

**Sudden Infant Death Syndrome Training
for Public Health Professionals
California SIDS Program
April 18, 2013.**

Reducing the Risk of Sudden Infant Death Syndrome

Thomas G. Keens, M.D.

Chair, California SIDS Advisory Council

Professor of Pediatrics, Physiology and Biophysics

Keck School of Medicine of the University of Southern California

Division of Pediatric Pulmonology, Children's Hospital Los

Angeles

No Conflicts of Interest to Disclose



POLICY STATEMENT

SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment

abstract

Despite a major decrease in the incidence of sudden infant death syndrome (SIDS) since the American Academy of Pediatrics (AAP) released its recommendation in 1992 that infants be placed for sleep in a non-prone position, this decline has plateaued in recent years. Concurrently, other causes of sudden unexpected infant death that occur during sleep (sleep-related deaths), including suffocation, asphyxia,

and ill-defined or unspecified causes of death have increased, particularly since the AAP published its last policy statement on SIDS in 2005. It has become increasingly important to update the AAP's recommendations on causes of sleep-related infant death. Many of the modifiable risk factors for SIDS and suffocation are preventable. This AAP Policy Statement expands the AAP's recommendations from only on SIDS to focusing on a safe sleep environ-

FREE

TASK FORCE ON SUDDEN INFANT DEATH SYNDROME

KEY WORDS

SIDS, sudden infant death, infant, bed-sharing, tobacco, pacifier, infant

ABBREVIATIONS

SIDS—sudden infant death
SUID—sudden unexpected
AAP—American Academy

This document is copyrighted by the American Academy of Pediatrics or its publisher. All rights reserved. The American Academy of Pediatrics has no financial interest in the development of this publication.

SIDS

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.



Risk Factors \neq Causes

- **Most infants with risk factors will not die from SIDS.**
- **Some infants without risk factors will die from SIDS.**
- **However, infants with risk factors are at increased risk of dying from SIDS.**



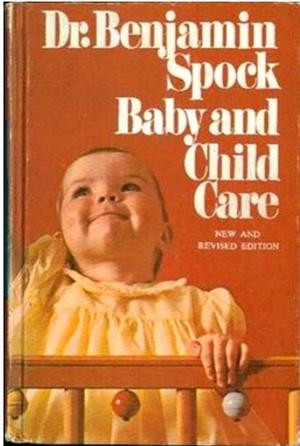
AAP Recommendation #1



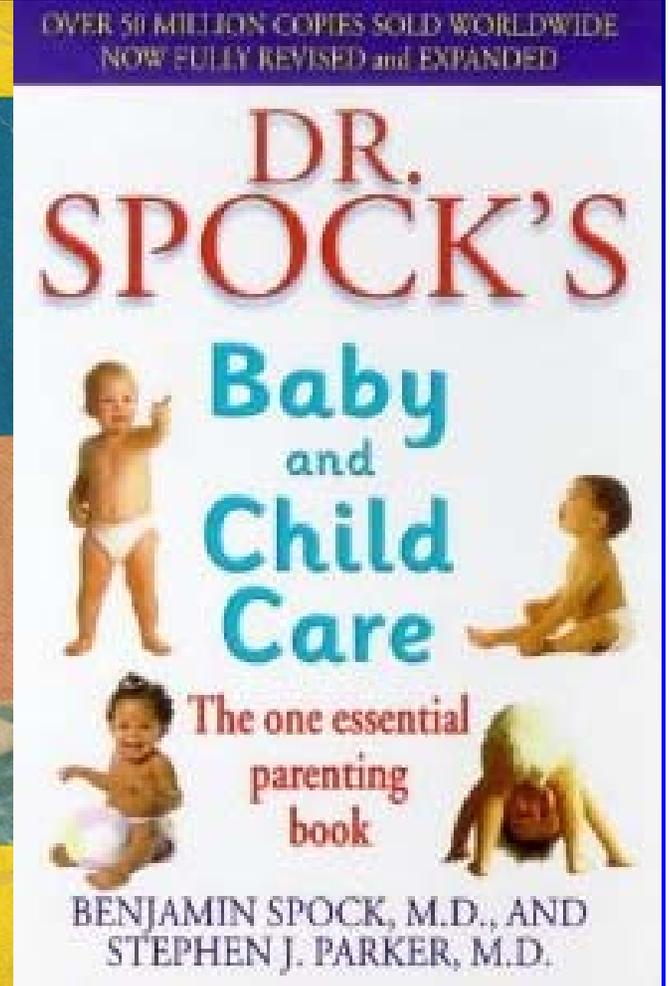
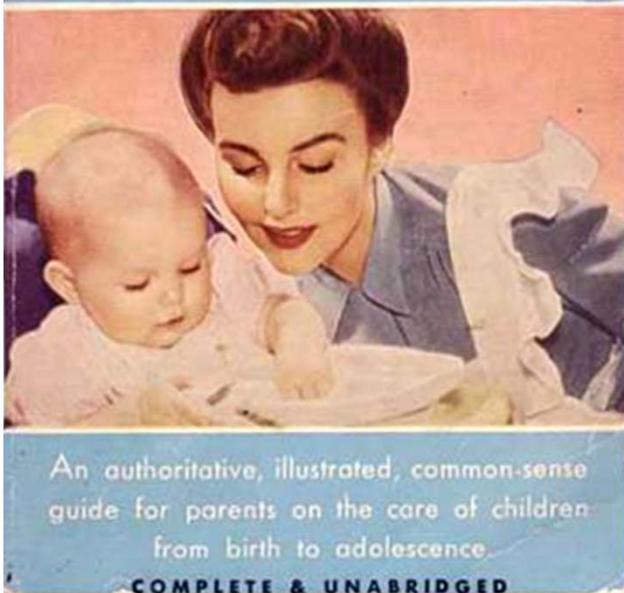
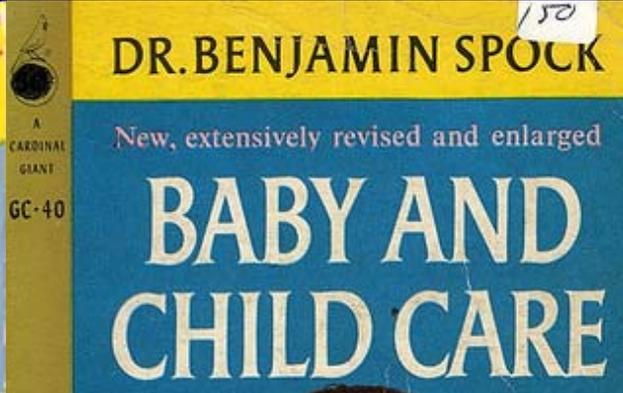
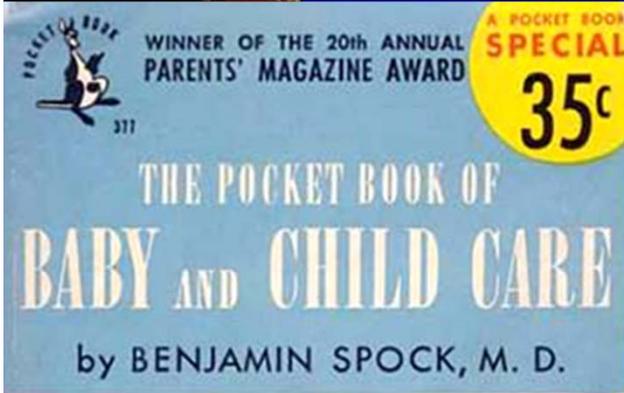
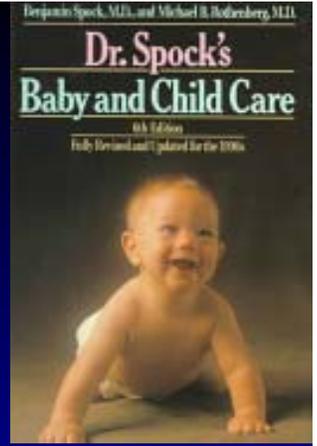
Back to Sleep for every sleep—To reduce the risk of SIDS, infants should be placed for sleep in a supine position (wholly on the back) for every sleep by every caregiver until 1 year of life.

Side sleeping is not safe and is not advised.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.



Prone sleeping was advocated in Western societies to reduce the risks from spitting up.



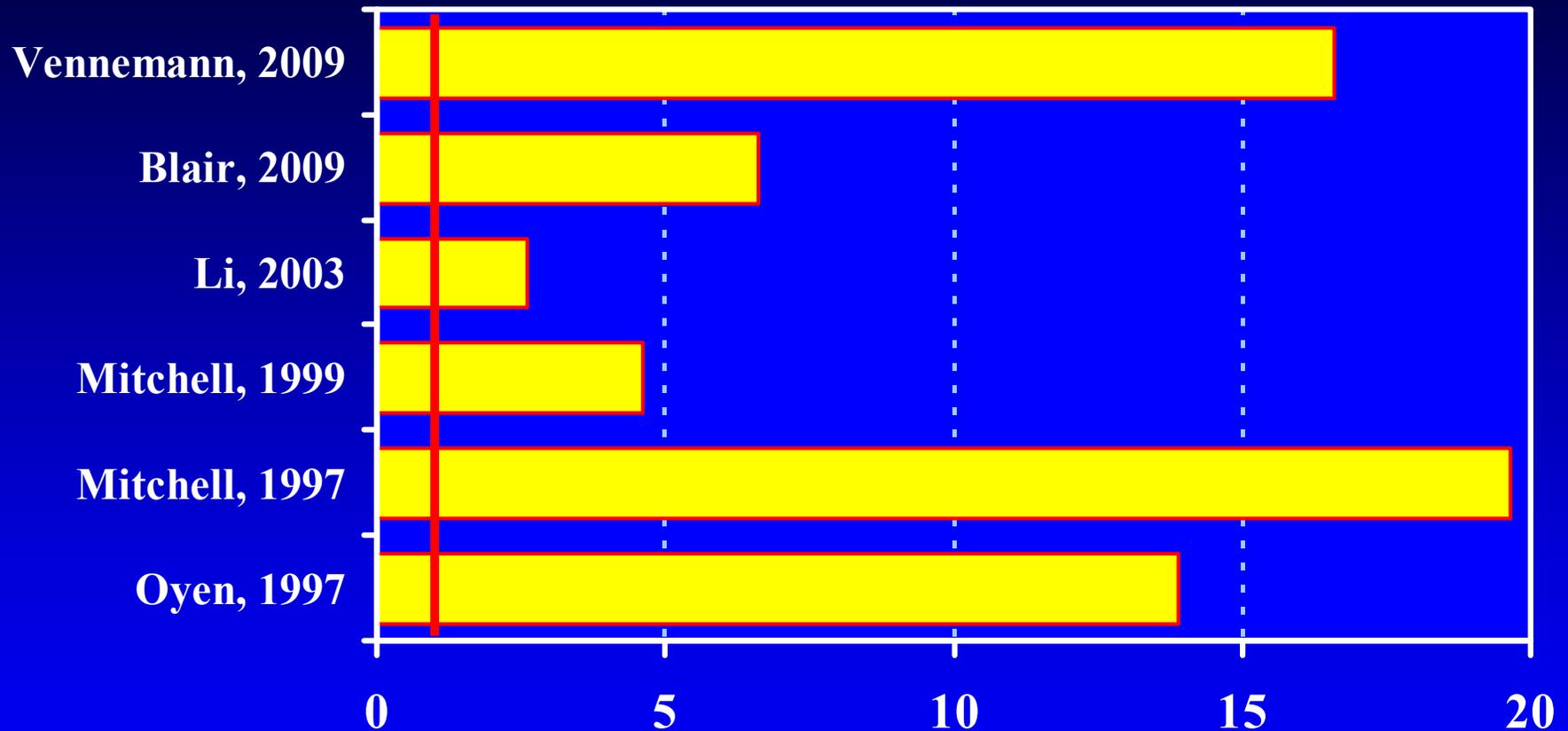
Prone Sleeping Dangerous?

- A visionary and courageous SIDS researcher, *Shirley L. Tonkin*, first advocated back sleeping in 1972.
- It took 20-years before her findings were accepted, and *Back to Sleep* campaigns began in the U.S.



Shirley L. Tonkin
Auckland University,
Auckland, New Zealand.

Prone Sleeping and SIDS (Odds Ratios vs Non-Prone Sleeping)



Vennemann, M.M., et al. *Pediatrics*, 123: 1162-1170, 2009.

Blair, P.S., et al. *B.M.J.*, 339: b3666, 2009.

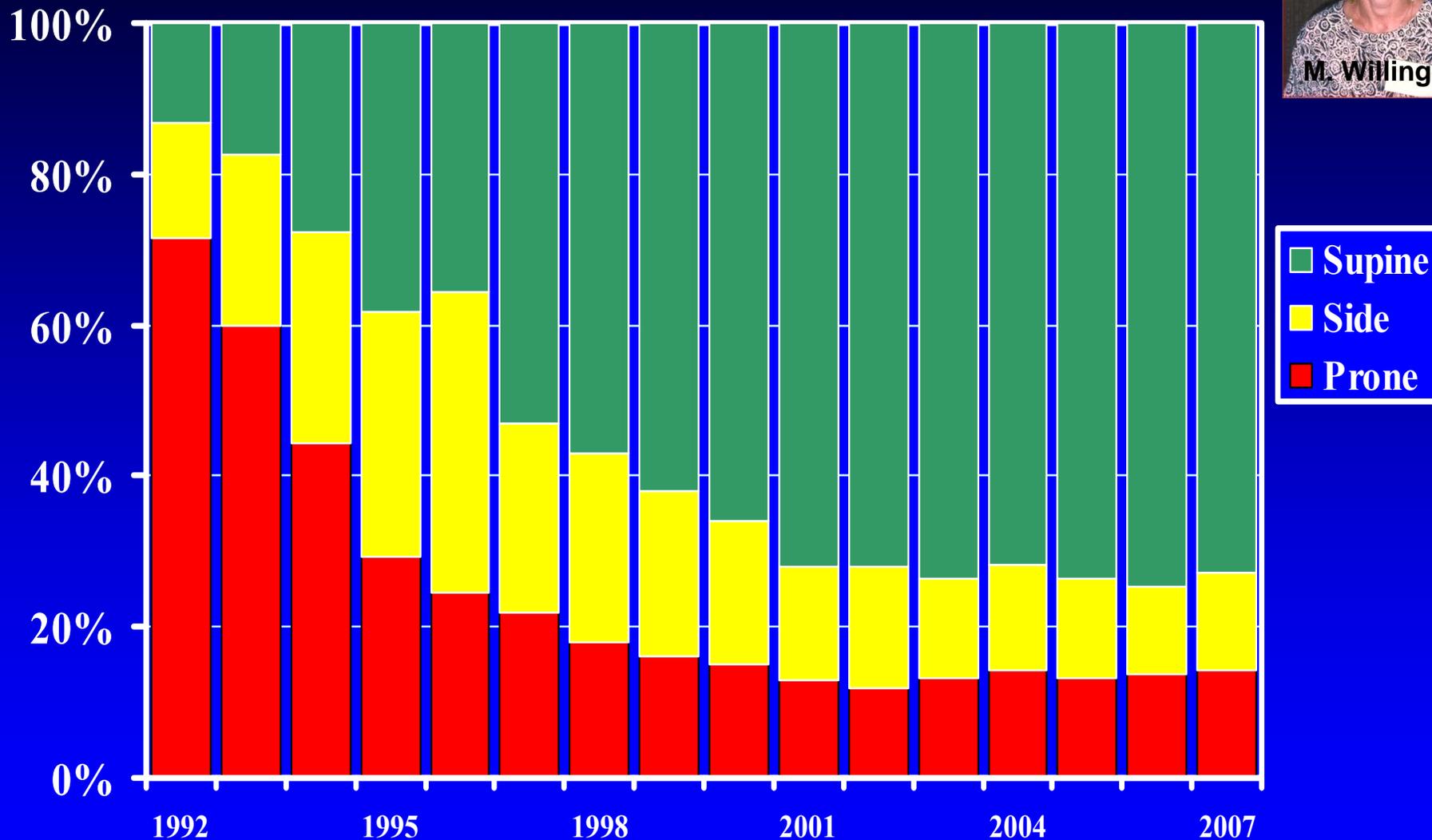
Li, D-K, et al. *Am. J. Epidemiol.*, 157: 446-455, 2003.

Mitchell, E.A., et al. *Arch. Pediatr. Adolesc. Med.*, 153: 1136-1141, 1999.

Mitchell, E.A., et al. *Pediatrics*, 100: 835-840, 1997.

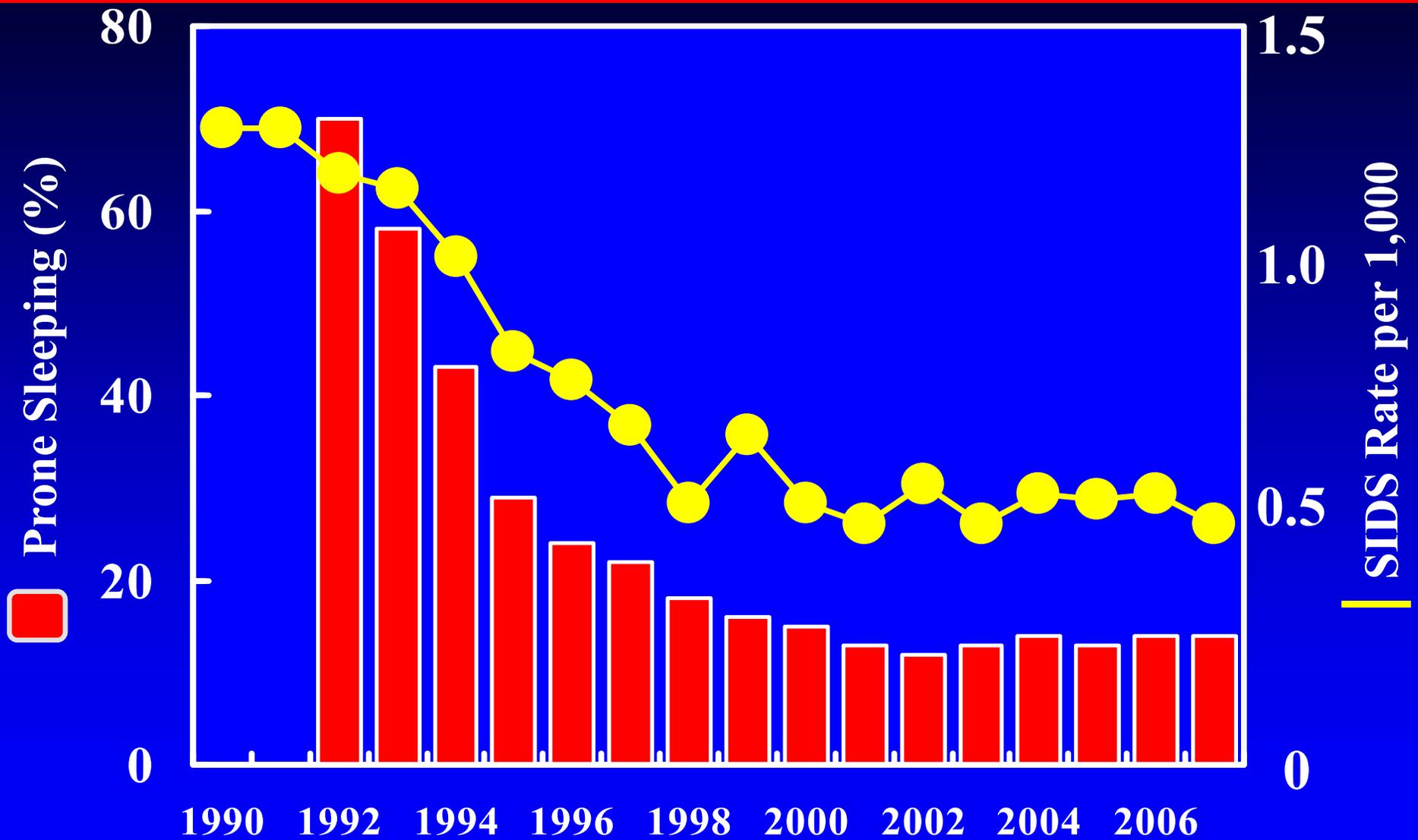
Oyen, N., et al. *Pediatrics*, 100: 613-621, 1997.

National Infant Sleep Position Study (U.S.A.)

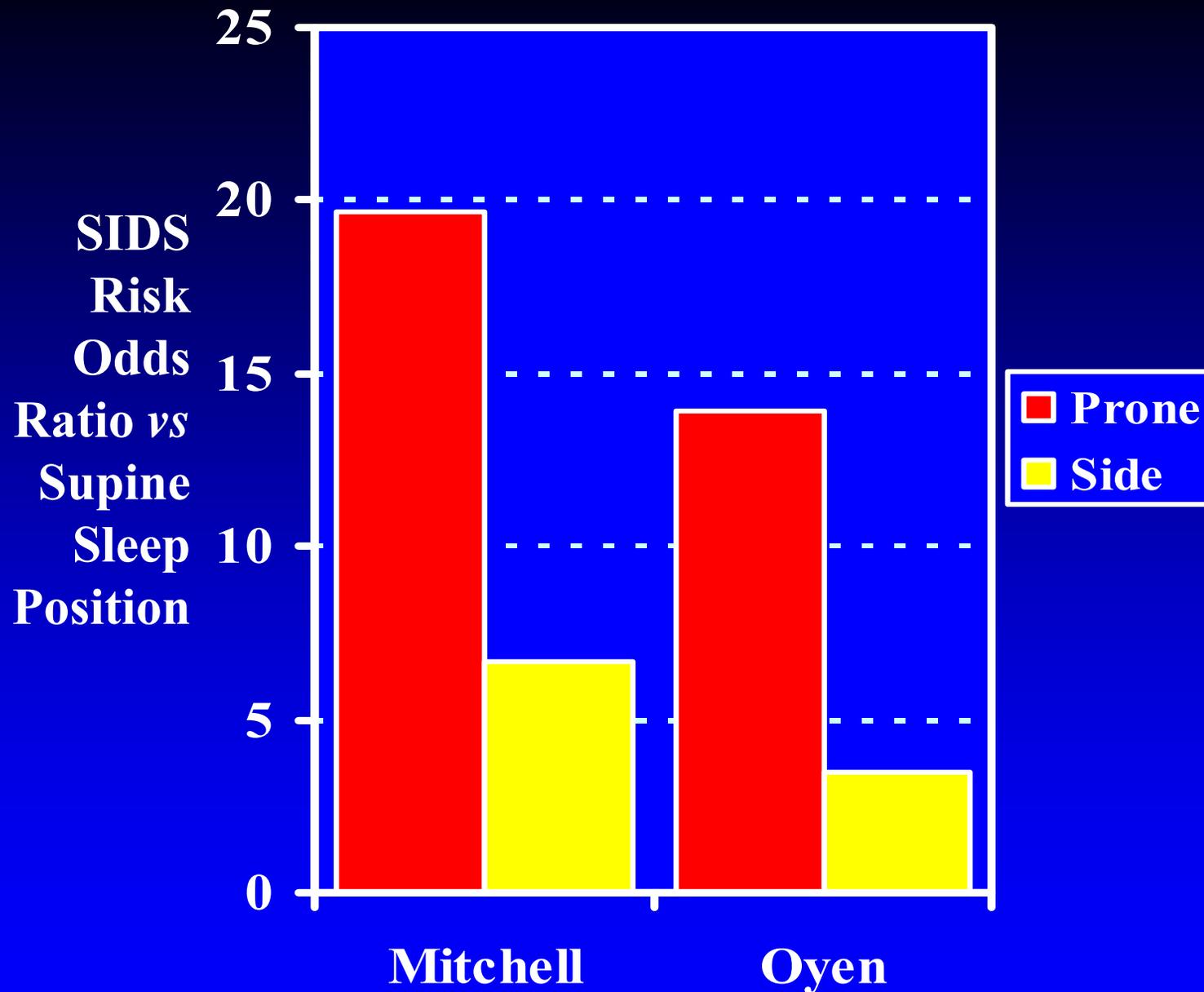


Willinger, M., et al. *J. Amer. Med. Assoc.*, 280: 329-335, 1998.
Colson, E.R., et al. *Arch. Pediatr. Adolesc. Med.*, 163: 1122-1128, 2009.

U.S. Prone Sleeping and SIDS Rate



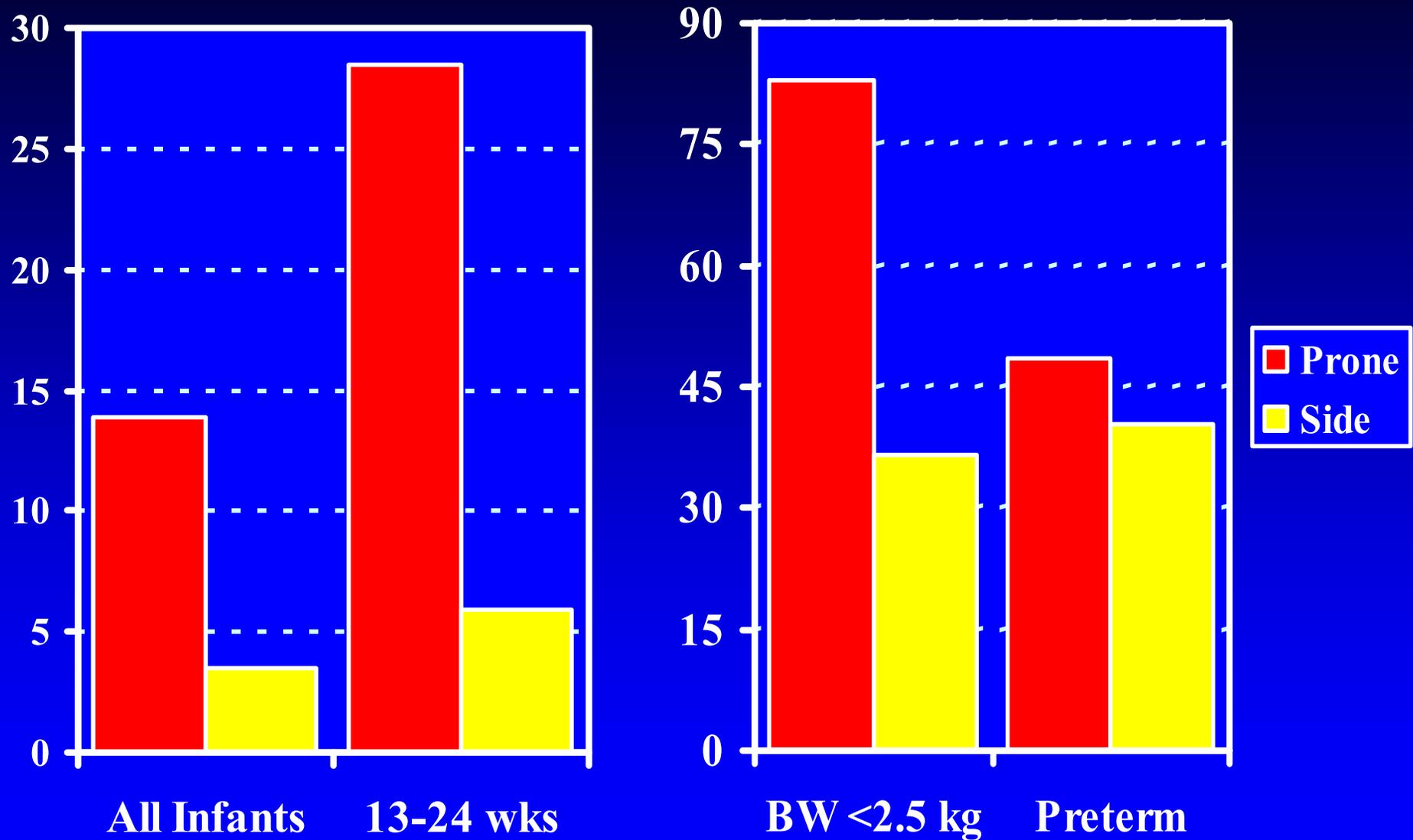
M. Willinger, et al. *J. Amer. Med. Assoc.*, 280: 329-335, 1998.
Colson, E.R., et al. *Arch. Pediatr. Adolesc. Med.*, 163: 1122-1128, 2009.



Mitchell, E.A., et al. *Pediatrics*, 100: 835-840, 1997.

Oyen, N., et al. *Pediatrics*, 100: 613-621, 1997.

