



## **Risk Reduction and Sudden Infant Death Syndrome: A Selected Annotated Bibliography**

Nikcević AV, Kuczmierczyk AR, Nicolaidis KH.

### **Influence of medical and psychological interventions on women's distress after miscarriage.**

J Psychosom Res. 2007 Sep;63(3):283-90. Epub 2007 Aug 2.

**OBJECTIVE:** The aim of this study was to examine the impact of medical and psychological interventions on women's distress after early miscarriage. **METHODS:** This was a prospective study of women attending for a routine scan at 10-14 weeks of gestation and found to have a missed miscarriage. An intervention group of 66 women had medical investigations to ascertain the cause of miscarriage, and at 5 weeks after the scan, they all had a medical consultation to discuss the results of the investigations. These 66 women were randomly allocated into a group which received further psychological counselling (MPC, n=33), and a group which received no psychological counselling (MC, n=33). They were compared to a control group of 61 women who received no specific postmiscarriage counselling. All participants completed preintervention and postintervention measures and 4-month follow-up questionnaires. **RESULTS:** The scores on the outcome variables decreased significantly with time for all three groups. In group MPC, compared to controls, there was a significantly greater decrease over time in the levels of grief, self-blame, and worry and, compared to MC group, a significantly greater decrease in grief and worry. In group MC, compared to controls, there was a significantly greater decrease in self-blame. In the MC and MPC groups, those with an identified cause of the miscarriage had significantly lower levels of anxiety and self-blame over time than those with a nonidentified cause. **CONCLUSIONS:** Psychological counselling, in addition to medical investigations and consultation, is beneficial in reducing women's distress after miscarriage. However, absence of an identifiable cause of miscarriage led to the maintenance of the initial anxiety levels, which should have otherwise decreased with time.

Full-text available at: <http://www.sciencedirect.com> (not a U.S. Government site)

Ustunyurt E, Kaymak O, Iskender C, Ustunyurt OB, Celik C, Danisman N, Ruys JH, de Jonge GA, Brand R, Engelberts AC, Semmekrot BA.

### **Bed-sharing in the first four months of life: a risk factor for sudden infant death.**

Acta Paediatr. 2007 Aug 20; [Epub ahead of print].

**Aim:** To investigate the risk of sudden infant death in the Netherlands during bed-sharing in the first half year of life and the protective effect of breastfeeding on it. **Methods:** During a 10-year period between September 1996 and September 2006 nationwide, 213 cot deaths were investigated. **Results and discussion:** Of 138 cot deaths of less than 6 months of age, 36 (26%) bed-shared. In a reference group of 1628 babies from infant welfare centres only 9.4% were bed-sharing in the night prior to the interview. After correction for smoking of one or both parents

the odds ratio for cot death during bed-sharing with parents decreased with age from 9.1 (CI 4.2-19.4) at 1 month, to 4.0 (CI 2.3-6.7) at 2 months, to 1.7 (CI 0.9-3.4) at 3 months and to 1.3 (CI 1.0-1.6) at 4 through 5 months of age. The excess risk (OR > 1) associated with bed-sharing is itself not significantly influenced by the presence or absence of breastfeeding. Conclusion: Bed-sharing is a serious risk factor for sudden infant death for all babies of less than 4 months of age. From 4 months onwards bed-sharing did not contribute significantly to the risk of cot death anymore in our study.

Full-text available at: <http://www.blackwell-synergy.com/> (not a U.S. Government site)

Bhalotra S.

**Spending to save? State health expenditure and infant mortality in India.**

Health Econ. 2007 Aug 2; [Epub ahead of print].

There are severe inequalities in health in the world, poor health being concentrated amongst poor people in poor countries. Poor countries spend a much smaller share of national income on health expenditure than do richer countries. What potential lies in political or growth processes that raise this share? This depends upon how effective government health spending in developing countries is. Existing research presents little evidence of an impact on childhood mortality. Using specifications similar to those in the existing literature, this paper finds a similar result for India, which is that state health spending saves no lives. However, upon allowing lagged effects, controlling in a flexible way for trended unobservables and restricting the sample to rural households, a significant effect of health expenditure on infant mortality emerges, the long run elasticity being about -0.24. There are striking differences in the impact by social group. Slicing the data by gender, birth order, religion, maternal and paternal education and maternal age at birth, I find the weakest effects in the most vulnerable groups (with the exception of a large effect for scheduled tribes).

Full-text available at: <http://www3.interscience.wiley.com/> (not a U.S. Government site)

Abu Mourad T, Radi S, Shashaa S, Lionis C, Philalithis A.

**Palestinian primary health care in light of the National Strategic Health Plan 1999-2003.**

Public Health. 2007 Jul 27; [Epub ahead of print].

