

Iowa
**CHILD DEATH
REVIEW TEAM**



**Report to the Governor
and General Assembly**

Annual Report for 2006

December 2007

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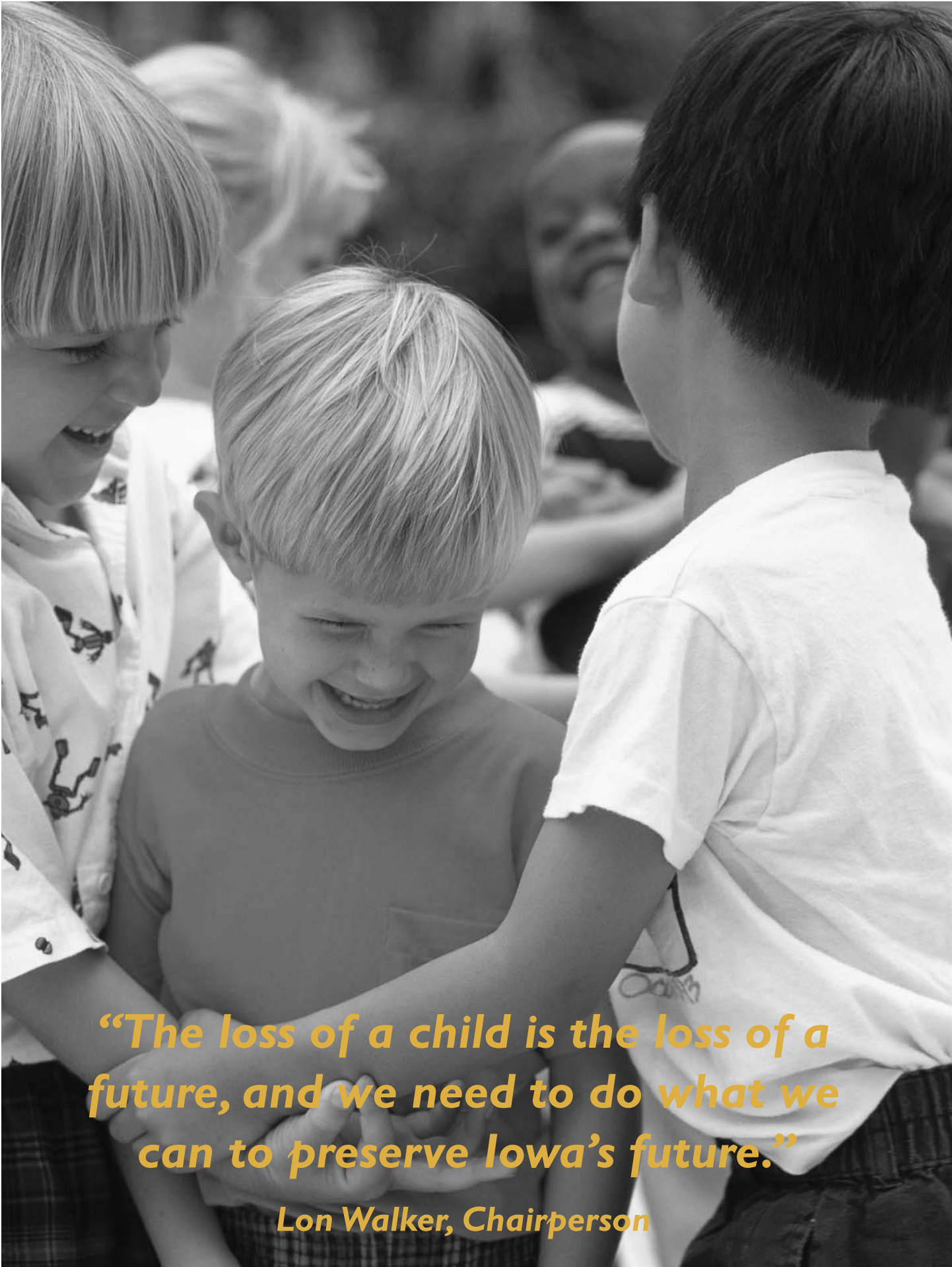
Foreward

Lon Walker, Chairperson

I re-read several of the Child Death Review Team's annual reports this week as I drafted this foreword. It seems that many of the recommendations we've suggested to help reduce child deaths have been recommended so many times in the past 13 years. While reading the very first annual report we submitted, Dr. Thomas Bennet, in his foreword said: "Because of the complex nature of child abuse and neglect, there is no single cure and certainly no easy cure for this problem. Rather, it will be an ongoing process of study, review, and action. Through the tireless efforts of the members of the Child Death Review Team, representing the multiple disciplines and diverse backgrounds, we are able to present you with our first year's report. We all recognize that this will be an ongoing study, requiring years, and necessitating the evolving of the goals and activities of the committee."