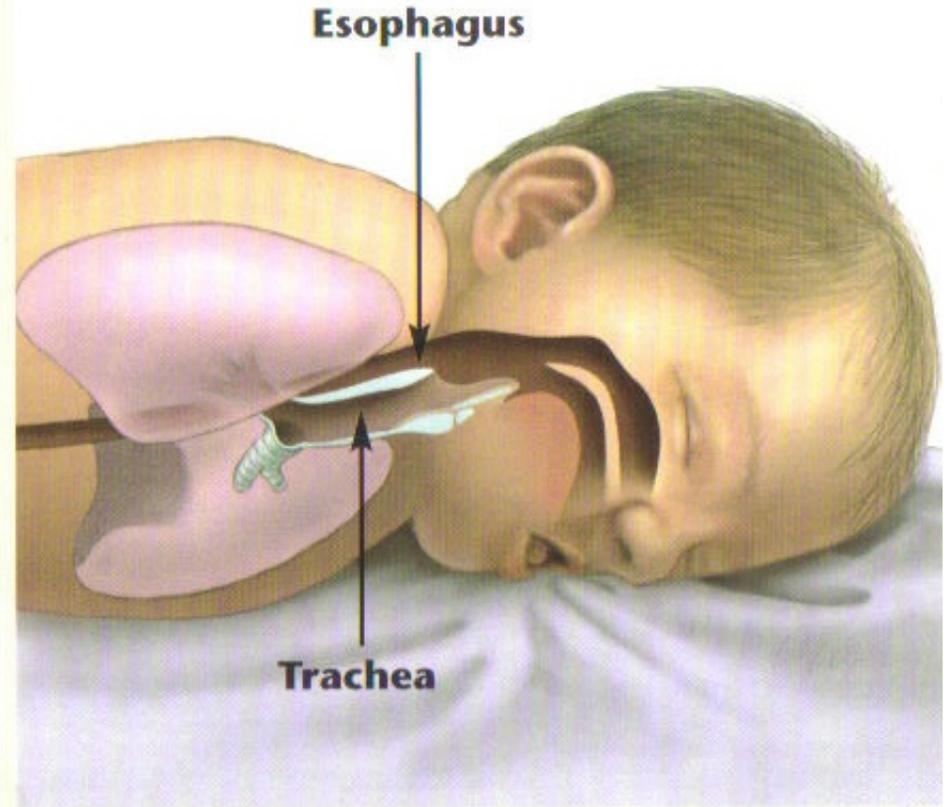
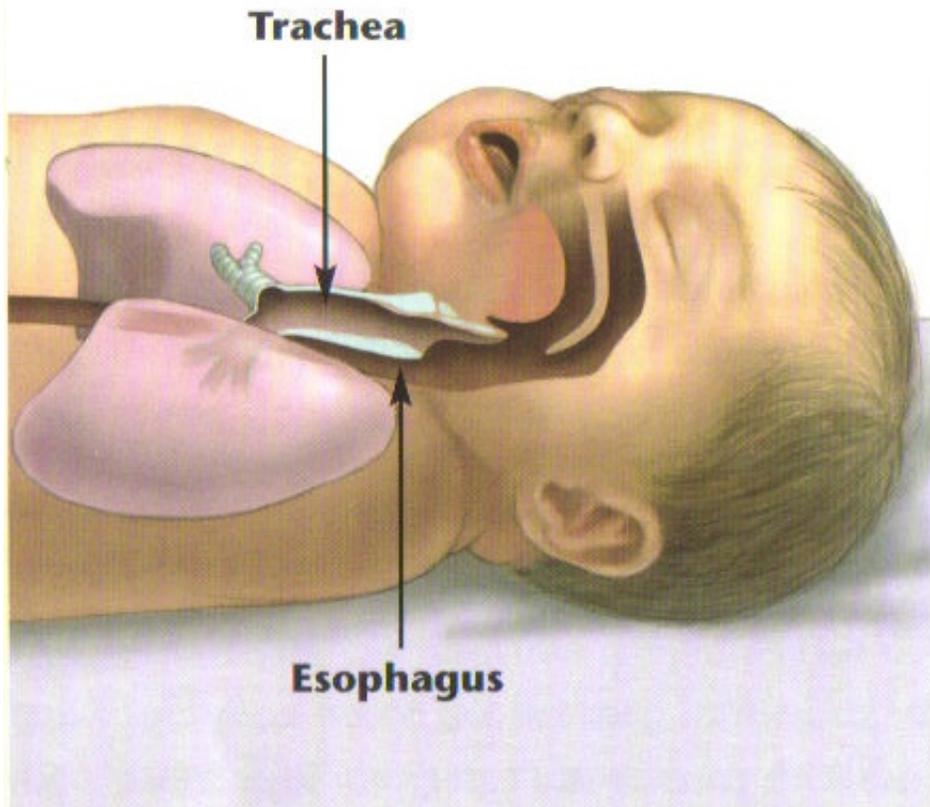
SIDS Risk Odds Ratio vs Supine Sleep Position



Oyen, N., et al. *Pediatrics*, 100: 613-621, 1997.

Supine

Prone

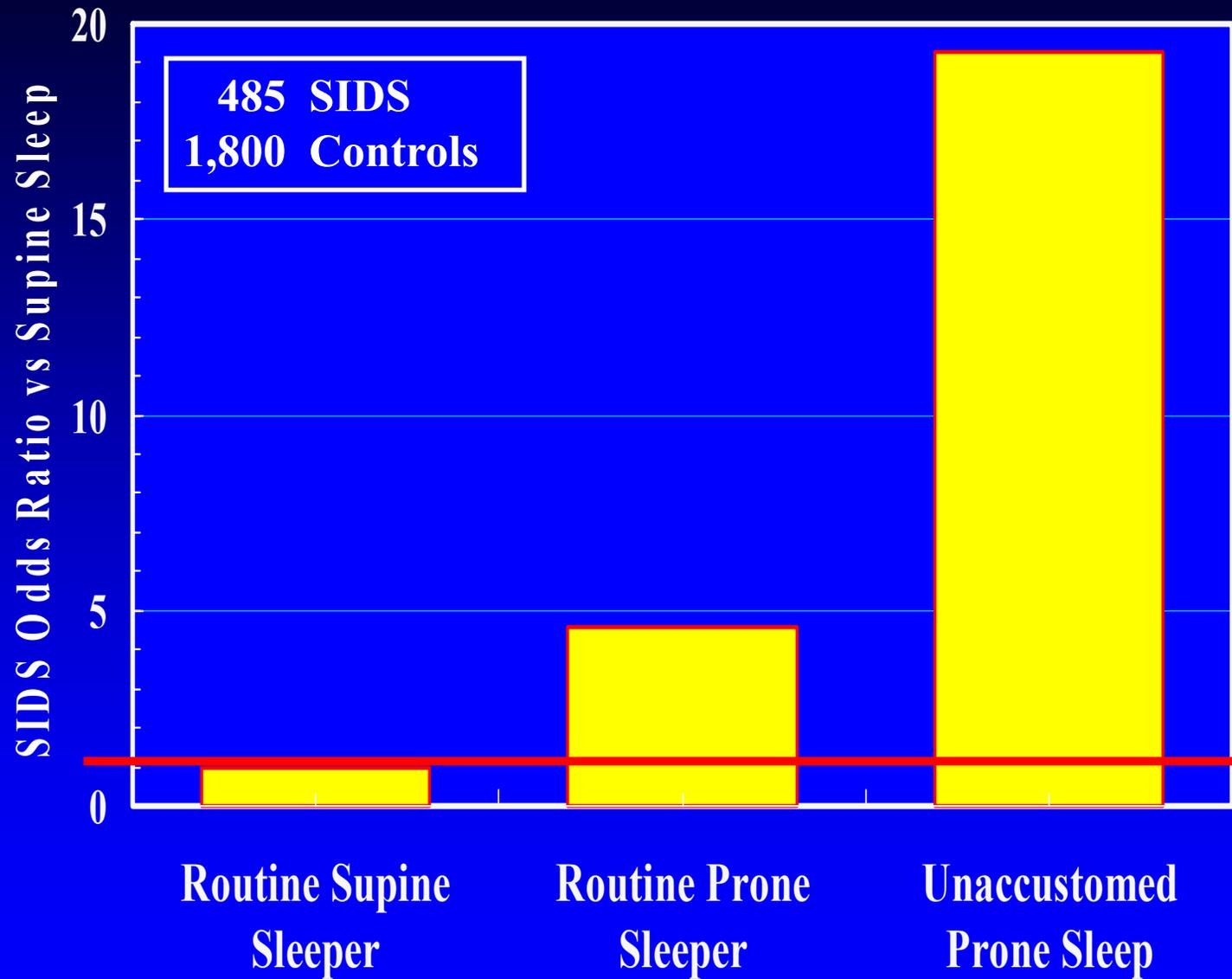


SIDS Risk Reduction: Curriculum for Nurses, NICHD, 2006. NIH Publication No. 06-6005.

Unaccustomed Prone Sleeping ↑ SIDS Risk



- 1987-1990, case control study in New Zealand.
- 20% of SIDS deaths involved lack of experience with prone position.



Mitchell, E.A., et al. *Arch. Pediatr. Adolesc. Med.*, 153: 1136-1141, 1999.

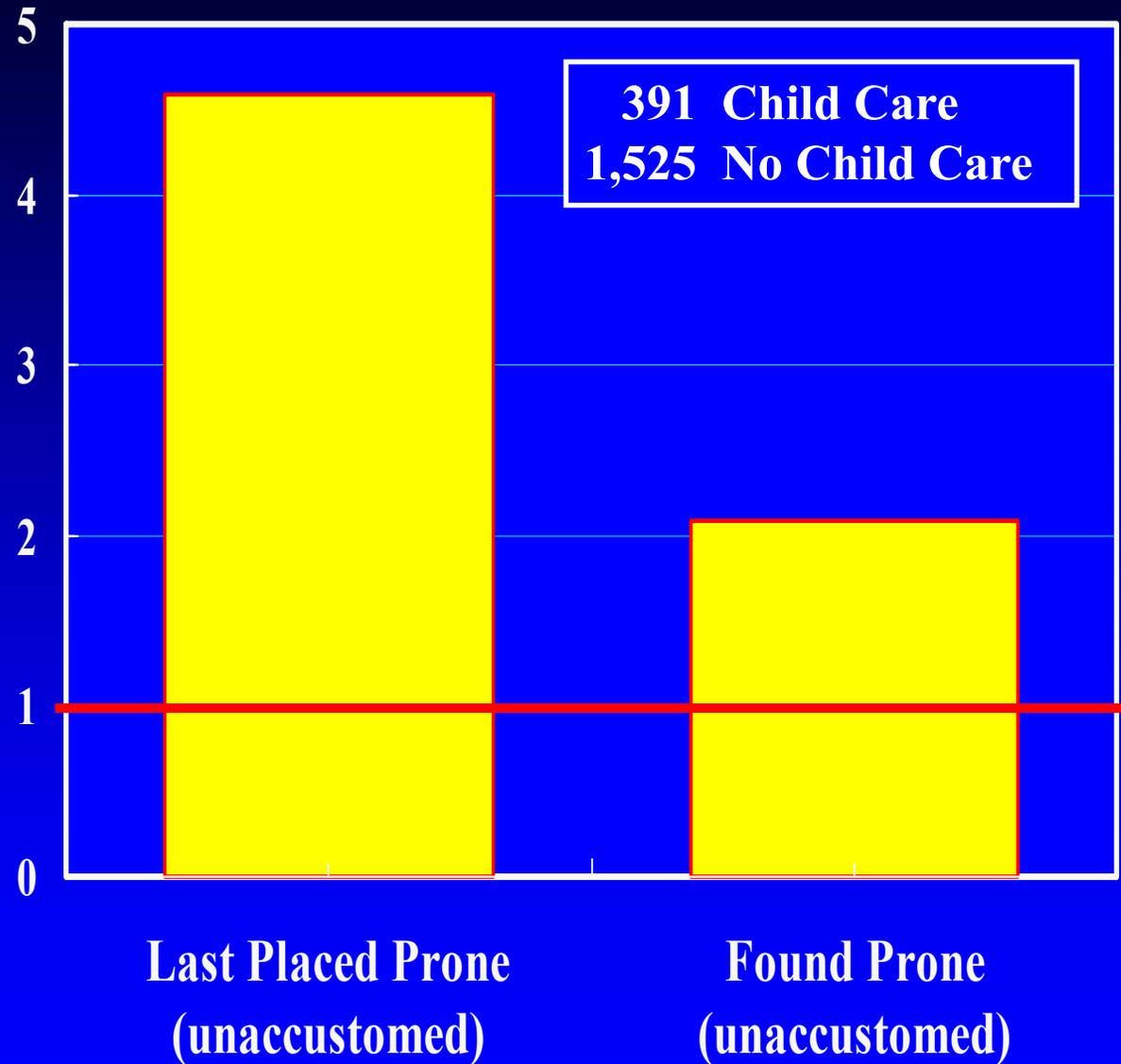
SIDS in Child Care



Rachel Moon

- Study in 11 states, 1995-1997.
- 1,916 SIDS deaths.
- 20.4% of SIDS deaths occurred in Child Care (7% expected).
- Usual sleep position supine or side at home.

Odds Ratio for Infants in Child Care vs Not in Child Care



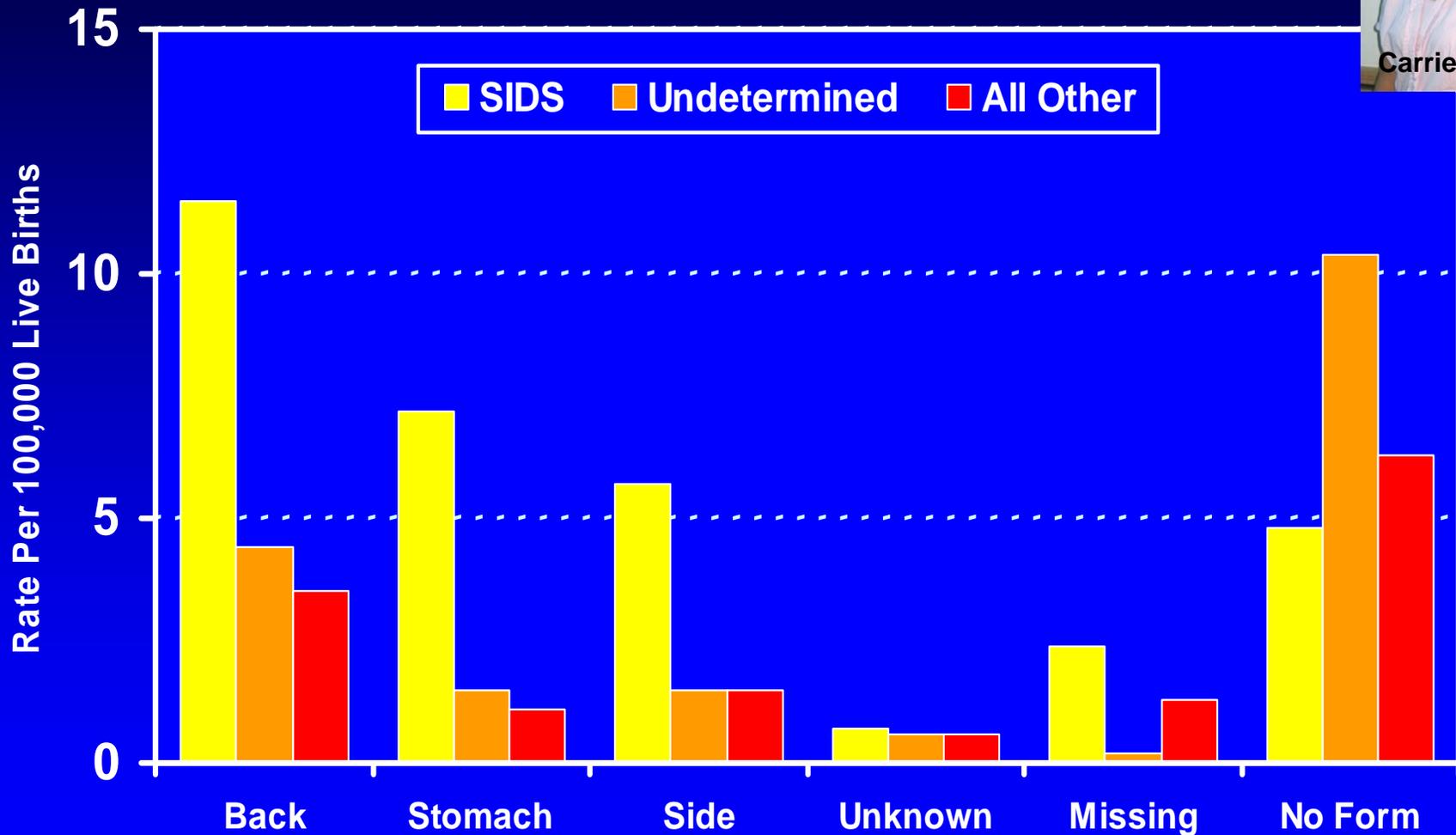
Moon, R.Y., et al. *Pediatrics*, 106: 295-300, 2000.



Infant Deaths by “Body Position When Placed” California 2003 SUID Data

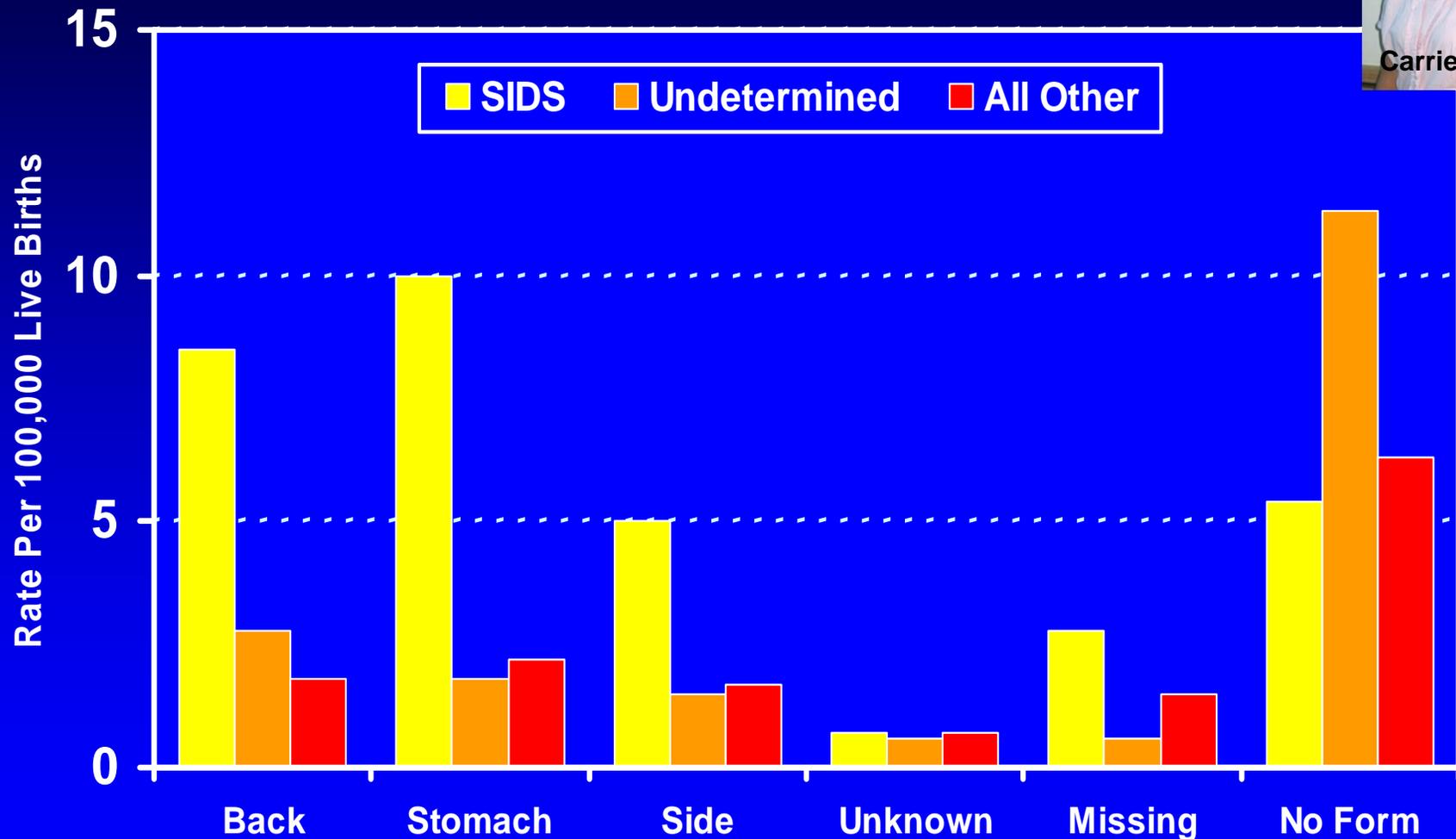


Carrie Florez



California 2003 Death Statistical Master Files & SUID Database, 2003.
California Department of Health Services, MCAH/OFP, September 2005

Infant Deaths by “Body Position When Found” California 2003 SUID Data



California 2003 Death Statistical Master Files & SUID Database, 2003.
California Department of Health Services, MCAH/OFP, September 2005



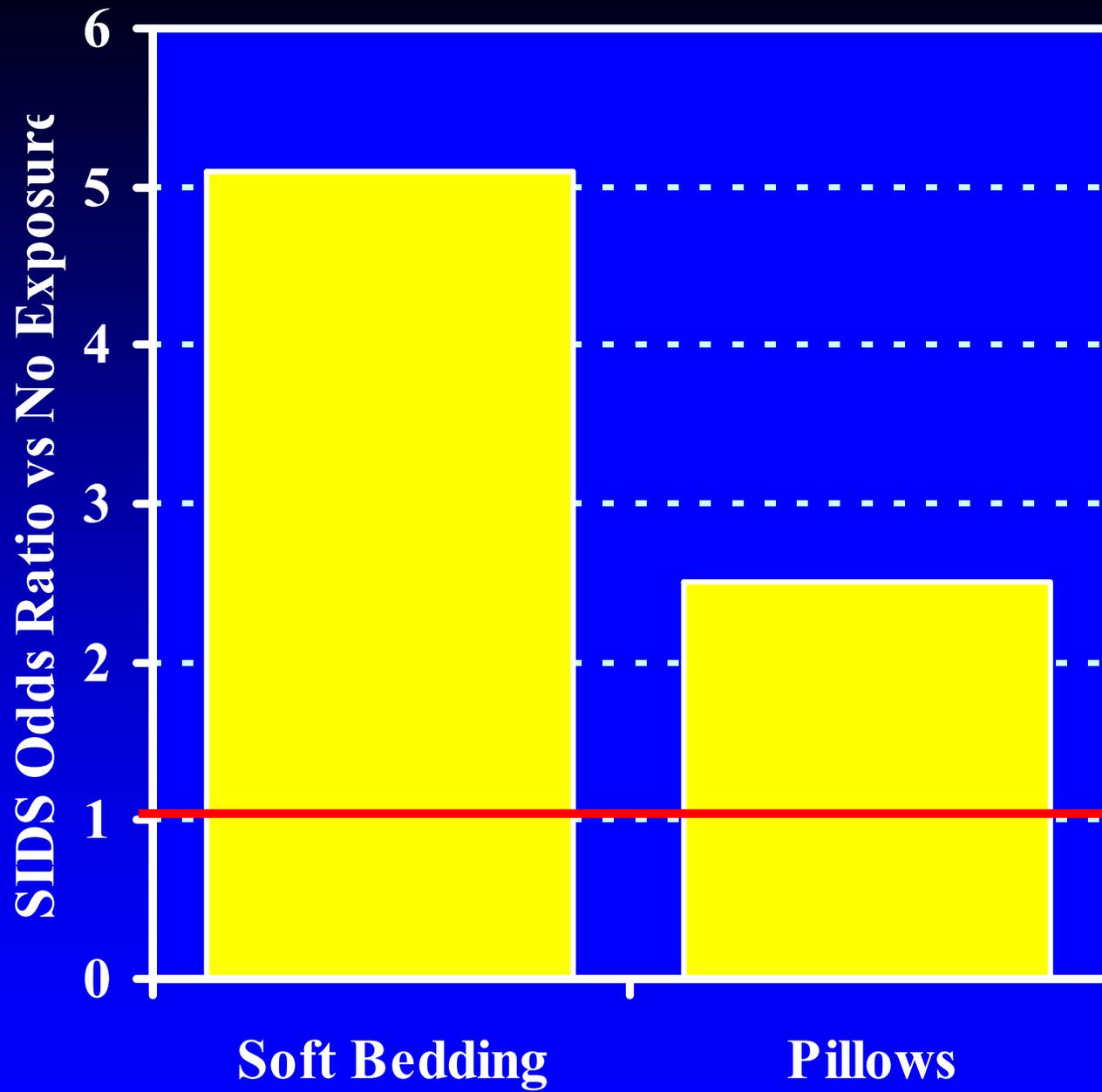
AAP Recommendation #2



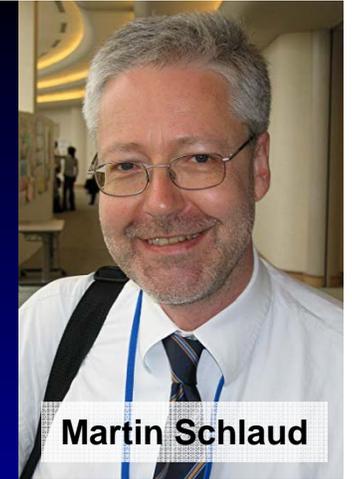
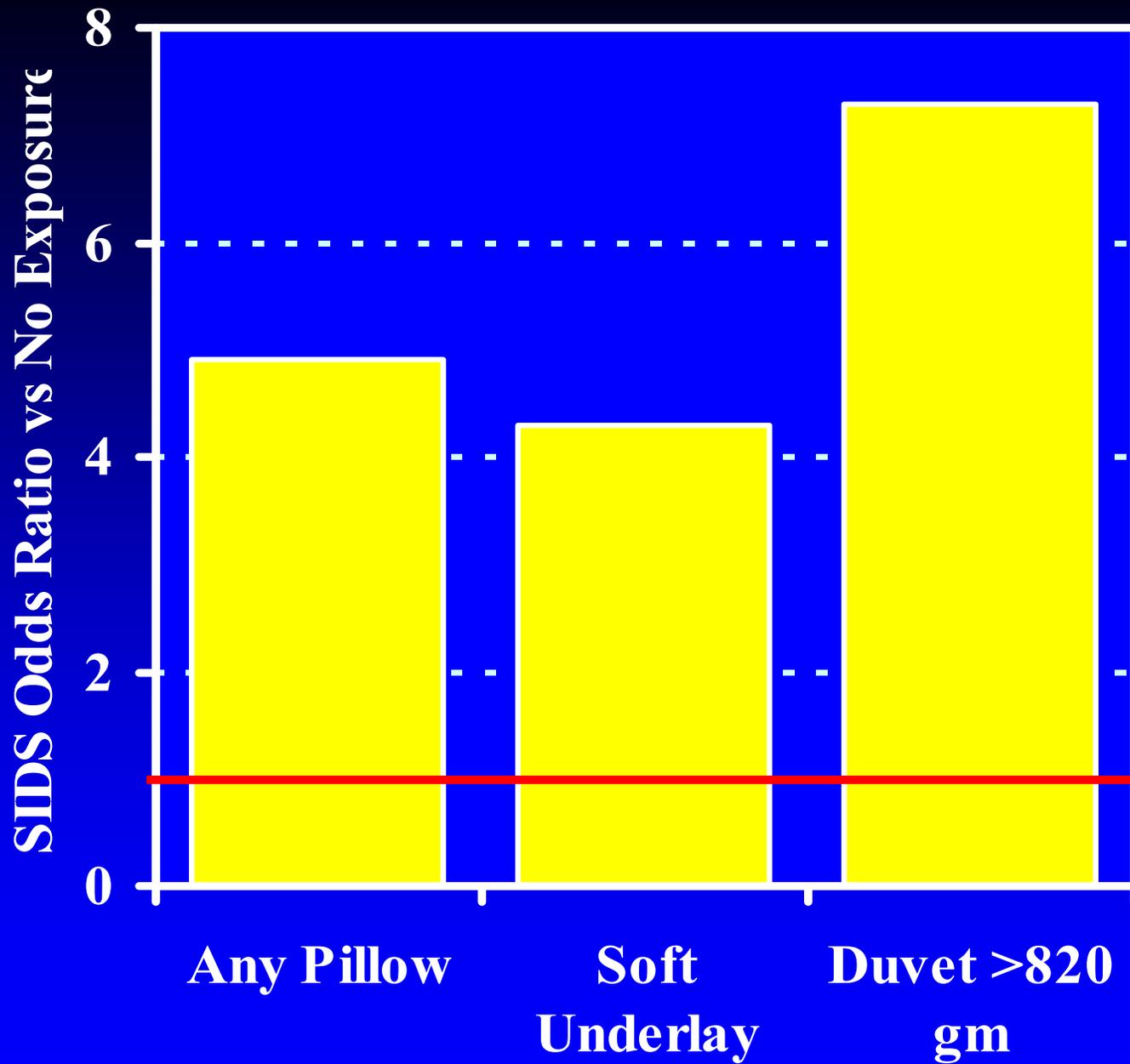
Use a firm sleep surface—A firm crib mattress, covered by a fitted sheet, is the recommended sleeping surface to reduce the risk of SIDS and suffocation.