**BACKGROUND:** In 1994, the Palestinian Health Authority took over responsibility for primary health care (PHC) in Gaza Strip and West Bank. **OBJECTIVES:** This paper reports on the Palestinian National Strategic Health Plan (PNSHP 1999-2003). The extent to which the PHC objectives were achieved is discussed, together with areas that still require improvement. **METHODS:** This descriptive study used content analysis with a retrospective review of data gathered from the PNSHP and other related reports and publications. **RESULTS:** The crude death rate and total fertility rate had improved, but the infant mortality rate had increased by the end of the study period. Heart diseases were the primary cause of death in Palestine. Acceptable vaccination coverage had mainly been achieved, particularly for tetanus, diphtheria, measles and polio. There were still concerns regarding water supply and other sanitary conditions, a notable increase in the incidence of vector-borne diseases, especially cutaneous Leishmaniasis in West Bank, and mental health had worsened by the end of the study period. **CONCLUSIONS:** Certain health promotion and environmental health actions should be undertaken urgently by the Palestinian health care services to cope with environmental and sanitary conditions, and to

further improve health status regarding communicable and non-communicable diseases in Palestinians. Health research and surveys are insufficient and should be undertaken regularly. The main barrier to the success of the PNSHP was the lack of follow-up due to political and socio-economic instability. There is an urgent need for international intervention and support. Di Mario S, Say L, Lincetto O.

**Risk factors for stillbirth in developing countries: a systematic review of the literature.** Sex Transm Dis. 2007 Jul;34(7 Suppl):S11-21.

**OBJECTIVE:** To identify risk factors for stillbirth in developing countries and to measure their impact by calculating the population attributable fraction (PAF) for each risk factor. **STUDY DESIGN:** Systematic review of published studies on risk factors for stillbirth within 3 broadly defined categories: infections, other clinical conditions, and context-dependent conditions such as socioeconomic status, maternal literacy, and receipt of antenatal care. Where statistically significant associations were found between a risk factor and occurrence of stillbirth, the PAF (the proportion of cases occurring in the total population that would be avoided if the exposure was removed) was calculated. **RESULTS:** A total of 33 studies, conducted in 31 developing countries, were included in the review. The definition of stillbirth varied widely in these studies. Risk factors for stillbirth having a PAF higher than 50% were maternal syphilis, chorioamnionitis, maternal malnutrition, lack of antenatal care, and maternal socioeconomic disadvantage. **CONCLUSIONS:** Maternal syphilis prevention, screening and treatment together with other interventions targeting universal use of antenatal care (that includes screening for syphilis) and improving the socioeconomic conditions including nutritional status of the mother, could effectively contribute towards reducing the unacceptably high burden due to stillbirth in developing countries.

Full-text available at: <http://meta.wkhealth.com/> (not a U.S. Government site)

Moon RY, Oden R, Iglesias J, Hauck FR, Kington M.

**Physician recommendations regarding SIDS risk reduction: A national survey of pediatricians and family physicians.**

Clin Pediatr (Phila). 2007 Jul 19; [Epub ahead of print].

**Background:** Sudden infant death syndrome (SIDS) is a leading cause of death among infants. Recently, new SIDS risk factors have emerged. **Objective:** To determine knowledge and recommendations of pediatricians and family physicians regarding SIDS-relevant practices. **Methods:** Cross-sectional survey of 3005 pediatricians and family physicians. **Results:** Of the 783 respondents, pediatricians comprised 64% and females 52%; 78% recognized supine as the recommended sleep position; 69% recommended supine. Almost all physicians recommended a firm mattress, 82% recommended a crib or bassinet, and 42% recommended a separate room for infants; 63% had no preference about or did not recommend restricting pacifier use. Pediatricians were more likely to discuss infant sleep position and room sharing at every well-child visit. **Conclusions:** Knowledge about recommended infant sleep position is relatively high, but there are gaps in physician knowledge regarding safe sleep recommendations. Greater dissemination of information is required, and barriers to implementation need to be identified and addressed.

Full-text available at: <http://cpj.sagepub.com/cgi/rapidpdf/> (not a U.S. government site)

Rubens DD, Vohr BR, Tucker R, O'neil CA, Chung W.

**Newborn oto-acoustic emission hearing screening tests preliminary evidence for a marker of susceptibility to SIDS.**

Early Hum Dev. 2007 Jul 3; [Epub ahead of print].