Dr. Bennet would be proud today of the work the team has done. We have established goals to help reduce child deaths, and we are working toward achieving those goals. But the simple truth remains that too many children are dying in Iowa, and we should be doing a better job of prevention. This year, the total number of deaths is down slightly from 406 in 2005 to 382 for 2006. That piece of data by itself is good, but overall as we look at the manners of death, the picture isn't so good. The number of suicides increased sharply from 12 to 21 and the number of homicides rose from 12 to 14. These deaths clearly were preventable. Automobile crashes that result in child deaths remain unacceptably high with 46 reported in 2005 and 45 in 2006; again, deaths that should be preventable. Undetermined deaths, a category that we pay special attention to every year, remained unchanged with 38 deaths in each of the past two years but a small decrease in 2006 in SIDS deaths. In 1976 J. Neugeboren said, "A wife who loses a husband is called a widow, a husband who loses a wife is called a widower, a child who loses parents is called an orphan, but there is no word for a parent who loses a child, that's how awful it is."

The loss of a child is the loss of a future, and we need to do what we can to preserve Iowa's future.



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Lon Walker, Chairperson

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 is 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.

All child deaths that occur in the state of Iowa are reviewed, even when the child is not a resident. Case reviews have provided 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 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, and alcohol and illicit drug use by pregnant women would significantly decrease the number of natural deaths.

Increases in children dying from homicides and suicides did not cause the total number of deaths to increase. A six percent decrease in child deaths was noted between 2005 and 2006 with decreases in the numbers of natural, accidental and undetermined manners of death.



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 236 natural deaths in 2006 comprise 61.7 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 skateboards, 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 2006, 76 children died from accidents, with motor vehicle collisions (MVC) being the leading cause. Teens are more likely to be influenced by peers and other distractions. More than one teen passenger was present in the vehicle in 16 of MVC accidents. This can lead to reckless behaviors such as speeding, driving under the influence of alcohol or drugs, and not wearing seat belts.

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. Drowning in tubs, pools and rivers or lakes accounted for 13.2 percent of accidental deaths.



Homicides: During 2006, fourteen homicide deaths occurred, two more than the previous year. Battering caused one infant and three child deaths; gun shot wounds caused eight child deaths; knife wounds caused one child death; one child was starved to death. The father or step-father was responsible in four cases while the mother's boyfriend was responsible for two cases. The mother was responsible for one death; other family members caused the deaths of four others. Three others were killed by family acquaintances. 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 increased from 12 in 2005 to 21 in 2006. Of those children who committed suicide in 2006, sixteen were male and five were female. The youngest child was 11. Use of a firearm 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 experienced a reversal of this trend in 2006.

EXECUTIVE SUMMARY

Undetermined: The CDRT determined 35 deaths to be of an undetermined manner. The cause of death for 11 of these cases was SIDS. Another 19 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 adequately 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. **Expand annual funding** for the Iowa Child Death Review Team to cover actual operating expenses either through a permanent legislative appropriation or by levying a surtax of \$2 on each death certificate issued by the Iowa Department of Public Health's Vital Records Bureau.
3. **Increase the penalty** for driving with an improperly restrained child in a motor vehicle.
4. **Expand required autopsies** for children from the current birth through age two years to birth through six years.
5. **Establish a statewide system** of local child death review teams to evaluate all deaths of children through 17 years occurring in their regions.
6. **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, but all of the organizations represented have a documented commitment to helping children survive and thrive. 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 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.

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.

Since 1995, the Child Death Review Team has reviewed more than 4900 child death cases.

This document is the thirteenth CDRT annual report regarding child death in the state of Iowa and recommends how future child deaths might be reduced or prevented.

Recommendations for Elected Officials

RECOMMENDATIONS REQUIRING LEGISLATIVE ACTION

Recommendation 1: Immediate drug screens should be done by law enforcement personnel on caretakers and people having access to a child just prior to the death. All drivers 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 so not addressed by public health programs or legislative action. A law requiring this testing would assure that law enforcement in all parts of the state follow this recommendation.

Recommendation 2: Funding for continued operation of the Iowa Child Death Review Team should be raised from the current \$15,000 appropriation to \$55,000, so that the actual expenses incurred in operation of team activities may be covered in full, including 1.0 FTE. The CDRT recommends that the additional money be funded through an additional permanent appropriation or that a levy of \$2 be added to the fee for each death certificate issued in Iowa and those funds be used to finance the team's continuing operation.

Discussion: In 1995, when the legislature and the governor established the CDRT, an appropriation of \$20,000 was set aside for the team's operation.

This funding was to cover team members' travel, report requests, copying of records, development and printing of an annual report, staff support and any other related expenses necessary for the optimal functioning of the CDRT. In 1998, the legislature and the governor established the Domestic Violence Death Review Team. The CDRT had the same tasks as when it was originally founded, but \$5,000 of the original \$20,000 appropriation was set aside for the new Domestic Violence Death Review Team.