Use safe firm mattresses, free of hazards, not in adult beds. Sitting devices are not recommended for routine sleep.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.



Hauk, F.R., et al. *Pediatrics*, 111: 1207-1214, 2003.



Schlaud, M., et al. *Int. J. Legal Med.*, 124: 19-26, 2010.



AAP Recommendation #3



Room-sharing without bedsharing is recommended---There is evidence that this arrangement decreases the risk of SIDS by as much as 50%. In addition, this arrangement is most likely to prevent suffocation, strangulation, and entrapment that might occur when the infant is sleeping in an adult bed.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.

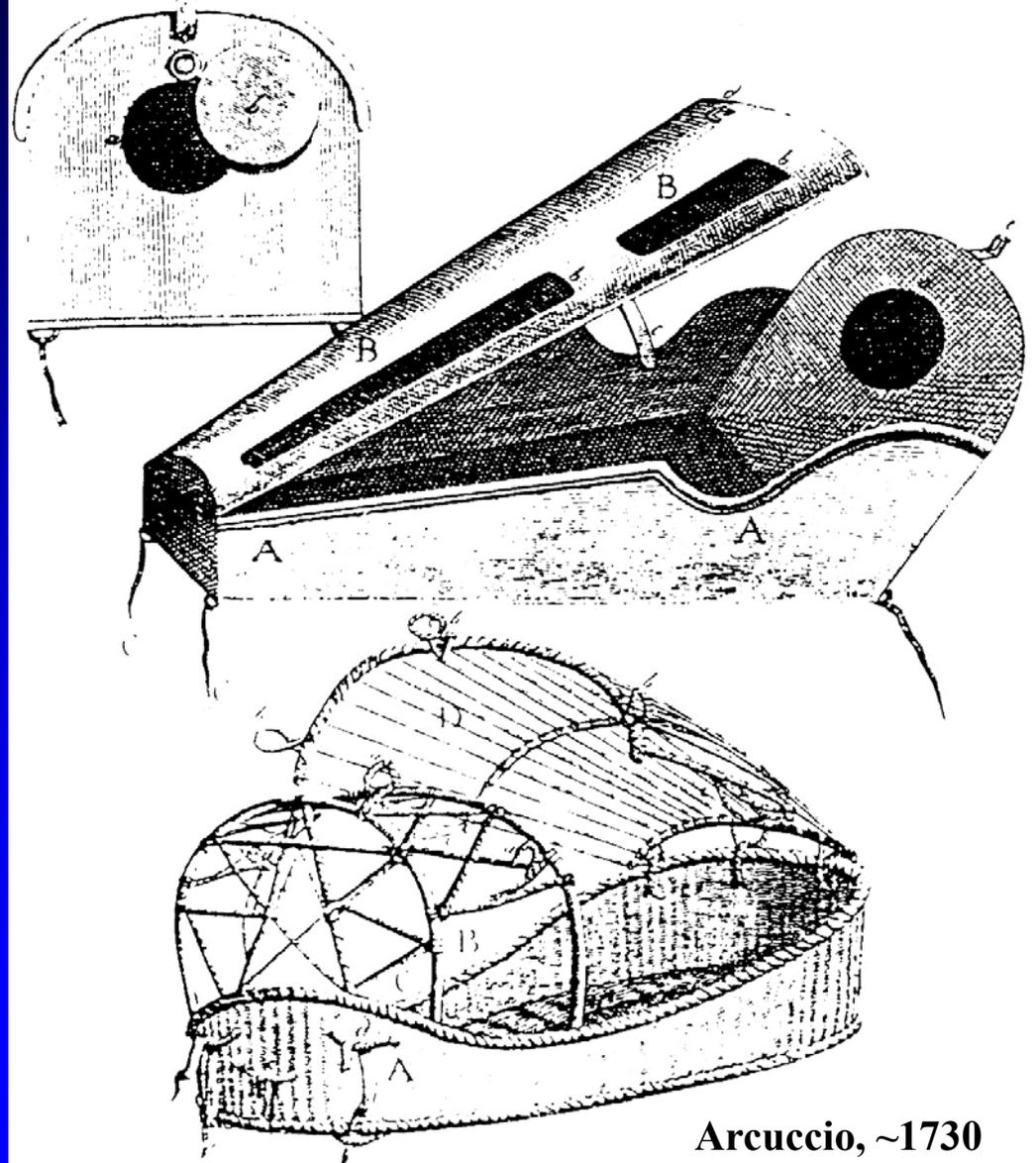
Early Study of Maternal Overlaying

- In 1892, a Scottish police surgeon, Templeman, was the first to draw attention to the potential role of excessive alcohol consumption and overlaying.
- 258 cases of suffocation in infants.
- More than half of deaths occurred Saturday night.
- Postulated that intoxication impaired arousal responses of parents sleeping with infants, thus increasing the risk of accidental suffocation.

Templeman, C. *Edinburgh Med. J.*, 38: 322-329, 1892.

Is Mother-Infant Bedsharing Harmful?

- Concern about maternal overlaying since Biblical times.
- In 18th century France, a wood and metal cage --- *arcuccio* --- was placed over a bedsharing infant to prevent overlaying.
- Epidemiological studies suggest an increased risk of *SIDS* or death in infants who bedshare, especially with parental smoking.



Arcuccio, ~1730

Is Mother-Infant Bedsharing Protective?

- Preferred sleeping position throughout human history and for most contemporary people.
- Provides optimal nutrition by promoting nighttime breastfeeding.
- Bedsharing may alter or synchronize sleep patterns of the mother and baby.
- Is there some survival advantage for human infants to bedshare with their mothers?

McKenna, J.J., and T. McDade. *Paediatr. Respir. Rev.*, 6: 134-152, 2005.

Cosleeping *May* Enrich the Infant's and Parents' Experience

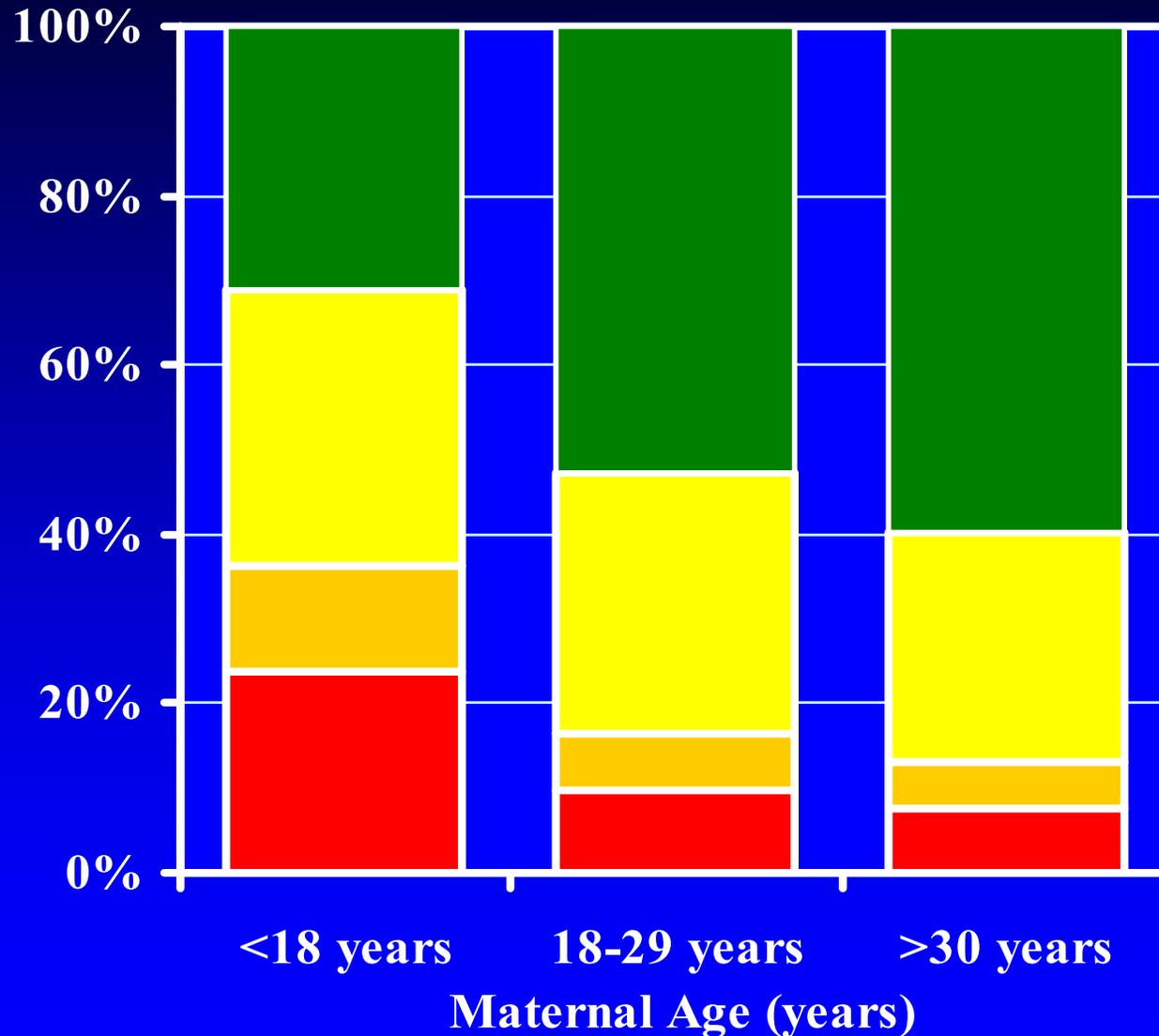
Cosleeping refers to any and all sleeping arrangements in which the infant and a committed caregiver, usually but not exclusively or always the mother, remain in sensory proximity and/or contact, permitting the mutual exchange of sensory signals or stimuli (i.e., vision, hearing, touch, smells, movements, etc.).

McKenna, J.J., and T. McDade. *Paediatr. Respir. Rev.*, 6: 134-152, 2005.

- **Bedsharing:** Infant and another person(s) sharing the same sleeping surface; i.e., both in the same bed.
- **Cosleeping:** This term is ambiguous with respect to defining *location* where the infant sleeps, as it has been used to indicate either bedsharing, or roomsharing, or both.
- **Roomsharing:** Infant and another person(s) sleep in the same room with or without bedsharing.
- **Roomsharing but not bedsharing:** Infant and another person(s) sleep in the same room, but not on the same sleeping surface.

McKenna, J.J., and T. McDade. *Paediatr. Respir. Rev.*, 6: 134-152, 2005.

Trends in Bedsharing, 1993-2000

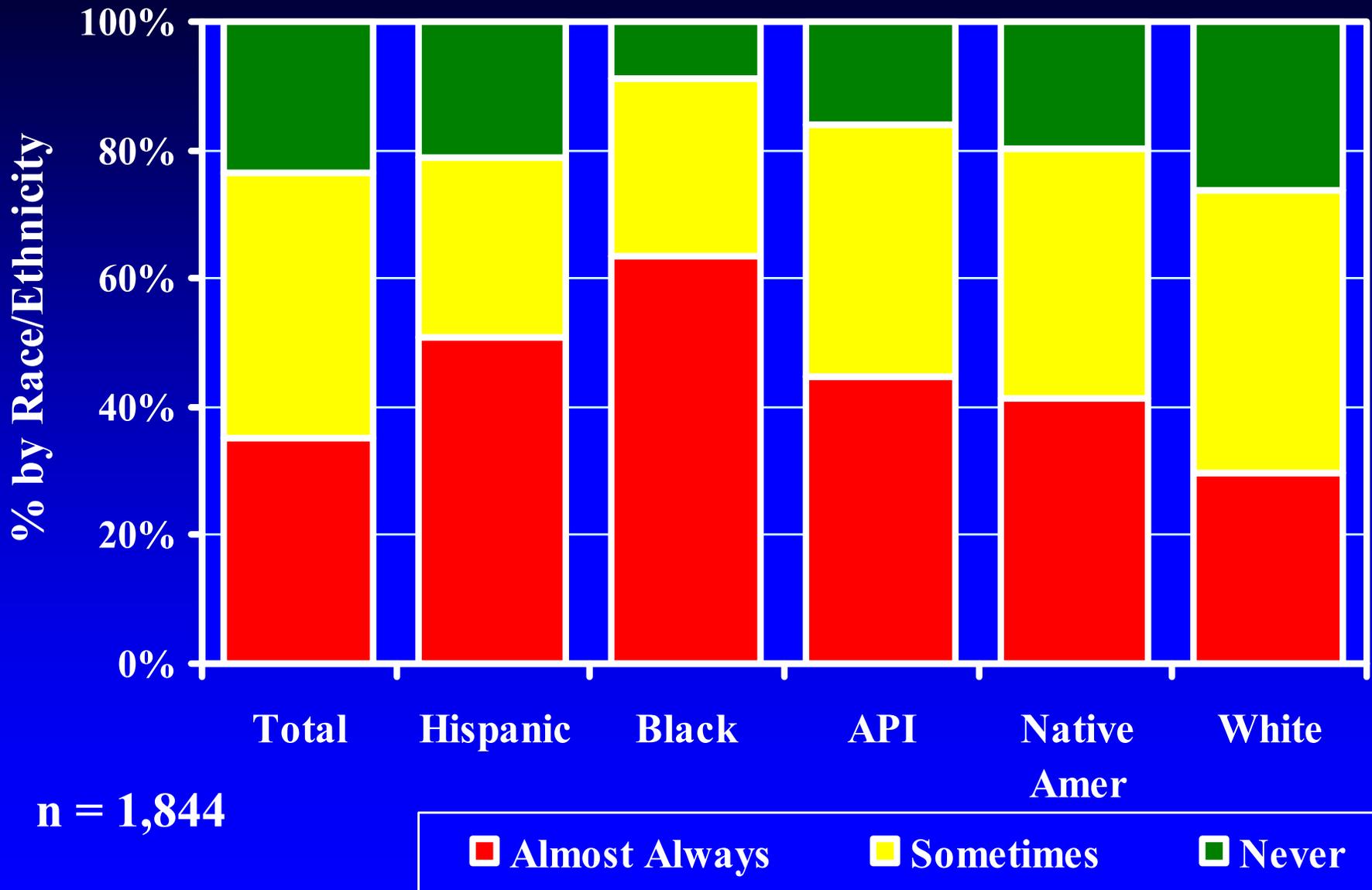


- Never
- <50%
- Half time
- Usually

National Infant Sleep Position Study.
N = 8453

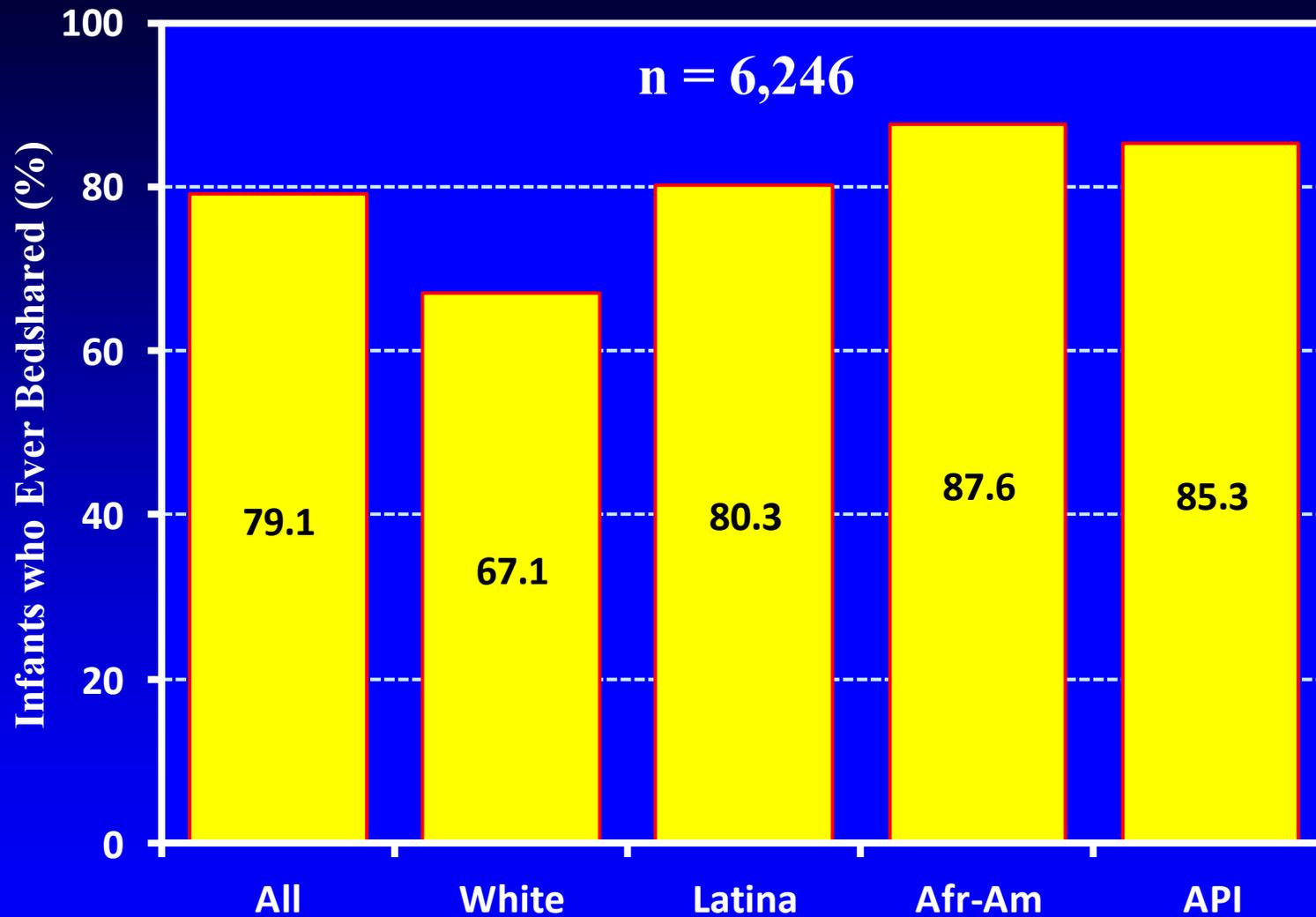
Willinger, M., et al. *Arch Pediatr Adolesc Med.*, 157: 43-49, 2003.

Bedsharing in Oregon, 1998-1999



Lahr, M.B., et al. *Pediatrics*, 116: e530-e542, 2005.

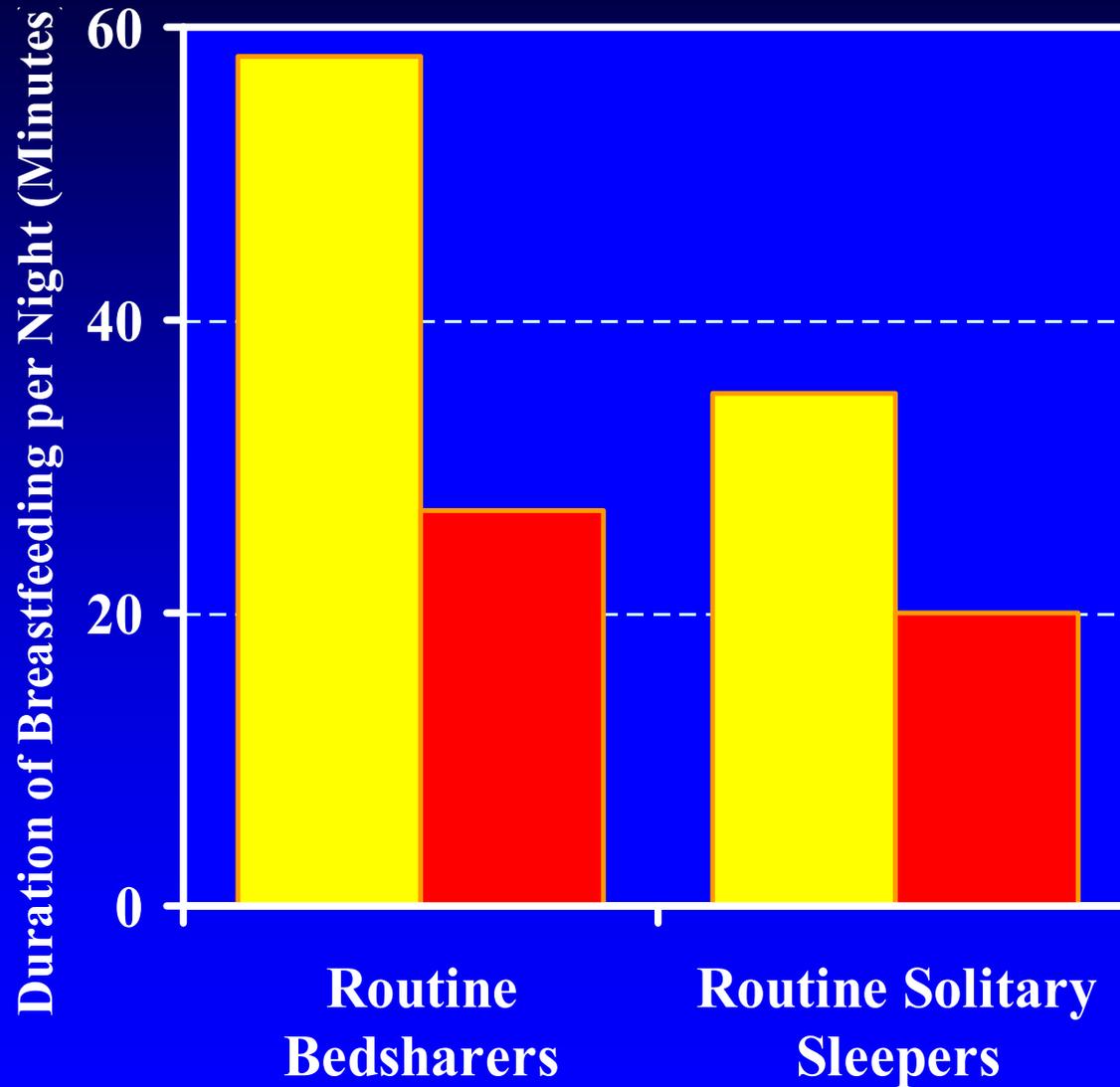
Infant Bedsharing in Los Angeles County



Los Angeles Mommy and Baby (LAMB) Project, 2007
National Child and Adolescent Health Research, Evaluation, and Planning Unit
Los Angeles County Department of Public Health
Health Resources and Services Administration (HRSA) R40MC06635



Mother-Infant Bedsharing Increases Breastfeeding vs Sleeping in a Different Room



James J. McKenna, Ph.D.
Professor and Chair
Department of Anthropology
University of Notre Dame

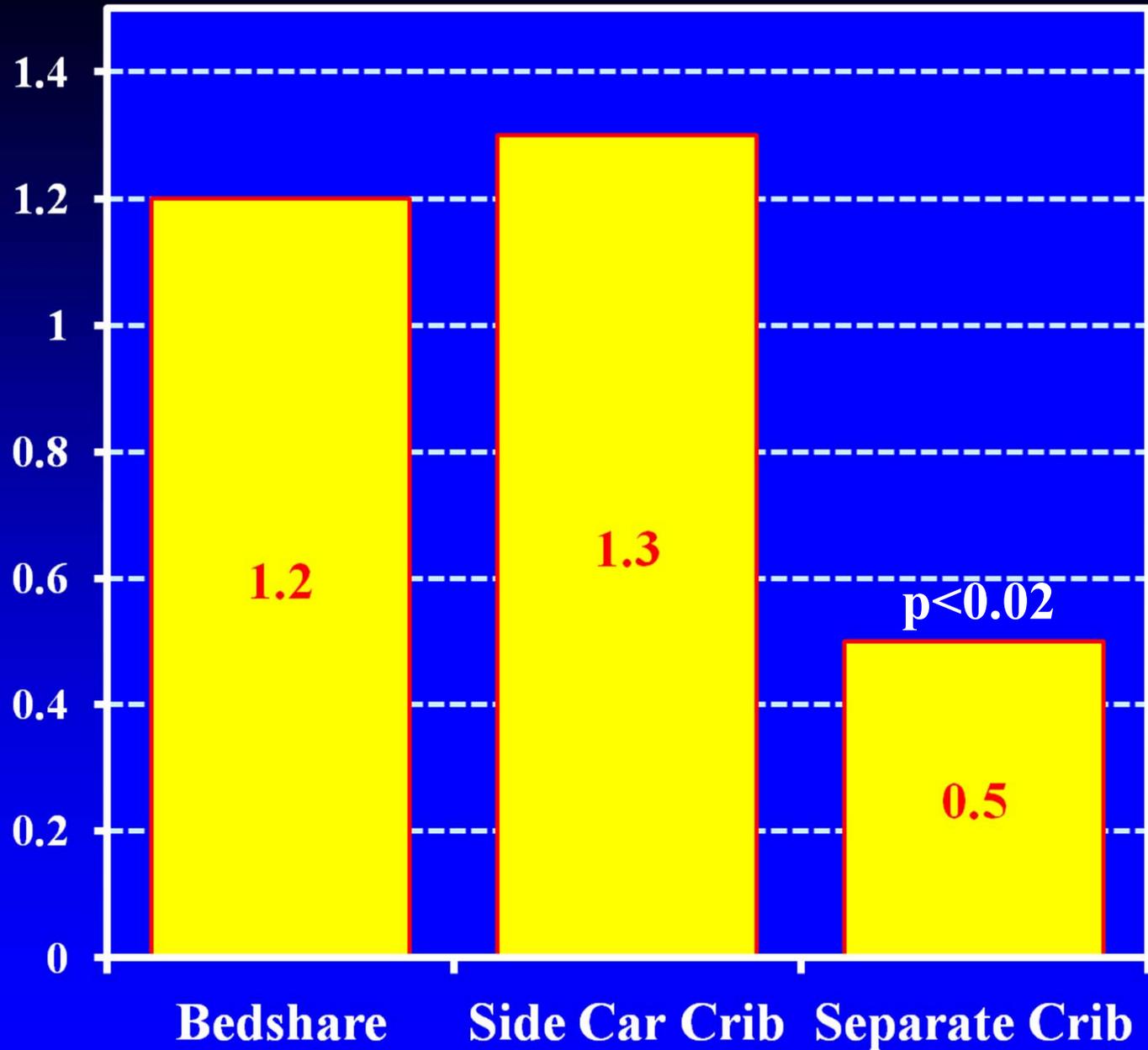
■ Bedshare Night
■ Solitary Night

McKenna, J.J., et al. *Pediatrics*, 100: 214-219, 1997.