**OBJECTIVE:** To evaluate the newborn transient evoked otoacoustic emission (TEOAE) hearing screening tests of infants later diagnosed with the sudden infant death syndrome (SIDS). **STUDY DESIGN:** In a case-controlled study, the newborn TEOAE hearing screens of 31 infants who subsequently died of SIDS were retrospectively compared to those of 31 newborn infants that survived the first year of life. SIDS cases were individually matched to surviving controls based on gender, term versus preterm age and NICU versus well baby nursery. **RESULTS:** The TEOAE screens of SIDS infants demonstrated significantly decreased signal to noise ratios at 2000, 3000, and 4000 Hz ( $p < 0.05$ ) on the right side compared to healthy control infants. **CONCLUSION:** Newborns at risk for SIDS are currently indistinguishable from other newborns and are only identified following a later fatal event. A unilateral difference in cochlear function is a unique finding that may offer the opportunity to identify infants at risk of SIDS during the early postnatal period with a simple non invasive hearing screen test. The ability to implement preventative measures well in advance of a potential critical incident would be an important breakthrough.

Full-text available at: [www.sciencedirect.com/](http://www.sciencedirect.com/) (not a U.S. Government site)

Donovan EF, Ammerman RT, Besl J, Atherton H, Khoury JC, Altaye M, Putnam FW, Van Ginkel JB.

**Intensive home visiting is associated with decreased risk of infant death.**

Pediatrics. 2007 Jun; 119(6):1145-51.

**OBJECTIVE:** The goal was to test the hypothesis that participation in a community-based home-visiting program is associated with a decreased risk of infant death. **METHODS:** A retrospective, case-control design was used to compare the risk of infant death among participants in Cincinnati's Every Child Succeeds program and control subjects matched for gestational age at birth, previous pregnancy loss, marital status, and maternal age. The likelihood of infant death, adjusted for level of prenatal care, maternal smoking, maternal education, race, and age, was determined with multivariate logistic regression. The interaction between race and program participation and the effect of home visiting on the risk of preterm birth were explored. **RESULTS:** Infants whose families did not receive home visiting ( $n = 4995$ ) were 2.5 times more likely to die in infancy compared with infants whose families received home visiting ( $n = 1665$ ). Black infants were at least as likely to benefit from home visiting as were nonblack infants. No effect of program participation on the risk of preterm birth was observed. **CONCLUSION:** The current study is consistent with the hypothesis that intensive home visiting reduces the risk of infant death.

Full-text available at: <http://pediatrics.aappublications.org/> (not a U.S. Government site)

Arafa MA, Amine T, Abdel Fattah M.

**Association of maternal work with adverse perinatal outcome.**

Can J Public Health. 2007 May-Jun;98(3):217-21.

**OBJECTIVE:** To investigate the relationship between maternal work and pregnancy outcome. **METHODS:** Over a 4-month period from October 2004 through February 2005, 2,419 women were interviewed shortly after delivery in the three main public and Health Insurance hospitals in Alexandria, Egypt. Of these, 730 (30.2%) were working and 1,689 (69.8%) were not working prior to delivery. A detailed description of working status was analyzed, along with a risk profile which was compared between the two groups. **RESULTS:** There was no significant association between different work characteristics and perinatal outcomes except for that between working posture, stress and delivery of small-for-gestational-age (SGA) babies. There was an excess rate of SGA and perinatal death among the non-working group, while preterm delivery was significantly increased among those who worked throughout the whole pregnancy. After adjusting for confounders, the risk of preterm delivery was no longer significant (OR = 1.2, 95% CI = 0.96-1.7). On the other hand, working status had a beneficial effect on SGA and perinatal death (OR = 0.41, 95% CI = 0.26-0.64 and OR = 0.26, 95% CI = 0.14-0.48, respectively). **CONCLUSION:** These results cast doubt on the risk of adverse pregnancy outcome for women who work during pregnancy. Work per se does not constitute a health risk factor and may even have a positive social impact on pregnancy. Further research on this topic in our region is recommended.

Full-text available at: <http://www.cpha.ca/english/cjph/cjph.htm> (not a U.S. government site)

Cai J, Hoff GL, Archer R, Jones LD, Livingston PS, Guillory VJ.

**Perinatal periods of risk analysis of infant mortality in Jackson County, Missouri.**

J Public Health Manag Pract. 2007 May/June; 13(3):270-277.

The perinatal periods of risk (PPOR) methodology provides an easy-to-use analytical approach to infant mortality that helps focus community initiatives for improving maternal and infant health. Because few analyses have been published, many public health practitioners may be unfamiliar with PPOR. This article demonstrates the application of PPOR analysis using infant mortality in Jackson County, Missouri. While the PPOR consists of two phases, this analysis was restricted to the initial phase of the overall process. The second phase builds on the initial findings and prioritizes the contributing factors of fetal/infant mortality so that targeted interventions can be developed. For Jackson County, the PPOR analysis found that racial and geographic disparities existed and, for very low-birth-weight infants, different interventions strategies may be needed on the basis of race. In addition, a mother who experienced a fetal or infant death was more likely to have had a medical risk factor, to have smoked cigarettes, to have started prenatal care after the first trimester or received no prenatal care, and to have been nulliparous.

