Safe Sleep Task Force for Infants

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with Mary Salazar, APN
A project in conjunction with
Arkansas Children’s Hospital Injury Prevention Center
Infant Mortality in the U.S.

Figure 1. Infant mortality rates, selected countries, 2005

<table>
<thead>
<tr>
<th>Country</th>
<th>Rate per 1,000 live births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>2.1</td>
</tr>
<tr>
<td>Sweden</td>
<td>2.4</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>2.4</td>
</tr>
<tr>
<td>Japan</td>
<td>2.8</td>
</tr>
<tr>
<td>Finland</td>
<td>3.0</td>
</tr>
<tr>
<td>Norway</td>
<td>3.1</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>3.4</td>
</tr>
<tr>
<td>Portugal</td>
<td>3.5</td>
</tr>
<tr>
<td>France</td>
<td>3.6</td>
</tr>
<tr>
<td>Belgium</td>
<td>3.7</td>
</tr>
<tr>
<td>Greece</td>
<td>3.8</td>
</tr>
<tr>
<td>Germany</td>
<td>3.9</td>
</tr>
<tr>
<td>Ireland</td>
<td>4.0</td>
</tr>
<tr>
<td>Spain</td>
<td>4.1</td>
</tr>
<tr>
<td>Switzerland</td>
<td>4.2</td>
</tr>
<tr>
<td>Austria</td>
<td>4.2</td>
</tr>
<tr>
<td>Denmark</td>
<td>4.4</td>
</tr>
<tr>
<td>Israel</td>
<td>4.6</td>
</tr>
<tr>
<td>Italy</td>
<td>4.7</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4.9</td>
</tr>
<tr>
<td>England and Wales</td>
<td>5.0</td>
</tr>
<tr>
<td>Australia</td>
<td>5.0</td>
</tr>
<tr>
<td>New Zealand</td>
<td>5.1</td>
</tr>
<tr>
<td>Scotland</td>
<td>5.2</td>
</tr>
<tr>
<td>Canada</td>
<td>6.2</td>
</tr>
<tr>
<td>Hungary</td>
<td>6.2</td>
</tr>
<tr>
<td>Cuba</td>
<td>6.4</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>6.3</td>
</tr>
<tr>
<td>Poland</td>
<td>6.4</td>
</tr>
<tr>
<td>United States</td>
<td>6.9</td>
</tr>
<tr>
<td>Slovakia</td>
<td>7.2</td>
</tr>
</tbody>
</table>


CDC, NCHS Data Brief, 2009
Infant Mortality in Arkansas

Infant mortality (Rate) – 1990 to 2007
KIDS COUNT Data Center, www.kidscount.org/datacenter
A Project of the Annie E. Casey Foundation
Infant Mortality in Arkansas

Five-Year Infant Deaths, 2003 - 2007

Rate per 1000 Live Births

- 0.0 - 4.6
- 4.7 - 8.4
- 8.5 - 12.1
- 12.2 - 19.3

Date: October 25, 2010
Data: Arkansas Health Statistics Branch, 2003 - 2007
Source: Arkansas Department of Health
Author: Amanda Worrill, GISP
Sudden Infant Death Syndrome is defined as the sudden death of an infant less than 1 year of age that cannot be explained after a thorough investigation is conducted, including a complete autopsy, examination of the death scene, and review of the clinical history.
Disposition of Sudden Infant Deaths

Sudden Unexpected Infant Death

Explained
- Suffocation
- Poisoning
- Accid. trauma
- Metabolic ds
- Neglect
- Homicide

Unexplained
- SIDS
- Sudden infant death plus environmental risk factor(s)
- Unknown

“SIDS”
## SIDS Risk Factors

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Adjusted OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>African- American</td>
<td>2.5</td>
</tr>
<tr>
<td>Prone sleep position</td>
<td>2.6</td>
</tr>
<tr>
<td>Side sleep position</td>
<td>2.0</td>
</tr>
<tr>
<td>Placed on side, found prone</td>
<td>8.7</td>
</tr>
<tr>
<td>Soft bedding</td>
<td>5.1</td>
</tr>
<tr>
<td>Pillows</td>
<td>2.5</td>
</tr>
<tr>
<td>Prone on soft surface</td>
<td>21.0</td>
</tr>
<tr>
<td>Unaccustomeded prone</td>
<td>18.0</td>
</tr>
</tbody>
</table>
Other SIDS Factors

- **Pacifiers**—Some protective effect

- **Secondary caregivers**—20% of SIDS deaths occur in non parental care

- **Bed sharing**—especially a problem with smoking, alcohol, and multiple bed sharers

- **Prematurity**—have $\geq$ risk, but less likely supine

- **Nursery practices**—93% of parents who saw a nurse place baby prone did so too
Preparing for Baby’s Arrival

• AAP Policy Statement - revised October 2011

• Focus on “safe sleep” to include position AND environment

• Help parents by:
  - providing education
  - identifying resources
  - demonstrating desired behaviors
Prepare a Safe Crib