Helen L. Ball

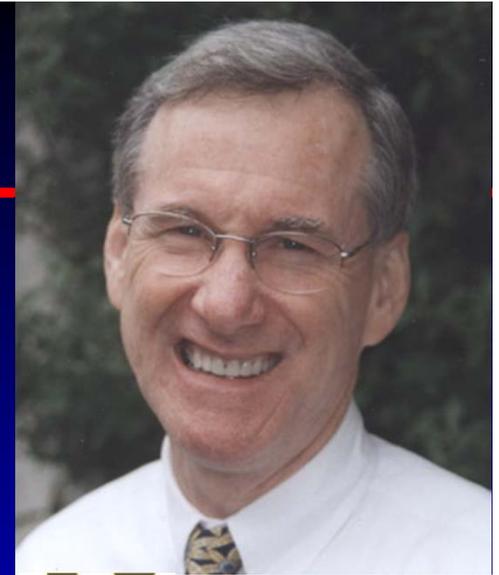
Episodes of Successful Breastfeeding per hour



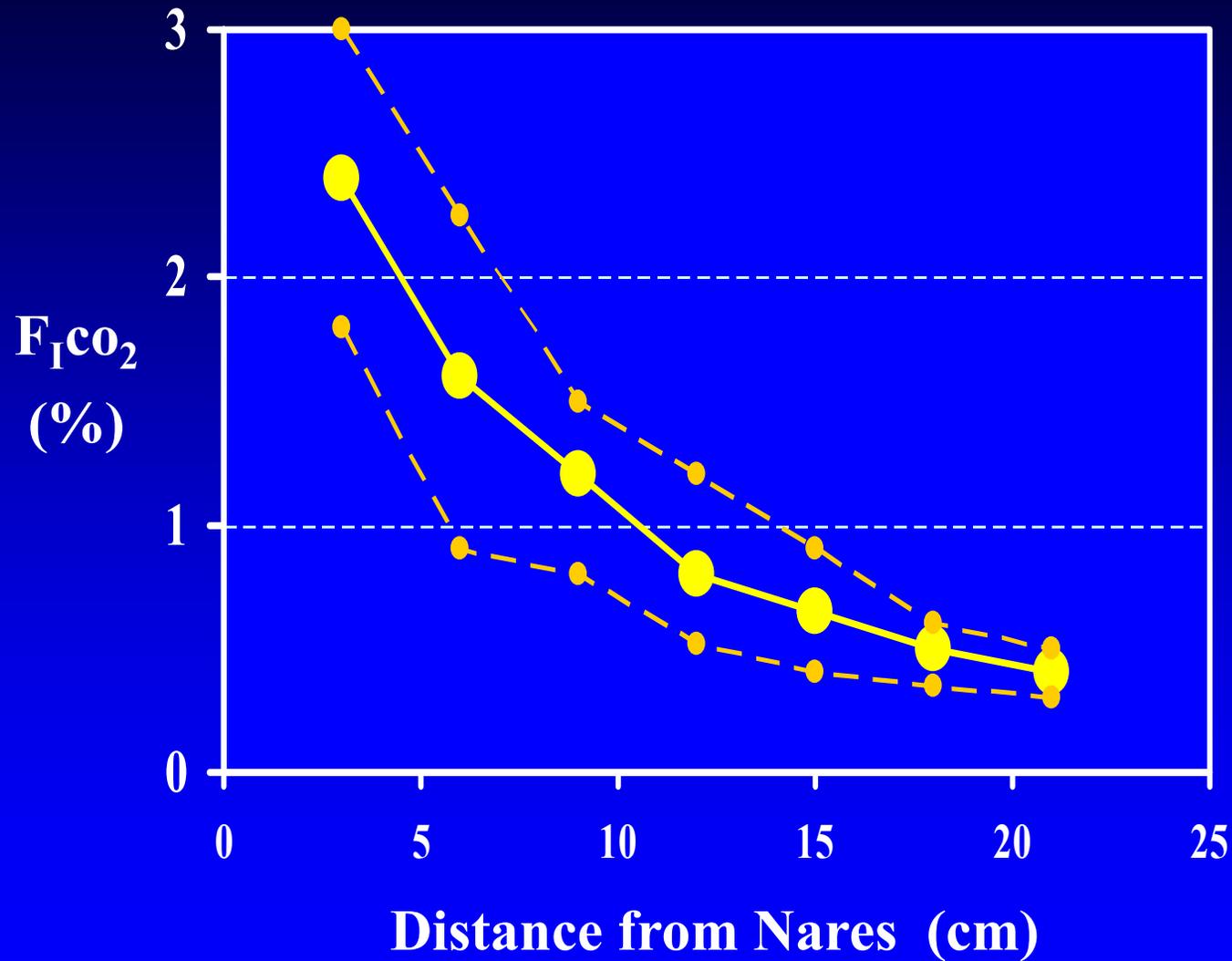
Ball, H.L., et al. *Arch. Dis. Child.*, 91: 1005-1010, 2006.



Mother-Infant Bedsharing

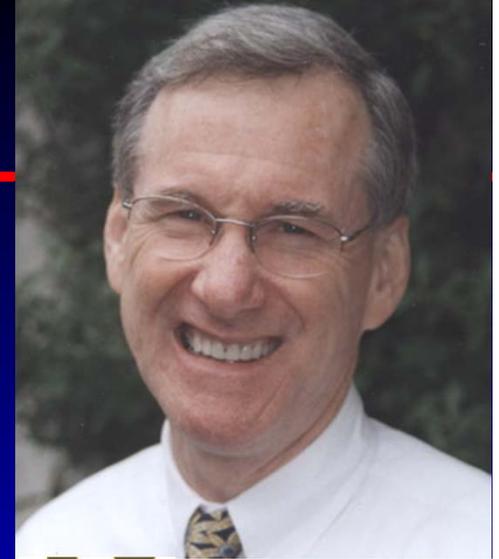
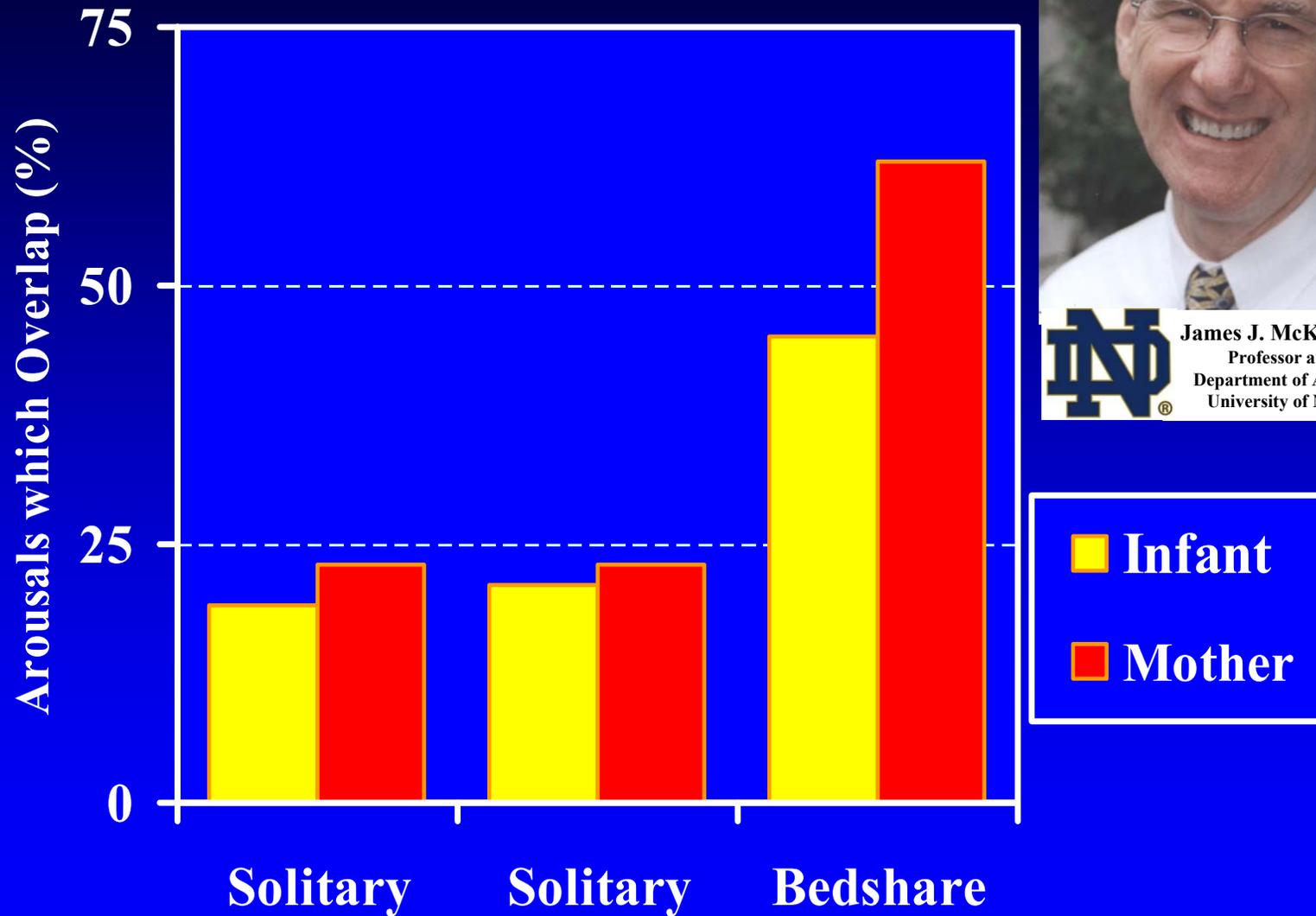


 James J. McKenna, Ph.D.
Professor and Chair
Department of Anthropology
University of Notre Dame



Mosko, S., et al. *Am. J. Physical Anthropol.*, 103: 315-328, 1997.

Mother-Infant Bedsharing



 James J. McKenna, Ph.D.
Professor and Chair
Department of Anthropology
University of Notre Dame

Mosko, S., et al. *J. Behav. Med.*, 16: 589-610, 1993.

Bedsharing, Breathing, and Infant Sleep

- Increased breastfeeding.
- No decrease in apnea.
- No stimulation of breathing.
- Increase in arousals (baby wakes mother).
- Decrease in deep sleep.
- No apparent physiological protection.



James J. McKenna, Ph.D.
Professor and Chair
Department of Anthropology
University of Notre Dame

Richard, C., et al. *Sleep*, 19: 685-690, 214-219, 1996.

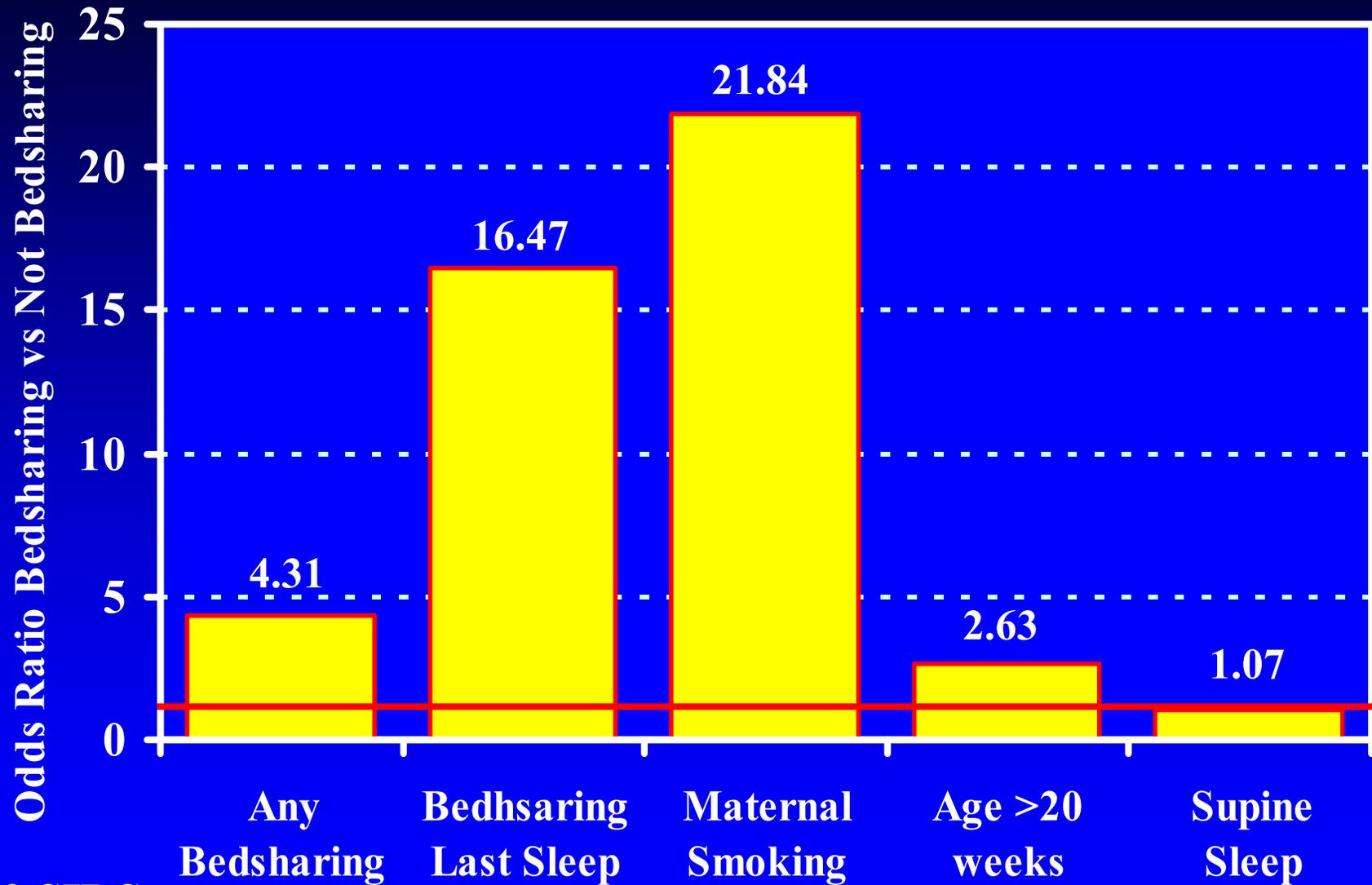
McKenna, J.J., et al. *Pediatrics*, 100: 214-219, 1997.

Mosko, S., et al. *Am. J. Physical Anthropol.*, 103: 315-328, 1997.

Richard, C.A., et al. *J. Appl. Physiol.*, 84: 1374-1380, 1998.

McKenna, J.J., and T. McDade. *Paediatr. Respir. Rev.*, 6: 134-152, 2005.

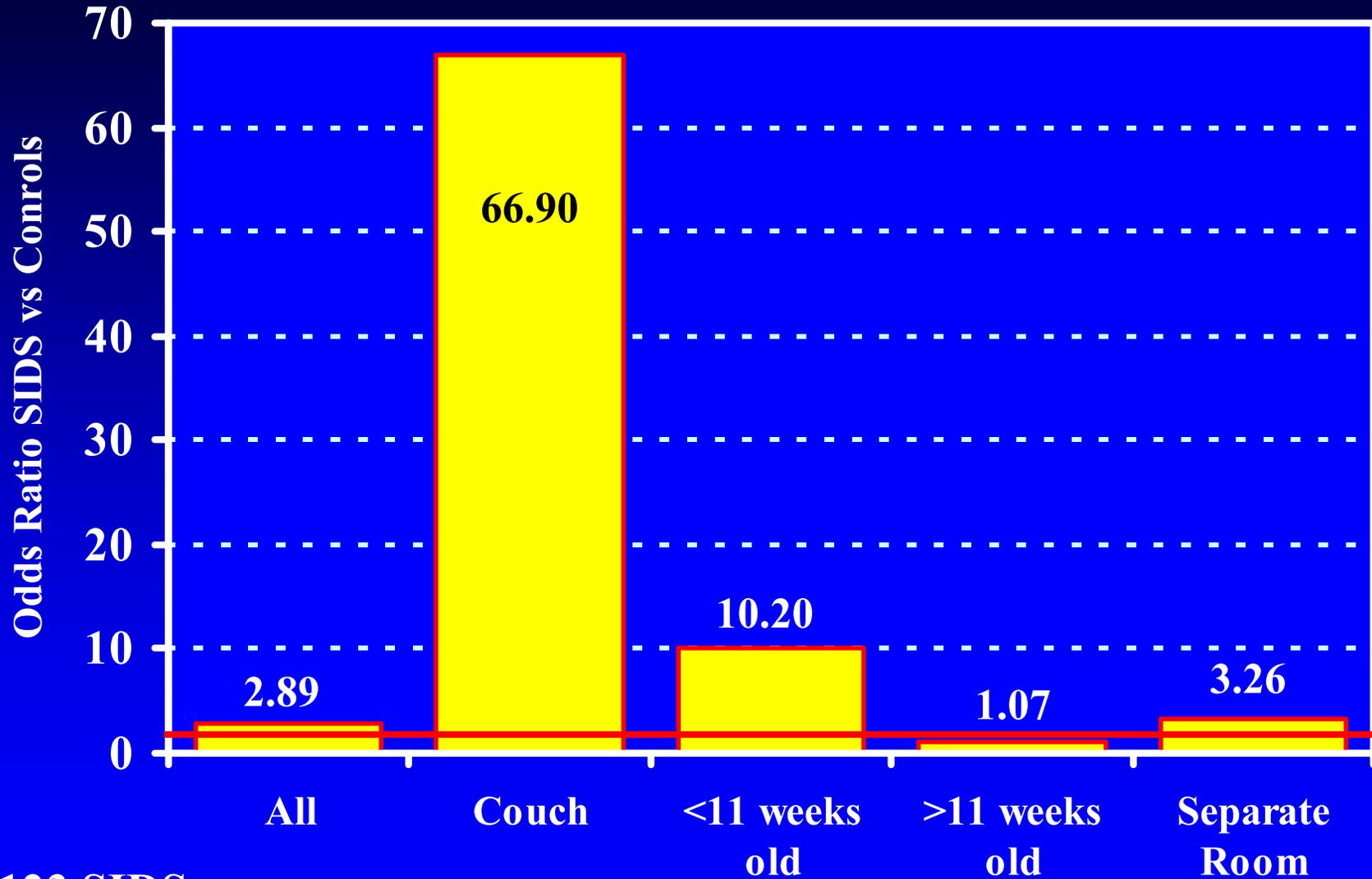
SIDS in Ireland, 1994-1998



• 203 SIDS.

• 622 controls. *McGarvey, C., et al. Arch. Dis. Child., 88: 1058-1064, 2003.*

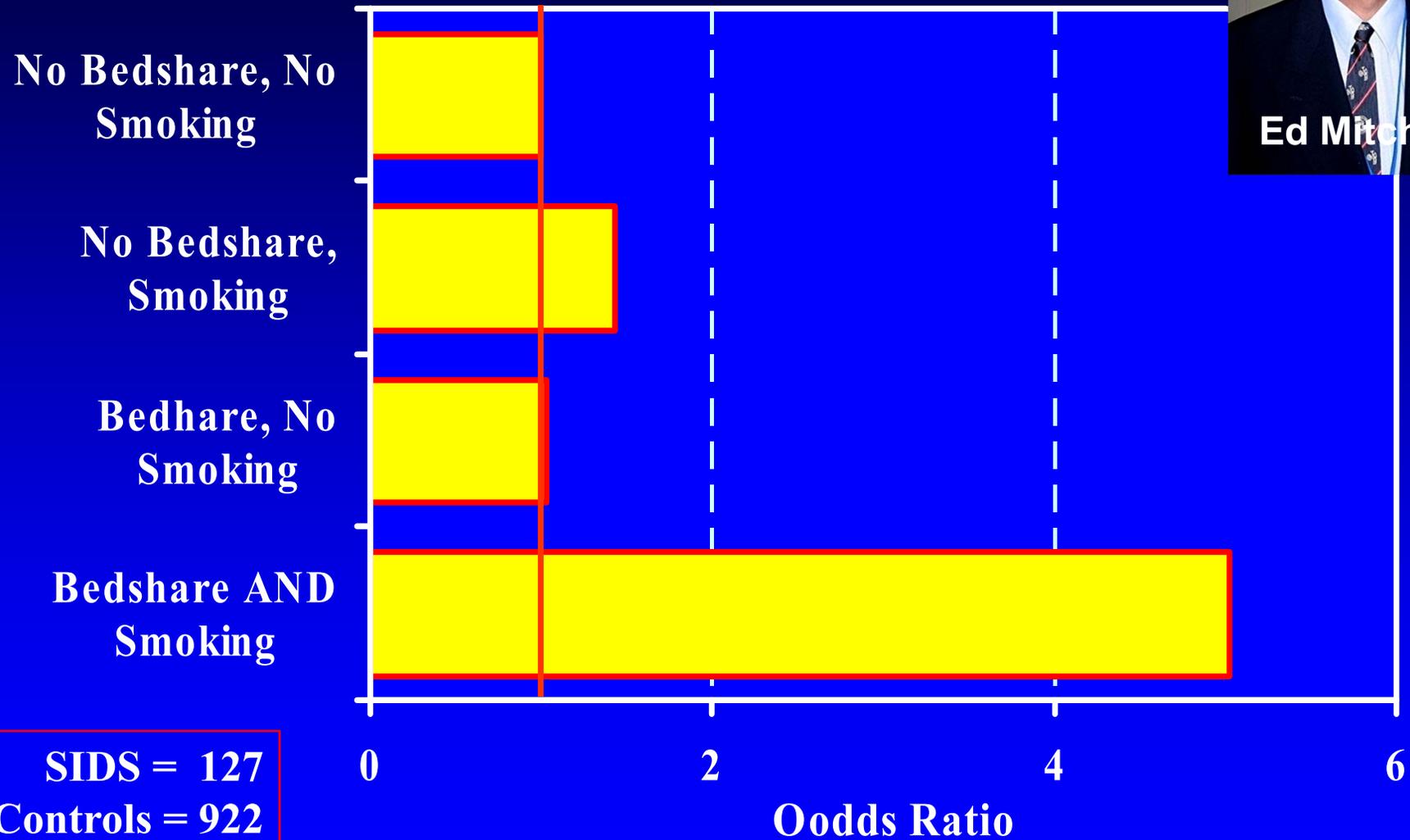
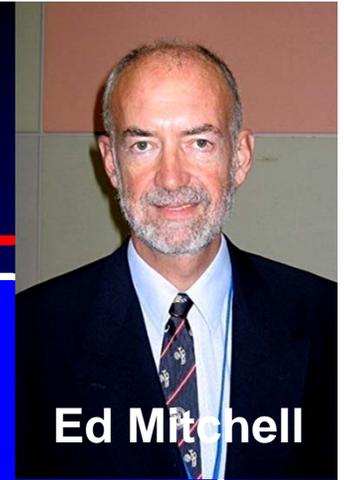
Bedsharing and SIDS in Scotland, 1996-2000



- 123 SIDS.
- 263 controls.

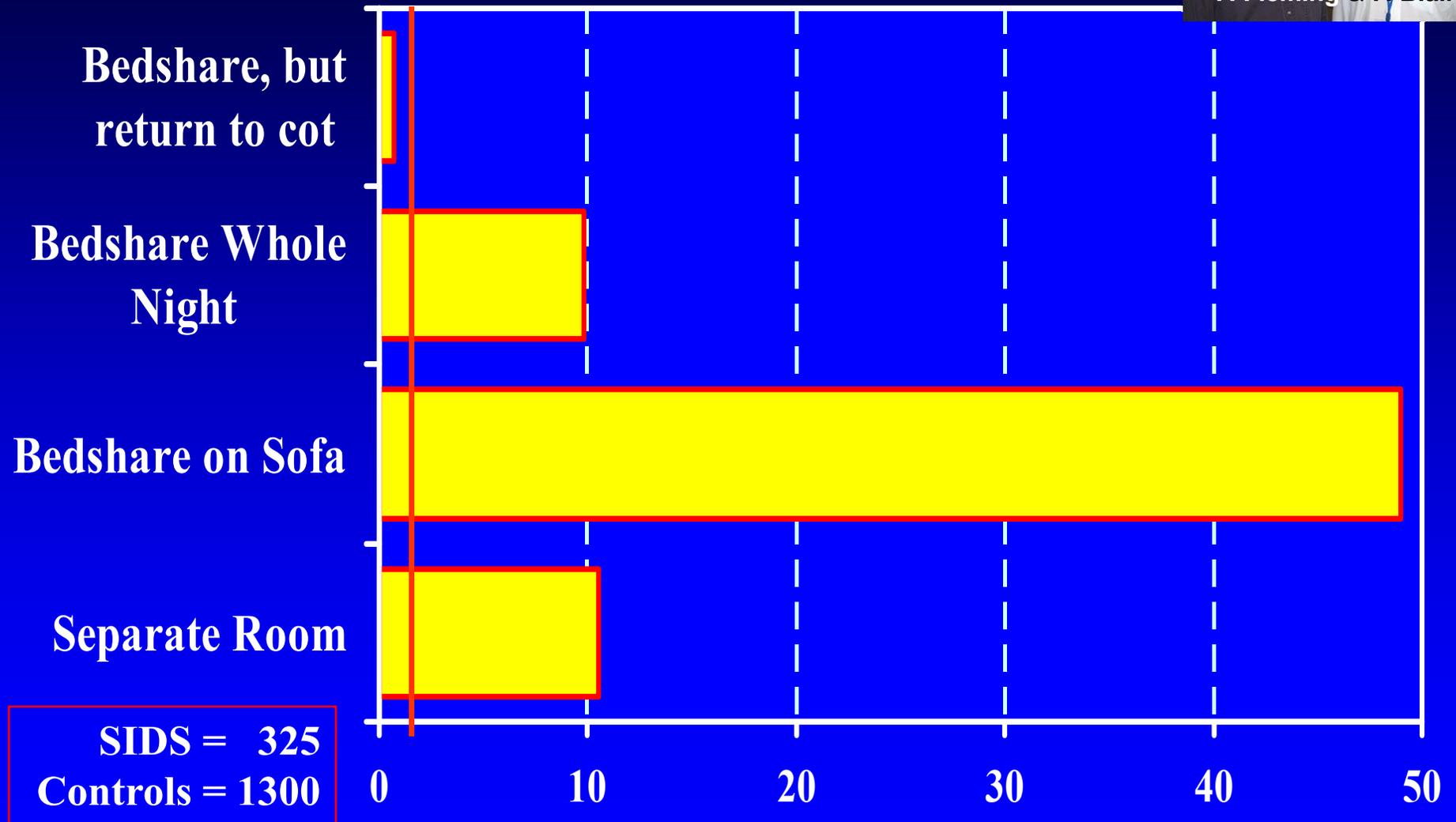
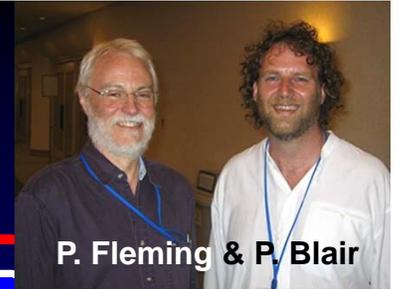
Tappin, D, et al. *J. Pediatr.*, 147: 32-37, 2005.

Bedsharing, Maternal Smoking, and SIDS: New Zealand, 1991-1993



Mitchell, E.A., et al. *Pediatrics*, 100: 835-840, 1997.

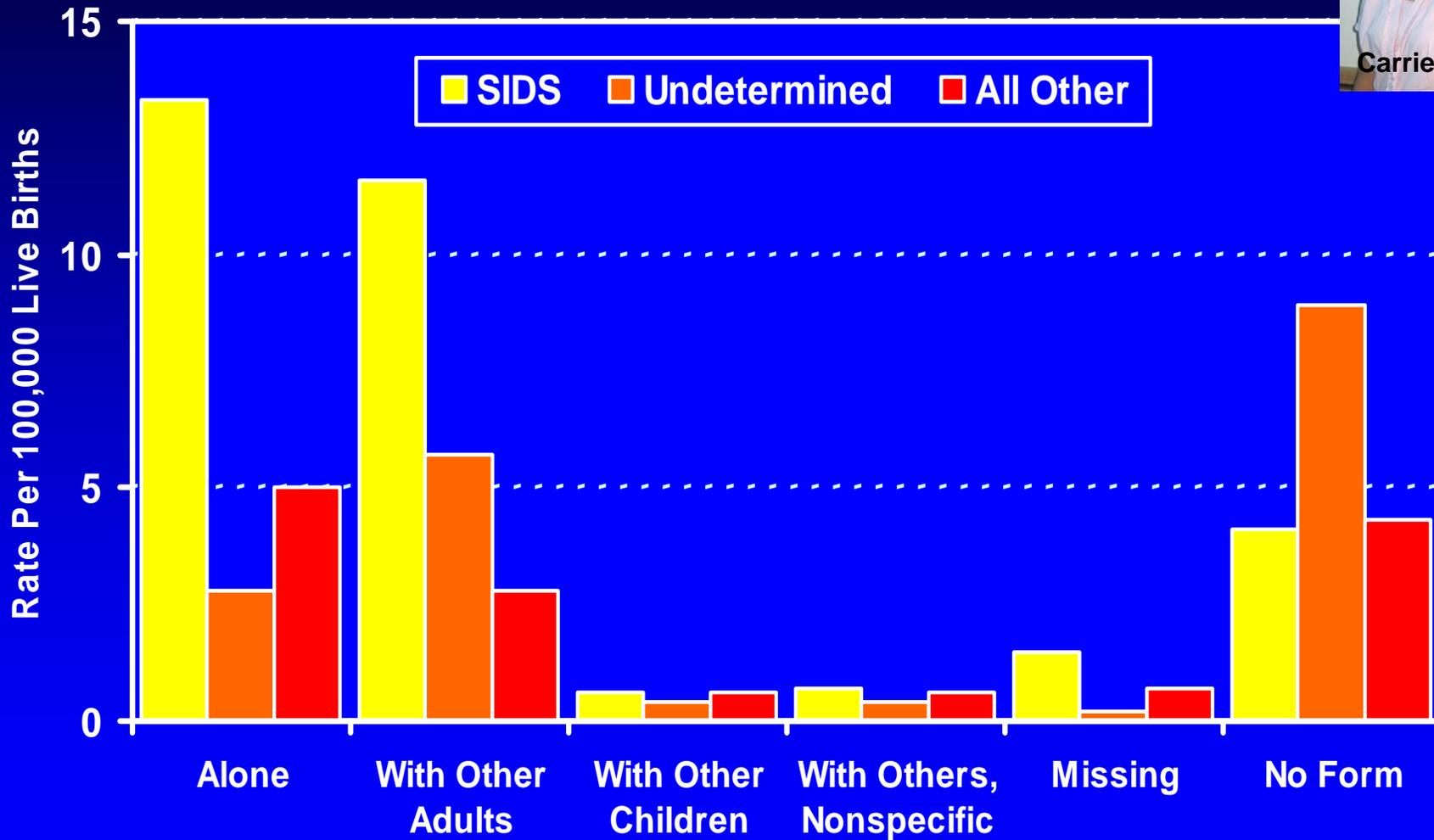
Bedsharing and SIDS Risk: CESDI Study (Odds Ratios vs did not sleep with an adult)



Blair, P.S., et al. *Br. Med. J.*, 319: 457-462, 1999.