Full-text available at: [www.lwwonline.com](http://www.lwwonline.com) (not a U.S. Government site)

Esposito L, Hegyi T, Ostfeld BM.

**Educating parents about the risk factors of sudden infant death syndrome: The role of neonatal intensive care unit and well baby nursery nurses.**

J Perinat Neonatal Nurs. 2007 Apr-Jun; 21(2):158-64.

Nurses in newborn nurseries and neonatal intensive care units are instrumental in educating parents about reducing the risk for SIDS. Nurse participation is acknowledged and encouraged in the current policy statement on SIDS Risk Reduction put forth by the American Academy of

Pediatrics. Despite the decline in SIDS, it remains the leading cause of postneonatal infant mortality, and despite greater public compliance with the risk reduction guidelines there is room for improvement in how effectively and consistently they are disseminated. To facilitate nursing participation as educators, role models, and collaborators in the development of relevant hospital policies and procedures, we review the current recommendations, addressing issues that may serve as barriers to participation, describing the biological plausibility underlying risk-reducing practices, and presenting resources from which nurses may obtain teaching materials and model policies.

Full-text available at: [www.lwwonline.com](http://www.lwwonline.com) (not a U.S. Government site)

Lahr MB, Rosenberg KD, Lapidus JA.

**Maternal-Infant Bedsharing: Risk Factors for Bedsharing in a Population-Based Survey of New Mothers and Implications for SIDS Risk Reduction.**

Matern Child Health J. 2006 Dec 29; [E-pub ahead of print]

Objectives: Maternal-infant bedsharing is a common but controversial practice. Little has been published about who bedshares in the United States. This information would be useful to inform public policy, to guide clinical practice and to help focus research. The objective was to explore the prevalence and determinants of bedsharing in Oregon. Methods: Oregon Pregnancy Risk Assessment Monitoring System (PRAMS) surveys a population-based random sample of women after a live birth. Women were asked if they shared a bed with their infant "always," "almost always," "sometimes" or "never." Results: 1867 women completed the survey in 1998-99 (73.5% weighted response rate). Of the respondents, 20.5% reported bedsharing always, 14.7% almost always, 41.4% sometimes, and 23.4% never. In multivariable logistic regression, Hispanics (adjusted odds ratio [ORa] 1.69, 95% Confidence Interval [CI] 1.17-2.43), blacks (ORa 3.11, 95% CI 2.03-4.76) and Asians/Pacific Islanders (ORa 2.14, 95% CI 1.51-3.03), women who breastfed more than 4 weeks (ORa 2.65, 95% CI 1.72-4.08), had annual family incomes less than \$30,000 (ORa 2.44, 95% CI 1.44-4.15), or were single (ORa 1.55, 95% CI 1.03-2.35) were more likely to bedshare frequently (always or almost always). Among Hispanic and black women, bedsharing did not vary significantly by income level. Bedsharing black, American Indian/Alaska Native and white infants were much more likely to be exposed to smoking mothers than Hispanic or Asian/Pacific Islander infants ( $p < .0001$ ). Conclusions: Bedsharing is common in Oregon. The women most likely to bedshare are non-white, single, breastfeeding and low-income. Non-economic factors are also important, particularly among blacks and Hispanics. Campaigns to decrease bedsharing by providing cribs may have limited effectiveness if mothers are bedsharing because of cultural norms.

Full-text available at: <http://www.springerlink.com> (not a U.S. Government Site)

Barnes-Josiah DL, Eurek P, Huffman S, Heusinkvelt J, Severe-Oforah J, Schwalberg R.

**Effect of "This Side Up" t-shirts on infant sleep position.**

Matern Child Health J. 2006 Jul 1; [E-pub ahead of print]

Objectives: To assess the impact of "This Side Up" T-shirts on parental practices in Nebraska. Methods: A random sample of 3,210 Nebraska women who gave birth in 2004, stratified by race/ethnicity, was mailed a brief questionnaire on their receipt of a T-shirt and SIDS risk reduction materials at their birthing hospital, and on infant sleep position. Results: Response

rates were low (25.9%), ranging from 10.6% for Native American mothers to 46.4% for White mothers. Half (52.0%) had received a T-shirt and 71.6% had received SIDS information. Two-thirds (64.0%) reported that their infants slept on their backs; African-American and Hispanic infants were significantly less likely to back sleep. In univariate logistic regression models, African-American race, Hispanic ethnicity and maternal age 30-39 were significant negative predictors of back sleeping; White race and having received a SIDS brochure were positive predictors. In the fully controlled model African American and Asian race and Hispanic ethnicity were negative predictors of back sleeping; neither receiving SIDS information nor the infant T-shirt was significant. Effects of maternal age and a SIDS informational brochure appeared in models stratified by race/ethnicity. Conclusions: In these data, receiving an infant T-shirt was not related to how mothers placed their infants to sleep. Additional research is needed on effective methods of delivering targeted counseling and promoting safe sleep practices among families, particularly among racial and ethnic subgroups.

