



Report to the Governor and General Assembly

Annual Report for 2007

December 2008

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Foreward

Dr. Gerald Loos, Chairperson

This will be written for the first time in a decade by someone new, as the chairperson for the past ten years, Lon Walker, has returned to military duty. The CDRT, established by law in 1995, still has original members Lois Fingerman, Joseph Cowley, Herman Hein, Virginia Barchman, and Charlotte Burt. I would like to express my gratitude for all their volunteer service. All those who have been part of the committee in their own way deserve a sincere thank you.

Change is a prominent concept being expressed by our aspiring national leaders. The data and recommendations this report provides give us direction for achieving needed change within our own state. We indeed have preventable deaths, as defined by our working definition:

A preventable death is one in which an individual or a community could have reasonably done something that would have changed the circumstances that lead to the death.

Primarily, this report delves beyond legislative solutions. It calls for common sense improvements in the way individuals conduct themselves. Useful resources lead to good judgments and the lack of proper education leads to poor choices. Drug abuse causes inadequate human performance. The action, or inaction, individuals take have far reaching consequences.

The data and recommendations have remained substantively similar over the previous twelve reports. Somehow the message is not being received by the right party. Who will champion the cause? So far, the plan has not been effective. Now is the time for change. We need to protect Iowa's most important resource-its children. As you read this report, I ask you to kindle your passion, use your skills, and change these statistics.

Acknowledgement

We wish to acknowledge the dedication and support of Lon Walker, who served on CDRT since its inception, being chairman the last ten years. Lon's contributions were significant. Over the past decade, data collection has been improved and Iowa began providing information to the National Data Collection System. Lon hosted the first Midwest Conference of state CDRT committees. He spearheaded the 1st statewide conference on child death investigation and prevention. He was active in child endangerment prevention and water flotation device legislation. The passion he demonstrated for preventing needless loss of life among Iowa's children has been exceptional. CDRT would like to extend their sincere appreciation for Lon's contribution. We wish him well as he continues to serve us as a member of the U.S. military.



Executive Summary

Death rates for infants, children, and teens are widely recognized as valuable measures of child well-being. To better understand why and how our children die, the Iowa Child Death Review Team (CDRT) was formed in 1995. The primary goal of the CDRT is to reduce the number of child fatalities through systematic multidisciplinary review, education of professionals and the general public, and recommendations for legislation and public policy. These recommendations are based on team reviews of circumstances surrounding individual cases of child death. The data are used to identify trends that require systemic solutions.

Several recommendations made to the governor and general assembly by the CDRT have been implemented. These include:

- 1. Expand case reviews of children through 17 years of age.
- 2. Improve child safety seat laws.
- 3. Increase penalties for child endangerment resulting in the death of a child.

<u>All</u> child deaths that occur in the state of Iowa are reviewed, even when the child is not a resident. Case reviews provide the team's definition of a preventable death::

A preventable death is one in which an individual or a community could have reasonably done something that would have changed the circumstances that led to the death.

The CDRT considers all accidents and homicides preventable through active intervention (improved parental/caregiver supervision, enactment of laws, and parental action). Deaths due to suicide or medical conditions may be prevented through timely and appropriate interventions to combat depression, bullying, and disease. SIDS and other sudden unexpected infant deaths may be prevented by improving education for parents and caregivers about the risk factors identified by the CDRT for these types of deaths. Natural deaths, which include premature birth, birth defects and cancer are more difficult to prevent. However, reducing second hand smoke exposure, prenatal smoking, alcohol use and illicit drug use by pregnant women is likely to drastically reduce the number of natural deaths.

An eight percent increase in child deaths was noted between 2006 and 2007 with increases in the numbers of natural, accidental, and undetermined manners of death. Fewer children died from homicides and suicides in 2007 than the previous year.



EXECUTIVE SUMMARY

Natural Deaths: The vast majority of Iowa children die from natural means, which include birth defects, premature births, cancers, infections, and chronic illnesses. The 243 natural deaths in 2007 comprise 59 percent of all child deaths.

Accidents: Almost all accidents are preventable. Prevention measures include better adult supervision and caretaker judgment in regard to safety measures. Decisions to enclose swimming pools, install smoke detectors, require helmets when riding bicycles, ATV's, or motorcycles, limit the number of passengers riding with a teen driver, and adhere to seat belt and child safety restraint laws would significantly decrease the number of accidental deaths.

During 2007, 99 children died from accidents, with motor vehicle collisions being the leading cause of death (63%). Teens are more likely to be influenced by peers and other distractions. More than one teen passenger was present in the vehicle in 15 of the total MVC accidents. This can lead to reckless behaviors such as speeding, driving under the influence of alcohol or drugs, and not wearing seat belts.

Drowning in tubs, pools and rivers or lakes accounted for 8.1 percent of accidental deaths. Children less than one year old are most likely to drown in bathtubs. Children one to four years of age are most likely to drown in residential pools. Most of these young victims were last seen in the home, had been out of sight for less than five minutes, and were in the care of one or both parents at the time. Adolescents are most likely to drown in public waterways.



Homicides: During 2007, nine homicide deaths occurred, five fewer than the previous year. Battering caused five child deaths; knife wounds caused one child death; one child was starved to death; vehicular homicide was the cause of death for two children. Biological parents were responsible for four deaths. The mother's boyfriend caused the death of one child. In one case, the caregiver caused the death. A driver was responsible for one death and two others were killed by friends. In some cases, the care provider reacted to stresses of a crying or difficult child. These deaths could have been prevented if the care provider had put the child in a safe place and walked away or used other positive means to defuse the situation. In addition, parents should be careful whom they allow to tend their children and monitor the types of friends selected by their older children.

Suicides: Suicide deaths decreased from 21 in 2006 to 13 in 2007. Yet, this decrease is small and it is devastating that those children are no longer living. Of those children who committed suicide in 2007, eleven were male and two were female. The youngest children were 14. Hanging was the most frequent means of ending a life. The Centers for Disease Control and Prevention has reported that youth suicides using firearms has decreased nationally over the last few years, while hangings have increased. Iowa patterns were consistent with this trend.

EXECUTIVE SUMMARY

Undetermined: The CDRT determined 48 deaths to be of an undetermined manner. The cause of death for 11 of these cases was Sudden Infant Death Syndrome (SIDS). Another 37 cases were called "undetermined" by the team because the infants were bed sharing at the time of death, and patterns of lividity or other evidence did not clearly show if there was wedging or overlying involved. Investigative information could not help the team to determine the specific manner of death.



