

Iowa Child Death Review Team





Report to the Governor and General Assembly

Annual Report for 2005

December 2006

TABLE OF CONTENTS

Executive Summary	3
History of Iowa Child Death Review Team	5
Recommendations to the Governor and the Iowa General Assembly	6
Recommendations to State Agencies	9
Child Death Review Team Accomplishments	12
 Data. County of Residence at Time of Death Ages of Children at Death Gender Age Groups by Race/Ethnicity and Gender Manner of Death Causes of Death 	13

FOREWARD Lon Walker, Chairperson

I sometimes wonder how a person will be remembered; when our life's work is done will we be judged by our accomplishments, by our failures, or by our inactions? From a State Child Death Review Team perspective, that is an enormous concept. Have we done everything we could to make Iowa safer for our kids, our most important resource? Or have we failed to respond to the fact that 406 kids died in Iowa in 2005? Should we be concerned that while the birth rate climbed 2.4 percent the death rate climbed 7 percent? Does it matter that every month last year one child committed suicide and another one was murdered? Does it matter that, on average, three children per month died and the cause could not be determined? Shouldn't our legacy be one of caring and pro-activity when it comes to saving children's lives?

We, as a State, must do a better job in helping young parents be better parents and helping them avoid identified risk factors to young children, reducing unexplained deaths. We have to improve health care for expectant mothers and teach them the dangers of drug, alcohol, and tobacco use while pregnant, thus reducing neonatal deaths.

Suicide is a permanent solution to what should be a temporary problem yet every year a dozen or so children choose to end their own lives. Can't we find a way to reach out to these kids whose problems simply can't be that severe? We saw over 90 accidental deaths in 2005; 46 of those were automobile crashes where children often were not properly restrained. Eight children died in house fires where smoke alarms often were non-operational and 11 kids drowned, often because of poor supervision and/or the absence of swimming pool alarms.

Now that the Child Death Review Team has provided over ten years of data on the causes and manner of child deaths, perhaps it is the time to establish our State's legacy by making our state a safer place for our children. For those of us in a position to make a difference, let's work together to create a legacy of caring and compassion for our kids so that they can live and grow to become healthy, productive adults.

The numbers are telling us that many of our kids are dying because of us. We can and must do better. The recommendations contained in this report are here to help us, as a State, create the legacy that we all want: something better for Iowa's children.

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.

<u>All</u> 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 CDRTfor 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.

Although there was a large decrease in the number of accidental deaths in 2005, increases in children dying from homicides, suicides and undetermined manners caused the total number of deaths to increase.

Natural Deaths: The vast majority of Iowa children die from natural means which include birth defects, premature births, cancers, infections, and chronic illnesses. The 250 natural deaths in 2005 comprise 61.5 percent of all child deaths.

Iowa Child Death Review Team Annual Report for 2005

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; all terrain vehicles (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 2005, 93 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. One or more teen passengers were present in the vehicles in 14 of the 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 11.8 percent of accidental deaths.

Homicides: Homicide deaths increased from seven in 2004 to thirteen in 2005. Shaken baby syndrome caused two infant deaths; battering caused one infant and one toddler death; gun shot wounds caused two child deaths; arson caused two child deaths; suffocation caused one death; and knife wounds caused one teen death. The father was responsible in three cases while the father's girlfriend killed one child. The mother was responsible for two deaths; other family members caused the deaths of two others. Two 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 11 in 2004 to 12 in 2005. Of the 12 children who committed suicide in 2005, eight were male and four were female. The youngest child was 12 years old. 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 experienced this same trend in 2005.

Undetermined: The CDRT determined 38 deaths to be of an undetermined manner. The cause of death for 15 of these cases was SIDS. Another 15 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. While reviewing deaths in 2005, the team became concerned about the number of infant deaths occurring in a bed-sharing situation and developed a supplemental report to address this issue.

CDRT RECOMMENDATIONS FOR ELECTED OFFICIALS:

- 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.
- 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.
- Increase the penalty for driving with an improperly restrained child in a motor vehicle.
- Expand required autopsies including toxicology studies, for children from the current requirement of birth through two years to birth through six years.
- Establish a statewide regional system of local child death review teams to evaluate all deaths of children through 17 years occurring in their regions.
- 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 <u>do</u> <u>not</u> require additional money to implement. However, they all require action by elected officials to become policy.