Full-text available at: <http://www.springerlink.com> (not a U.S. Government Site)

Moon RY, Kotch L, Aird L.

**State child care regulations regarding infant sleep environment since the Healthy Child Care America-Back to Sleep campaign.**

Pediatrics. 2006 Jul; 118(1):73-83.

Background: Despite overall decreases in sudden infant death syndrome deaths and prone sleeping, the proportion of sudden infant death syndrome deaths that occurs in child care settings has remained constant at approximately 20%. In 2003, the American Academy of Pediatrics' Healthy Child Care America program launched its own Back to Sleep campaign to promote the Back to Sleep message for those who care for young children. Objectives: The purpose of this study was to evaluate the effectiveness of the first 2 years of the Healthy Child Care America-Back to Sleep campaign in improving child care regulations by assessing the inclusion of the elements of a safe sleep environment in the individual state regulations for child care centers and family child care homes. Methods: We examined regulations available in October 2005 for licensed child care centers and family child care homes in the 50 states and the District of Columbia for specific regulations pertaining to (1) sudden infant death syndrome risk-reduction training for child care providers, (2) infant sleep position, (3) crib safety, (4) bedding safety, (5) smoking, and (6) provision of information about sleep positioning policies and arrangements to parents before the infant is enrolled in child care. Results: Since 2003, when the Healthy Child Care America-Back to Sleep campaign began, 60 of the 101 state regulations for either child care centers or FCCHs have been revised. More than half of these regulations written since 2003 mandate a nonprone sleep position and restrictions on soft bedding in the crib, and the change in these regulations since 2003 is statistically significant. However, of the 101 existing state regulations, only 49 require that infants sleep nonprone, 18 mandate sudden infant death syndrome training for child care providers, 81 have  $\geq 1$  crib safety standard, and 43 restrict soft bedding in the crib. Only 4 regulations require that parents be provided with sleep policy information. Conclusions: The initial 2 years of the Healthy Child Care America Back to Sleep campaign have been successful in promoting safe infant sleep regulations. Efforts must continue so that safe sleep regulations exist in all jurisdictions.

Full-text available at: <http://www.pediatrics.org> (not a U.S. Government Site)

American Academy of Pediatrics. Task force on Sudden Infant Death Syndrome.  
**The changing concept of sudden infant death syndrome: Diagnostic coding shifts, controversies regarding the sleeping environment, and new variables to consider in reducing risk.**  
Pediatrics. 2005 Nov; 116(5) 1245-55.

There has been 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 down for sleep in a non prone position. Although the SIDS rate continues to fall, some of the recent decrease of the last several years may be a result of coding shifts to other causes of unexpected infant deaths. Since the AAP published its last statement on SIDS in 2000, several issues have become relevant, including the significant risk of side sleeping position; the AAP no longer recognizes side sleeping as a reasonable alternative to fully supine sleeping. The AAP also stresses the need to avoid redundant soft bedding and soft objects in the infant's sleeping environment, the hazards of adults sleeping with an infant in the same bed, the SIDS risk reduction associated with having infants sleep in the same room as adults and with using pacifiers at the time of sleep, the importance of educating secondary caregivers and neonatology practitioners on the importance of "back to sleep," and strategies to reduce the incidence of positional plagiocephaly associated with supine positioning. This statement reviews the evidence associated with these and other SIDS-related issues and proposes new recommendations for further reducing SIDS risk.

Free Full-text available for downloading at:  
<http://aappolicy.aappublications.org/cgi/reprint/pediatrics;116/5/1245.pdf>  
(Not a U.S. Government Site)

Ostfeld BM, Esposito L, Straw D, Burgos J, Hegyi T.  
**An inner-city school-based program to promote early awareness of risk factors for sudden infant death syndrome.**  
J Adolesc Health. 2005 Oct; 37(4):339-41.

Adolescent, nonwhite women with less than high school education have infants at higher risk for Sudden Infant Death Syndrome (SIDS) but face barriers to risk reduction education. We implemented a novel school-based health education program (grades 4 to 12) and found an association between exposure and awareness of risk factors.

Full-text available at: <http://www.sciencedirect.com> (not a U.S. Government Site)

Blair P, Ward Platt MP, Smith IJ, Fleming PJ.  
**Sudden infant death syndrome and sleeping position in pre-term and low birth weight infants: An opportunity for targeted intervention.**  
Arch Dis Child. 2005 May 24; [E-pub ahead of print].