Infant Deaths by “Sleeping Alone or With Others” California 2003 SUID Data



California 2003 Death Statistical Master Files & SUID Database, 2003.
California Department of Health Services, MCAH/OFP, September 2005

Two Distinct Bedsharing Subgroups



Less Risk



High Risk



Roomsharing

- Infant's crib or bassinet should be placed in the parents' bedroom close to the parents' bed.
- Removes the possibility of suffocation, strangulation, or entrapment which may occur with the infant in an adult bed.
- Allows close parent proximity to facilitate feeding, comforting, and monitoring the infant.

Pediatrics, 128: 1030-1039, 2011.



Roomsharing

- Infant can be brought to bed for breastfeeding, but then returned to the crib.
- Devices promoted to make bedsharing “safe” are not recommended.
- Because of the extremely high risk of bedsharing on a sofa or armchair, infants should not be fed on a sofa or armchair when there is a high likelihood of the parent falling asleep.

Pediatrics, 128: 1030-1039, 2011.



Roomsharing

- **No studies have shown bedsharing to be safe or protective against SIDS.**
- **All risks associated with bedsharing, such as parent fatigue, can not be controlled.**
- **Therefore, the AAP does not recommend any specific bedsharing situations as safe.**
- **Provide separate sleep areas for twins, triplets, etc.**

Pediatrics, 128: 1030-1039, 2011.

Bedsharing is Unsafe with:



- Infant <3-months of age.
- Parent cigarette smoking.
- Parent is excessively tired; such as sleep deprivation (<4-hours sleep the previous night).
- Parent depressant medication or alcohol use.
- With non-parent or multiple persons.
- Soft or unsafe bed.
- Duvets, pillows, or soft covers.
- Sleeping on a sofa, armchair, or couch.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.

AAP Recommendations



- Room-sharing, with the infant in a crib in the parents' room next to the adult bed, is safest, and is safer than bedsharing.
- Infants brought to bed for breastfeeding should return to a separate crib.
- Do not bedshare if parents smoke cigarettes.
- Do not bedshare if the parents' arousal is depressed (alcohol, drugs, sleep deprived <4-hours sleep the night before).
- Do not sleep with an infant on a sofa or chair.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.



AAP Recommendation #4



Keep soft objects and loose bedding out of the crib to reduce the risk of SIDS, suffocation, entrapment, and strangulation.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.



Picture Courtesy of Susan Moore



Picture Courtesy of Susan Moore



Avoid Soft Objects and Bedding



- **Soft objects (pillows, pillow-like toys, quilts, comforters, and sheepskins) should not be used.**
- **Loose bedding (blankets and sheets) might be hazardous, and should not be used.**
- **Bumper pads are not recommended.**
- **Infant sleep clothing designed to keep the infant warm without the possible hazard of head covering or entrapment should be used.**

AAP Policy Statement. Pediatrics, 128: 1030-1039, 2011.



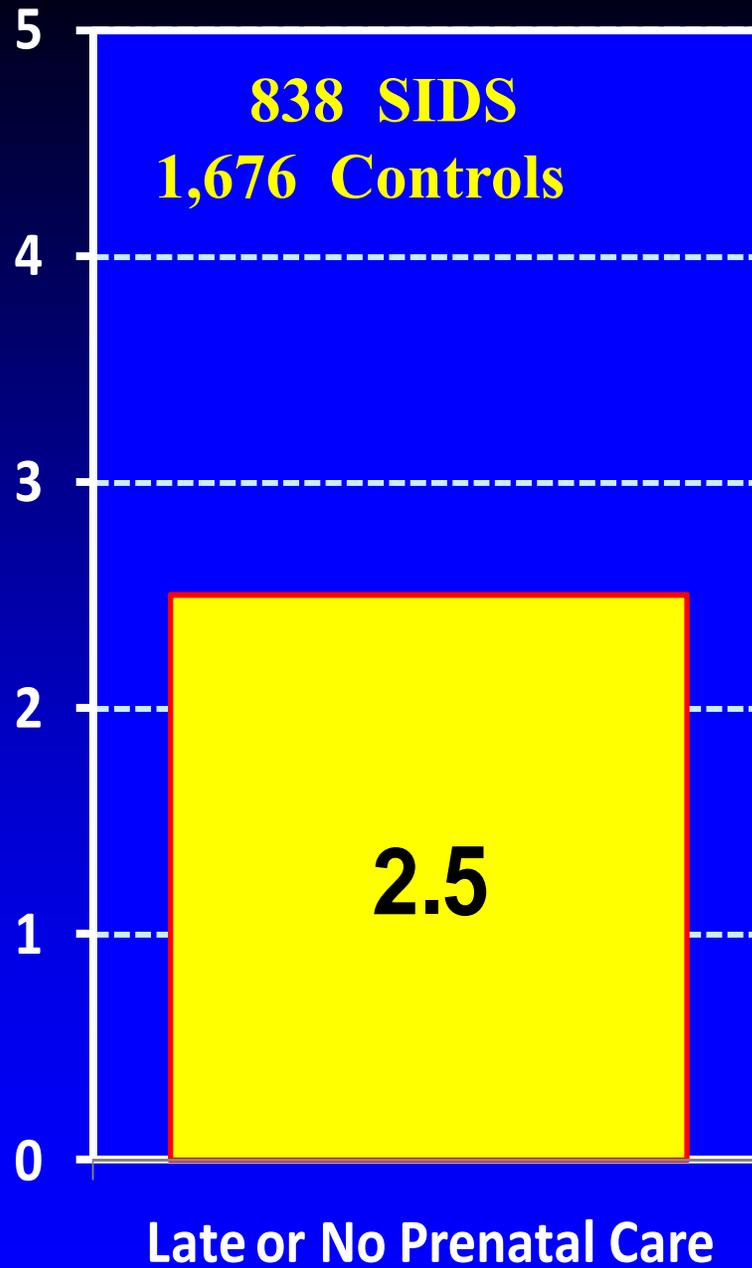
AAP Recommendation #5



Pregnant women should receive regular prenatal care---There is substantial epidemiological evidence linking a lower risk of SIDS for infants whose mothers obtain regular prenatal care.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.

**Odds Ratio for SIDS vs Infants
Without these Prenatal Risk Factors**



Hoffman, H.J., et al. *Ann. N.Y. Acad. Sci.*, 533: 13-30, 1988.

According to repeated nationwide surveys,

More Doctors Smoke **CAMELS** than any other cigarette!

Doctors in every
branch of medicine
were asked, "What
cigarette do you smoke?"
The brand named most
was Camel!

You'll enjoy Camels for the same reason
so many doctors know them. Camels have
rich, cool mildness, pack after pack, and
a flavor unmatched by any other cigarette.
Make this sensible man. Smoke only
Camels for 30 days and see how well Camels
please your taste. How well they soothe
your throat as you steadily smoke. You'll
see how enjoyable a cigarette can be!

THE DOCTORS' CHOICE IS AMERICA'S CHOICE!



MRS. FINE says: "I like
Camels. They have a rich
flavor and are smooth!"



DR. SMITH says: "I get my
pleasure from Camels. They
are smooth and have a
rich flavor!"



DR. BROWN says: "I prefer
Camels. They have a rich
flavor and are smooth!"



For 30 days, test Camels in your "T-Zone" (T for Throat, T for Taste).



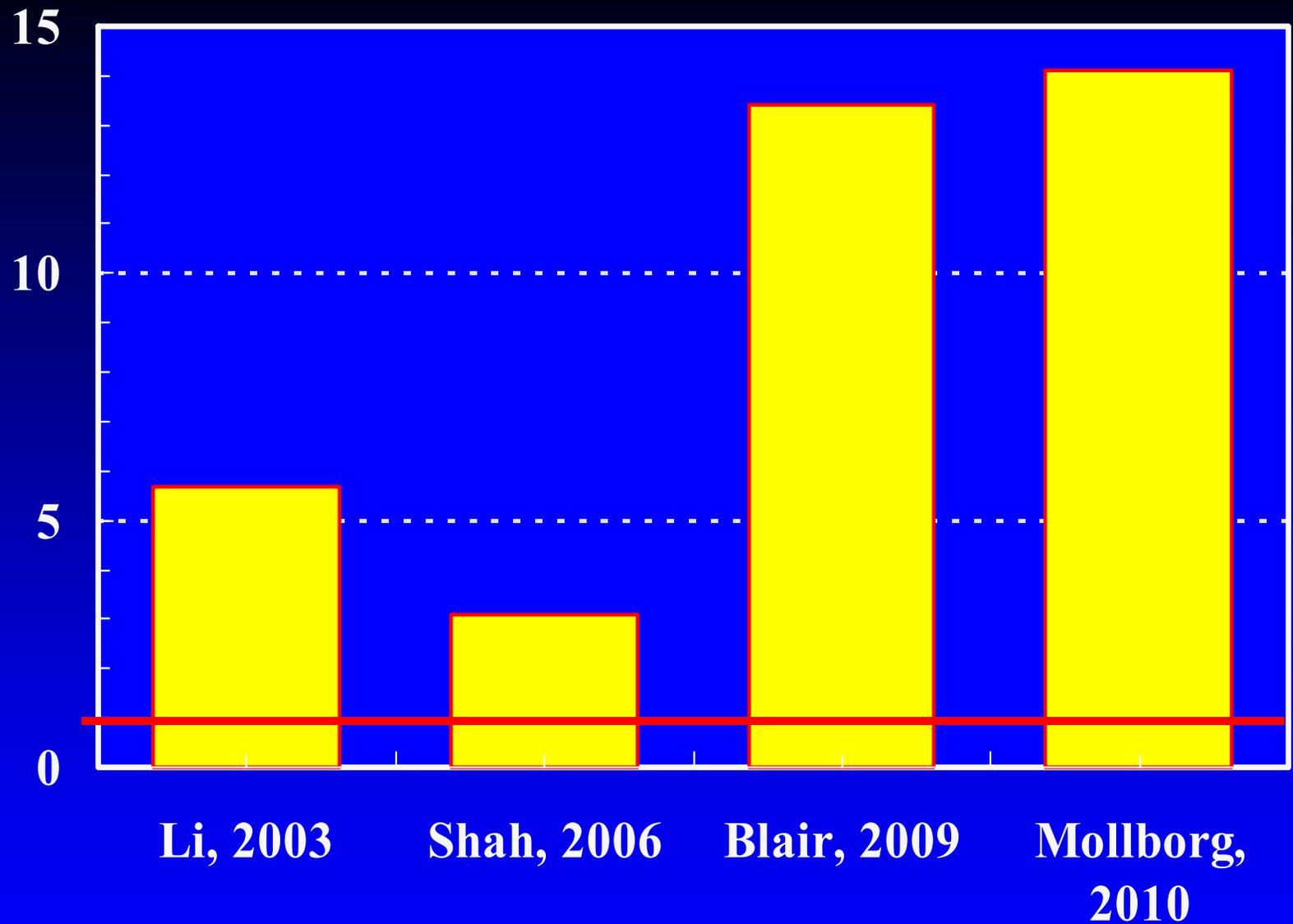
AAP Recommendation #6



**Avoid smoke exposure during pregnancy and after birth---
Both maternal smoking during pregnancy and smoke in the infant's environment after birth are major risk factors for SIDS.**

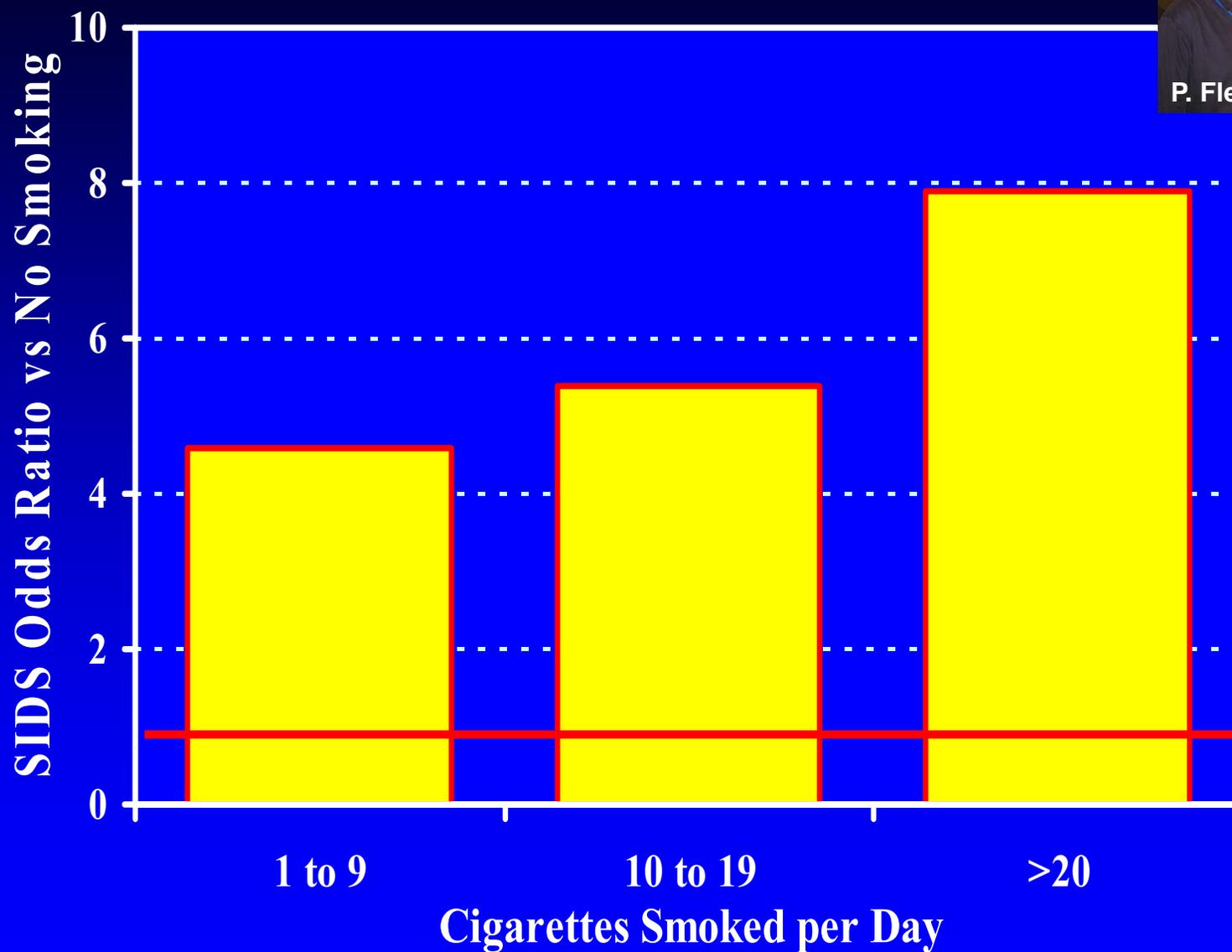
AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.

**SIDS Odds Ratio Mother
Prenatal Smoking vs No
Maternal Prenatal Smoking**



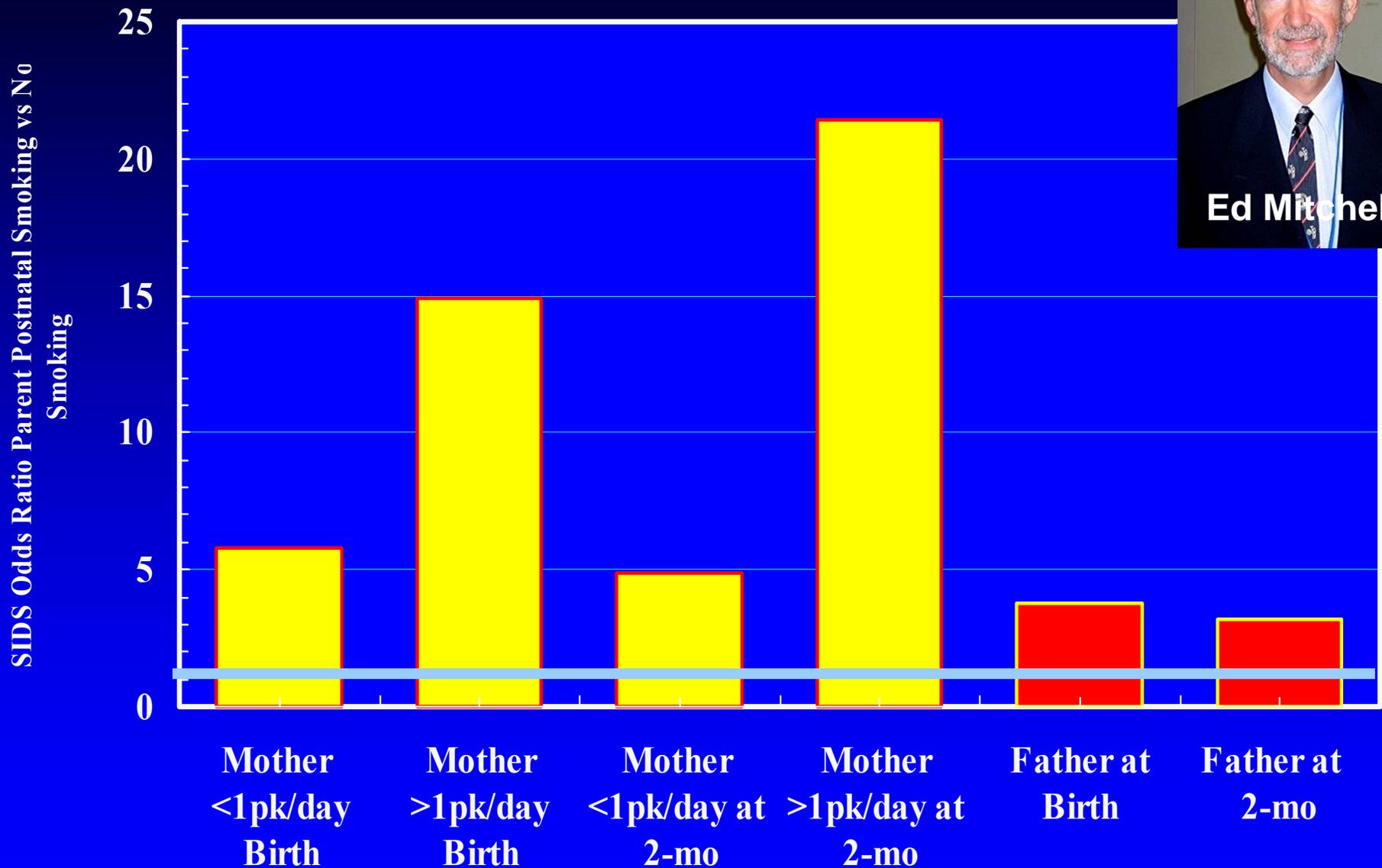
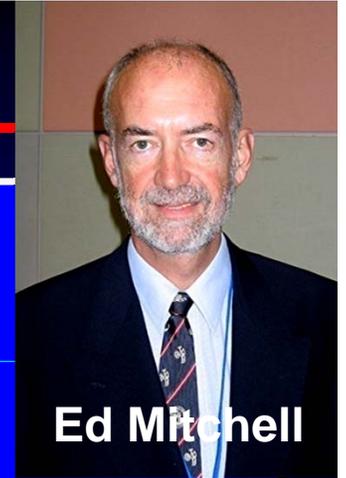
Li, D-K, et al. *Am. J. Epidemiol.*, 157: 446-455, 2003.
Shah, T., et al. *Am. J. Public Health*, 96: 1757-1759, 2006.
Blair, P.S., et al. *B.M.J.*, 339: b3666, 2009.
Mollborg, P., and B. Alm. *Acta Paediatr.*, 99: 94-98, 2010.

SIDS and Maternal Smoking During Pregnancy



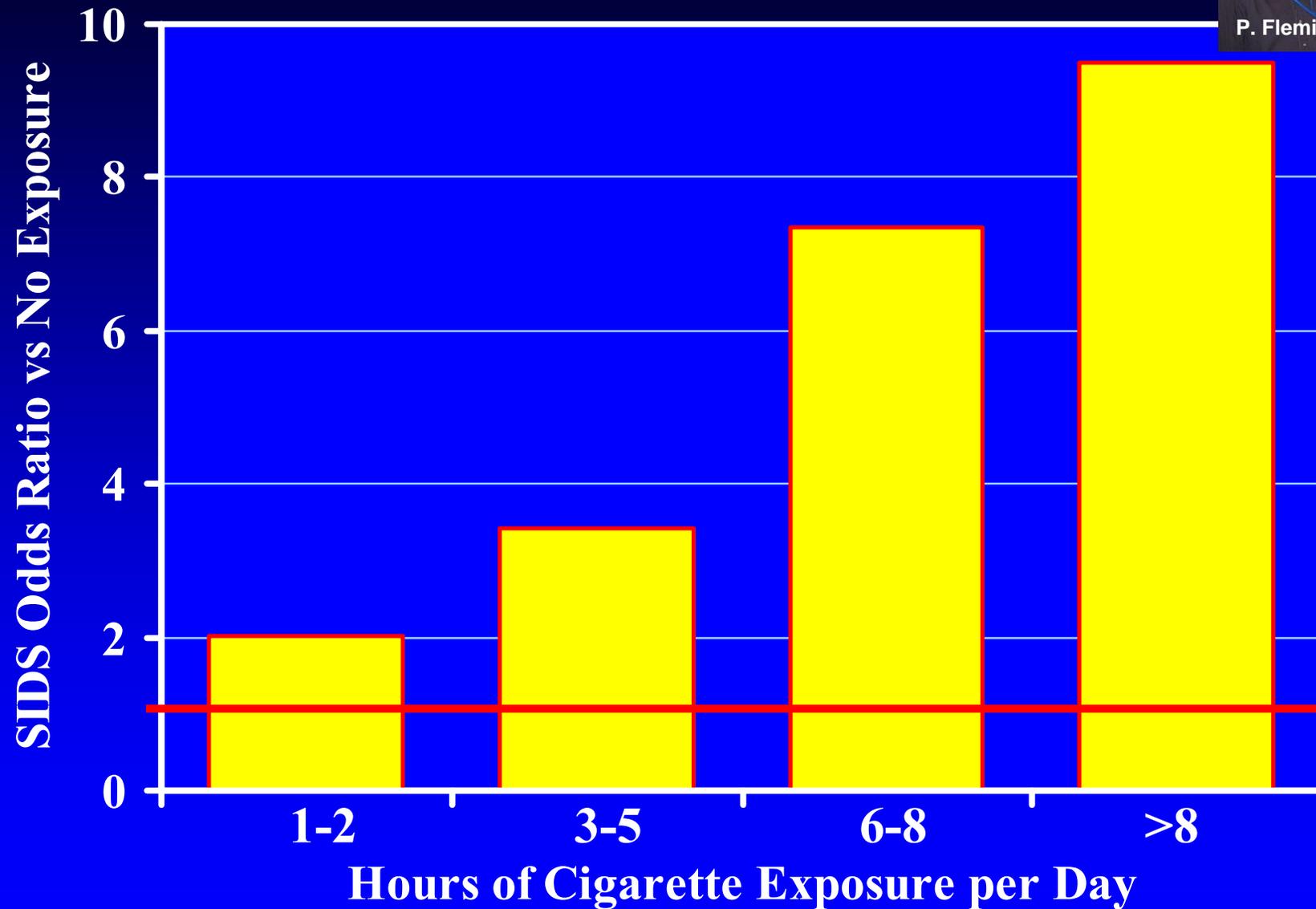
P.S. Blair, et al. *Br. Med. J.*, 313: 195-198, 1996.

SIDS and Parent Postnatal Cigarette Smoking



Mitchell, E.A., et al. *Pediatrics*, 100: 835-840, 1997.

SIDS and Infant Exposure to Cigarette Smoke



P.S. Blair, et al. *Br. Med. J.*, 313: 195-198, 1996.



AAP Recommendation #7



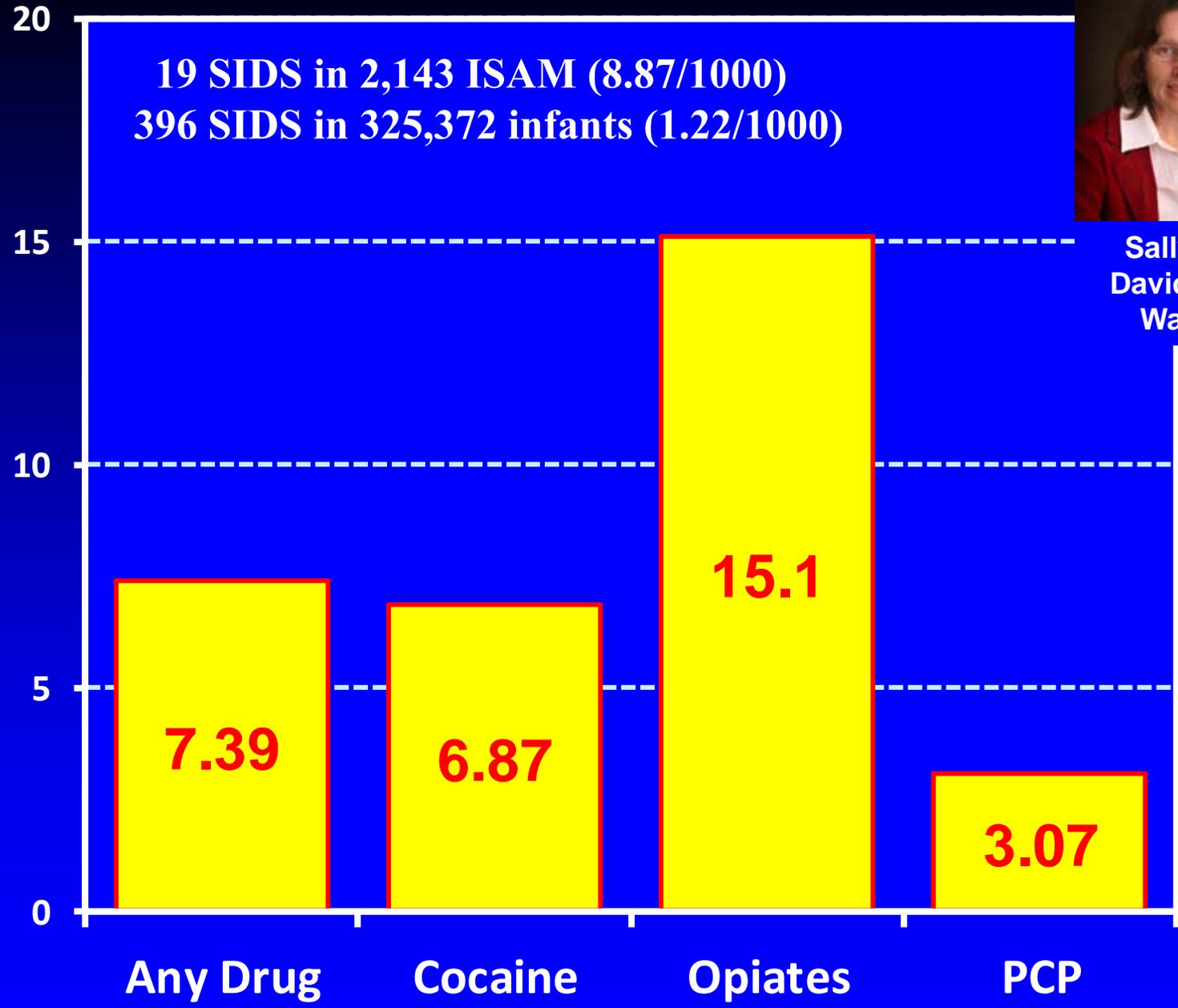
Avoid alcohol and illicit drug use during pregnancy and after birth---There is an increased risk of SIDS with prenatal and postnatal exposure to alcohol or illicit drug use.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.