In 2000, the purview of the CDRT expanded from children birth through age six to birth through age 17. The appropriation still remained at \$15,000. This funding does not cover much more than team travel expenses for meetings, the annual report development, case ordering and some printing. Funding for staff salary, office expenses, team training, etc. is not adequate. Although the FY 2003 budget recommendation originally included a significant increase in the appropriation for the CDRT, it was not funded at that level. Currently, even the very basic operations of the CDRT are supplemented by the Iowa Department of Public Health (IDPH) through the federal maternal and child health block grant. Severe funding cuts at the federal level will preclude IDPH from continuing to subsidize CDRT activities in the future. Despite recognition of the importance of the work of the CDRT, it is unrealistic to expect that the department will be able to fund this state-mandated program without adequate state funding.

RECOMMENDATIONS FOR ELECTED OFFICIALS

Recommendation 3: The CDRT recommends raising the fine to \$100 for driving with an improperly restrained child in a motor vehicle.

Discussion: All too frequently children are not properly restrained in a moving automobile, SUV or truck. In a motor vehicle collision, an unrestrained or inadequately restrained child can be ejected from the vehicle or thrown around in the vehicle. Fatal head injuries and internal injuries often result in these instances.

Anything that may help deter drivers from failing to follow the child restraint law should be done.

A significant fine of \$100 would help obtain compliance. For parents who cannot afford a car or booster seat, several programs will provide a seat at little or no cost to the family. The HOPES and Healthy Start Programs often refer families to these resources. Others may call 1-800-258-6419 to get information on free seats.

Recommendation 4: The CDRT recommends that an autopsy, including toxicology studies, be **required** 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 any 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 wrongdoing may be adequately and quickly investigated. It also helps to determine preventable factors that led to the death.



Recommendation 5: The CDRT recommends establishing a statewide system of local or regional child death review teams to review deaths of **all** children through 17 years of age occurring in their area. They would share their information with the state team. 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: 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. In addition, with a retrospective review system, follow-up checks on the safety of surviving siblings, the involvement of vital community agencies in the investigation or public education endeavors are delayed.

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

RECOMMENDATIONS FOR ELECTED OFFICIALS

Discussion 5 continued: 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.

Communication and sharing records expedites the review process at all levels and helps assure 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, it would be helpful to have all local teams include children of the same ages. As with the state team, these four local teams try to use what is learned in reviews to prevent future deaths.

Recommendation 6: The CDRT recommends that every child death that is a medical examiner's case be reported on a Medical Examiner I (M.E. I) report form to the state medical examiner's office **within four weeks of its occurrence**. The final autopsy and toxicology results should be submitted **within three months** of the child's death unless special laboratory tests or consultations delay this process. It is recommended that all results be submitted **within six months** of the child's death.

Discussion: Although efficient reporting of out-of-hospital deaths and other medical examiner cases is requested from county medical examiners, current reporting can take months or longer to be reported on an M.E. I form to the state medical examiner's office.



This delay in reporting causes inaccurate statistical reporting to other agencies and delays the collection of autopsies and other reports for CDRT review. Requiring more efficient completion of reports to the state medical examiner's office would assist the team in its operation and assure **complete reporting** of all deaths to that office.

Recommendation 7: The CDRT recommends that children be given more adequate treatment options for mental health and substance abuse.

Discussion: Children are often treated for the physical symptoms of mental health and substance abuse issues, not for the issues themselves. Health insurance often does not cover mental health and substance issues, and treatment is expensive, so many families have limited options. In 2006, the number of suicide deaths nearly doubled over the previous year.

Recommendations for State Agencies

Recommendation 1: to the Iowa Department of Human Services, Field Office Support Unit. When a child dies due to a parent's or a caretaker's ignorance, neglect or aggression, the CDRT recommends that ongoing efforts be made to visit the surviving children in the home within one month to assess the safety and well being of these children and enable voluntary referrals to appropriate services. This visit is to be completed by DHS caseworkers knowledgeable in family dynamics and child abuse and/or neglect.

It is recognized that the Iowa Department of Human Services has made much progress in addressing this issue. 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. In addition, it is recognized that DHS staff cannot investigate situations if they are not notified. 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: to the Commission of Uniform State Laws. 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

Recommendation 3: to the Iowa Department of Human Services. 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.

Recommendation 4: to the Department of Public Safety. 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 5: to the Iowa Department of Public Health. 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: to all state agencies and their local units or contractors who conduct activities in the homes of their clients/customers. The CDRT recommends that the **state agencies require** each local unit or contractor, whenever conducting activities in the homes of their clients or customers, to check for the presence and operating status of smoke alarms. They should also evaluate the presence of other safety hazards and recommend to residents when repairs, changes or replacements are needed.