- Use a fitted sheet and wrap it around the bottom of mattress by two inches.
- Do not use pillows, blankets, stuffed animals, or any other soft items.
- Do not use bumper pads.
- If you use mobiles, hang them out of baby’s reach and remove them once baby can sit up.
• Consider less expensive alternatives to full-size cribs:
  – Cradle
  – Bassinette
  – Pack ‘n’ Play
AAP Recommendations: Level A

• Supine position for every sleep
  – Supine does not increase risk of choking, even in infants with GER (except in very rare anatomic abnormalities)
  – Elevating head of crib is not recommended (does not help GER and infant can slide down in crib)
• Side sleeping is not safe and is not advised
• Firm sleep surface
• Room share without bed sharing
• No soft items or loose bedding in crib
• Do not use sitting devices (car seat, etc) for sleep
Supine Sleep Position

- Reduces re-breathing of CO$_2$ and risk of suffocation
- Rates have seen plateau in recent years
- Barriers include perceived risk of choking/aspiration, and perceived lack of infant comfort
- Parental education must address these barriers
Prone Sleep Position

- Harder to arouse
- More likely to over-heat
- Re-breathing: increases carbon dioxide
- More likely to suffocate
- Greater risk of SIDS
Safe sleep environment

- Baby should have a separate sleeping place in the parent's room.
- Consider using a "blanket sleeper" instead of blankets.
- Consider offering a pacifier once breastfeeding is established.
- Use a firm mattress covered with a fitted sheet in a safety-approved crib.
- Avoid overheating; baby shouldn't be swaddling or hot to the touch.
- Baby shouldn't be more than a soda can's width between bars.
- Put baby on tummy back to sleep.
- Remove pillows, blankets, stuffed toys and other soft objects from crib. Don't use devices to prop baby on side.
- Remember to have supervised tummy time when baby's awake.
- Create a smoke-free zone around baby.

| Arkansas Children's Hospital | Pediatrics | UAMS | Arkansas Pediatricians | University of Arkansas for Medical Sciences |

archildrens.org  uams.edu  arpediatrics.org
• Babies are less likely to choke on their backs

Facing down – Choking Risk

Facing up – the Safer Way
SIDS Rate and Sleep Position, 1985-2000
(Deaths per 1,000 Live Births)

Pre-AAP recommendation  Post-AAP  BTS Campaign

Sleep Position Source: NICHD Household Survey
SIDS Rate Source: National Center for Health Statistics, CDC
Decline in SIDS with Decrease in Prone Positioning

Total lives saved in the US since 1994
23,665

Source: American Academy of Pediatrics
Room Share – Don’t Bed Share

- Bedsharing/co-sleeping terminology
- Breastfeed safely; bond safely
- Dangers of bedsharing
  - Suffocation
  - Falls
  - Entrapment
  - Strangulation
- Consider barriers to recommendations
- Recent study on bed sharing with older children--confusion
AAP Recommendations: Level A

- Get regular prenatal care
- Avoid smoking, alcohol, illicit drug use during and after pregnancy
- Breastfeed!
AAP Recommendations: Level A

• Offer pacifier
• Don’t overheat
• Don’t rely on home monitors
• Expand national campaign to focus on safe sleep environments to reduce overall sleep-related deaths (SIDS, suffocation, other injury)
Avoid Overheating

• Set the room temperature the same as you would for an adult

• Dress the baby in as little or as much clothing as you would wear to be comfortable

• Use the “feet to foot” method with blankets
AAP Recommendations: Level B

- Immunize infants
- Avoid commercial devices marketed to reduce risk of SIDS
- Supervised awake tummy time to facilitate motor development and avoid positional plagiocephaly
• Health care professionals should endorse and practice safe sleep recommendations from birth
  – Preterm infants supine by 32 weeks
  – NICU and term nursery personnel endorse and practice safe sleep guidelines
  – Term nursery supine in bassinet

• Media and manufacturers should follow safe sleep guidelines in marketing and advertising

• Continue research on risk factors and mechanisms underlying SIDS and other sleep-related infant deaths
Safe Cribs

- Standards set by Consumer Product Safety Commission
- Widespread recalls and updates 2010-2012
- Slats no further than 2 3/8 inches apart (soda can)
- Not recalled (www.recalls.gov)
- Has all parts, and all are working
- Mattress is firm, takes up entire space
Action Steps

• Reinforce safe sleep messages for parents, medical professionals, and day care workers

• Advocate for manufacturer and media messages and images to be consistent with safe sleep practices

• Review nursery policies to ensure that best practices are being demonstrated to families

• Parent education – OB, NICU, Anticipatory Guidance

• Practice policies and protocols
Action Steps

- Support development of infant/child death review for all unanticipated deaths
- Support coroner training statewide
- Advocacy
- Community education
• American Academy of Pediatrics
  – http://pediatrics.aappublications.org/content/128/5/1030.full.html

• Centers for Disease Control
  – http://www.cdc.gov/sids/

• SUID Resource Center
  – http://www.sidscenter.org/index.html