HISTORY OF IOWA CHILD 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 CDRT 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, Sudden Infant Death Syndrome (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 directors 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 administr ative support for the Child Death Review Team. The teams' 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 and a child abuse-related death committee.

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 4200 child death cases. This document is the eleventh CDRT annual report regarding child death in the state of Iowa and ways that future child deaths might be reduced or prevented.

RECOMMENDATIONS TO THE GOVERNOR AND THE IOWA GENERAL ASSEMBLY

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. Without alcohol and drug testing, 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 not addressed by public health programs or legislative action. A law requiring this testing would assure law enforcement in all parts of the state follow this.

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. 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. Those funds would 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 records, developing and printing an annual report, staff support and 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, case ordering and some printing. <u>Funding for staff salary</u>, 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 recognizing the importance of the work of the CDRT, it is unrealistic to expect the department to fund this state-mandated program without adequate state funding.

Since the 14 professionals on the team donate an average of 16 hours per month to perform the work of the CDRT, it appears that funding the team at \$55,000 per year through an <u>adequate budget</u> <u>appropriation</u> is a small investment for saving the lives of Iowa's children.

If funds are not available to increase the appropriation, the team suggests levying a surtax on death certificates that could fund all activities of the team and eliminate the need for an appropriation. Other states such as Nevada are finding that this surtax works well to maintain their team's functions. The surtax needed in Iowa would be only \$2 per death certificate and would yield \$55,000 per year for team operations.

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. <u>A</u> <u>significant fine of \$100</u> 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 an autopsy, including toxicology studies be <u>required</u> for every death of a child 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 birthdays.

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.

Iowa Child Death Review Team Annual Report for 2005

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 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 of 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 five Iowa counties (Polk, Woodbury, 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 five local teams try to use what is learned in reviews to prevent future deaths.

Establishing a statewide system of local or regional teams would assure earlier, more thorough and targeted interventions on a community level when any child dies.

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

RECOMMENDATIONS TO 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. The assessment approach is now being used 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 the provision of 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 proposes legislation in Iowa and promotes the passage of legislation similar to 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 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.

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-ofstate 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 <u>state agencies require</u> 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. It is further recommended that the curriculum of the Iowa Law Enforcement Academy include instruction on this protocol and report form.

Recommendation 8: to the Iowa Law Enforcement Academy. The Child Death Review Team recommends that the Iowa Law Enforcement Academy curriculum emphasize the importance of death scene 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 staffings and contacts with the parent's probation officer are suggested for these types of cases. **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 <u>for 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 11: to the Iowa 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 using the Death Scene Investigation Form.



CHILD DEATH REVIEW TEAM ACCOMPLISHMENTS

During the 2005 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 406 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 Examiners 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.
- 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.

Iowa Year 2005

Deaths of Children Ages Birth through 17 years By County of Residence

	•		• •	•	•
County	Number	County	Number	County	Number
Adair	2	Floyd	4	Monona	1
Adams	1	Franklin	2	Monroe	0
Allamakee	1	Fremont	0	Montgomery	4
Appanoose	3	Greene	2	Muscatine	5
Audubon	0	Grundy	1	O'Brien	3
Benton	2	Guthrie	3	Osceola	1
Black Hawk	10	Hamilton	0	Page	0
Boone	1	Hancock	1	Palo Alto	1
Bremer	1	Hardin	2	Plymouth	8
Buchanan	3	Harrison	2	Pocahontas	1
Buena Vista	2	Henry	4	Polk	75
Butler	4	Howard	0	Pottawattamie	16
Calhoun	0	Humboldt	3	Poweshiek	5
Carroll	2	Ida	0	Ringgold	1
Cass	5	Iowa	2	Sac	0
Cedar	1	Jackson	1	Scott	30
Cerro Gordo	4	Jasper	7	Shelby	2
Cherokee	1	Jefferson	2	Sioux	6
Chickasaw	2	Johnson	12	Story	11
Clarke	1	Jones	1	Tama	3
Clay	4	Keokuk	0	Taylor	0
Clayton	3	Kossuth	1	Union	0
Clinton	5	Lee	4	Van Buren	2
Crawford	1	Linn	20	Wapello	5
Dallas	3	Louisa	0	Warren	8
Davis	0	Lucas	0	Washington	2
Decatur	1	Lyon	1	Wayne	2
Delaware	0	Madison	2	Webster	6
Des Moines	3	Mahaska	3	Winnebago	2
Dickinson	1	Marion	2	Winneshiek	5
Dubuque	8	Marshall	4	Woodbury	18
Emmet	1	Mills	0	Worth	0
Fayette	4	Mitchell	1	Wright	3

