep with their kids, and most will say no. But there is evidence that the prevalence of bed sharing is far greater than reported. Many parents are "closet co-sleepers," fearful of disapproval if anyone finds out, notes James J. McKenna, professor of anthropology and director of the Mother-Baby Behavioral Sleep Laboratory at the University of Notre Dame.”



CITY OF PHILADELPHIA

**DHS AND HEALTH DEPARTMENT LAUNCH NEW
CAMPAIGN WARNING TO PARENTS ABOUT THE
DANGERS OF UNSAFE INFANT SLEEPING
ENVIRONMENTS**

***43 Infant Deaths In Past 18 Months Spur New Public
Outreach Campaign***

Los Angeles Times

Parents warned about sleeping with infants

L.A. County officials says the increasingly popular practice known as 'co-sleeping' can have tragic consequences.

By Rong-Gong Lin II, Los Angeles Times Staff Writer

April 24, 2008

In 2006, 44 infants died while sleeping with an adult (76% increase from 2005)

ST. LOUIS POST-DISPATCH

Bed sharing condemned by two children's hospitals

By [Nancy Cambria](#)

Jan 24, 2009

“Last year, the city medical examiner's office recorded that 19 otherwise healthy infants died from these factors, up from 14 in 2007. The majority of those deaths were caused by suffocation after an adult or other child rolled onto the baby while in a bed, or the child was unable to breathe in adult bedding such as pillows and blankets, said Michael Graham, chief medical examiner for the city. ‘The leading factor in why otherwise healthy children die is unsafe bedding and bed-sharing,’ Graham said.”

Things we need to do

- Reinforce message wherever and whenever we can
- Message needs to be consistent
 - Health care providers, media, advertisers
- Message needs to make sense to parents and address parental concerns
 - Concerns about infant comfort (length of sleep) and vomiting/aspiration
 - Efforts to encourage room sharing without bed sharing must address parent safety concerns
- Message needs to emphasize parent self-efficacy
 - Recommendations need to stress the “preventability” of infant death

Conclusion



- Safe sleep and infant health and development go hand in hand.
- Safe sleep is more complex than placing babies on the back.

Where to Get More Information

- **National Child Care Information & Technical Assistance Center**
 - 1-800-616-2242 or <http://nccic.org>
- **National Resource Center for Health and Safety in Child Care**
 - 1-800-598-KIDS or <http://nrckids.org>
- **National Training Institute for Child Care Health Consultants**
 - 919-966-3780 www.nti.unc.edu
- **American Academy of Pediatrics (AAP)**
 - 847-434-4000 <http://www.aap.org>

First Candle

- **Call toll free:**
1-800-221-7437 (SIDS)
- 1314 Bedford Avenue, Suite 210
Baltimore, Maryland 21208
Phone: (410) 653-8226
Fax: (410) 653-8709
- www.firstcandle.org
- **National Sudden Unexpected Infant/Child Death & Pregnancy Loss Program Support Center**
- 1314 Bedford Avenue, Suite 210
Baltimore, Maryland 21208
Phone: (410) 415-6628/653-8226
Fax: (410) 653-8709
- www.firstcandle.org/professionals/



Thank you for your participation

Please take a moment to take our survey:

[http://www.surveymonkey.com/s/expectparent
013013](http://www.surveymonkey.com/s/expectparent013013)