CDRT RECOMMENDATIONS FOR ELECTED OFFICIALS

- 1. **Require immediate drug screens** of care providers present when a child dies in a suspected accident, homicide or in an undetermined manner. Require immediate drug screens of drivers when there is a fatal motor vehicle collision.
- 2. **Increase the penalty** for driving with an improperly restrained child in a motor vehicle.
- 3. **Expand required autopsies** for children from the current birth through age two years to birth through <u>six</u> years.

- 4. **Establish a statewide system** of local child death review teams to evaluate all deaths of children through 17 years occurring in their regions.
- 5. **Require all child autopsies** to be completed and reported to the state medical examiner's office within three months of the death.

Many of these recommendations do not require additional money to implement. However, they all require action by elected officials to become policy

History of Iowa Death Review Team

In 1995, a new state law established the Iowa Child Death Review Team (CDRT). This law (Code of Iowa 135.43) describes the team membership and the specific responsibilities of the CDRT. Additional legislation was passed in 1998 that protects team representatives from liability while performing their duties to the team and protects entities that supply information to the CDRT for review.

The Child Death Review Team is composed of 14 members and seven state government liaisons. Each member represents a different profession or medical specialty. All of the organizations represented have a documented commitment to helping children thrive and the members volunteer their time to this cause. There is a member representing each of the following: perinatology, pediatrics, law enforcement, social work, mental health, substance abuse, domestic violence, family practice, state medical examiner, county attorneys, SIDS, insurance industry, emergency room, and also a member-at-large.

Liaisons from the following state agencies also participate in review of child death cases: human services, public health, transportation, attorney general's office, education, vital records and public safety. These representatives are selected by their agency director with consideration of their expertise in child behavior, injury and death prevention, and their commitment to team attendance and inter-departmental cooperation.

The Iowa Department of Public Health provides coordination and administrative support for the Child Death Review Team. Since 1995, the Child Death Review Team has reviewed more than 5,312 child death cases. This document is the fourteenth CDRT annual report regarding child death in the state of Iowa and recommends how future child deaths might be reduced or prevented.

The team's responsibilities include:

- Collection review and analyses of child death certificates, data and records concerning the deaths of children ages birth through 17 years, and preparation of an annual report summarizing the team's findings.
- Formulation of recommendations to the governor and general assembly about interventions that could prevent future child deaths.
- Formulation of recommendations to state agencies represented on the CDRT as to how they may improve services to children to prevent future child deaths.
- Maintenance of confidentiality of all records that the team reviews.
- Development of protocols for the CDRT.

The law also specifies the length of team appointment and attendance requirements for the CDRT members. The rules governing the team's operation may be found in the Iowa Administrative Code 641-90(135).

It should be noted that the 1995 legislation mandated reviews of child deaths through age six years. In 2000, that age was expanded to include child deaths through 17 years. In 2005, legislation was passed to allow the state CDRT to recommend to the department of human services, appropriate law enforcement agencies, and other persons involved with child protection, interventions that may prevent harm to a child who is living in the same home as a child whose case is reviewed by the team.

Recommendations for Elected Officials

Recommendation 1: <u>Immediate</u> drug screens should be done by law enforcement personnel on caretakers and people having access to a child just prior to the death. <u>All drivers</u> involved in a fatal motor vehicle accident should be tested for alcohol and drugs at the time of the crash.

Discussion: Alcohol and drugs often play a large part in child neglect, inappropriate childcare, child abuse or in motor vehicle mishaps. It is impossible to assess the involvement of chemical substances in the death of a child if testing for these substances is not immediately done at the death scene on all care providers present when the child dies. Deaths may be inaccurately classified as to cause; perpetrators may go unidentified or unpunished; and the extent of the involvement of chemical substances in child deaths may be under-reported and therefore not addressed social services or legislative action. A law **requiring** this testing would assure that law enforcement in all parts of the state follow this recommendation.

Recommendation 2: The CDRT recommends that an autopsy, including toxicology studies, be encouraged for every child death through age six with the exception of children who are known to have died of a disease process while under the care of a physician or under extenuating circumstances as determined in consultation with the state medical examiner or other forensic pathologist designee. In addition, the team recommends full body X-rays of children who die before their second birthday.

Discussion: An immediate autopsy of a young child who dies helps to accurately pinpoint the precise cause and manner of death. Accurately classifying manner and cause assures that any

RECOMMENDATIONS REQUIRING LEGISLATIVE ACTION

wrongdoing may be adequately and quickly investigated. It also helps to determine preventable factors that led to the death.

Recommendation 3: The CDRT recommends establishing a statewide system of community child death review teams to review deaths of **all** children through 17 years of age occurring in their area. Community review teams offer advantages beyond what the state review offers, as discussed below. These teams should be permitted the same statutory authority given to the state CDRT to gather and review information related to child deaths as long as they operate under strict confidentiality guidelines. Team members would be volunteers, so the cost of operating local teams would be minimal.

Discussion: Establishment of a statewide system of local or regional teams would assure prompt reviews. Expediency of review completion is necessary in order to make timely referrals to DHS. When further investigation is warranted, the agency could become involved quickly to protect surviving children in the home. Under the current retrospective review system, the involvement of community agencies or public education endeavors is delayed by an entire year.

The CDRT conducts retrospective reviews of child deaths so that all records related to the child, such as autopsies and law enforcement investigations, are complete prior to the reviews. The drawback to this method is that if some part of the death investigation was not adequately completed or if questionable information exists on reports, it is most likely too late to obtain that information.

RECOMMENDATIONS FOR ELECTED OFFICIALS

Discussion 3 continued: The optimal time to obtain records is immediately upon their completion. To enact change, records must be collected as soon as they are available. Additionally, communities and individuals are often most receptive to change when a child death has recently occurred. To enact change, recommendations for prevention should be presented when individuals are willing to listen, while the child death is recent.

Local teams are advantageous, as community members are familiar with available services and resources in the area. Members of a local or regional team are at an optimal position to recommend targeted interventions on a community level when any child dies. To enact change, local teams can ensure that certain interventions target the family and community in which the child lived.

Several states, notably North Carolina, Colorado and Missouri, have developed statewide systems of county multi-disciplinary child death review teams. These teams meet immediately following the death of a child to share their information, determine what else needs to be done, conduct public education activities for prevention of future child deaths, and send reports of their reviews to the state child death review team.