Aims: Few families now place their infant prone to sleep but many still use the side position, despite strong evidence of a significant association with Sudden Infant Death Syndrome (SIDS). Some maternity hospital staff still advise the side position to parents of pre- term infants. We report the combined effects of SIDS risk factors in the sleeping environment for infants who were "small at birth" (i.e. pre-term [ $<37$ weeks], low birth-weight [ $<2500$ g] or both). Methods: A

three year population-based, case- control study, with parental interviews after each death and reference sleep of age-matched controls. Based in five former Health Regions in England (population 17.7 million) with 325 cases and 1300 controls. Results: Of the SIDS infants 26% were "small at birth" compared to 8% of the controls. The most common sleeping position was supine, both for controls (69%) and those SIDS infants (48%) born at term or  $\geq 2500\text{g}$ , but for "small at birth" SIDS infants the commonest sleeping position was side (48%). The combined effect of the risk associated with being "small at birth" and factors in the infant sleeping environment remained multiplicative despite controlling for possible confounding in the multivariate model. The risk of SIDS associated with being "small at birth" and being put down in the side position (multivariate OR=14.96[95% CI:5.10-43.93]), bed-sharing with parents who habitually smoke (multivariate OR=37.41[95%CI:5.83-239.86]) or being a routine dummy user who did not use a dummy for the last sleep (multivariate OR=17.50 [95%CI:6.14- 49.86]) were each more than multiplicative. For those "small at birth" SIDS who slept in a room separate from the parents the large combined effect (multivariate OR=79.45[95%CI: 18.03-350.20]) showed evidence of a significant interaction ( $p=0.047$ ). No excess risk was identified from bed-sharing with non-smoking parents for infants born at term or birthweight  $\geq 2500\text{g}$  (multivariate OR=1.12[95%CI:0.30-4.27]). Conclusion: The combined effects of SIDS risk factors in the sleeping environment and being pre-term or low birthweight generate high risks for these infants. Their longer postnatal stay allows an opportunity to target parents and staff with risk reduction messages.

Full-text available at: <http://adc.bmjournals.com> (not a U.S. Government Site)

Bredemeyer SL.

**Implementation of the SIDS guidelines in midwifery practice.**

Aust J Midwifery. 2004 Nov; 17(4):17-21.

The literature suggests that midwives strongly influence parenting practices immediately after birth and during early postnatal management of the newborn. Midwives must therefore be aware of the current evidence and public health recommendations for reducing the risk of Sudden Infant Death Syndrome (SIDS) and provide consistent information about use of the supine position. Midwives must also include information about environmental factors that are also known to increase the risk of SIDS such as exposure to cigarette smoke, covering the infant's face during sleep and other potential unsafe sleeping practices such as co-sleeping and bed sharing with their infant. The position midwives use to settle infants and place them for sleep is an important example for parents. The position favored by midwives when placing a newborn to sleep will have a significant impact on parental practice after discharge home. A standardised evidenced based approach to the SIDS Guidelines immediately after birth will facilitate consistency in practice and uniformity in the message parents are given about safe sleeping practices for their newborn infant.

Full-text available at: [http://www.acmi.org.au/text/publications/journal/midwife\\_journal.html](http://www.acmi.org.au/text/publications/journal/midwife_journal.html) (not a U.S. Government Site)

Shaefer SJ, Hutchins E, Buckley K.

**A process to address disparities in rates of sudden infant death syndrome.**

Manag Care Interface. 2004 Nov; 17(11):19-24.

Fetal and Infant Mortality Review (FIMR) is a continuous quality improvement program that leads to improvements in services and resources for families and, ultimately, a decrease in infant mortality. It is an action-oriented process that combines medical data with the mother's report of experiences during the life and death of her infant. The FIMR has proven to be especially important in addressing community issues associated with infant deaths related to sudden infant death syndrome.

Full-text available at: <http://www.medicomint.com/MCI/MCI.asp?T2=200601> (not a U.S. Government Site)

Rusen ID, Liu S, Sauve R, Joseph KS, Kramer MS.

**Sudden infant death syndrome in Canada: Trends in rates and risk factors, 1985-1998.** Chronic Dis Can. 2004 Winter; 25(1):1-6.

In Canada, sudden infant death syndrome (SIDS) remains the leading cause of postneonatal death. However, SIDS rates have been declining in many countries, including Canada. This decline has been largely attributed to recommendations to avoid placing infants to sleep in the prone position. We examined the postneonatal rate of mortality due to SIDS and to other causes in relation to the initial risk reduction campaign. The postneonatal mortality rate due to SIDS decreased from 0.97 to 0.54 per 1,000 neonatal survivors between 1985-1989 and 1994-1998 (relative risk [RR] = 0.56, 95% confidence interval [CI] 0.51-0.62). The rate of postneonatal mortality due to other causes also decreased during the same period, though to a smaller extent, from 1.19 to 0.86 (RR = 0.72, 95% CI 0.66-0.78). With the exception of seasonality, established risk factors for SIDS remained essentially unchanged between the two time periods. The observed reduction in postneonatal SIDS is consistent with a positive impact of the initial recommendations regarding risk reduction. However, the lack of reliable risk factor data limits the extent to which the decline can be attributed directly to the campaign.