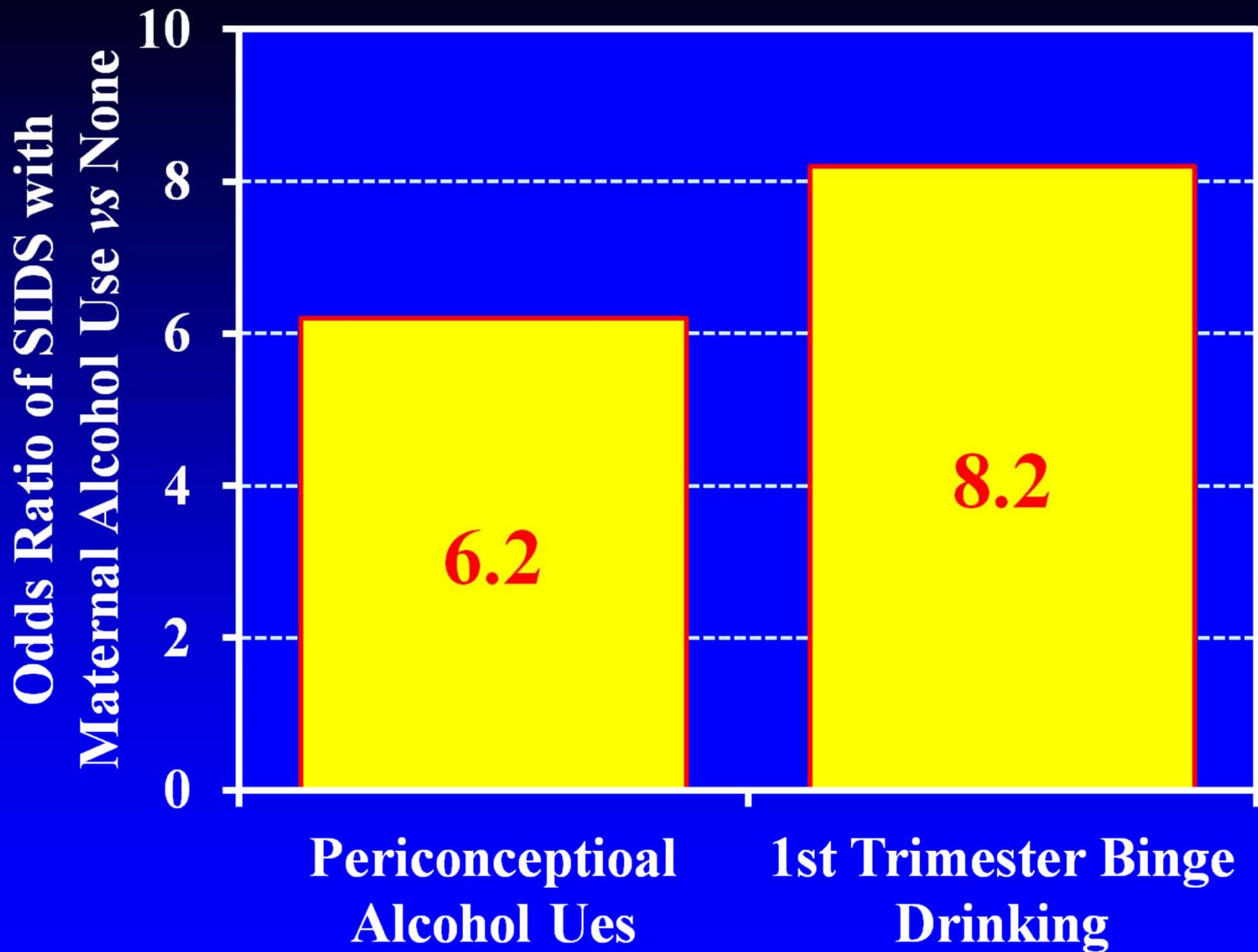


Sally L. Davidson Ward

Odds Ratio of SIDS in Infants of Substance Abusing Mother vs No Prenatal Drug Exposure



Davidson Ward, S.L., et al. *J. Pediatr.*, 117: 876-881, 1990.



Iyasu, S., et al. *J. Amer. Med. Assoc.*, 288: 2717-2723, 2002.



AAP Recommendation #8

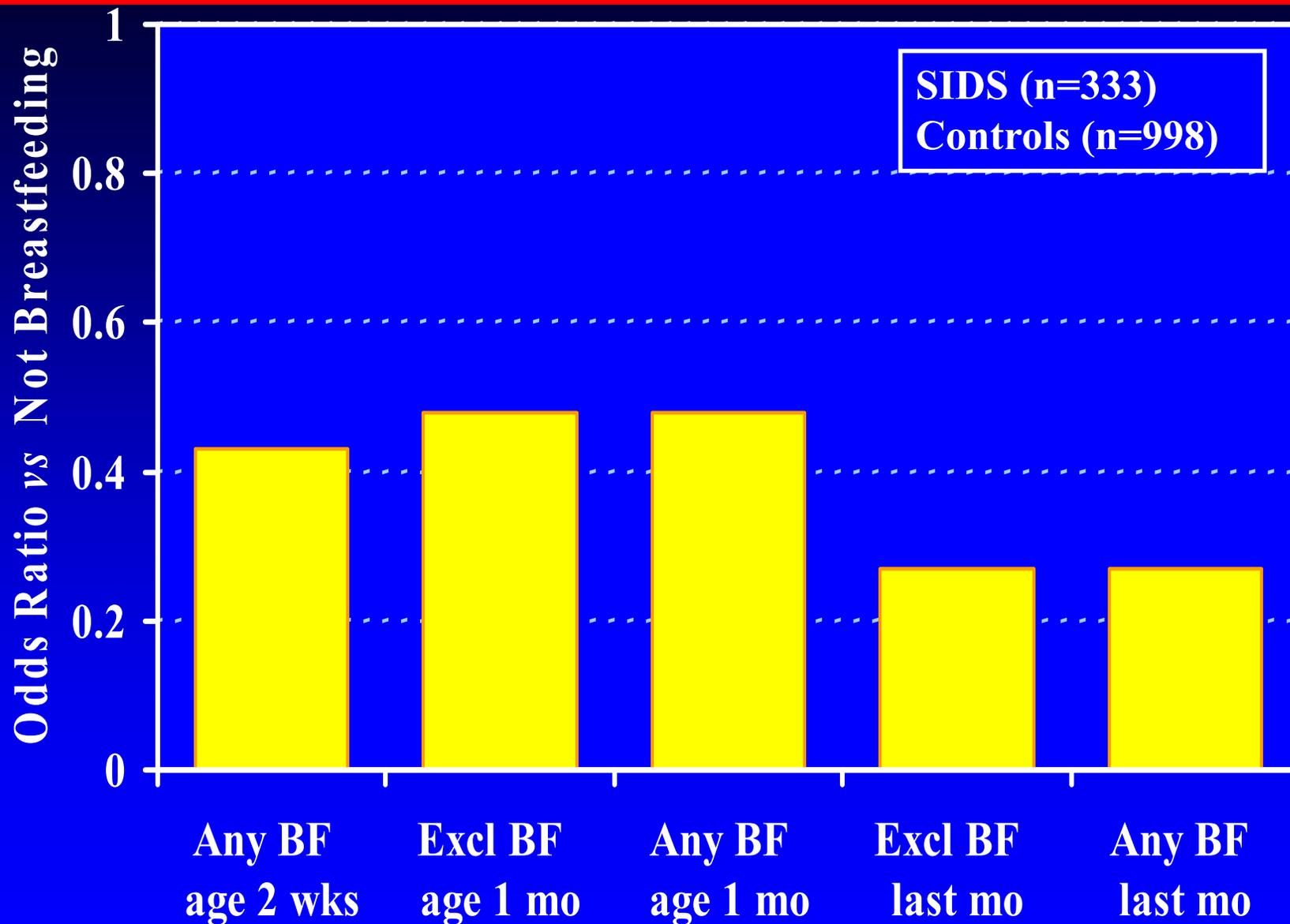


Breastfeeding is recommended.

The protective effect of breastfeeding increases with exclusivity. However, any breastfeeding has been shown to be more protective against SIDS than no breastfeeding.

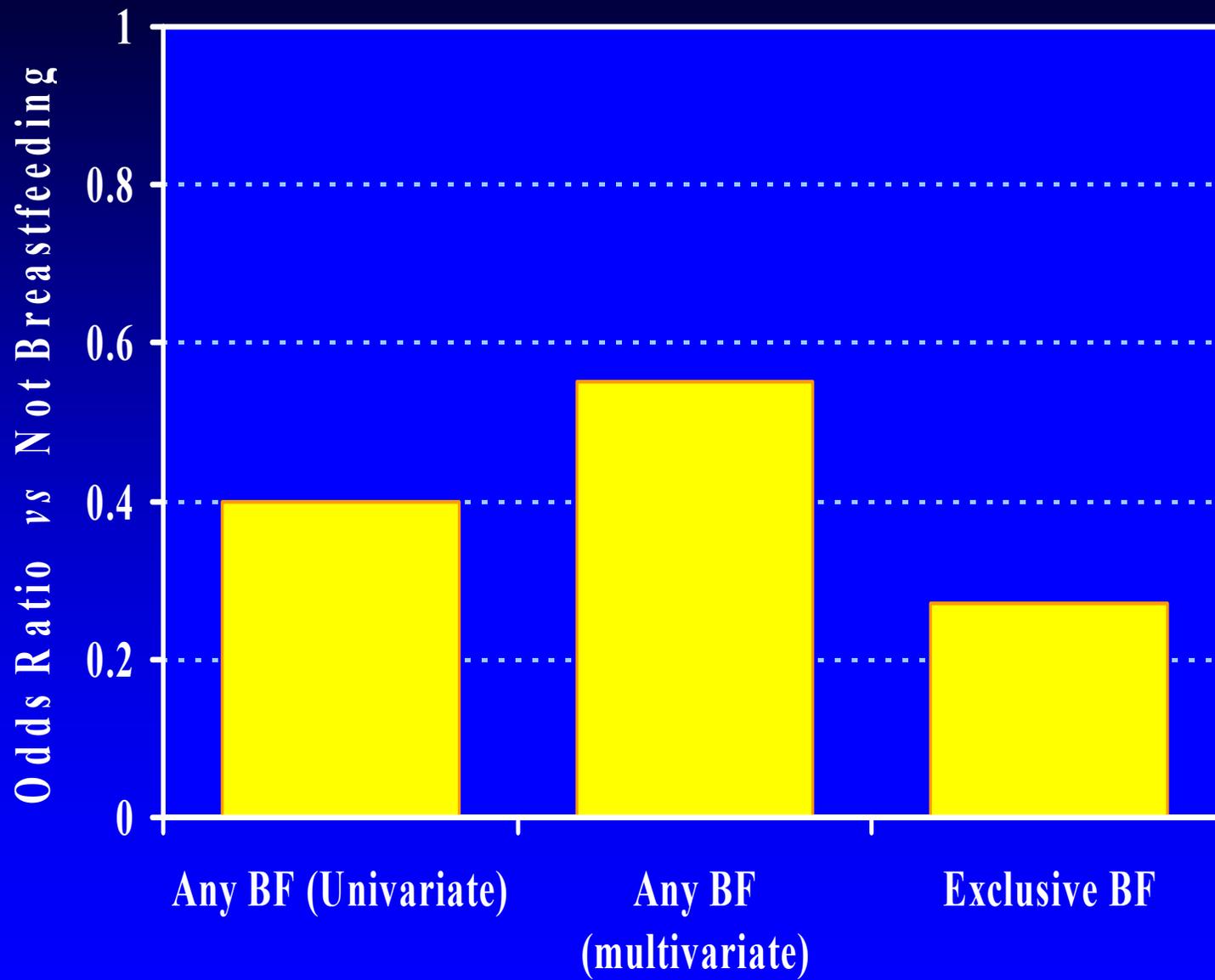
AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.

Breastfeeding and SIDS in Germany



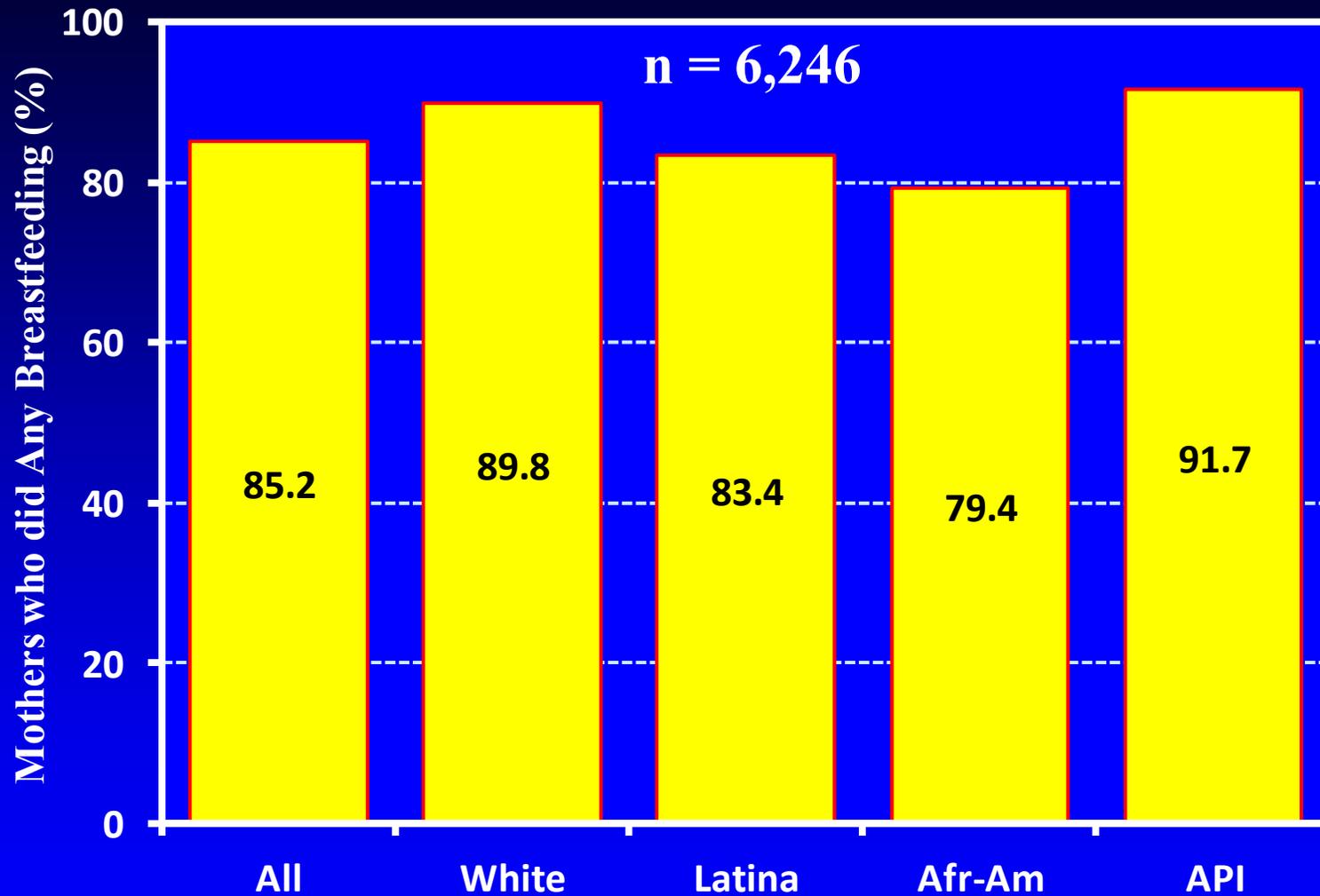
Venemann, M.M., et al. *Pediatrics*, 123: e406-e410, 2009.

Meta-Analysis of Breastfeeding and SIDS



Hauck, F.R., et al. *Pediatrics*, 128: 103-110, 2011.

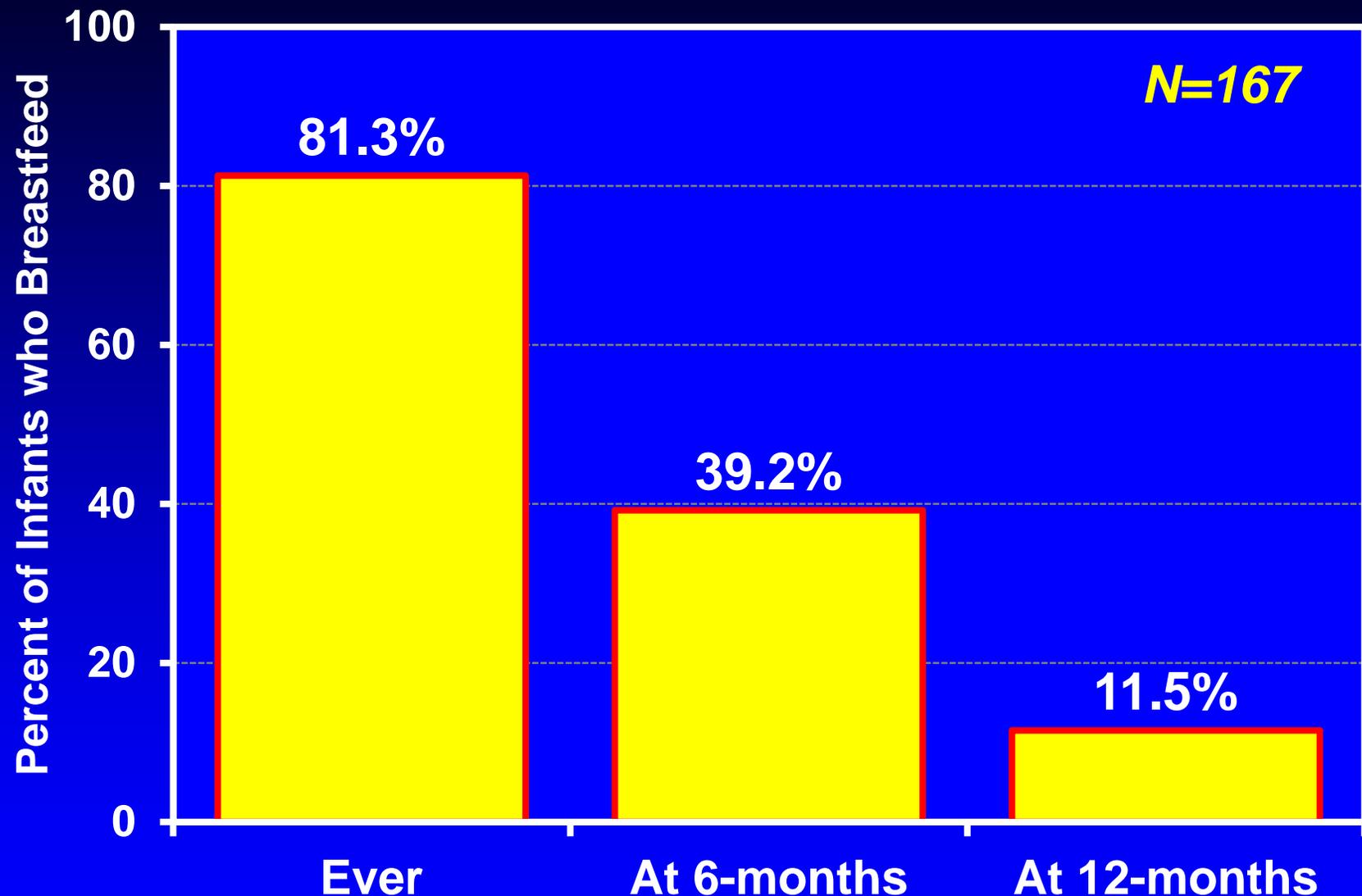
Breastfeeding in Los Angeles County



Los Angeles Mommy and Baby (LAMB) Project, 2007
National Child and Adolescent Health Research, Evaluation, and Planning Unit
Los Angeles County Department of Public Health
Health Resources and Services Administration (HRSA) R40MC06635



Breastfeeding in Los Angeles County



Geographic Breastfeeding Rates among Children Born in 2000

National Immunization Survey, Center for Disease Control and Prevention

http://www.cdc.gov/breastfeeding/data/NIS_data/2000/state.htm



AAP Recommendation #9

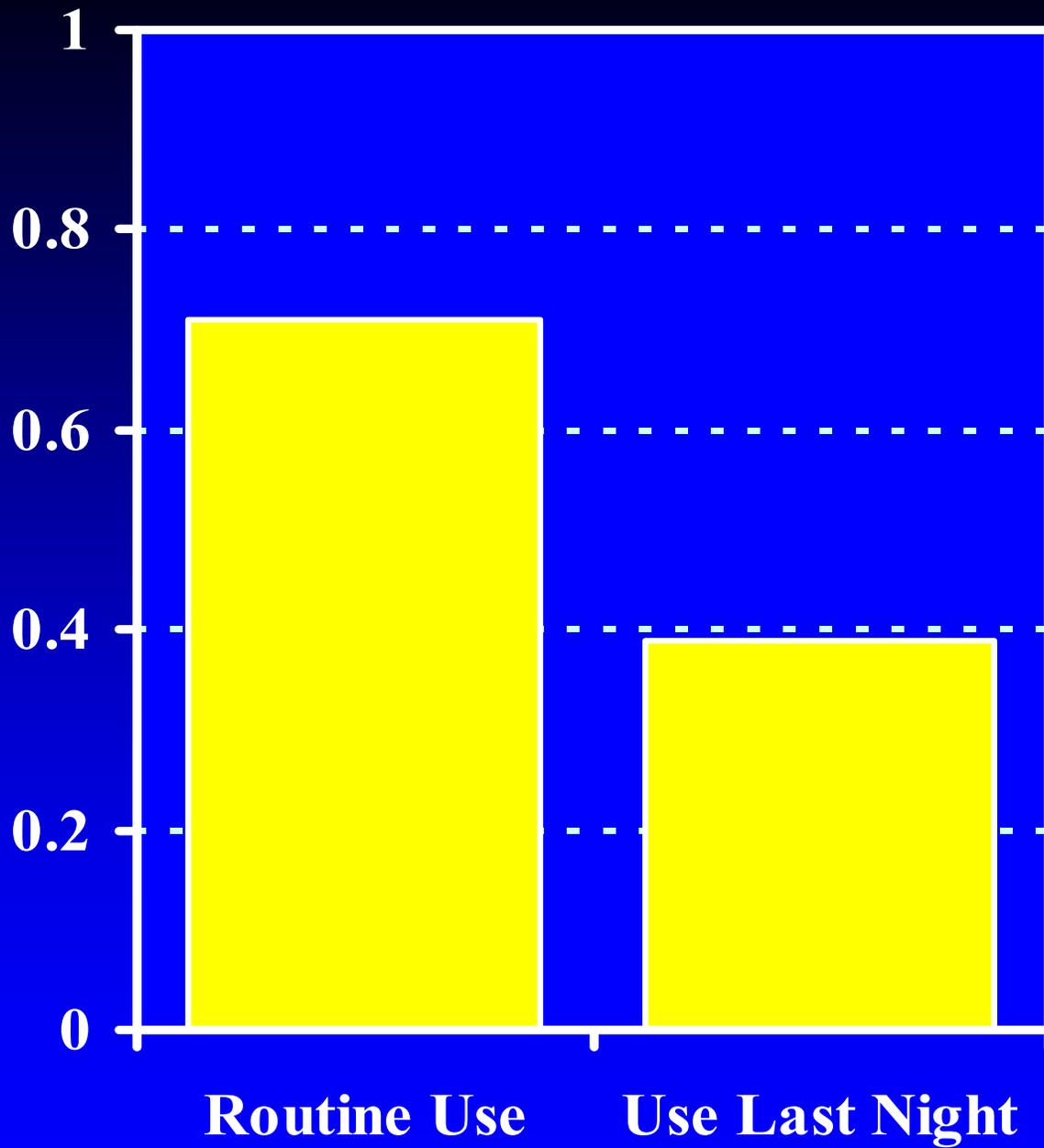


Consider offering a pacifier at naptime and bedtime---

Although the mechanism is yet unclear, studies have reported a protective effect of pacifiers on the incidence of SIDS.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.

**SIDS Odds Ratio using a Pacifier vs Not
Using a Pacifier**



Hauk, F.R., et al. *Pediatrics*, 111: 1207-1214, 2003.

Pacifiers

- Mechanism of protection not known.
- The protective effect persists throughout the night, even if the pacifier falls out of the infant's mouth
- If the infant refuses the pacifier, it should not be forced.
- Because of the risk of strangulations, pacifiers should not be tied around the infant's neck to attached to clothing.

Pediatrics, 128: 1030-1039, 2011.



Pacifiers

- Objects such as stuffed toys, which might present a suffocation or choking hazard, should not be attached to pacifiers.
- For breastfeeding infants, delay pacifier introduction breastfeeding has been firmly established (usually 3-4 wks).
- No evidence that finger sucking reduces SIDS risk.

Pediatrics, 128: 1030-1039, 2011.





AAP Recommendation #10



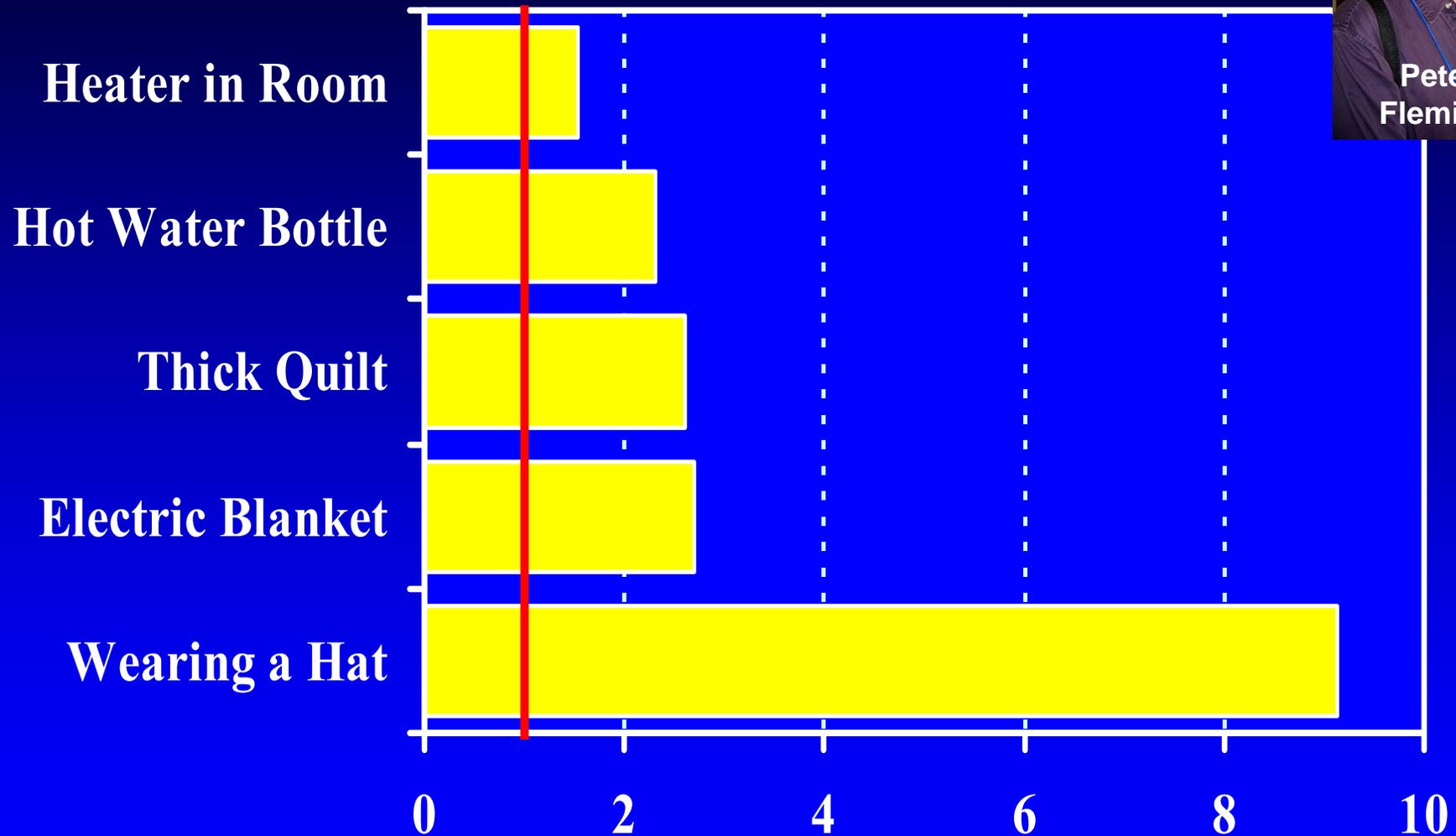
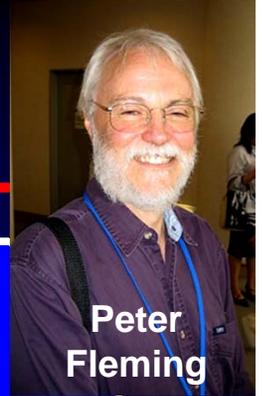
Avoid overheating---Infants should be dressed appropriately for the environment (no more than one layer of clothing).

Parents and caregivers should evaluate the infant for signs of overheating (sweating, or chest feels hot to the touch).

Overbundling and covering the face or head should be avoided.

AAP Policy Statement. Pediatrics, 128: 1030-1039, 2011.

Odds Ratios for SIDS vs Controls



Fleming, P., et al. *Sudden Unexpected Deaths in Infancy: The CESDI SUDI Studies 1993-1996*. The Stationary Office, London, U.K., 2000.