Formal authorization for sharing confidential records expedites the review process at all levels. Communication assures complete and thorough review of each death by two competent panels of reviewers, one at the local level and one at the state level. Only four Iowa counties (Polk, Dubuque, Pottawattamie and Scott) currently have local review teams. Most of these teams review only infant deaths or child abuse-related deaths. With the expansion of the state's CDRT to include children through age 17 years, local team reviews should also include all children. As with the state team, these four local teams try to use what is learned in reviews to prevent future deaths.

Recommendation 4: The CDRT recommends that children be given more adequate treatment options for mental health and substance abuse.

Discussion: Children should be treated for the underlying causes of mental health and substance abuse issues. When a child begins exhibiting flu symptoms, a common response for caregivers is head straight to their pediatrician. Surprisingly, many problems seen by medical doctors include a psychological component. Just like the physical problems, the prognosis is better when the mental health problem is treated early. Unfortunately, there is a great disparity between treatment of medical ailments and mental health concerns. In fact, it is estimated that over 15 million children and teens have a mental health or substance abuse problem. Furthermore, according to the United States Surgeon General, about 5 million American children suffer from a serious mental health illness (one that significantly interferes with their dayto-day life). Unfortunately, only one in five of the children with a mental health problem get treated.

Addressing concerning behaviors in a professional setting is of great benefit to both children and the family. Once behaviors are identified and addressed, caregivers may find reassurance that their child's behaviors are developmentally appropriate. This alone can alleviate tension and

RECOMMENDATIONS FOR ELECTED OFFICIALS

Discussion 4 continued: provide an avenue for caregivers to discuss ways to best respond to these behaviors. Or, if behaviors are found to be associated more with a mental health concern, an appropriate course of treatment can be pursued.

Diagnosis and early detection is crucial for the well-being of these children. Children can recover from their mental illness or successfully control their symptoms if they are treated appropriately and early. However, without treatment, many mental disorders can continue into adulthood and lead to problems in all areas of the person's adult life. Individuals with untreated mental disorders are at high risk for many problems. These problems include but are not limited to substance abuse, violent behaviors, self-destructive behaviors, and even suicide.

Recommendation 5: The CDRT recommends support for legislation limiting the number of passangers in vehicles driven by teens.

Discussion: The National Highway Traffic Safety Administration states that beginning drivers are more likely to be involved in a fatal crash when carrying passengers. Iowa data support this conclusion. Every additional teen in the car increases the risk. Limiting teens to carry no more than one passenger under twenty-one years of age will protect teen drivers and teen passengers.

Recommendation 6: The CDRT recommends that teen drivers be given expanded training on hazardous condition driving.



Discussion: Teens who take drivers education during the summer or fall months may never have the opportunity to practice driving in inclement weather. They are unprepared for the hazards of icy roads and winter weather conditions. A separate driver's education course should be available to practice hazard recognition, speed management, and driving on gravel roads. Curriculum and simulators for specialized training exist, every teen driver should have access to the courses.

Recommendation 7: The CDRT recommends that every residence have operational smoke detectors and have an accessible exit route in case of emergency.

Discussion: Present and operational smoke alarms quickly alert families when a fire occurs. House fires often occur at night, when the children are asleep. Awakening quickly is essential for escape. As well, exit routes must be accessible and not difficult to maneuver. Children should be taught what to do in the event of a fire and practice drills at home.

Recommendation 8: The CDRT recommends passage of the statewide shaken baby syndrome prevention program.

Discussion: Shaken baby syndrome deserves specific attention due to its devastating effects. The abuse causes the deaths of children every year. Survivors require intensive and expensive care, instead of the healthy lives they should have led. The prevention program is an intervention aimed at parents and caregivers of newborns.

Recommendations for State Agencies

Recommendations to the Iowa Department of Human Services

Recommendation 1: The CDRT recommends that allegations of abuse be assessed when a child has died due to ignorance, neglect or aggression, of the caretaker. The safety of the surviving siblings of the deceased child should be assessed within 24 hours of the report to DHS.

It is recognized that the Iowa Department of Human Services has made much progress in addressing this issue. In addition, it is recognized that DHS staff cannot investigate situations if they are not notified. The strategy for decreasing response time is use of local review teams capable of alerting DHS. The local teams would be in a position to notify authorities and advocate for protection of surviving children.

DHS uses the assessment approach statewide to respond to reports of child abuse. This approach mandates evaluating the alleged abuse, taking needed actions to safeguard the child and engaging the family in services to enhance family strengths and address identified needs. This approach facilitates providing needed services to children and families. Delayed autopsy results and delayed caretaker drug testing results, along with inconclusive or nonexistent law enforcement investigations, hamper the ability of DHS to intervene with surviving children when abuse may have been involved in the death of a sibling.

Recommendation 2: The CDRT recommends long term close monitoring of children after they have been returned to their parental home or after a



parent who has been incarcerated returns to the home. Special attention should be given to substance abuse by the parent(s) and unsafe surroundings in the child's home. Multidisciplinary team staffing and contacts with the parent's probation officer are suggested for these types of cases.

Recommendation 3: The CDRT recommends removal of very young children (less than 4 years) from unsafe family situations while parents work to improve the home environment. Close follow up with the family to monitor its progress should be made for <u>one year</u> after the child is back in the home, and frequent visits to the home should be made.

In addition, any caseworker entering a home should perform a home safety check. The results should be reviewed with the parents, and the safety check should be repeated at a later date to evaluate improvements.

Recommendation 4: The CDRT recommends that all foster care parents be required to learn and become certified in child and infant CPR and that they be required to be re-certified in this procedure every two years. In addition, foster parents should be required to have extensive education regarding appropriate sleep practices and environment for infants. Their homes should be assessed for secondhand smoke exposure and safety before they are accepted into the foster care program.

RECOMMENDATIONS FOR STATE AGENCIES

Recommendations to Agencies that Promote Early Childhood Health & Education

State agencies that serve young families should pay special attention to the following recommendations when forming their programs.

Recommendation 5: The CDRT recommends enhanced statewide education of parents and other care providers and health care professionals who regularly come in contact with new parents. This education should focus on all risk factors related to an infant's sleep environment (including hazards of bed sharing) and to tobacco exposure before and after birth.

Recommendation 6: The Child Death Review Team recommends increased education for parents on the hazards of delayed medical care, secondhand smoke exposure, inappropriate dosing of medications and drug interactions. It further recommends enlisting the cooperation of hospitals to include this education for new parents both verbally and in their discharge packets.

Recommendation 7: The Child Death Review Team recommends increased emphasis on child safety and health promotion education to parents, care providers, and older children. It further recommends that agencies and programs that have or work with established health care and prevention organizations and programs collaborate in this effort.