Full-text available at: [http://www.phac-aspc.gc.ca/publicat/cdic-mcc/25-1/a\\_e.html](http://www.phac-aspc.gc.ca/publicat/cdic-mcc/25-1/a_e.html) (not a U.S. Government site)

Moon RY, Oden RP.

**Back to sleep: An educational intervention with women, infants, and children program clients.**

Pediatrics 2004 Mar; 113(3): 542-47.

Objective: The incidence of sudden infant death syndrome (SIDS) is 2 to 3 times higher in the black population compared with the US population as a whole. Prone sleeping is also twice as prevalent in black infants. Standard modes of communication (media, brochures) regarding the Back to Sleep (BTS) campaign have been less effective with blacks. The objective of this study was to determine whether a 15-minute educational intervention is effective in changing sleep position practice among black parents. Methods: A trained health educator led 15-minute sessions about safe infant sleep practices for groups of 3 to 10 parents of young infants who attended a Women, Infants, and Children clinic in Washington, DC. We performed pre- and post session surveys, asking about sleep position, reasons for choosing a sleep position, and knowledge of the relationship between sleep position and SIDS. We then interviewed parents 6 months after the intervention and compared this group with a group of parents at a different Women, Infants, and Children site who did not receive the intervention. Results: A total of 310

parents/caregivers participated in sessions from October 2001 to July 2002. Mothers comprised 84.5% of the participants, fathers 6.5%, and other relatives 9.0%. Parents had a mean age of 26.2 years (range: 15–64; standard deviation: 8.3), and 76.5% had graduated from high school. For 51%, this was their first child. Before the intervention, more than half (57.7%) of infants reportedly slept on their back, with the remainder sleeping back/side or side (15%) and prone (17.3%). Approximately 85% (266) of infants were sleeping in the same room as the parents. Only 28.1% of parents initially believed that prone sleeping definitely increases the risk of SIDS. Infants were more likely to be placed supine when previous children were placed supine or when parents had more than a high school education. Parents were also more likely to place infants supine when they believed that prone increases the risk of SIDS, they had previous knowledge of BTS, and they were aware that the American Academy of Pediatrics recommends supine position for infants. Sleep position was not affected by where the infant slept, number of parents in the home, presence of a grandmother in the home, or presence of smokers in the home. Immediately after the intervention, 85.3% planned to place infants on the back, and 55.7% now believed that prone definitely increases the risk of SIDS. When compared with a control group of parents 6 months after the intervention, parents who attended the educational intervention were more likely to place their infants on the back (75% vs 45%), less likely to bedshare (16% vs 44.2%), less likely to cite infant comfort as a reason for sleep position (14.5% vs 29.2%), and more likely to be aware of BTS recommendations (72.4% vs 38.9%). Conclusions: A 15-minute educational session with small groups of black parents is effective in informing parents about the importance of safe sleep position and in changing parent behavior. The effect of the intervention is sustained throughout the first 6 months of life, when the infant is at the highest risk for SIDS. 19 references.

Full-text available at: <http://pediatrics.aappublications.org/cgi/reprint/113/3/542> (not a U.S. Government site)

Rasinski KA, Kuby A, Bzdusek SA.

**Effect of a sudden infant death syndrome risk reduction education program on risk factor compliance and information sources in primarily black urban communities.**

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Background: In the US, a higher incidence of sudden infant death syndrome (SIDS) and a slower decline in the incidence of SIDS has been found among blacks when compared with white infants. The continued racial disparity in SIDS is thought to be attributable to lack of compliance with SIDS risk reduction recommendations. Objectives: To better understand the disparities in SIDS risk reduction behaviors, we sought to study compliance and information sources related to SIDS among primarily black communities in a city with a high SIDS incidence rate before and after a targeted educational campaign. Design: Pre- and post-SIDS Risk Reduction Education Program telephone surveys were performed in targeted Chicago communities with at least 86% blacks. Data collection for Survey 1 was from September 22 to November 4, 1999. Data collection for Survey 2 was from November 17, 2001, to January 12, 2002, 24 months after the aggressive implementation of a comprehensive, ethnically sensitive risk reduction program. Results: Survey 1 analyzed data from 480 mothers with an infant <12 months of age (327 black, 66 white, and 87 Hispanic) and Survey 2 had 472 mothers (305 black, 77 white, and 90 Hispanic). The incidence of nighttime prone sleeping at Survey 1 was 25% among black respondents, 17% in whites, and 12% in Hispanics and decreased (but not significantly) among all groups by Survey 2. Overall, in Survey 2 compared with Survey 1, fewer mothers reported