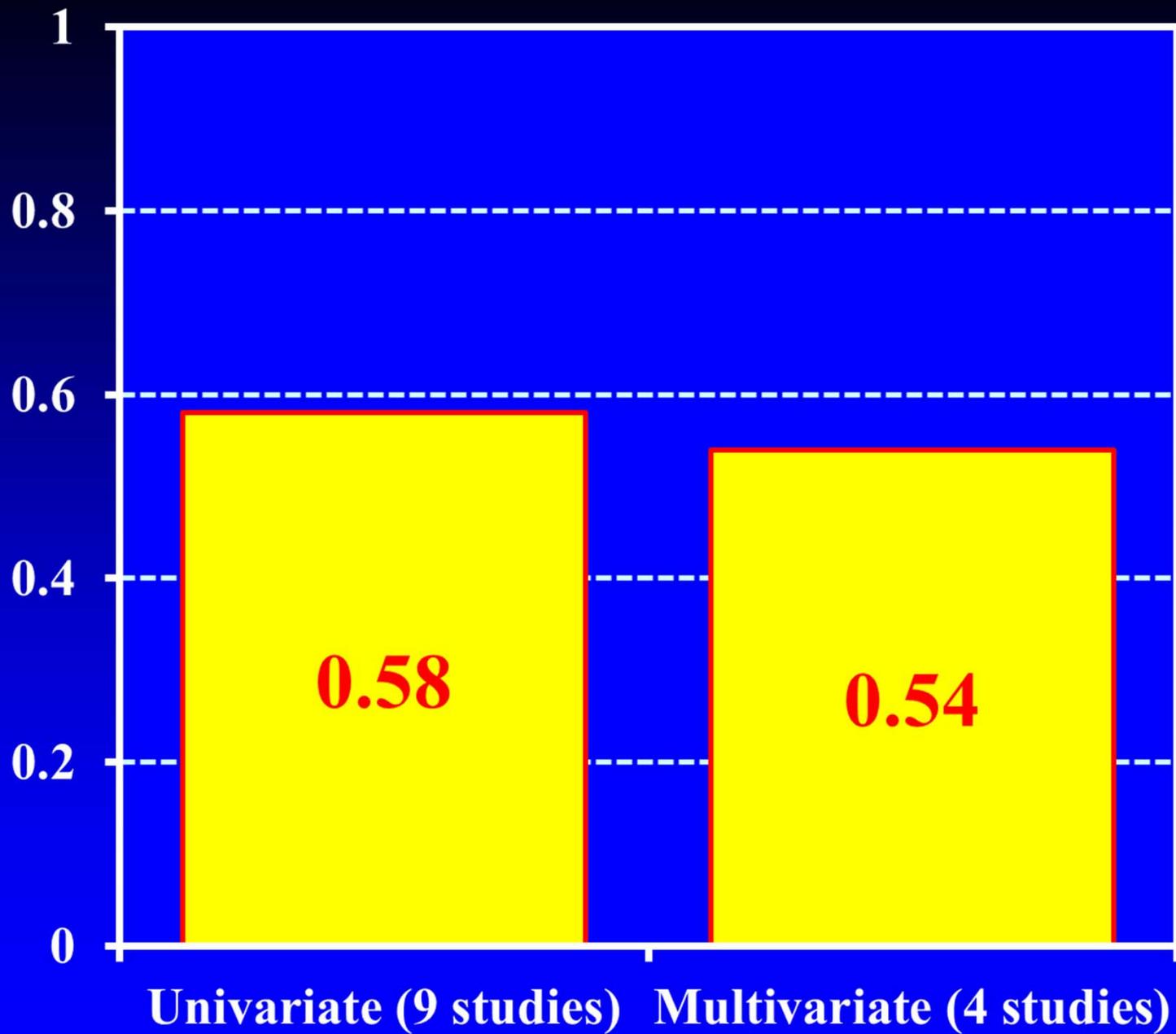
AAP Recommendation #11



Infants should be immunized in accordance with recommendations of the AAP and CDCP---There is no evidence that there is a causal relationship between immunizations and SIDS. Infants should also received regular well-child check-ups.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.

**Odds Ratio for SIDS in
Immunized Infants vs
Unimmunized Infants**



Vennemann, M.M.T., et al. *Vaccine*, 25: 4875-4879, 2007.



AAP Recommendation #12



Avoid commercial devices marketed to reduce the risk of SIDS---These devices include wedges, positioners, special mattresses, and special sleep surfaces. There is no evidence that these devices reduce the risk of SIDS or suffocation or that they are safe.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.

Commercial Devices to *Reduce the Risk of SIDS*



- **These, and other devices, have not been tested for safety or efficacy.**



Infant Sleep Positioners Pose Suffocation Risk

Advice for Consumers

- **STOP** using infant sleep positioning products. Using this type of product to hold an infant on his or her side or back is dangerous and unnecessary.
- **NEVER** put pillows, sleep positioners, comforters, or quilts under the baby or in the crib.
- **ALWAYS** place an infant on his or her back at night and during nap time.
- **REPORT** an incident or injury from an infant sleep positioner to the Consumer Product Safety Commission by visiting www.cpsc.gov/cgibin/incident.aspx or calling 800-638-2772, or to FDA's MedWatch program at www.fda.gov/Safety/MedWatch/HowToReport/default.htm.

Two government agencies are warning parents and other caregivers not to put babies in sleep positioning products as two recent deaths underscore concerns about suffocation.

In addition to the deaths, the commission has received dozens of reports of babies who were placed on their back or side in the positioners only to be found later in hazardous positions within or next to the product.

"We urge parents and caregivers to take our warning seriously and stop

using these products. This information suggests the positioners pose a risk of suffocation.

As a result, FDA is requiring makers of infant sleep positioners to submit





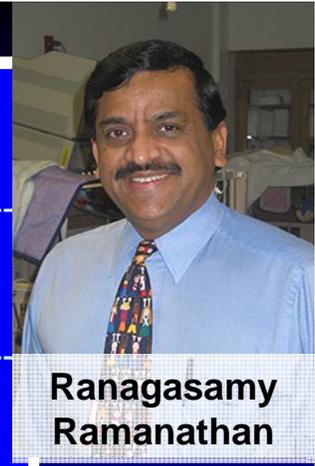
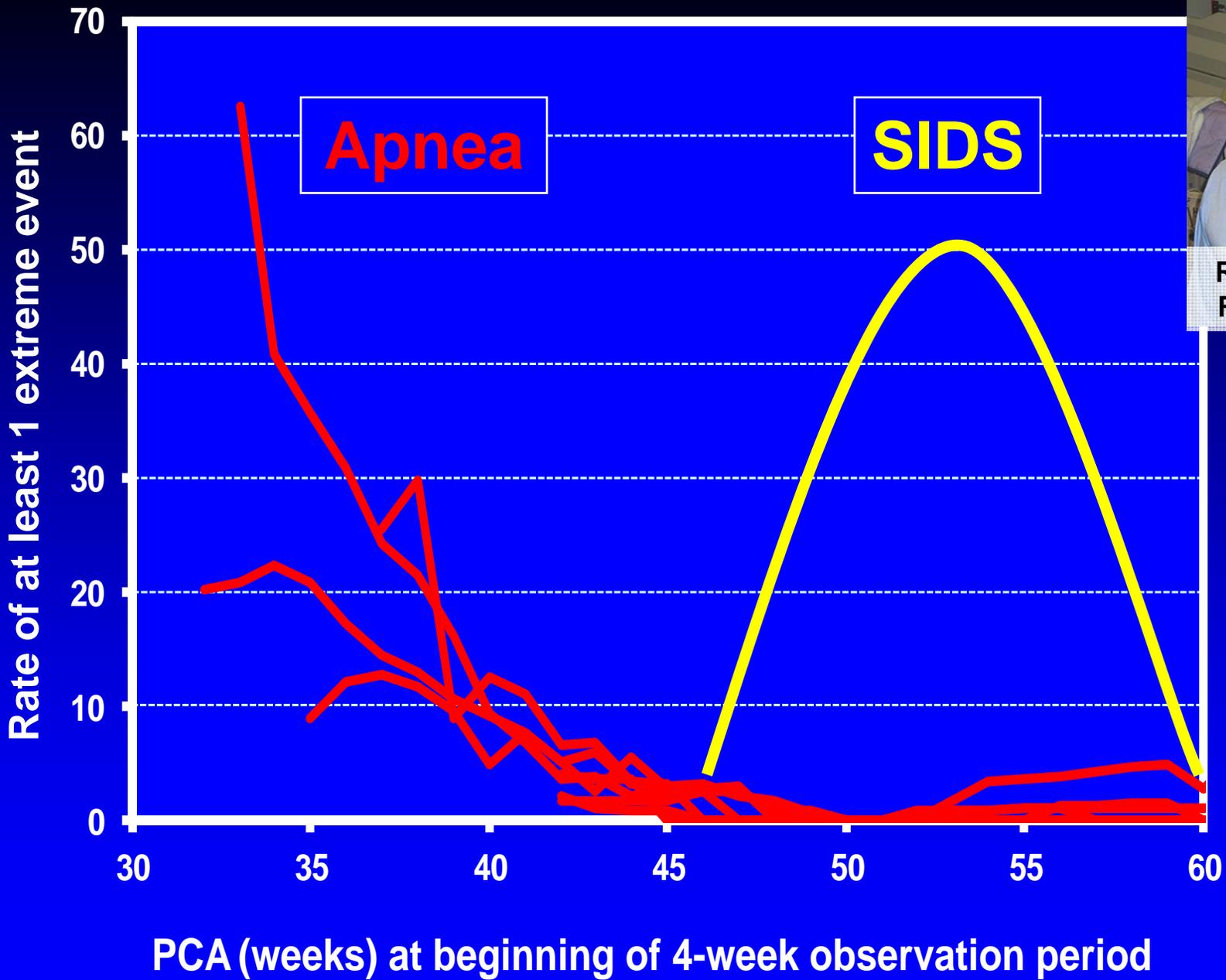
AAP Recommendation #13



Do not use home cardiorespiratory monitors as a strategy to reduce the risk of SIDS.

There is no evidence that the use of such home monitors decreases the incidence of SIDS.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.



Ranagasamy Ramanathan

Ramanathan, R., and CHIME. *J. Amer. Med. Assoc.*, 285: 2199-2207, 2001.



AAP Recommendation #14

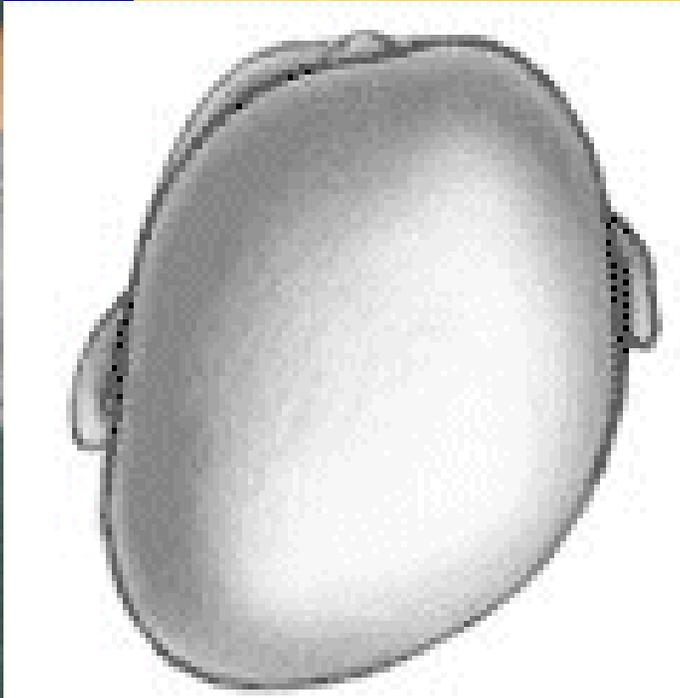
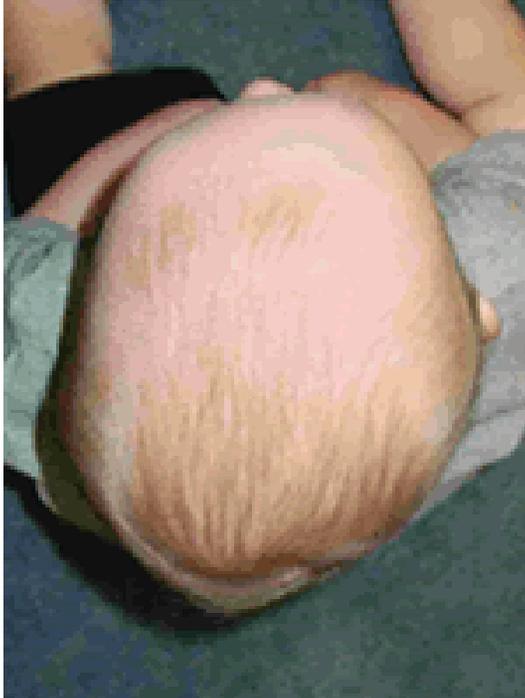
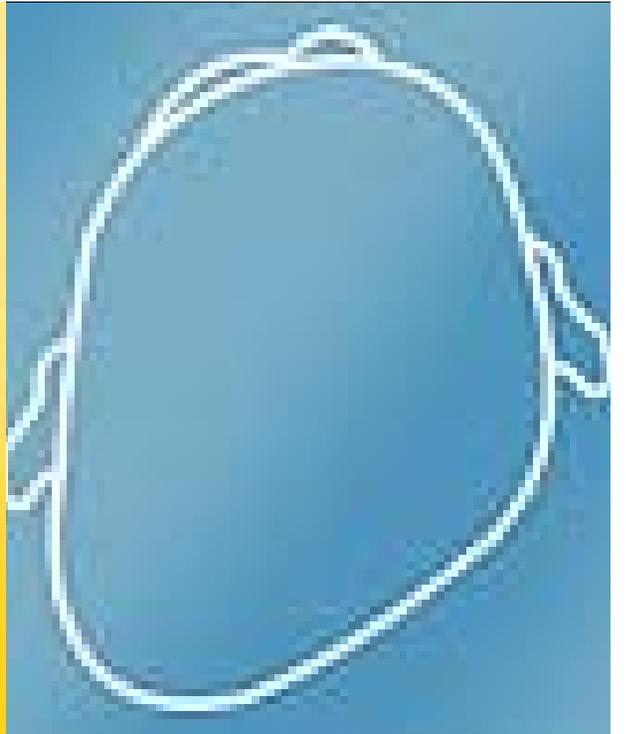


Supervised awake *tummy time* is recommended to facilitate development and to minimize development of positional plagiocephaly.

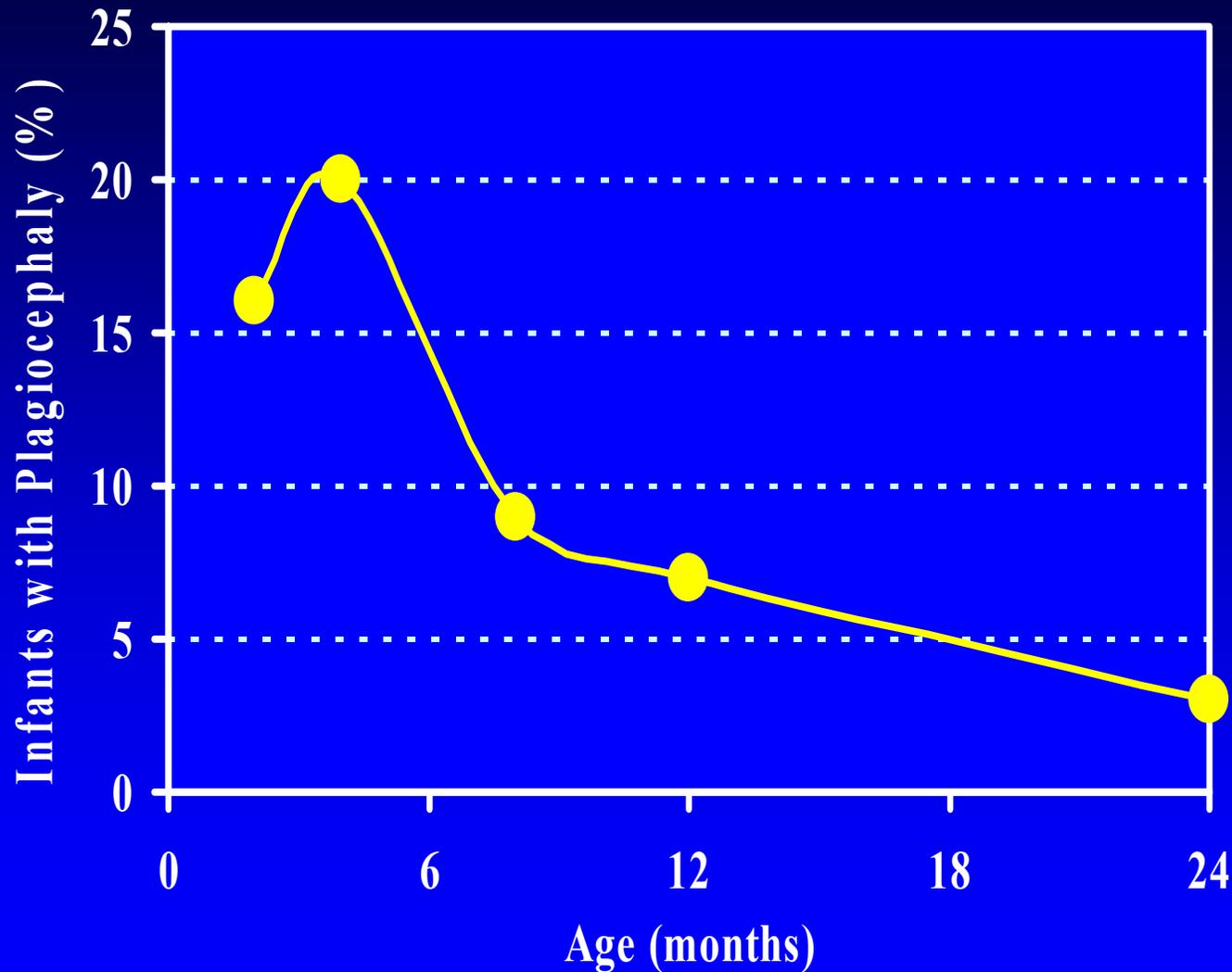
AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.

“Tummy Time”





**Positional Plagiocephaly increases to 4-months of age,
but the majority of cases resolve by 2-years of age.**



Hutchison, B.L., et al. *Pediatrics*, 114: 970-980, 2004.

To Avoid Positional Plagiocephaly

- Encourage *Tummy Time* when the infant is awake and observed.
- Avoid excessive time in car seat carriers and bouncers.
- Alternate the supine head position during sleep.

Hutchison, B.L., et al. *Pediatrics*, 114: 970-980, 2004.
AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.



AAP Recommendation #15



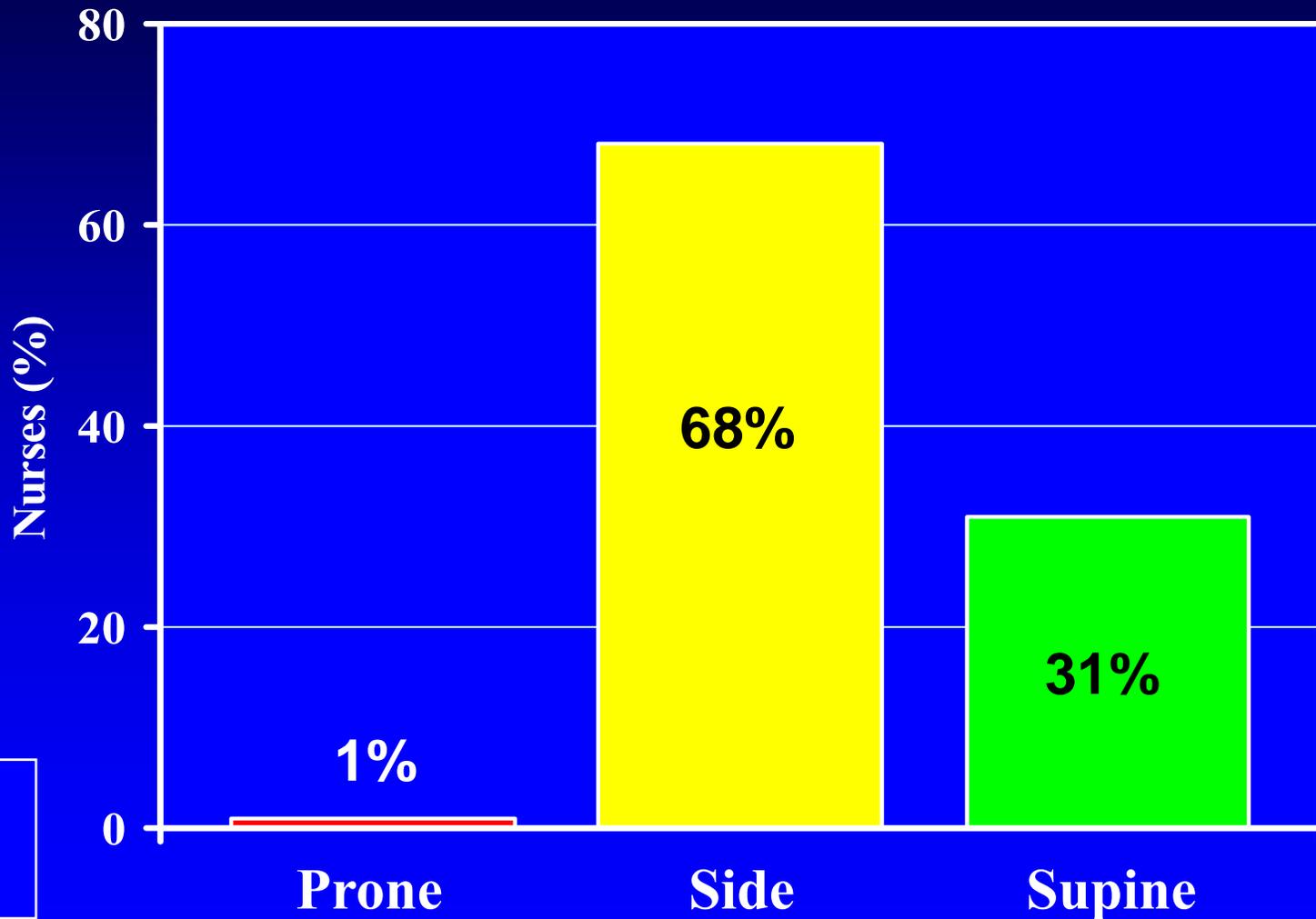
Health care professionals, staff in newborn nurseries and neonatal intensive care nurseries, and child care providers should endorse the SIDS risk reduction recommendations from birth.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.



Penny
Stastny

Infant Sleep Position Choice of Nursery Staff in Hospital Normal Newborn Nurseries



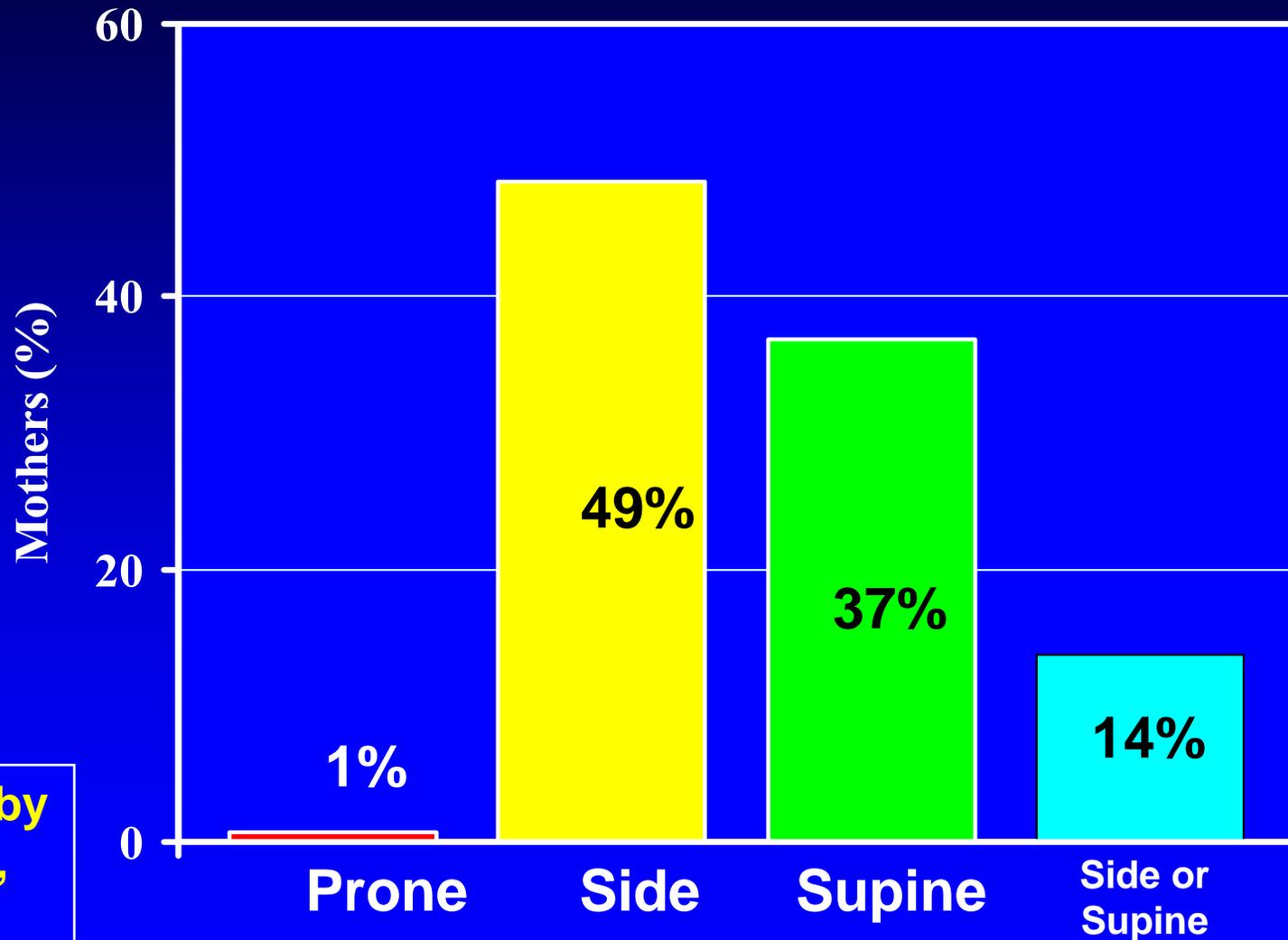
**N = 96
nurses**

Stastny, P.F., et al. *Nursing Research*, 53: 122-129, 2004.



Penny
Stastny

Infant Sleep Position *Modeled* by Nursery Staff in Hospital Normal Newborn Nurseries



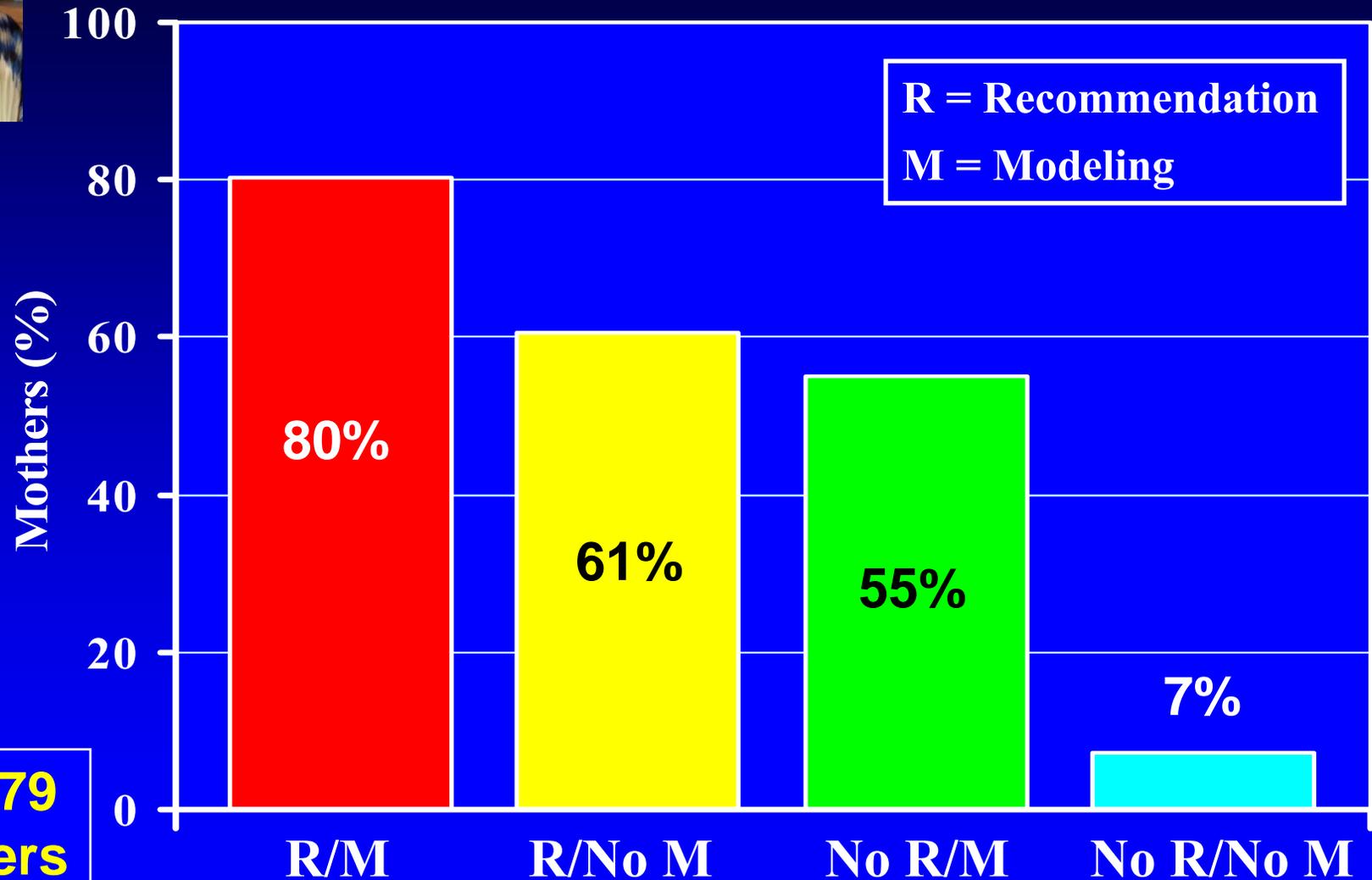
Reported by
Mothers,
N = 579

Stastny, P.F., et al. *Nursing Research*, 53: 122-129, 2004.