Recommendations to the Commission of Uniform State Laws

Recommendation 8: The CDRT recommends that the Commission on Uniform State Laws propose legislation in Iowa and promote the passage of legislation in other states, which would facilitate the exchange of medical, investigative, or other information pertaining to a child death.

This legislation should include the following language: "A person in possession or control of medical, investigative, or other information pertaining to a child death and child abuse review shall allow the reproduction of the information by the Child Death Review Team of another state operating substantially in conformity with the provisions of this chapter, to be used only in the administration and for the duties of that Child Death Review Team and provided that state grants reciprocal exchange of such child death information to Iowa's Child Death Review Team. Information and records that are otherwise confidential remain confidential under this section. A person does not incur legal liability by reason of releasing information to a Child Death Review Team as required under this section." A meeting between Iowa's CDRT and representatives from other child death review teams was held in Des Moines in April 2000. One of the main objectives of that conference was to discuss better sharing of information among states. All state team representatives agreed that they also have problems collecting information from other states, and they would support an interstate agreement that would expedite and ease the process.

RECOMMENDATIONS FOR STATE AGENCIES

Recommendations to the Iowa Law Enforcement Academy and the Department of Public Safety Basic Academy

Recommendation 9: The CDRT recommends follow-up by law enforcement officers of all cases involving potentially life-threatening injuries resulting from any accident for all children of any age. In the event that an injured child dies either in-state or out-of-state from an injury that occurred in their jurisdiction, a thorough investigation of the circumstances surrounding the accident should be conducted by law enforcement. Law enforcement agencies will need to work with hospitals in their area to assure that medical personnel notify law enforcement of child deaths occurring in these types of circumstances. **Recommendation 10:** The CDRT recommends that all law enforcement agencies follow the Child Death Scene Investigation Protocol and that the report forms be filled out and submitted quickly to the proper entity. Iowa Law Enforcement Academy curriculum should emphasize the importance of a thorough investigation, including death scene recreation photographs and sketches. All forms are available on the IDPH Web site at: <u>www.idph.state.</u> <u>ia.us/do/medical_examiner_forms.asp.</u>

Recommendation to the Iowa Department of Public Health

Recommendation 11: The Child Death Review Team recommends that the Bureau of Emergency Medical Services increase efforts to promote use of the Death Scene Investigation Form.



CHILD DEATH REVIEW TEAM ACCOMPLISHMENTS

During the 2007 calendar year, the members of the Iowa Child Death Review Team took a very serious and proactive approach to help save Iowa's children from early deaths. These accomplishments focused primarily on education, meetings and awareness-building activities around the state.

Specifically, in addition to reviewing 412 cases of child death, the members of the CDRT:

Advanced awareness among health professionals and the public by giving presentations about child abuse, suicide, SIDS and other accidental sleep related infant deaths.

Participated in training for the purpose of preventing Shaken Baby Syndrome around the state.

Promoted and recommended American Academy of Pediatrics' safe sleep guidelines for infants so that the public and health care providers would be alerted to the dangers of bed sharing.

Worked with the Iowa State Medical Examiner to widely disseminate the revised Child Death Scene Investigation Form to law enforcement personnel and county medical examiners.

Worked with the Iowa State Medical Examiner's office to identify deceased children who should have been autopsied but were not and to identify deceased children who should have been medical examiner cases.

Worked more closely with the Bureau of Family Health at IDPH to disseminate child safety and health care information to families, health care professionals and child care providers. Worked more closely with other programs coordinated by IDPH to share public information about child deaths such as the child's name and county of residence so that other programs would refrain from unknowingly contacting the grief-stricken parents.

Worked with the National Child Death Review Center to have Iowa participate in the Child Death Review data base pilot project. The inclusion of Iowa's information into the data base ensures that deaths of children are acknowledged, understood and addressed on the national level.

Worked closely with the Iowa Department of Human Services liaison to the team to assure that surviving children in the home are protected from potentially abusive or substance-abusing parents or care providers.

Began planning a statewide conference on child death investigation and prevention. The target audience is to include nurses, social workers, medical examiners, day care providers, physicians, attorneys, police officers and emergency medical service personnel.

Provided training in the use of the Death Scene Investigation (ME-4) forms to the Iowa Police Academy.

IOWA YEAR 2007 Deaths of Children Ages Birth through 17 Years by County of Residence

Adair2Floyd2Monona0Adams0Franklin2Monroe0Allamakee3Fremont0Monrgomery4Appanoose2Greene0Muscatine0Audubon1Grundy1O'Brien4Benton2Guthrie0Osceola2Black Hawk16Hamilton3Page1Boone4Hancock1Page1Boone4Hancock1Plob Alto2Bremer2Hardin0Plymouth4Buchanan2Harrison2Pocahontas0Butler1Howard3Poltawattamie17Calhoun1Humboldt1Poweshiek2Carroll6Ida1Ringgold4Cass0Iowa3Sac8Cedar1Jackson7Scott26Cerro Gordo6Jasper1Shelby2Cherokee2Jefferson0Sioux8Chickasaw0Johnson12Story6Clarke3Jones1Tana1Clay4Kossuth2Union2Crawford6Linn18Wapello5Dallas2Louisa1Washington2Decatur3Lyon0 <th>County</th> <th>Number</th> <th>County</th> <th>Number</th> <th>County</th> <th>Number</th>	County	Number	County	Number	County	Number
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	Fayette	2	Mitchell	2	Wright	3

Number of Out-of-State Children Ages Birth through 17 Years Dying in Iowa in 2007

State	Number	State	Number
Nebraska	5	Missouri	1
Texas	1	New Jersey	1
Illinois	8	Florida	1

2007 Child Deaths

BY AGE GROUPS, RACE/ETHNICITY AND GENDER

A total of 412 children ages birth through 17 years died in 2007.

The age classifications used in this report are birth through 28 days (neonatal), 29 days through 364 days (post-neonatal), and 1 through 17 years (child). The race/ethnicity attributed to the child is that listed on the birth certificate for the mother. The majority of deaths occurred among whites, followed by Hispanics. Because Iowa's population is primarily white, these results are to be expected. However, prevention messages and intervention programs must be careful to target <u>all</u> cultural and ethnic groups across the state in the manner most accessible and useful to each group.