putting their infants on an adult bed, sofa, or cot both during the day and at night, with the biggest change seen in black mothers for daytime naps. Despite the same educational initiative, blacks increased the use of pillows, stuffed toys, and soft bedding in the sleep environment as compared with whites. More mothers in Survey 2 than in Survey 1 said that they noticed their infants sleeping on their back during the newborn hospitalization. Significantly more black and white mothers in Survey 2 compared with Survey 1 reported that a doctor or nurse had told them what the best position was for putting their infants to sleep, and all 3 groups said that the health care providers indicated that placing the infant on its back was the best sleep position. In examining the relationship between information sources and SIDS risk behaviors, among all groups observation of sleep position in hospital had no effect on behavior after newborn discharge; however, specific instruction by a nurse or doctor in the hospital about how to properly place the infant for sleep influenced behavior after the mother left the hospital. Conclusions: The Surveys indicate the greatest impact of the SIDS risk factor educational initiative targeted at black communities was changing behaviors regarding safe sleep locations by reducing the incidence of infants placed for nighttime and daytime sleep in adult beds, sofas, or cots. Although these data indicate considerable progress as a result of the targeted educational initiative, our findings suggest that cultural explanations for specific infant care practices must be more clearly understood to close the gap between SIDS risk factor compliance and apparent knowledge about SIDS risk factors.

Full-text available at: <http://www.pediatrics.org> (not a U.S. Government Site)

Rowe J.

**A room of their own: The social landscape of infant sleep.**

Nurs Inq. 2003 Sep; 10(3):184-92.

This paper draws on findings of a study in which new and experienced mothers' caregiving practices were investigated, in order to examine social perspectives of infant sleep. Health professionals who work to support early parenting and promote child health and well-being provide guidance to their clients concerning infant sleep cares. Currently, advice is predominantly informed by understandings and strategies derived from Sudden Infant Death Syndrome (SIDS) risk reduction campaigns and behavioural training models. The social context of caregiving is a significant if somewhat neglected perspective. The analysis presented in this paper suggests that in sleep arrangements, a complex social locale is revealed, an elaboration of carers' values and understandings about infants as developing persons, juxtaposed with their own desires and needs. Tensions between child-centered nurturing and adult-focused concerns are expressed and reconciled in caregiving. These understandings may assist health professionals to develop proactive and responsive practices in the area of early childrearing support.

Full-text available at: <http://www.sciencedirect.com> (not a U.S. Government Site)

Moon RY, Gingras JL, Erwin R.

**Physician beliefs and practices regarding SIDS and SIDS risk reduction.**

Clin Pediatr (Phila). 2002 Jul-Aug; 41(6):391-5.

The AAP has alerted pediatricians to the importance of safe sleep environment for infants. The elements of a safe sleep environment include supine sleep position, safe crib, and avoidance of smoke exposure, soft bedding, and overheating. With the Back to Sleep campaign, prone

sleeping among all U.S. infants has decreased to less than 20%, and the incidence of SIDS has decreased 40%. However, the decline in SIDS and prone sleeping has leveled off in recent years. Further declines may be possible with decreasing other modifiable risk factors, such as prenatal and postnatal exposure to cigarette smoking. Prior studies have demonstrated that health care professional advice is influential in determining infant care practices. It is important that physicians caring for infants be aware of the importance of a safe sleep environment and understand other modifiable risk factors for SIDS. We surveyed a random sample of 3,717 physicians in North Carolina and the metropolitan Washington, DC, area to determine knowledge, beliefs, and practices regarding SIDS and SIDS risk reduction among physicians caring for pregnant women and infants. Twenty-three percent (835) responded. Most physicians are aware of prone sleeping and cigarette smoke exposure as risk factors for SIDS. Almost all physicians agree that there are measures that can be taken to reduce the risk of SIDS, and they consider it important to discuss SIDS and SIDS risk reduction strategies with parents of young infants. In spite of this belief, only 56% of family/general practitioners, 18% of obstetrician-gynecologists, and 79% of pediatricians discuss SIDS routinely. Only 35% of pediatricians, 15% of family/general practitioners, and 16% of obstetrician-gynecologists provide written information. In addition, only 38% of physicians recommend supine, while 50% recommend side or back, 6% side, and 7% prone. Only two thirds of pediatricians and one third of family/general practitioners are aware that the AAP recommends supine as the preferred sleep position for infants. Pediatricians are more likely to be aware of the AAP recommendation ( $p < 0.0001$ ) and to discuss SIDS risk reduction strategies with parents ( $p = 0.03$ ). We conclude that many physicians who care for infants are unaware of the AAP's most current recommendation for sleep position and are incorrectly recommending the side position. Physicians may also be unaware of other sleep environment hazards. Further educational efforts must continue for physicians who provide care to pregnant women and children to ensure a continued decline in the incidence of SIDS.

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