Recommendation 7: to the Iowa Department of Public Safety and the Iowa Law Enforcement Academy. 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 as quickly as possible to the proper entity.

Recommendation 8: to the Iowa Enforcement Academy. The Child Death Review Team recommends that the Iowa Law Enforcement Academy curriculum emphasize the importance of death scene recreation photographs and sketches along with use of the Death Scene Investigation Form.

Recommendation 9: to the Iowa Department of Human Services. The Child Death Review Team 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.

RECOMMENDATIONS FOR STATE AGENCIES

Recommendation 10: to the Iowa Department of Human Services. The Child Death Review Team 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 one year 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 11: to the Department of Public Health. 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 12: to the Iowa Department of Public Health and Iowa Department of Human Services. 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.

Recommendation 13: to the Iowa Department of Public Health. The Child Death Review Team recommends that the Bureau of Emergency Medical Services promote the use of the Death Scene Investigation Form.



CHILD DEATH REVIEW TEAM ACCOMPLISHMENTS

During the 2006 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 382 cases of child death, the members of the CDRT:

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

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 professionals and child care providers.

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

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. Iowa was the first of the 11 states participating in the project to complete data entry for an entire year of child deaths and to obtain frequency distributions from the database for use in an annual report.

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.

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

IOWA YEAR 2006

Deaths of Children Ages Birth through 17 Years by County of Residence

County	Number	County	Number	County	Number
Adair	0	Floyd	2	Monona	2
Adams	0	Franklin	2	Monroe	1
Allamakee	4	Fremont	0	Montgomery	1
Appanoose	1	Greene	5	Muscatine	5
Audubon	0	Grundy	0	O'Brien	0
Benton	1	Guthrie	2	Osceola	0
Black Hawk	16	Hamilton	1	Page	4
Boone	1	Hancock	1	Palo Alto	1
Bremer	4	Hardin	2	Plymouth	3
Buchanan	2	Harrison	1	Pocahontas	1
Buena Vista	2	Henry	3	Polk	59
Butler	2	Howard	6	Pottawattamie	8
Calhoun	2	Humboldt	0	Poweshiek	2
Carroll	4	Ida	0	Ringgold	1
Cass	0	Iowa	2	Sac	4
Cedar	2	Jackson	2	Scott	17
Cerro Gordo	6	Jasper	1	Shelby	0
Cherokee	1	Jefferson	2	Sioux	3
Chickasaw	3	Johnson	12	Story	4
Clarke	1	Jones	2	Tama	2
Clay	2	Keokuk	2	Taylor	0
Clayton	1	Kossuth	2	Union	0
Clinton	12	Lee	2	Van Buren	3
Crawford	1	Linn	24	Wapello	4
Dallas	7	Louisa	0	Warren	10
Davis	0	Lucas	1	Washington	2
Decatur	2	Lyon	2	Wayne	0
Delaware	2	Madison	0	Webster	2
Des Moines	9	Mahaska	10	Winnebago	2
Dickinson	0	Marion	1	Winneshiek	3
Dubuque	14	Marshall	1	Woodbury	15
Emmet	3	Mills	0	Worth	3
Fayette	3	Mitchell	1	Wright	2

Number of Out of State Children Ages Birth through 17 Years Dying in Iowa in 2006

State	Number	State	Number
Nebraska	2	Missouri	2
Wisconsin	2	Minnesota	3
Illinois	5	Texas	1
South Dakota	1	Michigan	1
California	1		

2006 Child Deaths

BY AGE GROUPS, RACE/ETHNICITY AND GENDER

A total of 382 children ages birth through 17 years died in 2006.

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 all cultural and ethnic groups across the state in the manner most accessible and useful to each group.

2006 Total Deaths by Race/Ethnicity and Gender

Race/Ethnicity	Male	Female	Total	% of Total
White	185	123	308	80.6
Native American	2	0	2	0.5
Hispanic	20	16	36	9.4
Black	23	8	31	8.1
Asian	3	2	5	1.3
Total	233	149	382	100

2006 Post-Neonatal Deaths by Race/Ethnicity and Gender

Race/Ethnicity	Male	Female	Total	% of Total
White	38	31	69	78.4
Native American	0	0	0	0.0
Hispanic	6	5	11	12.5
Black	6	2	8	9.1
Asian	0	0	0	0.0
Total	50	38	88	100

2006 CHILD DEATHS

BY AGE GROUPS, RACE/ETHNICITY AND GENDER

2006 Neonatal Deaths by Race/Ethnicity and Gender

Race/Ethnicity	Male	Female	Total	% of Total
White	57	44	101	78.3
Native American	2	0	2	1.5
Hispanic	9	6	15	11.6
Black	5	2	7	5.4
Asian	3	1	4	3.1
Total	76	53	129	100