Race/Ethnicity	Male	Female	Total	% of Total
White	190	139	327	80.6
Native American	1	0	1	0.5
Hispanic	27	16	43	9.4
Black	16	20	34	8.1
Asian	1	2	3	1.3
Total	235	177	412	100

Race/Ethnicity	Male	Female	Total	% of Total
White	37	30	67	72
Native American	0	0	0	0.0
Hispanic	8	3	11	11.8
Black	4	10	14	15.1
Asian	1	0	1	1.1
Total	50	43	93	100

BY AGE GROUPS, RACE/ETHNICITY AND GENDER

2007 Neonatal Deaths by Race/Ethnicity and Gender					
Dago /Ethricity	Mala	Formala	Total	% of Total	
Race/Ethnicity	Male	Female			
White	65	47	112	74.7	
Native American	1	0	1	7	
Hispanic	12	9	21	14	
Black	6	8	14	9.3	
Asian	3	2	2	1.3	
Total	84	66	150	100	

2007 Child Deaths by Race/Ethnicity and Gender

Race/Ethnicity	Male	Female	Total	% of Total
White	88	61	149	88
Native American	0	0	0	0.0
Hispanic	7	4	11	6.5
Black	7	2	9	5.5
Asian	0	0	0	0
Total	102	67	169	100



2007 CHILD DEATHS MANNER OF DEATH

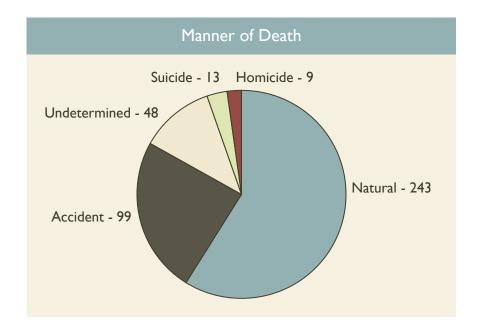
The attending physician or medical examiner records the manner of death on each death certificate. Five manners of death relate to deaths of children:

Natural means the death was the result of some natural process, such as disease, prematurity/ immaturity or congenital defect. Most deaths by this manner are considered by the CDRT to be non-preventable. However, many deaths from prematurity or congenital defects might be prevented through better counseling during preconception and pregnancy, earlier or more consistent prenatal care and smoking cessation.

Accidental means the death resulted from some unintentional act. This manner of death is most effectively reduced through education of all child parents and care providers to provide a safe environment with adequate supervision. **Homicide** means the death was caused at the hands of another individual but not necessarily with the intent to kill.

Undetermined means that investigation of the circumstances and examination through autopsy did not clearly identify the way in which the death occurred. SIDS is included in this category, since this cause is determined by the absence of other signs rather than by a clearly identified finding.

Suicide means that evidence exists that the child intentionally caused his or her own death.



NATURAL DEATHS

In 2007, 243 Iowa children died of natural causes.

The majority of child deaths in Iowa result from natural causes, as natural deaths comprise 59 percent of all child deaths. The deaths in this group were due to eight causes, predominately premature birth and congenital defects incompatible with life. Of natural deaths, 38.7 percent are directly attributed to prematurity. The majority, 77.4 percent, of natural deaths occurred among children less than one year of age.

Preventing Natural Deaths

1. Parental drug use is associated with premature birth and poor outcomes; efforts should focus on reducing substance abuse in Iowa families. Screening provided to pregnant mothers should be widespread. As well, education should specify the effects of illegal and legal substance ingestion while Deaths from Sudden Infant Death Syndrome (SIDS), although sometimes coded as natural on death certificates, are considered separately in this report as part of the undetermined cause.

pregnant or around children. Appropriate services should be available for babies whose mothers test positive for illegal substances.

2. Interventions, including smoking cessation and avoidance of all street drugs, should begin prior to conception. Prospective fathers and mothers should be physically mature and healthy. Women of child bearing age should consume folic acid to prevent neural tube defects. Damaging substances of any sort, including alcohol, tobacco, certain prescription medications and all street drugs must be avoided.

Causes of 2007 Nat	tural Deaths o	of All Children Thro	ugh 17 Years of Age
Cause	Number	% of Natural	% of All Deaths
Cancer	17	7	4.1
Cardiovascular	31	12.8	7.5
Congenital Defects	52	21.4	12.6
Pneumonia	10	4	2.4
Prematurity	94	38.7	22.8
Other Infection	12	4.9	2.9
Other Perinatal			
Condition	4	1.7	1
Other Medical			
Cause	23	9.5	5.6
Total	243	100	59

NATURAL DEATHS

3. Prenatal care should begin as early as possible, and regular prental visits should be continued.

4. Prenatal visits should include patient-specific education and interventions aimed at modifiable risk factors such as tobacco, alcohol and drug use. Prenatal visits should include intensive smoking cessation counseling if the mother currently smokes.

5. Genetic counseling, available through the University of Iowa regional clinics or private sources, should be recommended to, and used by, parents with potential genetic problems, especially to those who have given birth to children with congenital anomalies, to identify and make the parents aware of the possibilities of future problems. 6. Iowa's hard to reach populations, such as certain cultural and ethnic communities, should have culturally-targeted education on the necessity for quality and timely prenatal care, potential hazards of home births, and preventive care and practices relating to young children.

7. Hospitals should evaluate the mental stability and intellectual capacity of mothers prior to discharge after a new baby is born. Referrals to social services, DHS or local Empowerment agencies should be made if there are concerns about a mother's ability to parent.



ACCIDENTAL DEATHS

In 2007, 99 children died from accidental trauma.

Accidental trauma is considered preventable, but to prevent it requires the efforts of many people including the victim, the family and the community. Education of community members, parents and care providers can help prevent accidental deaths among <u>all</u> age groups.

Motor vehicle crashes (MVC) were the leading cause of accidental death for Iowa children. Teens drive faster and do not control a car as well as more experienced drivers. Hazardous driving conditions, including ice, wet roads and gravel roads contributed to twenty-one deaths. Specific training stating the risks of inclement conditions and providing practice would give teen drivers tools to handle those situations more effectively.

Teenage drivers who had been drinking contributed to the deaths of six teens. The consumption of alcoholic beverages is associated with other risky behaviors, such as improper seatbelt use and driving at excessive speed. Teens should not be drinking alcohol, and providing alcohol to minors should not be tolerated.

Pedestrians were the victim in six motor vehicle accidents. Car safety does not end when one steps out of the vehicle. Pedestrians must be vigilant about watching for oncoming traffic, as well as adhering to crosswalks when crossing streets. Drivers must also be aware of the activities of individuals outside the vehicle.