Number of Out-of-State Children Ages Birth through 17 years Dying in Iowa in 2005

State	Number	State	Number
Nebraska	2	Kansas	2
Wisconsin	2	Minnesota	1
Illinois	8	Texas	1

2005 CHILD DEATHS BY AGE GROUPS, RACE/ETHNICITY AND GENDER

A TOTAL OF 406 CHILDREN AGES BIRTH THROUGH 17 YEARS DIED IN 2005.

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.

	Race/Ethnicity and Gender			
Race/ Ethnicity	Male	Female	Total	% of Total
White	207	130	337	83.0
American	3	1	4	1.0
Hispanic	16	13	29	7.1
Black	13	13	26	6.4
Asian	6	4	10	2.5
Total	245	161	406	100

2005 Total Deaths by Race/Ethnicity and Gender

2005 Neonatal Deaths by Race/Ethnicity and Gender

Race/ Ethnicity	Male	Female	Total	% of Total
White	60	47	107	87.3
American	1	0	1	0.4
Hispanic	9	6	15	6.3
Black	6	7	13	5.5
Asian	3	0	3	1.3
Total	79	60	139	100

2005 Post-Neonatal Deaths by Race/Ethnicity and Gender

Race/				
Ethnicity	Male	Female	Total	% of Total
White	44	21	65	81.3
Native				
American	0	0	0	0.0
Hispanic	5	4	9	11.3
Black	2	2	4	5.0
Asian	0	2	2	2.5
Total	51	29	80	100

2005 Child Deaths by Race/Ethnicity and Gender

Race/ Ethnicity	Male	Female	Total	% of Total
White	103	62	165	88.2
Native American	2	1	3	1.6
Hispanic	2	3	5	2.7
Black	5	4	9	4.8
Asian	3	2	5	2.7
Total	115	72	187	100

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 reducible through education of all care providers of children to provide a safe environment with adequate supervision.
- Homicide means the death was caused at the hands of another individual but was 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 2005, 250 Iowa children died of natural causes.

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 250 natural deaths comprise 61.6 percent of all 2005 child 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.

		% of	%of All
Cause	Number	Natural	Deaths
Cancer	34	13.6	8.4
Cardiovascular	3	1.2	0.7
Congenital Defects	84	33.6	20.7
Pneumonia	4	1.6	1
Prematurity	100	40	24.6
Other Infection	9	3.6	2.2
Other Perinatal			
Condition	3	1.2	0.7
Other Medical			
Cause	13	5.2	3.2
Total	250	100	61.5

Causes of 2005 Natural Deaths All Children Through 17 Years of Age

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.

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.

Iowa Child Death Review Team Annual Report for 2005

- 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.
- 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 2005, 93 children died from accidental trauma.

Representative Cases:

A 16-year-old who had his driver's license less than one month was driving 5 friends in an SUV. When the driver lost control, one of the passengers in the rear of the vehicle, who was not wearing a seat belt, was ejected and killed.

A 1-year-old boy drowned in a wading pool while playing outside. His mother was in the house, her attention divided between watching him and washing dishes.

A 14-month-old girl and her mother died when a candle in the room ignited a pillow.

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 (MVCs) 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 house fires 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 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.

		% Acc.	% of All
Cause	Number	Deaths	Deaths
ATV Accident	1	1.1	0.2
Bike/MVC			
Accident	4	4.3	1.0
Drowning	11	11.8	2.7
Fall	4	4.3	1.0
Farm			
Accidents	2	2.2	0.5
Overlying	2	2.2	0.5
Gunshot	1	1.1	0.2
House Fire	8	8.6	2.0
MVC	46	49.5	11.3
MVC/			
Pedestrian	8	8.6	2.0
Motorcycle	1	1.1	0.2
Strangulation/			
Wedging	1	1.1	0.2
Other	4	4.3	1.0
Total	93	100	22.8

Causes of 2005 Accidental Deaths

PREVENTING ACCIDENTAL DEATHS

- 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 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, daycare providers and other caregivers should learn first aid, administration of CPR, and the Heimlich Maneuver to 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.
- 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 <u>not</u> 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. 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 <u>only</u> in a safety-approved crib and <u>alone</u>. Cribs should not be purchased at gargage sales or second-hand stores where they may not meet Consumer Product Safety Commission requirements.