2006 Child Deaths by Race/Ethnicity and Gender

Race/Ethnicity	Male	Female	Total	% of Total
White	90	48	138	83.6
Native American	0	0	0	0.0
Hispanic	5	5	10	6.1
Black	12	4	16	9.7
Asian	0	1	1	0.6
Total	107	58	165	100



2006 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:

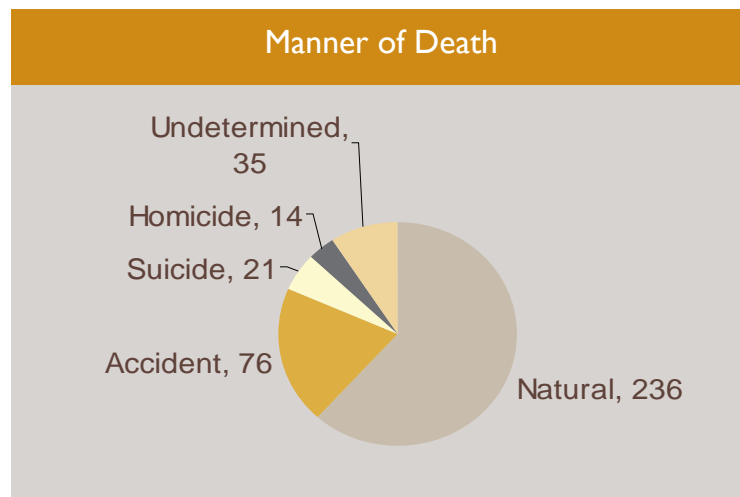
Natural means the death was the result of some natural process, such as disease, prematurity/immaturity or congenital defect. Most deaths by this manner are considered by the CDRT to be non-preventable. However, many deaths from prematurity or congenital defects might be prevented through better counseling 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 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

Deaths from Sudden Infant Death Syndrome (SIDS), although coded as natural on death certificates, are considered separately in this report as part of the undetermined cause.

A total of 382 children ages birth through 17 years died in 2006.

Most child deaths in Iowa are due to natural causes, particularly in neonates and post-neonates. The deaths in this group were due to eight causes, predominantly premature birth and congenital defects incompatible with life. The 236 natural deaths comprise 61.8 percent of all 2006 child deaths.

Preventing Natural Deaths

1. Both prospective parents (father and mother) should be physically mature and healthy, both prior to conception of the child and throughout the pregnancy. Damaging substances of any sort, including alcohol, tobacco, certain prescription medications and all street drugs must be avoided.

2. Prenatal care should begin as early as possible, and regular prenatal visits should be continued. Prenatal visits should include intensive smoking cessation counseling if the mother currently smokes. In addition, evaluation of secondhand smoke exposure of the mother should be conducted early in the pregnancy, and the potential risks of such exposure should be carefully explained to her.

Causes of 2006 Natural Deaths of All Children Through 17 Years of Age

Cause	Number	% of Natural	%of All Deaths
Cancer	23	9.7	6.0
Cardiovascular	17	7.2	4.5
Congenital Defects	61	25.9	16.0
Pneumonia	16	6.8	4.2
Prematurity	87	36.9	22.8
Other Infection	12	5.1	3.1
Other Perinatal Condition	2	0.8	0.5
Other Medical Cause	18	7.6	4.7
Total	236	100	61.8

NATURAL DEATHS

3. Prenatal visits should include patient-specific education and interventions aimed at modifiable risk factors such as tobacco, alcohol and drug use.

4. Genetic counseling, available through the University of Iowa regional clinics or private sources, should be recommended to and utilized 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.

5. All children should receive regular and timely wellness checkups at clinics or physicians' offices. Parents should be educated about signs and symptoms of illness in their children and indications for seeking medical attention. Families should be discouraged in using hospital emergency rooms as their only source of medical care, since preventive activities such as immunizations may be missed at the time of care.

6. New parents should be thoroughly instructed on the appropriateness and timeliness of well child checkups and proper administration of medicines to young children.

7. 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. This education should be done in the language most used by each population.



8. 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 2006, 76 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 all 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. Teens are more likely to be influenced by peers and other distractions. This can lead to reckless behaviors such as speeding, driving under the influence of alcohol or drugs, and not wearing seat belts.

Drowning and strangulation/wedging were the second and third leading causes of accidental death in Iowa. 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.

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

Representative Cases:

A 13-year-old girl died when the car she was riding in struck a tree. The 16-year-old driver was driving without headlights.

A 5-year-old boy drowned while swimming at a local park with a group of people.

A 4-year-old boy died after he and his brother played with a fire in a wood burning stove.