Drowning and crushes were the second and third leading causes of accidental death in Iowa. Open bodies of water posed the most danger, as six children died in lakes or rivers. Children one to four years of age were most likely to drown in residential pools. No children were wearing flotation devices and in four cases there were no barriers to the water.

Representative Cases:

A three-year-old boy died after being run over by the farm wagon he was playing around.

A two-year-old girl died after she pulled a television off its stand and was crushed.

A 17-year-old girl died after being a passenger of a vehicle struck by the vehicle of another teenager. All teenagers involved had been drinking alcohol at a party.

The CDRT believes that better adult supervision could have prevented many deaths. Parents and other caregivers need to know where young children are at all times.

Adults should stress bicycle, all terrain vehicle (ATV), motorcycle and automobile safety, including the use of seat belts, child restraint systems, and helmets when appropriate. Driver's training curricula should be reviewed periodically and revised as necessary. Rural areas should teach students about hazards unique to gravel roads and uncontrolled intersections. Children under the age of 16 should not be allowed to drive any snowmobiles, ATV's, or go-carts. Adequate instruction and supervision should be provided to older children before they drive these vehicles.

Fences, locked gates and pool alarms should be used to prevent children from unknowingly wandering into yards with swimming pools. Adults should be present to supervise anytime children are playing near a pool.

Parents and caregivers should make sure smoke alarms are in operational order at all times. Children should be taught alternative escape routes from their residence.

All adults who care for young children should adhere to safe bedding guidelines recommended by the American Academy of Pediatrics and the Consumer Product Safety Commission.

Firearms should be locked away and ammunition kept in a separate, locked area, even if children have been taught firearm safety.

ACCIDENTAL DEATHS

Causes of 2007 Natural Deaths of All Children Through 17 Years of Age				
Cause	Number	% Acc. Deaths	% of All Deaths	
ATV Accident	3	3	0.7	
Drowning	8	8.1	1.9	
Crush	7	7.1	1.7	
Farm Accidents	1	1	0.2	
Overlying	4	4	1	
Gunshot	1	1	0.2	
House Fire	3	3	0.7	
MVC	56	56.6	13.6	
MVC/Pedestrian	6	6.1	1.5	
Motorcycle	2	2	0.5	
Poisoning	1	1	0.2	
Strangulation/				
Wedging	5	5.1	1.2	
Overheating	2	2	0.5	
Total	99	100	24	

Preventing Accidental Deaths

1. Children seventeen and under should always be properly restrained when riding in motor vehicles of any type. Care should be taken that the child restraint device being used is of the correct type (i.e. infant seat or booster seat) and has been properly fitted to the child. The device should also be installed properly, and the child must be correctly positioned and fastened in the restraint system.

2. Children should ride in the rear seats of vehicles and child safety door locks should be used when available. Automobiles should be kept locked when not in use.

3. Individuals who have repeatedly demonstrated unsafe driving should not be permitted to continue driving. Stronger penalties for multiple offense drivers should be instituted. 4. The law should require the use of bicycle helmets, and the requirement should be strongly supported by parents, teachers and caregivers.

5. Parents and other drivers should check behind <u>all</u> motor vehicles, including farm equipment, before backing up any vehicle.

6. Parents, grandparents, foster parents, day care providers and other caregivers should learn first aid, administration of CPR, and the Heimlich maneuver for infants and children.

7. Extremem vigilance should be practiced whenever children are in, around, or near water including bathtubs, pools and large bodies of water, regardless of the water depth. Parents and caregivers need to be cautioned that children must never be left alone in the water, even momentarily.

ACCIDENTAL DEATHS

Children playing near lakes, ponds and rivers should use life jackets as a precaution. In addition, children should be taught to swim as early as possible.

8. Home pools should be surrounded by fencing and have locked gates. To prevent unsupervised play by curious children, wading pools should be emptied immediately after each use. Likewise, fencing should be put around decorative ponds in residential areas.

9. Smoke alarms should be installed in every house, apartment and trailer home and checked frequently to assure their continuing operability.

10. Children less than 16 years of age should never operate an all terrain vehicle. Young children should not ride on all terrain vehicles.

11. A responsible person should supervise children at play, especially if potentially dangerous equipment or a hazardous apparatus is in or near the play area. **This supervision is especially important in areas** where open septic tanks, manure pits or grain bins may be accessible to the children.

12. Firearms should be stored unloaded and in a locked receptacle, and ammunition should be stored in a separate, locked receptacle, with both keys unavailable to children.

13. Children should not ride on farm equipment unless it is in a closed cab that has securely fastened doors, and they are under the direct supervision of an adult.



14. Matches and lighters should be stored only in safe places that are unknown to young children. Parents should teach all children about the dangers of matches and lighters.

15. Children should be well supervised by a competent and alert adult at all times. The adult should be capable of, and attuned to, evaluating potential dangers in the child's environment and continually monitoring their surroundings for possible hazards.

16. Infants and young children should sleep **only** in a safety-approved crib and **alone**. Cribs should not be purchased at garage sales or secondhand stores where they may not meet Consumer Product Safety Commission requirements.

HOMICIDE

In 2007, 9 children were homicide victims. The relationship between the victim and the

perpetrator varied. Specifically, of the nine deaths: a mother or father, alone, was responsible for the death of two children. A boyfriend of one child's mother was responsible for his/her homicide. In two of the homicides, both parents were responsible for the deaths. A caregiver caused the death of one of the children. Two other children were killed by friends. A driver was found to be responsible for one death.

Parents must be very discriminating about the adults they bring into close contact with their children and the individuals their children associate with.

Homicide deaths among very young children (less than one year old) are often the result of beating or shaking the baby. When a young child is the victim, it is often an indicator of frustration on the part of the parent or caregiver. Childcare is stressful, and when these stresses escalate, caregivers need someone to call or some other outlet. Information about these

Representative Cases:

A two-year old boy was abused and died after being smothered by his mother's boyfriend.

A seventeen-month-old girl died of dehydration after being neglected by her parents.

resources should be given to all new parents before or after the baby's birth to help prevent future child homicides. Early intervention saves lives.

Preventing Youth Homicides

1. Mothers should be cautioned about careful selection of individuals who care for their children, most especially paramours. Reports of criminal history can be obtained at reasonable charge from local police departments.

2. Inexperienced parents should be linked with a mentor to whom they can turn when they have questions or are stressed.

3. The frequency and content of public service announcements that illustrate the importance of parents or other caretakers taking a "time out" when the stress of childcare becomes overwhelming should be improved.