HOMICIDES

In 2005, 13 children were homicide victims.

Representative Cases:

A 4-month-old boy brought to the emergency room showed signs of shaken baby syndrome. His father's blood alcohol level was 0.05.

A 17-year-old girl is stabbed after an altercation with an acquaintance.

The relationship between the victim and the perpetrator is varied. In three infant deaths, the father was the perpetrator. The father's paramour was guilty in the death of one toddler, and the mother was responsible for the deaths of two. Other family members were guilty in the deaths of two children. Friends or acquaintances were responsible in two child deaths. One child death involved a stranger. One case is still under investigation; the perpetrator is unknown. 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.



PREVENTING YOUTH HOMICIDES

- 1. Parents 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.
- 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.



SUICIDES

Suicide was the manner of death of 12 Iowa children in 2005.

Representative Cases:

A 17-year-old boy hanged himself after a fight with his girlfriend.

A 15-year-old girl had a history of being bullied in school and expressing suicidal thoughts. She committed suicide by taking a combination of methadone and Tylenol.

A 17-year-old straight A student with a history of drug use shot himself after he had spent an evening smoking marijuana with friends.

The Centers for Disease Control and Prevention published information during 2004 stating that the trend across the entire nation corresponds to Iowa's experience: suicide using a firearm is down, and suicide by hanging is increasing.

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."

Studies conducted by Health Resources and Services Administration (HRSA) show that 15-25% of school children are bullied with some frequency and that 15-20% are bullies. When teachers were asked about bullying in school, 70% thought they intervened almost always when bullying occurred, but only 25% of students agreed with that statement. Anti-bullying campaigns should be established in schools and communities, and adults should provide good role models by not being overly aggressive.

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



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Iowa Child Death Review Team Annual Report for 2005

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PREVENTING YOUTH 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 agressive treatment.



UNDETERMINED/SUDDEN UNEXPLAINED INFANT DEATHS (SIDS)

In 2005, 38 child deaths could not be attributed to a specific cause.

Representative Cases:

A 3-month-old boy who usually slept between his parents was found wedged between the mattress and the bed.

A mother fed her 4-month-old boy, put him to sleep facing the back of the couch, and went to bed. He was found there in the morning, not breathing.

After feeding him, a day care provider put a 4-month-old on his back in a playpen for his nap. Thirty minutes later, the baby was found not breathing.

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, 15 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.

The group agreed that sudden unexplained deaths of infants ranging in age from birth to one year should be carefully evaluated based on the autopsy results and the death scene investigation and medical history.

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 manner and cause of death would be "Undetermined" and "Undetermined." If the child was not bed sharing or wedged, the manner and cause of death would be "Undetermined" and "Undetermined" and "SIDS".













SUDDEN INFANT DEATH SYNDROME

In 2005, Sudden Infant Death Syndrome (SIDS) was the cause of death of 15 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 2-4 months.

Age in Months	Male	Female	Total
1month or less	3	1	4
2 months	0	0	0
3 months	3	1	4
4 months	4	0	4
5 months	1	1	2
6 months	0	0	0
7 months	0	0	0
8 months	0	1	1
9 months	0	0	0
10 months	0	0	0
11 months	0	0	0
Total	11	4	15

Ages and Genders of 2005 SIDS Deaths

Of the 15 sudden, unexpected infant deaths reviewed by CDRT and diagnosed as SIDS in 2005, eight were known to be sleeping on their side or stomach. Ten were not sleeping in a standard crib on a firm mattress and four were known to be sleeping in an adult bed. Only three deaths diagnosed as SIDS were known to be sleeping alone on their backs, 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 an infant is 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."

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, 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 rebreathing. 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 childcare 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.



Further information about the Iowa Child Death Review Team may be obtained by writing or calling. The mailing address and telephone number are as follows: Child Death Review Team Lucas State Office Building - 5th Floor Des Moines, Iowa 50319-0075 Telephone - 515/242-6167 Fax - 515/242-6384 Email - Irobison@idph.state.ia.us

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