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 2006 Natural Deaths of All Children Through 17 Years of Age

Cause	Number	% Acc. Deaths	% of All Deaths
ATV Accident	1	1.3	0.3
Bike/MVC Accident	1	1.3	0.3
Drowning	10	13.2	2.6
Electrocution	1	1.3	0.3
Fall	1	1.3	0.3
Farm Accidents	1	1.3	0.3
Overlying	1	1.3	0.3
Gunshot	2	2.6	0.5
House Fire	2	2.6	0.5
MVC	39	51.3	10
MVC/Pedestrian	4	5.3	1
Motorcycle	0	0	0
Poisoning	2	2.6	0.5
Strangulation/ Wedging	10	13.2	2.6
Other	1	1.3	0.3
Total	76	100	19.8

Preventing Accidental Deaths

1. Children six 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 all 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. Parents and caregivers should recognize and give only age-appropriate foods to infants and children with special attention to solid foods given before the age of four.

ACCIDENTAL DEATHS

8. Extreme vigilance should be practiced whenever children are in, around, or near water including bathtubs, pools and larger bodies of water, regardless of the water depth. **Parents and caregivers need to be cautioned that bathtub rings are not safety devices and that children must never be left alone in the water, even momentarily.** 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.

9. 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.

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

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

12. 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.**



13. 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.

14. 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.

15. 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.

16. 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.

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

HOMICIDE

In 2006, 14 children were homicide victims. The relationship between the victim and the perpetrator varied. In four child deaths, the father or step-father was the perpetrator. The mother's paramour was guilty in the deaths of two toddlers, and the mother was responsible for the death of one child. Other family members were guilty in the deaths of four children. Friends or acquaintances were responsible in three child deaths. Parents must be very discriminating about the adults they bring into close contact with their children.

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

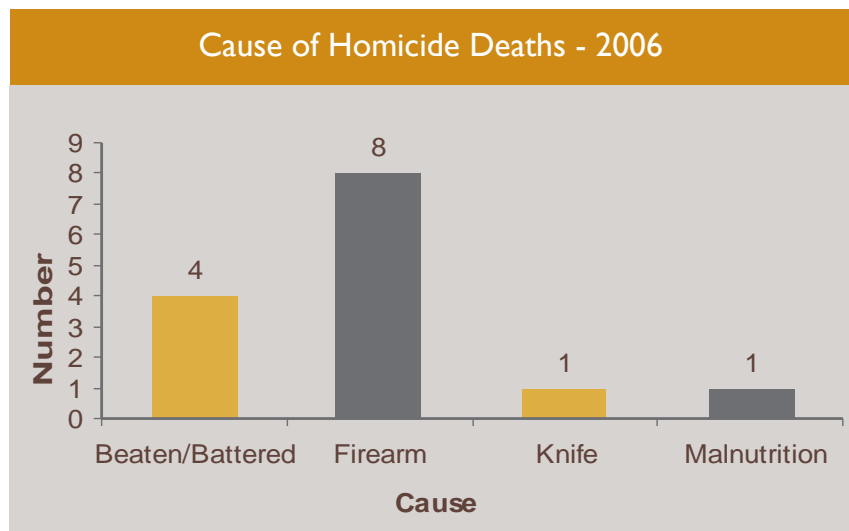
Representative Cases:

A 2-year-old boy was brought to the emergency room with head trauma. His mother's boyfriend claimed the child fell from his high chair.

An 8-year-old boy is stabbed by his stepfather after the man argued with the child's mother.

Preventing 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 21 Iowa children in 2006.

Twenty-one youths died from suicide in 2006 compared with 12 who committed suicide in 2005. Three times as many males as females committed suicide, and the youngest victim was 11. Several victims had a history of family or school problems, and some had used drugs and/or alcohol. Firearm 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 followed this trend until 2006, when the trend was reversed.

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.”

Parents should make great efforts to monitor their child’s behavior so that they can tell if the child becomes withdrawn, sullen or exhibits radical

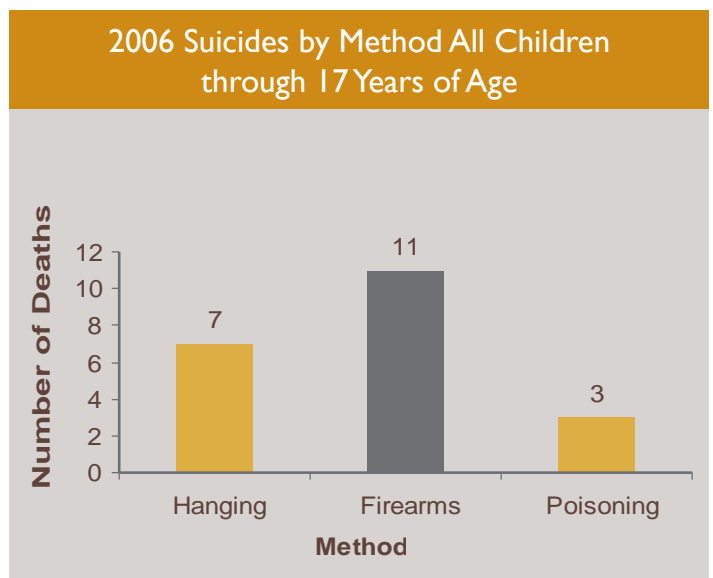
Representative Cases:

A 16-year-old boy with a history of depression and behavior problems committed suicide by overdosing on an anti-depressant.