HOMICIDE

4. After the birth of every new infant, parents should be given a list of respite care resources/ options and emergency numbers at the time of hospital discharge. These resources should also be discussed at prenatal visits.

5. Parents should carefully and consistently monitor the friends with whom their children associate and enforce strict curfews.

6. Firearms and ammunition should be locked in separate cabinets to prevent access when children are unsupervised.



SUICIDE

Suicide was the manner of death of 13 Iowa children in 2007.

In 2007, thirteen youths died from suicide. Three times as many males as females committed suicide, and the youngest victim was fourteen. Several victims had a history of family or school problems, and some had used drugs and/or alcohol. Hanging was the primary method used by these children.

The Centers for Disease Control and Prevention published information during 2004 stating that, nationwide, the trend for using a firearm is down, and suicide by hanging is increasing. Iowa youth followed the trend in 2007.

Identified risk factors for suicide and attempted suicide for young people include: mood disorders, substance abuse, certain personality disorders, low socioeconomic status, childhood maltreatment, parental separation or divorce, inappropriate access to firearms and interpersonal conflicts or loss.

Adolescents often experience stress, confusion, and depression from situations occurring in their families, schools, and communities. Such feelings can overwhelm young people and lead them to consider suicide as a "solution."

In several of the child suicide cases in 2007, it was evident that the primary caregivers lacked the necessary tools and skills to be an effective parent. Several of the children had been the victims or perpetrators of abuse. When parents are unable to properly care for their child, the community should take the appropriate responses to ensure that

Representative Cases:

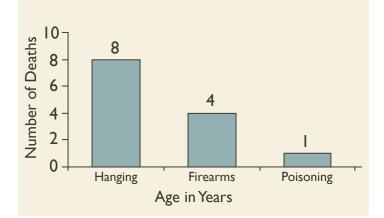
A 16-year-old boy with a history of behavior problems and substance abuse committed suicide by overdosing on medication.

A 16-year-old boy who grew up in an abusive environment and had received mental health services committed suicide by shooting himself.

A 15-year-old girl was found dead by family members after she hanged herself in her room. She left a note but the death was unexpected by others.

the child is not continually exposed to a harmful environment.

Parents should make great efforts to monitor their child's behavior so tht they can tell if the child becomes withdrawn, sullen or exhibits radical changes in behavior. When necessary, they should confer with school officials to assess modified behavior and address it in a non-threatening, compassionate manner.



2007 Suicides by Method All Children through 17 Years of Age

SUICIDE

Preventing Suicides

1. Parents should seek early treatment for children with behavior problems, possible mental disorders and substance abuse problems.

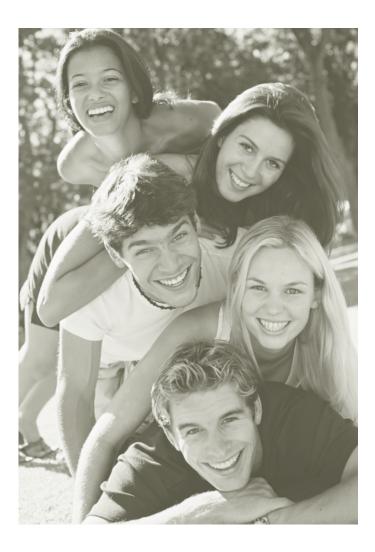
2. Limit young people's access to lethal means of suicide, particularly firearms.

3. Health care plans should be encouraged to cover mental health and substance abuse on the level physical illnesses are covered.

4. Schools should implement mental health screening programs for children. Teachers should be educated about suicide risk factors and resources to which they may refer children for assistance.

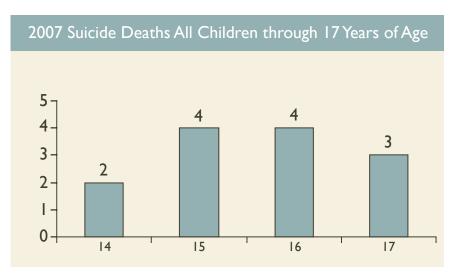
5. Children who have attempted suicide or displayed other warning signs should receive aggressive treatment attention.

6. Parents should gain the tools required to provide effective care to their children.



2007 Suicide Deaths by Gender and Race of All Children Through 17 Years of Age

Male Female		White Hispanic	
Total	13	Total	13



UNDETERMINED/SUDDEN UNEXPLAINED INFANT DEATHS (SUID)

In 2007, 48 child deaths could not be attributed to a specific cause.

Undetermined manner of death includes any death that cannot be classified as natural, accident, suicide or homicide.

Of the 48 deaths for which autopsies failed to pinpoint a specific cause, 11 of these cases were found to be SIDS. The remainder were unable to be determined due to risk factors being found in the sleep environment, incomplete death scene investigations or other undetermined causes.

In past years, the cause of death for infants dying while bed sharing was almost always called SIDS. While reviewing deaths in 2005, the team became concerned about the number of infant deaths occurring in a bed sharing situation. An ad hoc committee was appointed to develop a classification scheme to more consistently and accurately define these undetermined infant deaths. The group agreed that sudden unexplained deaths of infants ranging in age from birth to one year should be carefully evaluated based on the autopysy results and the death scene investigation and medical history.

Representative Cases:

After a night of partying, a mother slept on a bed with her two children. When the mother woke up, her five-month-old daughter was unresponsive.

A father put his 4-month-old son to bed at night, face-down. The baby was cold to the touch when the father checked on him the following morning.

A relative fed a two-month-old and put her into the crib. In thirty minutes, the caregiver checked on her, but the baby was not breathing.

If the autopsy indicates no pathologic process, the child was bed sharing at the time of death, and the patterns of lividity and/or death scene information indicate probable overlying or wedging, the manner of death would be classified as "Accident" and the cause of death as "Overlying" or "Wedging." If the child was bed sharing, but the death scene investigation and autopsy were inconclusive, the death would be manner "Undetermined" and cause "Undetermined." If the child was not bed sharing or wedged, the death would be manner "Undetermined" and cause "SIDS".

Further, the CDRT noticed deaths occurring in the child care setting. The relationship between safety in childcare and mortality, accidental or SIDS related, must not be overlooked. This is a trend the team will continue to monitor.