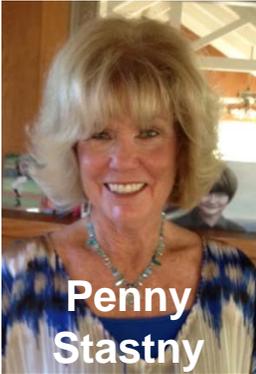


Penny
Stastny

Usual Supine Sleep Positioning by Mothers Reception of Nursery Staff Recommendations and/or Modeling

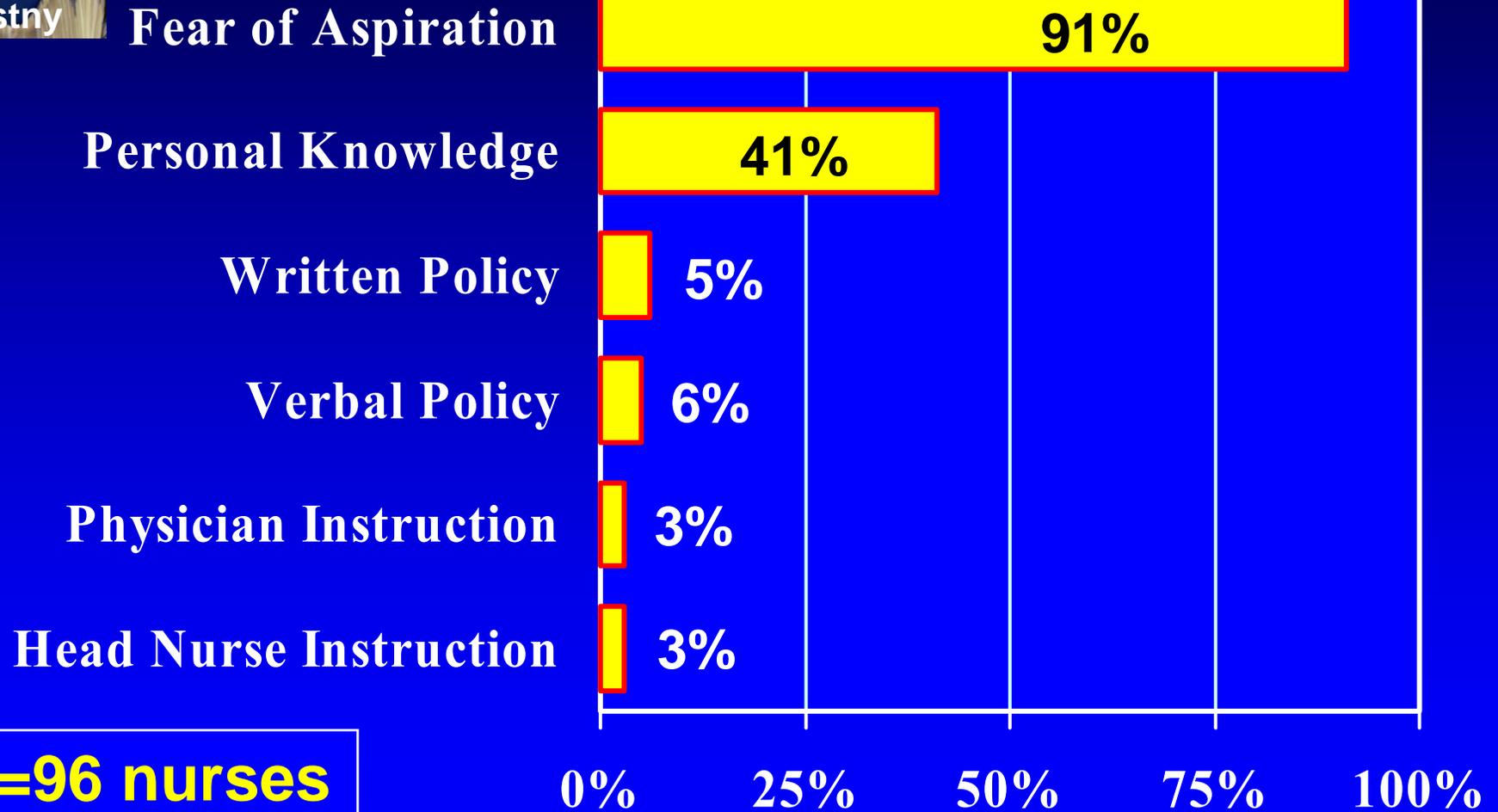


Stastny, P.F., et al. *Nursing Research*, 53: 122-129, 2004.



Penny
Stastny

Motivations for *Side* Infant Placement Choice Among Nursery Staff

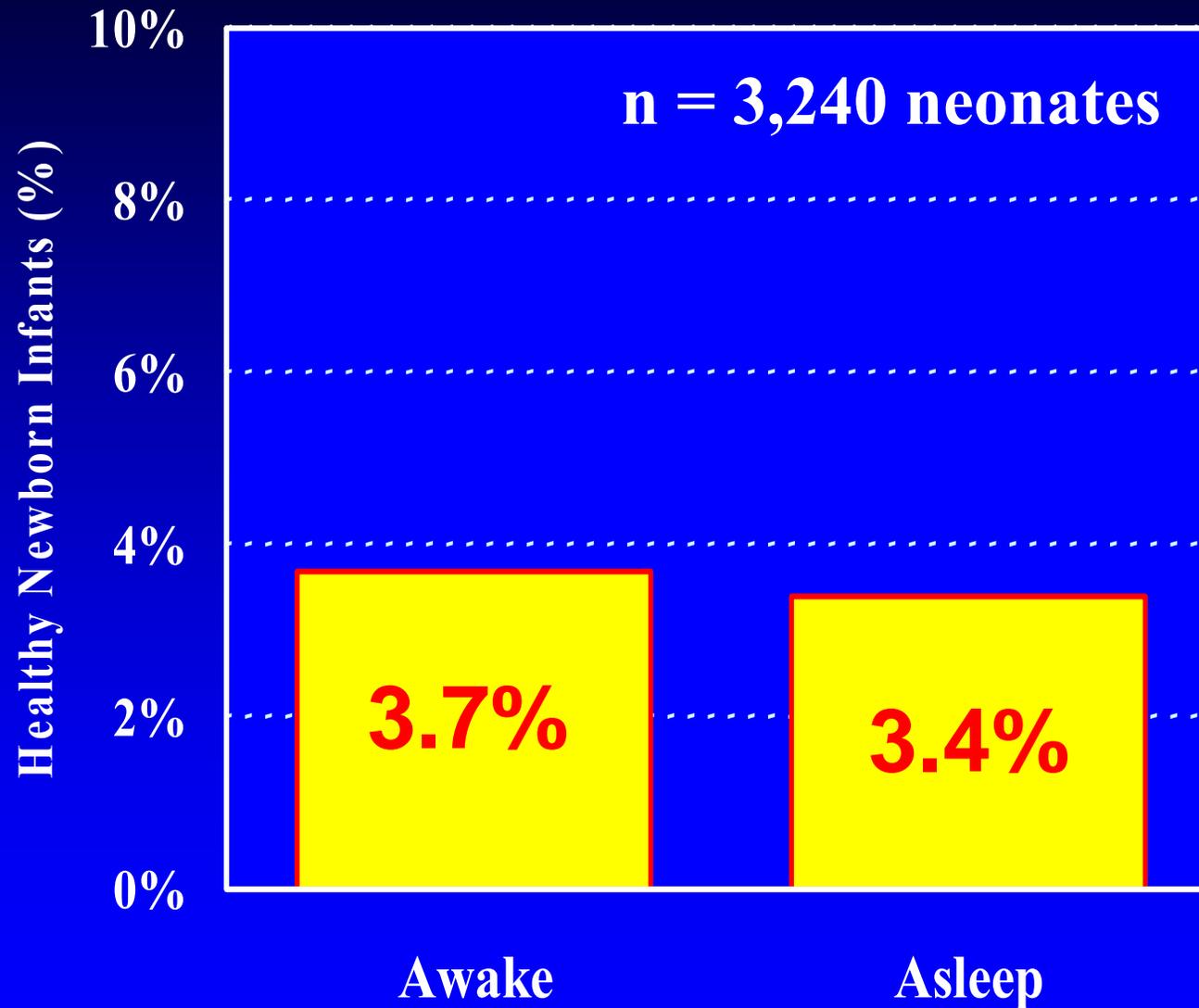


Stastny, P.F., et al. *Nursing Research*, 53: 122-129, 2004.



Mary Anne
Tablizo

Infants that “spit-up”

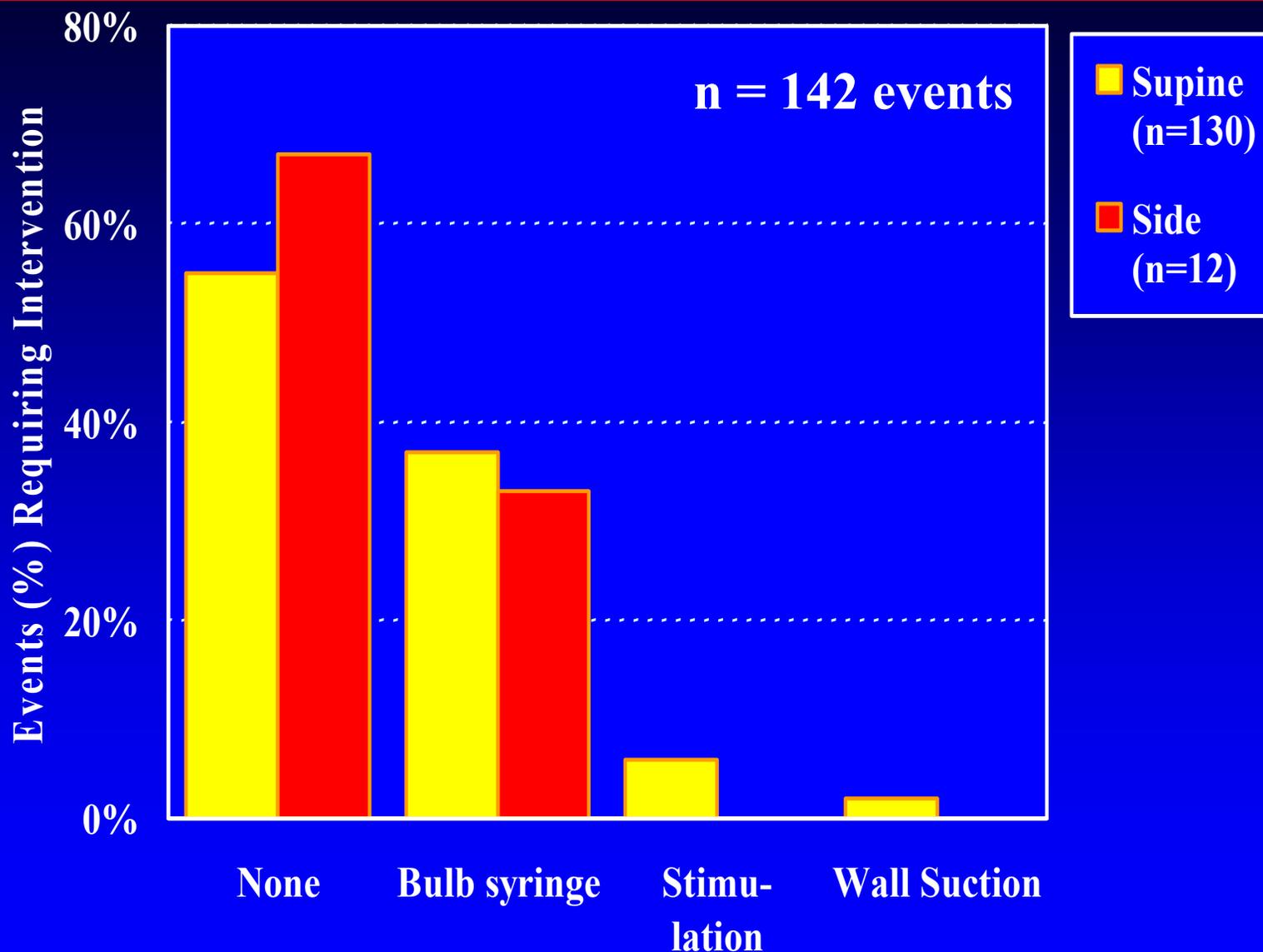


Tablizo, M.A., et al. *Arch. Pediatr. & Adolesc. Med.*: 161: 507-510, 2007.



Mary Anne
Tablizo

Interventions for Infants who “spit-up” while Asleep



Tablizo, M.A., et al. *Arch. Pediatr. & Adolesc. Med.*: 161: 507-510, 2007.



AAP Recommendation #16

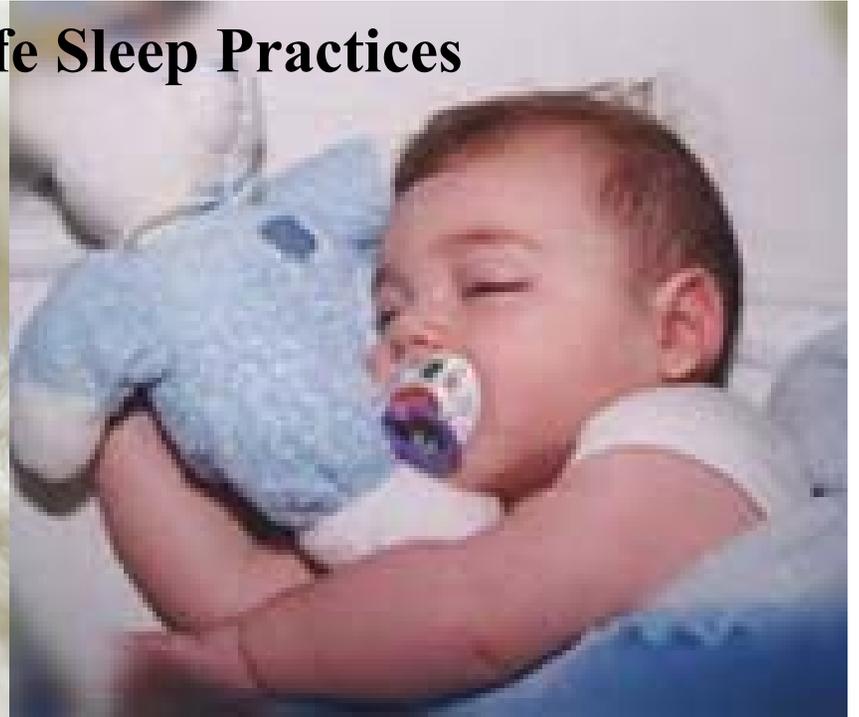


Media and manufacturers should follow safe sleep guidelines in their messaging and advertising.

Media and advertising messages contrary to safe sleep recommendations might create misinformation about safe sleep practices.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.

Misinformation about Safe Sleep Practices



Joyner, B.L., et al. *Pediatrics*, 124: e416-e422, 2009.



AAP Recommendation #17

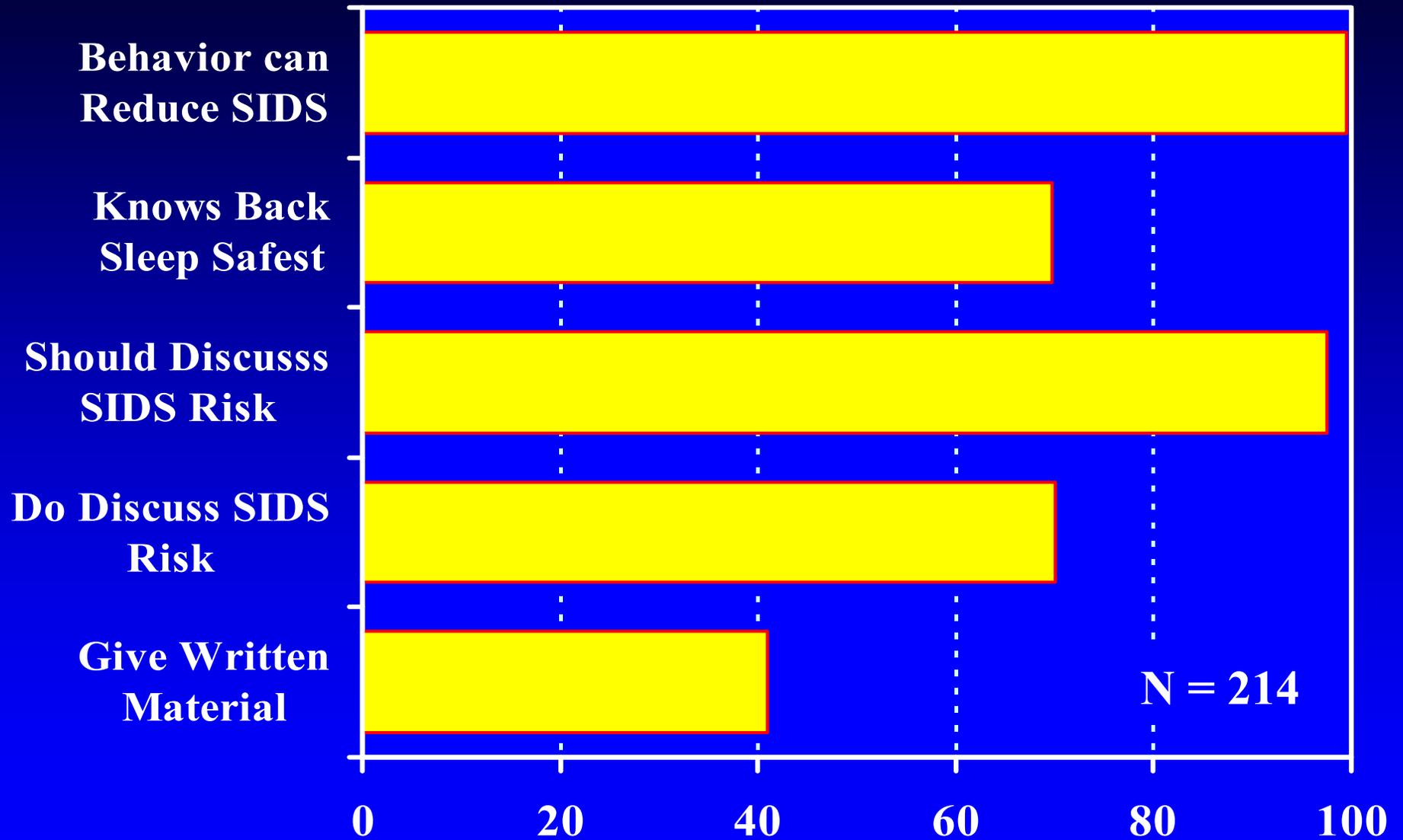


Expand the national campaign to reduce the risks of SIDS to include a major focus on the safe sleep environment and ways to reduce the risks of all sleep related infant deaths, including SIDS, suffocation, and other accidental deaths.

Pediatricians, family physicians, and other primary care providers should actively participate in this campaign.

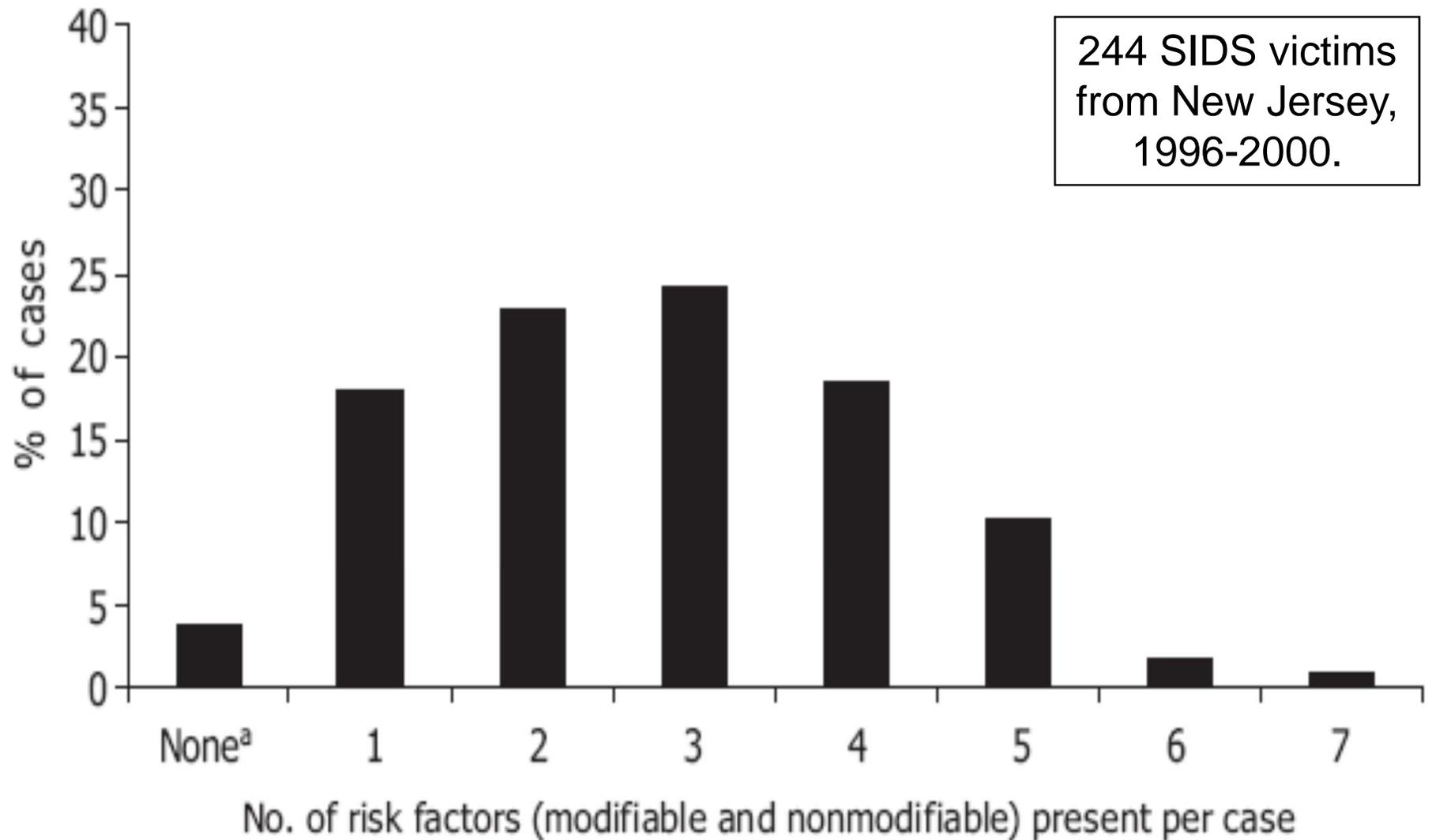
AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.

Primary Care Physicians Do Not Discuss SIDS Risk Reduction



Eron, N.B., et al. *Health Promot. Pract.*, 10: 1-9. 2009.

The majority of SIDS victims have ≥ 1 Risk Factor



Ostfeld, B.M., et al. *Pediatrics*, 125: 447-453, 2010.

**Known
Cause of
Death**

**Biology
Interacts
with
Environment**

**“True”
SIDS**

**Clear evidence of
suffocation,
entrapment, etc.**

D E

Dx: Accidental

**Some Risk Factors,
but would not cause
death in all infants.**

D E

Dx: Variable

**No Risk
Factors.**

D E

Dx: SIDS

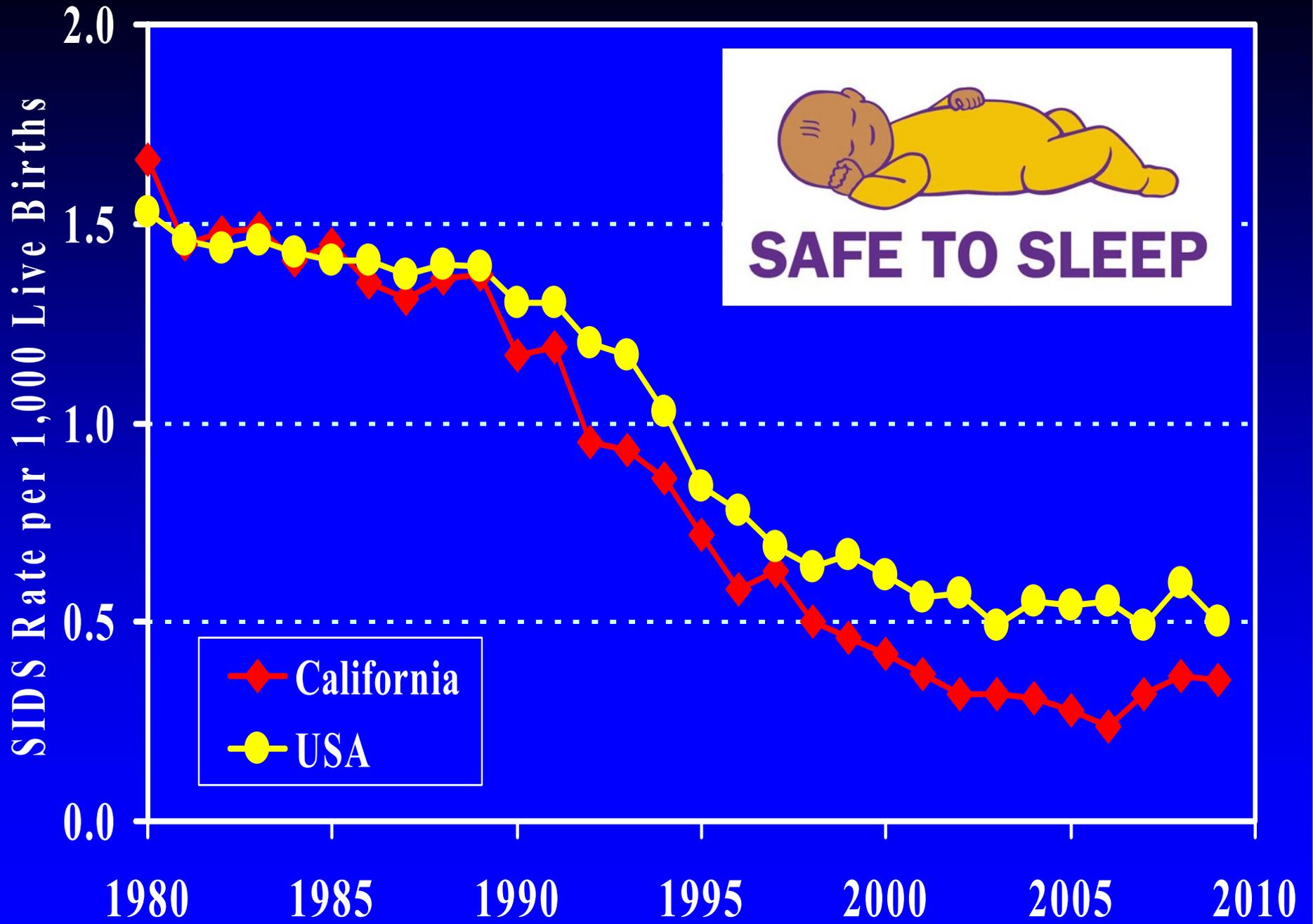


AAP Recommendation #18



Continue research and surveillance on the risk factors, causes, and pathophysiological mechanisms of SIDS and other sleep-related infant deaths, with the ultimate goal of eliminating these deaths entirely.

AAP Policy Statement. *Pediatrics*, 128: 1030-1039, 2011.



A black and white graphic with a red prohibition sign over the text 'SIDS'. The text 'SIDS' is written in a bold, black, sans-serif font. A thick red circle with a diagonal slash through it is superimposed over the text, indicating prohibition or a warning. The entire graphic is set against a solid black background.

SIDS

A black and white graphic with a red prohibition symbol (a circle with a diagonal slash) overlaid on the text "SIDS". The text is in a bold, sans-serif font. The entire graphic is set against a black background.

SIDS