A 16-year-old girl shot herself with her father’s rifle after her parents refused to let her move in with her on-line boyfriend.

A few months after completing a drug treatment program, a 15-year-old boy, who tested positive for marijuana, hanged himself.

changes in behavior. When necessary, they should confer with school officials to assess modified behavior and address it in a non-threatening, compassionate manner.



SUICIDE

Preventing Suicides

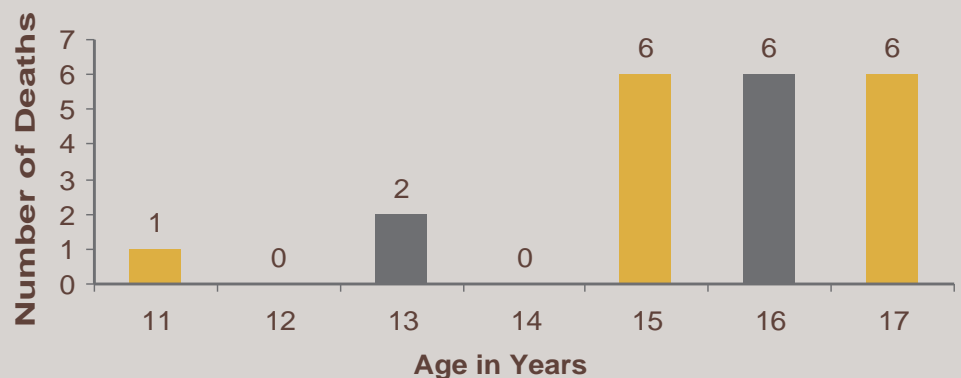
1. Parents should seek early treatment for children with behavior problems, possible mental disorders and substance abuse problems.
2. Limit young people's access to lethal means of suicide, particularly firearms.
3. Health care plans should be encouraged to cover mental health and substance abuse on 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.



2006 Suicide Deaths by Gender and Race of All Children Through 17 Years of Age

Male	16	White	19
Female	5	Black	2
Total	21	Total	21

2006 Suicide Deaths All Children through 17 Years of Age



UNDETERMINED/SUDDEN UNEXPLAINED INFANT DEATHS (SUID)

In 2006, 35 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 38 deaths for which autopsies failed to pinpoint a specific cause, 11 of these cases were found to be SIDS. The remainder were due to a variety of other 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.

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”.

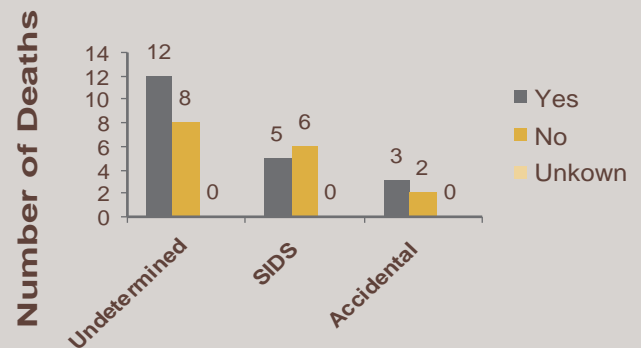
Representative Cases:

A mother changed her 3-month-old daughter’s diaper, then laid down on the sofa with her. When she woke in the morning, the baby was unresponsive.

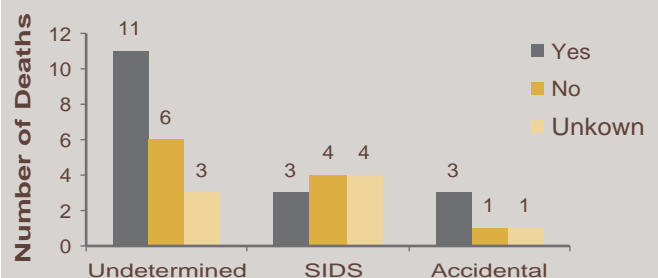
A father put his 2-month-old daughter on her back to nap with him. When he woke two hours later, she was not breathing.

After being fed, a 1-month-old was placed on his back in his crib. Ninety minutes later, the baby was found not breathing.

Prenatal Smoking 2006 SUID Cases

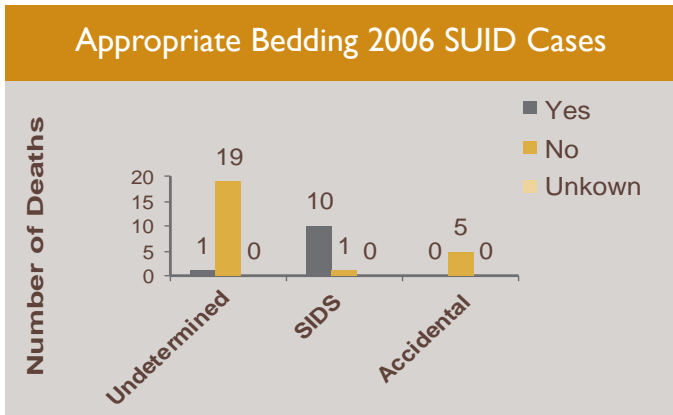
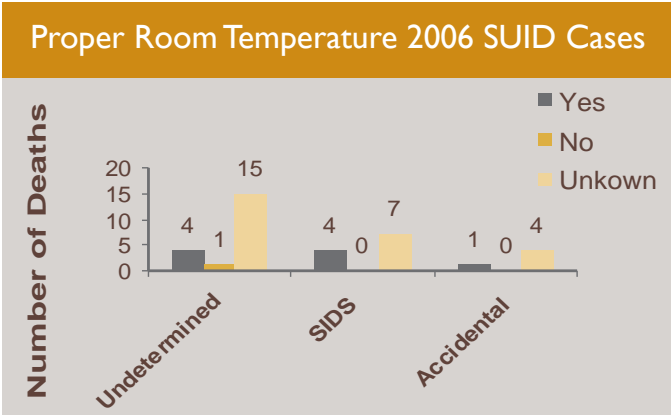
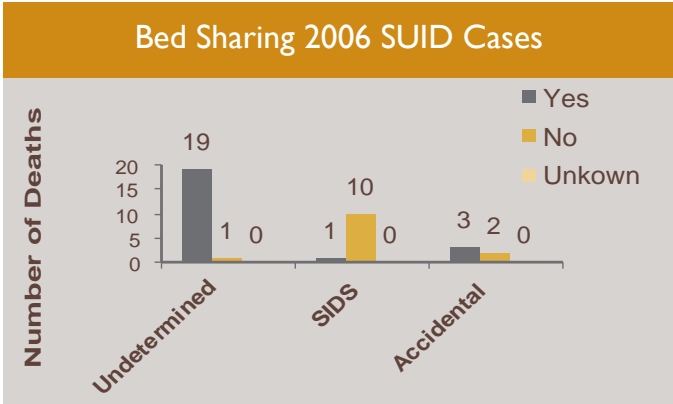
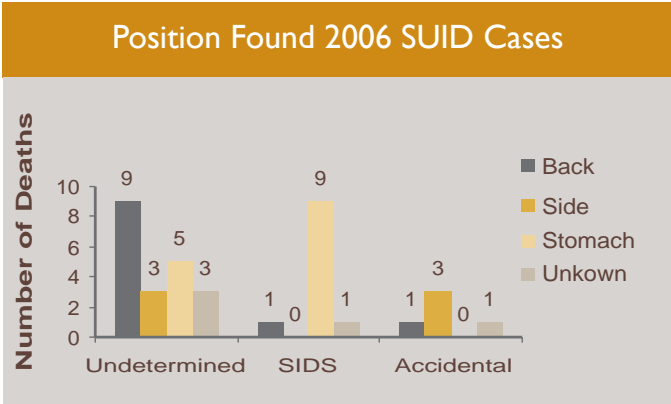


Second Hand Tobacco Exposure 2006 SUID Cases



UNDETERMINED/SUDDEN UNEXPLAINED INFANT DEATHS (SUID)

Sleeping Surface at Time of Death 2006 SUID Cases				
Surface	Undetermined	SIDS	Accident	Total
Crib	1	7	0	8
Bassinet	0	2	0	2
Adult Bed	14	1	3	18
Sofa	4	0	1	5
Chair	1	0	0	1
Playpen	0	1	0	1
Bean Bag				
Chair	0	0	1	1
Total	20	11	5	36



SUDDEN INFANT DEATH SYNDROME

In 2006, 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 all 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 and room temperature.



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

Of the 11 sudden, unexpected infant deaths reviewed by CDRT and diagnosed as SIDS in 2006, ten were known to be sleeping on their side or stomach. Five were not sleeping in a standard crib on a firm mattress. Only one death diagnosed as SIDS was 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 “Wedging” or “Overlying.”

Ages and Genders of 2006 SIDS Deaths

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

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 Sudden Infant Death Syndrome

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, bassinets, and other sleeping places should be checked for mattress firmness and absence of wide spaces between mattress and sides and other potential causes of smothering, 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 potential 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 child care provider who is aware of and follows the “Back to Sleep” recommendations, and who provides a smoke-free home in which to care for children.



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