Sleeping Surface at Time of Death 2007 SUID Cases						
Surface	Undetermined	SIDS	Accident	Total		
Crib	3	7	0	10		
Bassinet	3	0	0	3		
Adult Bed	15	1	3	19		
Sofa	2	0	2	4		
Car Seat	3	1	0	4		
Playpen	5	1	0	6		
Other/						
Unknown	6	1	0	7		
Total	37	11	5	53		

UNDETERMINED/SUDDEN UNEXPLAINED INFANT DEATHS (SUID)

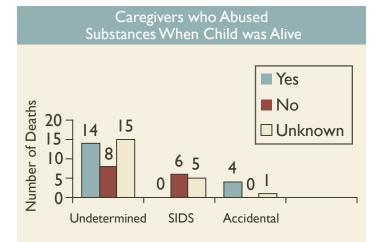
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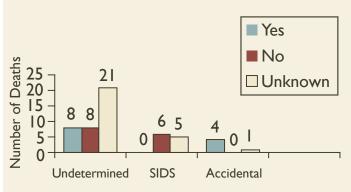
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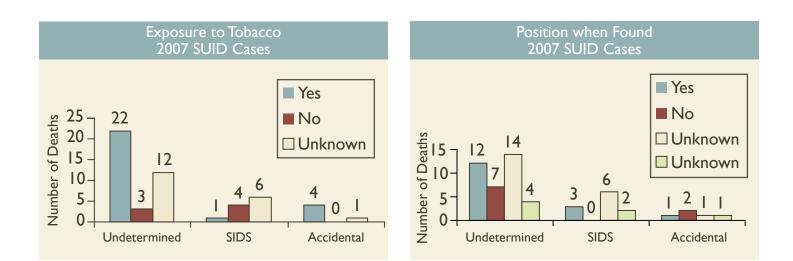
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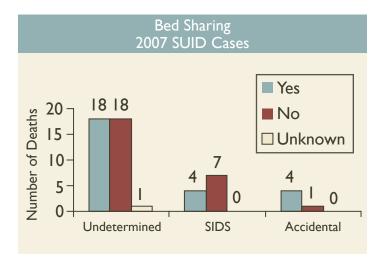


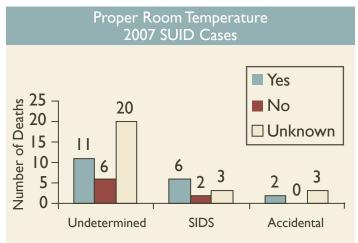
Known Substance Impaired Caregivers at Time of Death



UNDETERMINED/SUDDEN UNEXPLAINED INFANT DEATHS (SUID)







SUDDEN INFANT DEATH SYNDROME

In 2007, Sudden Infant Death Syndrome (SIDS) was the cause of death of 11 infants in Iowa.

SIDS is a diagnosis of exclusion; there are no pathological markers that distinguish SIDS from other causes of sudden infant death. It is specified as the cause of death when all other causes have been eliminated based on autopsy results, death scene investigation and clinical history. Although SIDS is generally considered a natural manner of death, the CDRT considers <u>all</u> SIDS deaths to be undetermined manner based on this definition of SIDS.

Risk factors for SIDS and SUID include prenatal smoking, exposure to secondhand tobacco smoke, sleeping on stomach or side, maternal drug/alcohol use and inappropriate bedding, bed sharing and room temperature.

Ages and Genders of 2007 SIDS Deaths

Age in Months	Male	Female	Total
1month or less	1	0	1
2 months	1	2	3
3 months	2	0	2
4 months	1	3	4
5 months	0	1	1
6 months	0	0	0
7 months	0	0	0
8 months	0	0	0
9 months	0	0	0
10 months	0	0	0
11 months	0	0	0
Total	5	6	11



The majority of SIDS deaths occur in the first six months of life, with a peak at two to four months of age.

Of the 11 sudden, unexpected infant deaths reviewed by CDRT and diagnosed as SIDS in 2007, six were known to be sleeping on their side or stomach. Four were not sleeping in a standard crib with a firm mattress. Only two deaths diagnosed as SIDS were known to be sleeping alone on his/her back, in a standard crib with head and face uncovered.

Suffocation in Infants

Most infant deaths due to suffocation are directly related to an unsafe sleeping environment. Many parents and caregivers do not understand the risks associated with unsafe sleeping arrangements. Infants can suffocate when their faces become positioned against a mattress, cushion, pillow, comforter or bumper pad, when their faces are covered by soft bedding, pillows, blankets or quilts, or when they are wedged against a wall, bed frame, another person, or pet. Overlying occurs when infants are sharing a bed with one or more persons (adults or children) and someone rolls over on them.

The CDRT classifies the manner of these deaths as accidental and the cause as "Wedging" or "Overlying."

SUDDEN INFANT DEATH SYNDROME

Undetermined

In some cases, the most thorough and careful investigation and autopsy do not produce a definitive cause of death, because risk factors (unsafe sleep environment, bed sharing, second hand smoke, prone position) are present that are significant enough to have possibly contributed to the death. However, the extent to which these risk factors play a role in a particular sudden infant death often cannot be determined. These deaths are classified as manner "Undetermined" and cause "Undetermined."

Preventing Undetermined/Sudden Unexpected Infant Deaths

1. Media efforts to promote back sleeping should be stepped up. Easy to read and understandable SIDS informational brochures and other educational materials should be widely distributed on a continual basis across the state to physician offices, public health nurses, public agencies, child care providers, hospital obstetric departments and other groups who deal directly with infants and their families.

2. Every baby should have its own sleeping place and **should not share** a sleeping place with parents, whether a potential shared place is a bed, a couch, a chair or the floor.

3. Cribs and bassinets should be checked for mattress firmness and absence of wide spaces between mattress and sides and other potential causes of smothering, entrapment, wedging, choking or re-breathing. Pillows, adult blankets, crib bumper pads, stuffed toys and small items should be removed from the sleeping area. Sofas, adult beds or chairs, recliners and waterbeds should **never** be used as an infant bed or sleep surface.



4. Pregnant women, mothers, fathers and other caregivers should be counseled about smoking hazards to children, both before and after their birth.

5. Pregnant women should be counseled as to the negative effects on their offspring of illicit drug use and alcohol use during pregnancy.

6. Parents, grandparents and other care providers to neonates and infants should be educated about appropriate sleep position and sleep environment.

7. Physicians should repeatedly counsel pregnant females and parents of very young children about SIDS risk factors, especially if the mother is very young herself, either parent smokes, or the mother is not seeking consistent prenatal care.

8. Special efforts to educate non-English speaking pregnant women and their families about SIDS risk factors should be implemented.

9. Parents should be educated on selection of an appropriate childcare provider who is aware of and follows the "Back to Sleep" AAP risk reduction recommendations for safe sleep, and who provides a smoke-free home in which to care for children.



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