Safe Sleep and SUID
A priority area of the Collaborative Improvement and Innovation Network (CoIIN) to Reduce Infant Mortality

What is Sudden Unexpected Infant Death (SUID)?
Sudden Unexpected Infant Death (SUID) is the death of an infant less than one year of age that occurs suddenly and unexpectedly, and where the cause of death is not immediately obvious prior to investigation.\(^1\)

- SUID includes deaths from accidental suffocation and strangulation in bed, Sudden Infant Death Syndrome (SIDS), and unknown causes.
- About 4,000 infants die suddenly and unexpectedly in the United States each year.\(^1\)
- There were at least 267 sudden unexpected infant deaths in Wisconsin from 2007 to 2010.\(^2\)

What is Sudden Infant Death Syndrome (SIDS)?
SIDS is the sudden death of an infant less than one year of age that cannot be explained after a thorough investigation, review of medical history, and complete autopsy.\(^1\)

- SIDS is the leading cause of death among infants aged one month to one year and is the third leading cause overall of infant mortality in the United States.\(^1\)
- Rates of SIDS for non-Hispanic black and American Indian/Alaska Native infants are disproportionately higher than the rest of the population.\(^1\)

Risk factors for SIDS
Although the exact cause of SIDS is unknown at this time, evidence suggests that multiple factors increase an infant’s risk for SIDS. A concept called the triple-risk model describes the convergence of three conditions that may lead to the death of an infant from SIDS—vulnerabilities such as underlying defects or brain abnormalities, critical development periods, and outside stressors such as stomach sleep position, overheating, and secondhand tobacco smoke.\(^3\)

Infant Mortality

- Infant mortality is the death of a baby before his or her first birthday.\(^4\)
- The infant mortality rate is often used to measure the health of communities because many of the same factors affecting the health of infants affect health across entire populations.\(^4\)
- The leading causes of infant mortality include birth defects, prematurity, Sudden Infant Death Syndrome, maternal complications, and injuries.\(^4\)
- There are differences in infant mortality by race and ethnicity. In Wisconsin, black infants are more than twice as likely to die before their first birthday as white infants (Figure 1), and this disparity is greater than the national average.\(^5\)

Figure 1. Infant Mortality Rates per 1,000 Live Births by Race and Ethnicity, Wisconsin, 2011-2012

- Black: 13.5
- Amer. Indian: 10.1
- Laotian or Hmong: 7.3
- Hispanic: 5.4
- White: 5.0
- Overall: 8.0

Source: National Center for Health Statistics, Division of Vital Statistics, Linked Birth/Infant Death Records 2011-2012, CDC WONDER

Collaborative Improvement and Innovation Network (CoIIN)
The Collaborative Improvement and Innovation Network (CoIIN) to Reduce Infant Mortality is a public-private partnership to reduce infant mortality and improve birth outcomes. Wisconsin’s involvement in Safe Sleep and Sudden Unexpected Infant Death (SUID) began with other states in Region V, including Illinois, Indiana, Michigan, Minnesota, and Ohio, and now is being expanded nationally to include 32 states to share best practices and track progress toward shared benchmarks. Other priority areas for Wisconsin include Preconception and Interconception Care, and Social Determinants of Health.

For more information, visit http://www.dhs.wisconsin.gov/healthybirths/coiin.htm and http://mchb.hrsa.gov/infantmortality/coiin/.
Safe sleep recommendations

There are ways to reduce the risk of SIDS and other sleep-related causes of infant death. The American Academy of Pediatrics (AAP) provides the following recommendations for reducing the risk of sleep-related deaths.\(^6\) Table 1 describes the percent of 2013 Wisconsin SUID cases (N=56) and percent of 2009-11 Wisconsin births that followed each AAP recommendation. Breastfeeding, one AAP recommendation, has been shown to be protective against SIDS.\(^6\) Figure 2 describes the percent of mothers that initiated breastfeeding by race and ethnicity in Wisconsin and the United States from 2009-2011.

Table 1. Percent of Wisconsin SUID Cases (2013) and Percent of Wisconsin Births (2009-2011) that Followed Each AAP Recommendation

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>% of Sudden Unexpected Infant Deaths (2013)</th>
<th>% of Births (PRAMS 2009-11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back to sleep</td>
<td>73%</td>
<td>81%</td>
</tr>
<tr>
<td>Use firm sleep surface (crib or bassinet)</td>
<td>22%</td>
<td>X</td>
</tr>
<tr>
<td>Room-sharing without bed-sharing</td>
<td>9%</td>
<td>50%</td>
</tr>
<tr>
<td>Keep soft objects and loose bedding out of crib</td>
<td>13%</td>
<td>X</td>
</tr>
<tr>
<td>Pregnant women receive regular prenatal care</td>
<td>63%</td>
<td>59%</td>
</tr>
<tr>
<td>Avoid smoke exposure during pregnancy and after birth</td>
<td>55% (during)</td>
<td>87% (during)</td>
</tr>
<tr>
<td>Avoid alcohol and illicit drug use during pregnancy and after birth</td>
<td>82% (during)</td>
<td>92% (no alcohol during)</td>
</tr>
<tr>
<td>Breastfeeding</td>
<td>64%</td>
<td>83%</td>
</tr>
<tr>
<td>Pacifier at nap and bed times</td>
<td>5%</td>
<td>X</td>
</tr>
<tr>
<td>Avoid overheating</td>
<td>100%</td>
<td>X</td>
</tr>
</tbody>
</table>

Table 1 includes X to signify no data collected. Source: Wisconsin PRAMS (2009-2011) and Wisconsin SUID Case Registry Deaths from 2013. An infant’s supervisor refers to the individual in charge of ensuring the infant’s safety and wellbeing.

Selected Wisconsin efforts

Partners throughout Wisconsin are working on:

- **Training home visitors** and other public health professionals about effective ways to educate families about safe sleep.
- **Advancing hospital policies** that promote safe sleep practices and education.
- **Developing Fetal Infant Mortality Review (FIMR) teams** through the Keeping Kids Alive initiative. Keeping Kids Alive expands FIMR teams throughout the state to review infant deaths and provide recommendations for prevention strategies.
- **Partnering with Cribs for Kids®** in several Wisconsin communities to educate parents and caregivers on the importance of practicing safe sleep and to provide cribs to families who cannot otherwise afford a safe place for their babies to sleep.

References: