Iowa's CHILD DEATH Review Team

Report to the Governor and General Assembly

Terry E. Branstad
Governor

Kim Reynolds
Lt. Governor

2010 Annual Report

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Foreword

Iowa's State Child Death Review Team has the monumental task of objectively reviewing circumstances and events surrounding the deaths of our children. Being a member of this team is an honor as well as a curse; members routinely face the reality of child death. Children are our future - they are our hopes and dreams. No parent ever wants to consider that their child might die before them, yet we know that they do. At the conclusion of each meeting, members are subdued and sometimes overwhelmed, yet they come back to search for ways to make a difference in the lives of our Iowa families.

Funding for the team is minimal at best, yet it continues to meet. We don't do it for money, we don't do it for fame, and we don't do it for power. The Child Death Review Team meets and offers suggestions for change because we believe children deserve to grow up in an environment where harm is minimized. We believe circumstances leading to child death should be mitigated and minimized. We believe a thorough review and evaluation of each child's death offers the opportunity for change; it offers another child the chance for life. Although we are the Child Death Review Team, we are a team devoted to child *life*.

This report shows some reduction in overall death, but also highlights some disturbing facts.

- Our children are killing themselves at an alarming rate, mostly by hanging and with guns. While child suicide accounted for only 5 percent of all Iowa child death, it increased by 50 percent in 2010. Many of these children were bullied at school; many were in homes with significant chaos as the norm. This epidemic warrants close monitoring.

- Accidents accounted for 29 percent of child death. The Child Death Review Team finds this number unacceptable, particularly in this era of improved and easily available safety devices. We support the increased scrutiny of the graduated driver's license program, as well as efforts to limit the use of cellular phones and texting while driving.

- We would like to invite the readers of this report to study the appendix, which highlights sleep-related deaths. There are far too many children dying in inappropriate bedding, in improper positions, or suffocated by a caregiver who is co-sleeping. We support the Iowa SIDS Foundation's efforts to improve education of parents, caregivers, and extended family about safe sleep.

Finally, as the chairperson of this team, I would like to commend the Office of the State Medical Examiner for taking on the coordination of the team's activities. OSME team members work tirelessly to collect and present data to the team in the most efficient way so that our time together can be as effective as possible. I am honored to be a member of this team. I look forward to our continued efforts to make a difference for Iowa's most valuable asset - our children.

Respectfully submitted,

Laurie Gehrke, R.N., BSN, CPEN, CEN, CMTE
Chairperson, Iowa Child Death Review Team

Executive Summary
2010 Iowa CDRT Report

The goal of the Iowa Child Death Review Team is to identify those risks or factors in childhood (ages 17 and under) that result in fatal outcomes through a retrospective review of child death cases. A multidisciplinary team approach to reviewing child death cases is conducted. Recommendations made by the team are based on data, which then are used to identify trends that require systemic solutions.

A review of 2010 data shows child deaths continue to decline in Iowa, decreasing from 386 deaths in 2008, to 311 deaths in 2009, and to 302 deaths in 2010. The incidence of child deaths continues to be higher in the counties with the highest populations: Black Hawk, Dubuque, Johnson, Linn, Polk, Scott, and Woodbury. Polk and Johnson counties have large and very active children's trauma centers. This accounts for higher incidences in these counties because many severe child trauma cases from across the state, and even outside of Iowa, are referred to these centers for treatment.

In general, natural deaths including premature birth, birth defects and cancer, are much more difficult to prevent. Reducing the pregnant mother's exposure to second-hand smoke and eliminating prenatal smoking, alcohol and illicit drug use are likely to significantly reduce the number of natural deaths. Also, promoting regular prenatal care will help with early detection and prevention of many medical conditions leading to prematurity and birth defects. SIDS and other undetermined infant deaths can be significantly reduced through education of parents and caregivers on the American Academy of Pediatrics' risk reduction recommendations for creating infant safe sleep environments. Medical care providers should consistently offer reminders of these recommendations to parents at well baby and other pediatric appointments.

Accidental deaths can be prevented through adequate education, parental intervention and supervision, and by following established laws. Suicides can be prevented through timely interventions, especially when mental health and bullying concerns are immediately identified and addressed. Cases of abuse or neglect resulting in deaths can be prevented by educating and informing parents and caregivers of available services and support.

NATURAL DEATHS

The majority of Iowa children die by natural means, which include prematurity, various medical conditions, SIDS, congenital anomalies, cancers, infections and other illnesses. The 204 natural deaths in 2010 comprise 68 percent of all Iowa child deaths. Regular prenatal care, well baby visits, and continued medical follow-up by parents and other caregivers is essential in detecting and reducing many prenatal, perinatal and postnatal causes of natural deaths, such as congenital anomalies and maternal complications.

ACCIDENTS

The belief that most accidents are preventable is true. To reduce accidental deaths, increased parental and caretaker supervision should be embraced and imposed. In motor vehicle collision

deaths, continued education and encouragement of seat belt use and proper installation of infant and toddler car seats will reduce deaths of child passengers.

Parents should become involved with educating teen drivers and be models for instilling safe driving practices. Limiting the number of passengers (especially other teenagers) riding with a teen driver will also help reduce the number of accidental deaths. Underage alcohol consumption, illicit drug use and teen drivers distracted by cell phones and other devices were also identified as contributing factors in some of the motor vehicle collisions. Penalties for such actions should be strictly enforced.

Preventing drowning deaths involves enclosing and limiting access to swimming pools, and increasing supervision of children near bodies of water. In addition, children should be properly fitted with personal flotation devices. Swim lessons are also strongly encouraged.

Installation of working smoke detectors in residences and having a fire safety plan can help reduce child fire fatalities.

Wearing helmets, obeying traffic laws and riding/operating bicycles, ATVs, scooters and motorcycles in a safe manner will prevent deaths from these high use/high risk activities.

In 2010, 89 children died from accidents, comprising 29 percent of all child death; the majority of deaths continue to be the result of motor vehicle collisions. In 2009, 62 children died from accidents.

SUICIDES

In 2010, there were 16 child suicides, comprising 5 percent of all child deaths. This was a 50 percent increase over 2009, when eight child suicides occurred. Children that committed suicide were between 13 and 17 years of age. The most common method used to inflict self-harm was hanging, followed closely by the use of a firearm. Recognizing mental health concerns and other stressors in children, such as bullying, school performance, family and personal relationship discord, as well as drug and alcohol abuse, can lead to intervention and counseling to help control and abate self-harm. Controlling and restricting child access to firearms is essential.

HOMICIDES

There were seven child homicides in 2010. Two of the homicides were caused by perpetrators (biological fathers) who were stressed and could not effectively cope with a crying child. Two homicides were caused by perpetrators (biological father's paramour and biological mother) who had severe "personality conflicts" with the children in their care. One homicide was caused by a perpetrator (biological mother's paramour) who suffered from anger management issues, and was overzealous and controlling in his discipline of a child. One homicide was perpetrated by a friend of the decedent during an argument. Of the seven perpetrators of these homicides, five had documented history of illicit drug use.

Strategies to prevent homicides in children include increased awareness and utilization of local family support and counseling services. Parenting and anger management classes should include education on how best to react to stressful and chaotic situations, such as caring for crying or

difficult infants and children. These classes should include education on the warning signs of stress, when to ask for help, and where to seek out support. Lastly, if they are unable to do so themselves for any reason, parents and caregivers should carefully choose whom they entrust to watch and care for their children.

UNDETERMINED

In 2010, there were 44 deaths classified as undetermined. Unspecified medical conditions and Sudden Infant Death Syndrome (SIDS)/Sudden Unexplained Infant Deaths (SUID) comprised the majority of these cases. When deaths are certified as "undetermined" it usually means that evidence exists to support other competing manners of death (i.e. accident, suicide), or there was no explanation of the circumstances surrounding a death that would definitely determine the manner. In many SIDS/SUID deaths, it is difficult to determine a degree of risk attached to a particular unsafe sleep environment component; however, enough evidence exists to suggest that any one component or risk factor, or combination of risk factors, do create an environment that increases the risk of injury or death to a child during sleep.

APPENDIX SUMMARY

The Appendix contains data on those deaths that were deemed sleep-related. Sleep-related death data was obtained and analyzed from those deaths in 2010. Data showed that of the 44 total deaths, two were over 12 months of age, and 42 were 12 months or less. The most common sleep surfaces for children were adult beds, portable cribs and couches. Soft bedding was a significant factor in 33 of the total deaths. In eight deaths, the child was placed to sleep in the prone position and in 22 of the total cases, the child was found deceased in the prone position. In 16 of the 44 deaths, co-sleeping with one or more adults or older children was a contributing factor in the deaths.

In 28 of the deaths, exposure to tobacco products was noted and 14 were exposed to alcohol or illicit drugs either in utero, environmentally, or their caretakers at the time of death were under the influence of these substances (five deaths were reported as unknown use of tobacco, drugs or alcohol).

Of the 44 sleep-related deaths researched, 21 deaths were certified as Sudden Unexplained Infant Death (SUID), 13 deaths were certified as Sudden Infant Death Syndrome (SIDS), three deaths were undetermined, four deaths were due to positional asphyxia, one death was due to traumatic asphyxia, one death was due to mechanical asphyxia (smothering) and one death was due to acute hypoxic ischemic injury. The acronym and certification of SUID is commonly used when a "non-natural" factor may have contributed to the death, such as exposure to drugs or alcohol, an unsafe sleep environment, etc. The acronym and certification of SIDS implies that the death scene investigation, autopsy and other laboratory tests and interviews of witnesses did not reveal any concerns or suspicions and no readily identifiable cause of death was found.

The data suggests that a majority of sleep-related deaths included identifiable risk factors in the baby's sleep environment that research shows increases an infant's risk of SIDS/SUID, and can directly contribute to accidental sleep related deaths. All infants should sleep in a safety-approved crib, with a firm mattress, no additional soft bedding (including bumper pads, blankets,

pillows, etc.), or any other extraneous items. Sharing a bed or other adult sleep surfaces, such as couches, with adults or siblings should be eliminated. Care should be taken to provide a nicotine-free environment for babies, both pre- and post-natal. Caretakers of all children should never be under the influence of alcohol or drugs and their attention should be focused on creating a safe environment for the child.

John C. Kraemer, PA, F-ABMDI
Director, Forensic Operations
State Child Death Review Team Coordinator
Iowa Office of the State Medical Examiner
Iowa Department of Public Health

Iowa Child Death Review Team
Annual Report Recommendations

1. The Iowa Child Death Review Team (ICDRT) recommends that appropriate safe sleep educational resources, based on the American Academy of Pediatrics Safe Sleep Expanded Recommendations (January 2013), be distributed by healthcare professionals and discussed with all new parents before discharge from an Iowa hospital in an effort to proactively campaign to reduce infant deaths. In regard to childcare providers of infants less than one year of age, the ICDRT recommends that mandatory safe sleep training is completed within the first three months of employment.

2. The ICDRT recommends evaluation for drug and/or alcohol use by caretakers present when a child dies in violent or suspicious circumstances. In addition, all drivers involved in a fatal motor vehicle crash (MVC) will be tested for drugs and alcohol at the time of the crash.

3. The ICDRT recommends an autopsy be performed upon the death of any child, unless deferred by the Iowa Office of the State Medical Examiner. These autopsies should be strongly encouraged or mandatory, and will include toxicological evaluation. This recommendation will apply to every child who dies, with the exception of children who are known to have died of a natural disease process while under the care of a physician or under extenuating circumstances as determined in consultation with the Iowa State Medical Examiner.

4. The ICDRT recommends establishing a statewide system of community child death review teams comprised of representation similar to the state team. These community teams will review all deaths of children 17 years or younger that occur in their area. These teams will be permitted the same statutory authority as the ICDRT to gather and review information related to child deaths, as long as they operate under strict confidentiality guidelines. As with the ICDRT, all members will be volunteers. Community CDRTs will submit information regarding their reviews to the ICDRT.

5. The ICDRT recognizes the importance of prevention of child death and therefore supports efforts to educate professionals involved in the lives of children. This will include formal and informal education. In addition, the ICDRT recommends increased resources for schools to improve screening for mental health conditions in adolescents.

6. The ICDRT, with recognition of the importance of early recognition of child abuse, supports and recommends enhanced and mandatory child abuse trainings designed for professionals interacting with children. Families can be strengthened and tragedies prevented through such trainings.

7. Relationship and financial stressors lead to increased chances for abusive behavior towards children by adults. Services that offer support, guidance and counseling to struggling families should be made available free of charge, or at a minimal cost.

8. Children should always be properly supervised. No matter how safe a commercial product is made or endorsed (i.e. toys, pools, swing sets), there is no substitute for proper supervision of children.

History of the Iowa Child Death Review Team

The State Child Death Review Team was first established in 1995 via Iowa Code 135.43 and is governed through Iowa Administrative Rule 641-90. The Team is composed of 14 members and seven state government liaisons. Each of the 14 members represents a different professional organization or medical specialty. Team members represent such disciplines as Perinatology, Neonatology, Pediatrics, Law Enforcement, Social Work, Substance Abuse, Mental Health, Domestic Violence, Family Practice, Forensic Pathology, Law, SIDS, Nursing, EMS, Trauma Services and Insurance. Each of the aforementioned disciplines recommends an individual to represent their professional on the team who has demonstrated a commitment to improving the health and safety of children in Iowa. Team liaisons representing the Departments of Human Services, Public Health, Transportation, Attorney General, Education, and Public Safety are also involved with case review and the development of recommendations.

In1995, legislation was enacted mandating review of child deaths through age 6 years. In 2000, the law was amended to mandate that child deaths ages 17 and under be reviewed. In 2005, legislation was passed to allow the State Child Death Review Team to recommend to the Department of Human Services, appropriate law enforcement agencies and other persons involved with child protection, interventions that may prevent harm to a child who is living in the same household as a child whose case is reviewed by the team.

Prior to 2009, the Iowa Child Death Review Team was coordinated by two individuals within the Bureau of Family Health within the Iowa Department of Public Health (IDPH). The team had an annual budget of $28,000. Funding for this program came from the IDPH MCH Block Grant ($8,000) and the state's general fund ($20,000). Funding was year-to-year. This funding was allocated to support the two IDPH employees assigned to help coordinate the team, pay for supplies, and to allow team members' reimbursement for their travel to Des Moines, Iowa and other associated expenses related to regularly scheduled meetings. In 2009, staffing and funding for this program was eliminated due to federal and state budget cuts. In the spring of 2009, the Iowa Office of the State Medical Examiner (IOSME) was assigned the coordination of the team with no funding or staff, due to budget cut-backs. One full-time and two part-time IOSME staff members were given the additional responsibility of assisting the Chief State Medical Examiner with case review and team management. In 2012, the IDPH Bureau of Family Health also assigned an employee to assist the team with record acquisition. The team members and liaisons continue to attend a minimum of four scheduled meetings annually on a strictly voluntary basis, with knowledge that reimbursement for their expenses is not possible. This exemplifies the true passion, commitment and dedication team members have for preventing childhood injuries and deaths.

Due to the work involved in transitioning and integrating the team into the IOSME and the necessary updating of the Iowa Code and Administrative Rules to reflect the change in team coordination and focus, the team was inactive for several months. In April, 2010 the team held its first meeting under the auspices of the IOSME. Every child death is reviewed by the CDRT Coordinator and then is subsequently entered into the National Child Death Reporting System Database. The CDRT Coordinator then selects child death cases where there was a noted deficiency in reporting, investigating, and lack of appropriate resource allocation for in-depth team review.

Using the current model of operation in today's challenging economic environment, the Child Death Review Team has re-focused its mission and objectives. The purpose of the Team is to aid in the reduction of preventable deaths of children under the age of 18 years through the identification of unsafe consumer products; identification of unsafe environments; identification of factors that play a role in accidents, homicides and suicides which may be eliminated or counteracted; and promotion of communication, discussion, cooperation, and exchange of ideas and information among agencies investigating child deaths.

This and future annual reports will be direct, concise and highlight only those areas in child death where improvements can be made and future lives can be saved.

2010 Deaths by County

County Name	Number of Deaths
Adams	1
Benton	3
Black Hawk	11
Boone	5
Bremer	2
Buena Vista	1
Butler	1
Calhoun	2
Cass	3
Cedar	2
Cerro Gordo	5
Cherokee	2
Chickasaw	1
Clay	1
Clinton	5
Dallas	3
Decatur	1
Des Moines	5
Dubuque	8
Floyd	1
Franklin	1
Grundy	1
Hamilton	1
Hancock	1
Harrison	2
Howard	1
Humboldt	1
Jackson	2
Jasper	5
Jefferson	1

County Name	Number of Deaths
Johnson	63
Jones	2
Keokuk	1
Kossuth	2
Lee	2
Linn	13
Louisa	1
Lucas	2
Mahaska	1
Marion	4
Marshall	2
Monroe	2
Muscatine	1
Page	3
Pocahontas	1
Polk	75
Pottawattamie	6
Ringgold	2
Scott	9
Sioux	1
Tama	1
Union	4
Wapello	4
Warren	3
Wayne	1
Webster	1
Woodbury	9
Wright	2
Not Indicated	4
Total Deaths	**301**

* Counties not listed reflect 0 child deaths
** One homicide death included occurred out of state

2010 Deaths by Residence

County Name	Number of Deaths
Adair	2
Adams	2
Appanoose	1
Benton	3
Black Hawk	14
Boone	6
Bremer	1
Buchanan	1
Buena Vista	1
Butler	2
Calhoun	2
Carroll	1
Cass	3
Cedar	2
Cerro Gordo	3
Cherokee	2
Chickasaw	1
Clarke	1
Clay	1
Clayton	3
Clinton	7
Dallas	6
Davis	1
Decatur	2
Delaware	1
Des Moines	6
Dubuque	12
Fayette	2
Floyd	1
Grundy	1
Hamilton	2
Hancock	2
Harrison	2
Howard	1
Humboldt	1
Iowa	2
Jackson	3
Jasper	3
Jefferson	2

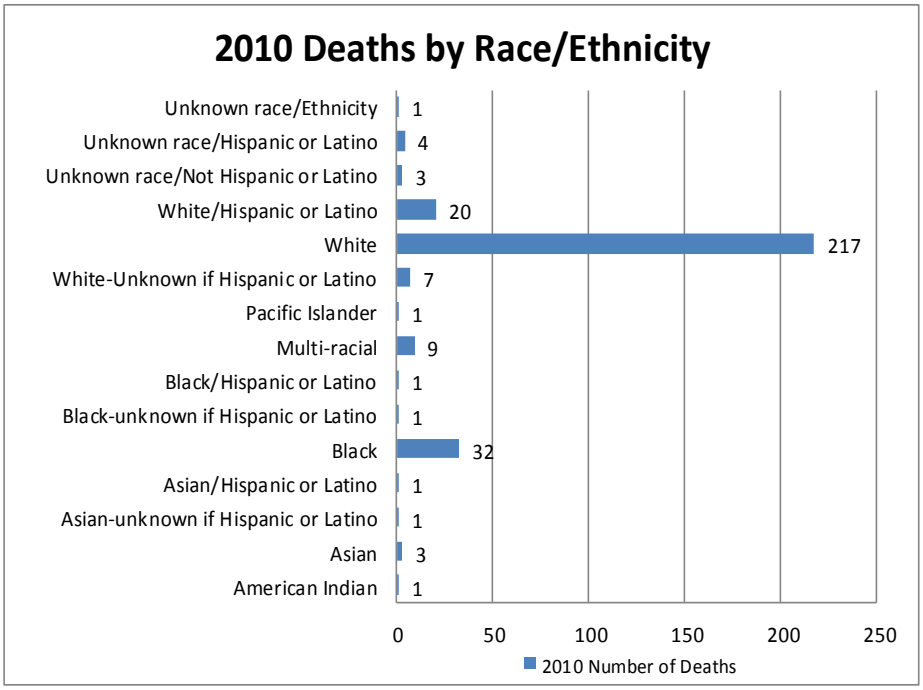
County Name	Number of Deaths
Johnson	15
Jones	3
Keokuk	1
Kossuth	2
Lee	2
Linn	14
Louisa	4
Lucas	5
Madison	2
Mahaska	2
Marion	4
Marshall	3
Monroe	2
Muscatine	2
Page	3
Plymouth	2
Pocahontas	3
Polk	53
Pottawattamie	5
Poweshiek	1
Ringgold	2
Sac	1
Scott	20
Sioux	2
Story	2
Tama	1
Taylor	1
Union	6
Van Buren	1
Wapello	5
Warren	7
Washington	2
Webster	2
Winnebago	1
Woodbury	5
Worth	1
Wright	2
Not Indicated	4
Total Deaths	**302**

*Counties not listed reflect 0 deaths

2010 Deaths by Race and Ethnicity

In 2010 there were a total of 302 deaths involving Iowa children ages 17 and under. As the graph below shows, a majority of deaths occurred within the Caucasian population. This is to be expected, as a majority of Iowa's population is Caucasian.

Race/Ethnicity	2010 Number of Deaths
American Indian	1
Asian	3
Asian-unknown if Hispanic or Latino	1
Asian/Hispanic or Latino	1
Black	32
Black-unknown if Hispanic or Latino	1
Black/Hispanic or Latino	1
Multi-racial	9
Pacific Islander	1
White-Unknown if Hispanic or Latino	7
White	217
White/Hispanic or Latino	20
Unknown race/Not Hispanic or Latino	3
Unknown race/Hispanic or Latino	4
Unknown race/Ethnicity	1
Total Deaths	**302**



2010 Deaths by Cause and Manner

In 2010, the data showed a majority of child deaths were those that were male and less than 1 year of age. Most deaths were certified as natural followed by accidental, undetermined, suicide and then homicide.

In Iowa, the attending physician or medical examiner certifies the cause and manner of death. The cause of death is defined as an event or action which ultimately caused the decedent's death. The manner of death is how the death occurred based on the circumstances surrounding the death. Iowa's death certificate allows the certifier to choose from five different manners of death: natural, accident, suicide, homicide or undetermined.

The five manners of death are defined as follows:

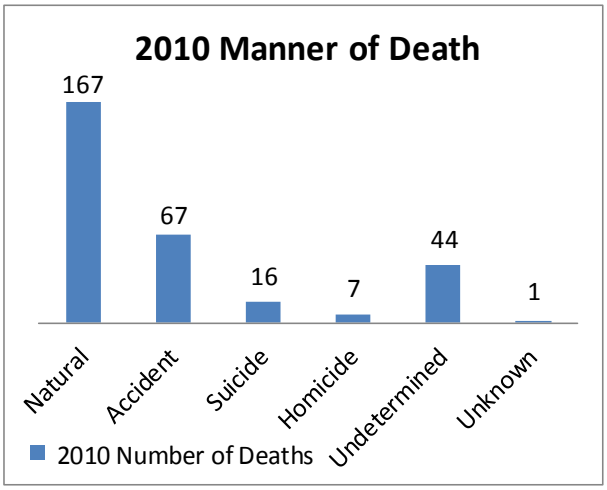
Natural: Death resulted from a natural process such as disease, prematurity or a congenital defect. Most deaths of this manner are considered by the CDRT to be non-preventable.

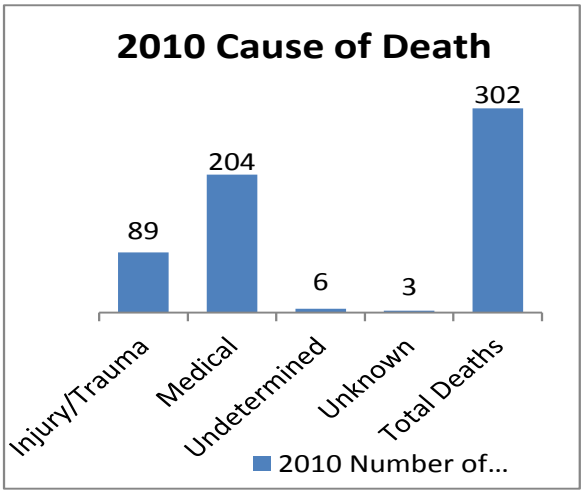
Accident: Death resulted from an unintentional act or an uncontrolled external environmental influence.

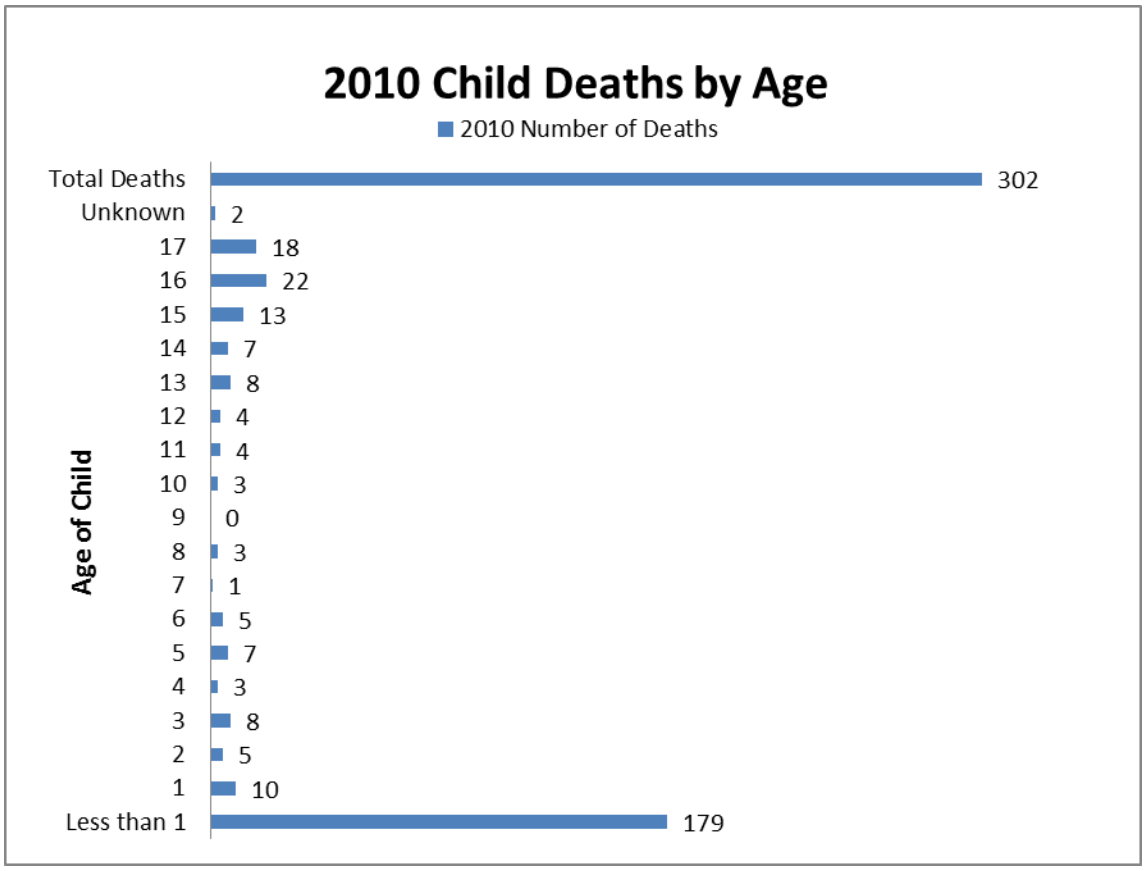
Suicide: Death resulted from one's own intentional actions. Evidence to support this manner can be both explicit and implicit.

Homicide: Death resulted from the actions of another individual with or without the intent to kill.

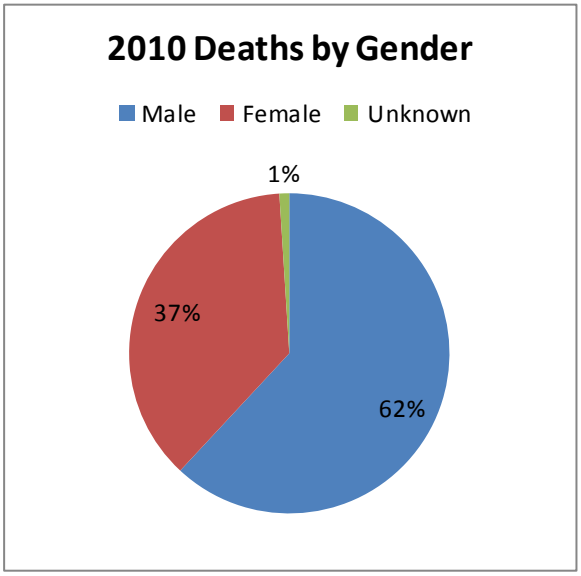
Undetermined: Investigation of circumstances and autopsy did not clearly identify the manner of death or evidence gathered supported equally two or more other manners of death.







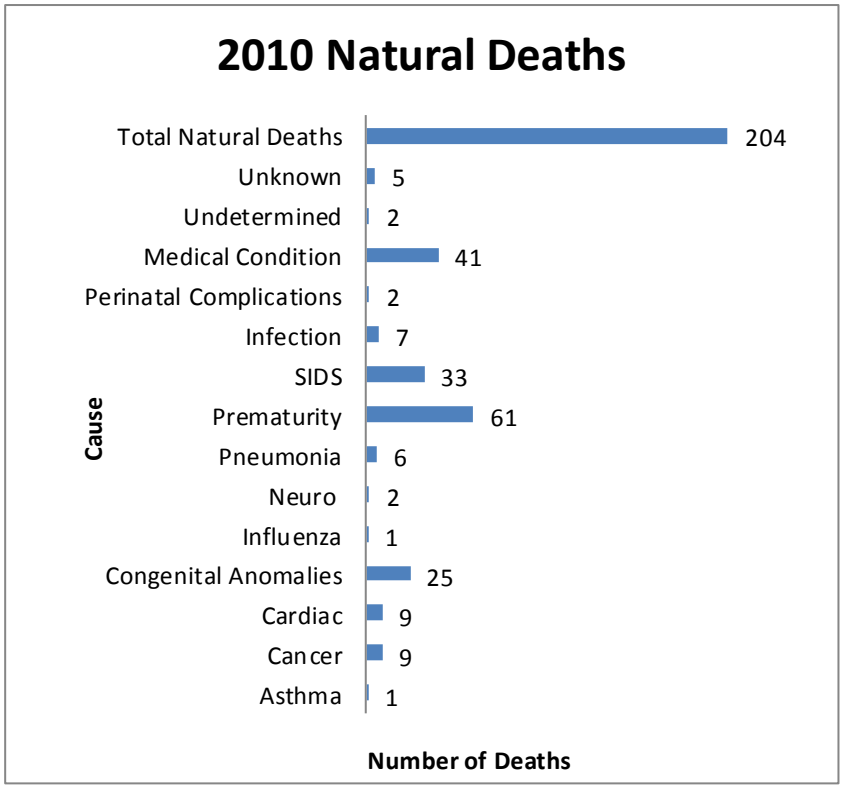
Gender	2010 Deaths
Male	187
Female	112
Unknown	3
Total Deaths	**302**



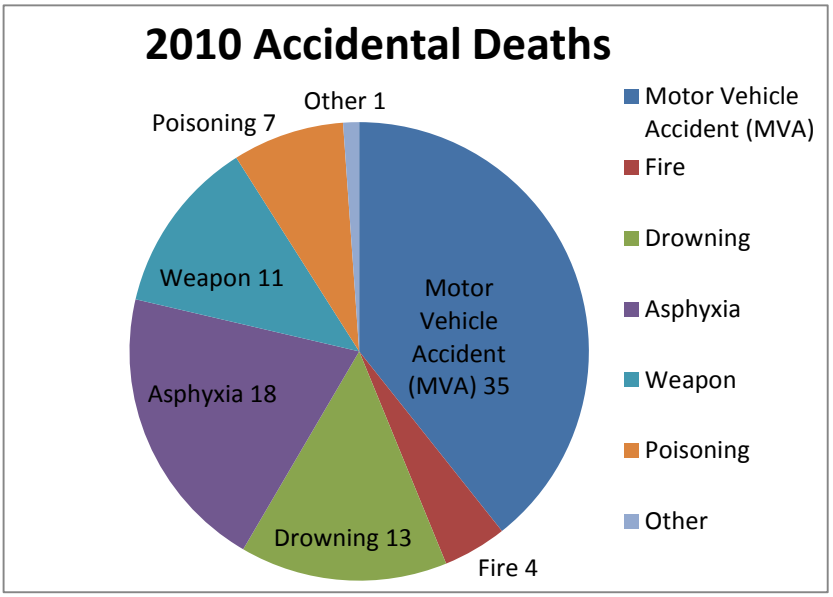
2010 Natural Deaths

A majority of child deaths in 2010 were the result of prematurity, various medical conditions, congenital anomalies, cancers, infections, other illnesses or SIDS. These deaths were the result of natural factors affecting the mother, the developing fetus and child during pregnancy, child birth, and development. Such factors can include pneumonia, influenza, nuchal cord and other complications affecting pregnancy, delivery and development.

By definition, cases where the cause of death was certified as Sudden Infant Death Syndrome (SIDS), the investigation, autopsy, death scene and interview findings revealed no suspicions that any action or event was non-natural.

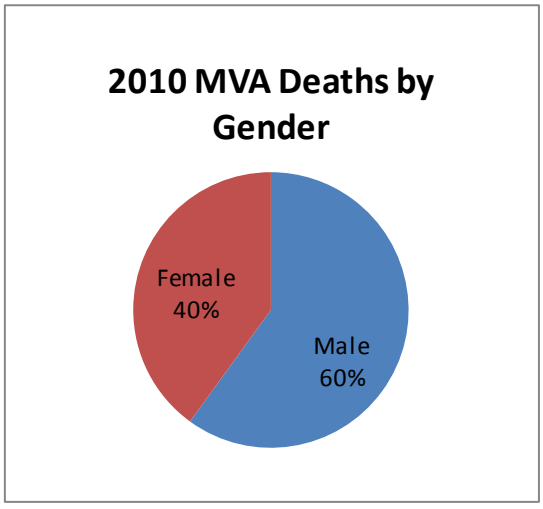


There were 89 reported accidental deaths in 2010. A vast majority of these deaths were the result of motor vehicle collisions and asphyxia, followed by drowning, use of weapons (firearms), poisoning, and fire related.



The deaths resulting from motor vehicle collisions can be attributed to not wearing seat belts, careless driving (contributing factors included inexperience, speeding and distractive driving) and impairment.

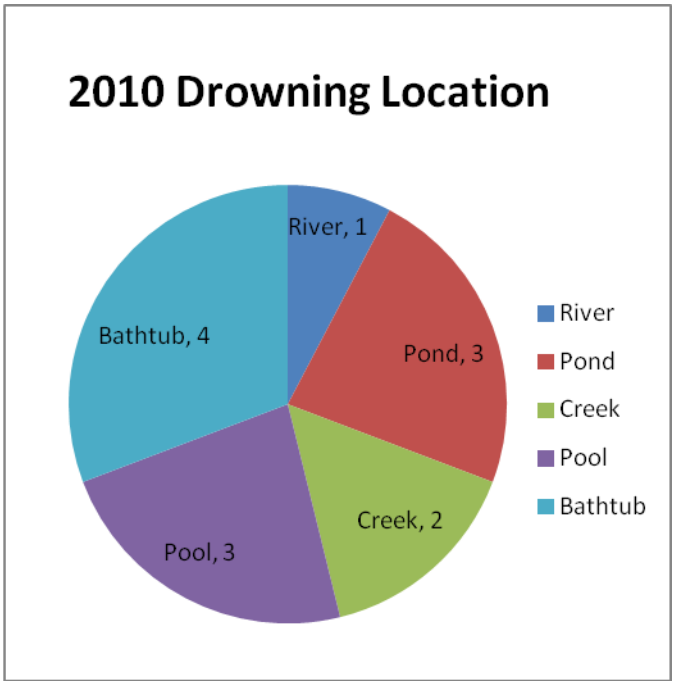
Gender	2010 MVA Deaths
Male	21
Female	14
Total	**35**



Asphyxial deaths result from inadequate oxygenation due to airway obstruction or the individual's inability to breathe. Asphyxiation may result from positional, mechanical, chemical, and oxygen-deficient atmospheres. These deaths include autoerotic activities, farm accidents (tractor roll-overs, grain/corn engulfment), drowning, infants co-sleeping with adults, and entrapment of children between bedding and walls/objects (wedging).

Four fatalities were the result of fire, burns or electrocutions. One statistic of note was that in these deaths, the family's home lacked either a working smoke detector or did not have one at all.

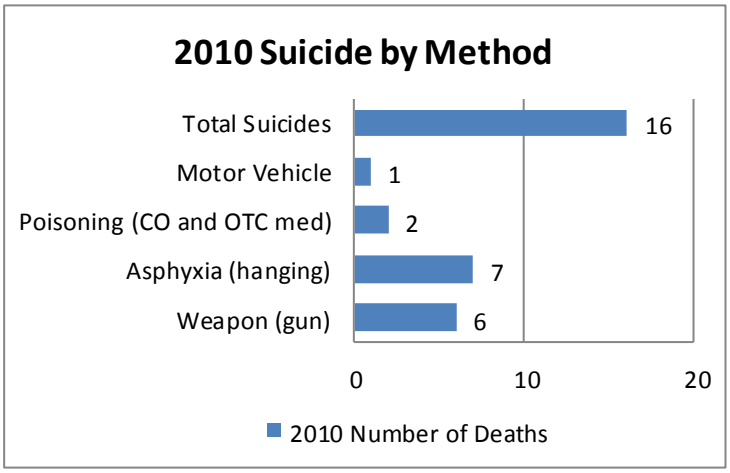
Of the 89 accidental child deaths reported in 2010, 13 were the result of drowning. Many of these drowning incidents can be attributed to inadequate supervision, failure of inexperienced swimmers to know their true swimming abilities, or not using a personal flotation device (PFD).

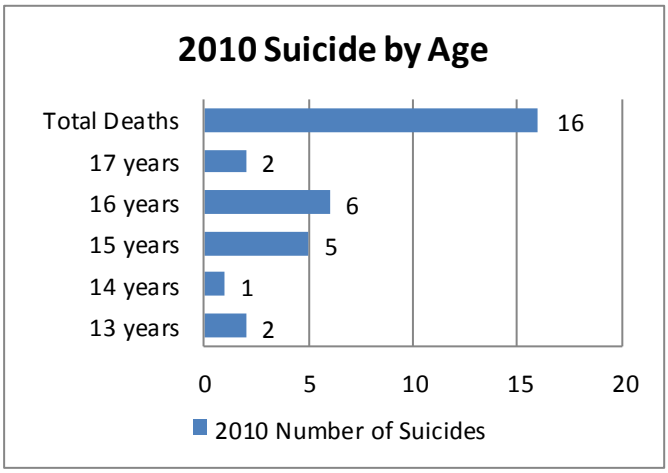


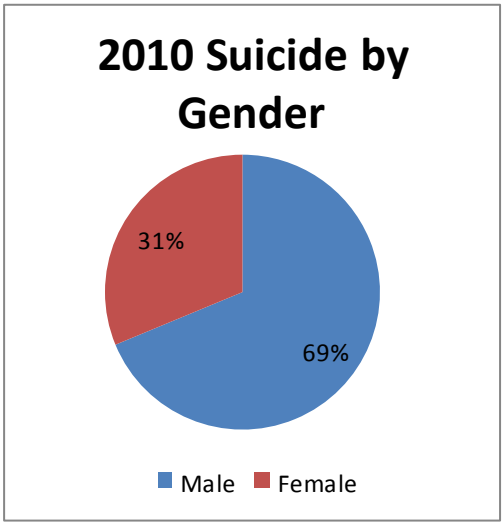
Seven poisoning deaths occurred. These were attributable to ingestion of Diphenhydramine (one), Methadone (one), methamphetamine (one), and mixed drug intoxication (one), and carbon monoxide poisoning (three fire deaths).

2010 Suicide Deaths

In 2010, there were 16 suicides of children ages 17 and under. Males comprised the majority of suicide victims with 11 deaths (there were five female deaths). Of these 16 deaths, 13 were between the ages of 15-17 years and three were between the ages of 13-14 years. Six children utilized a firearm, seven hanged themselves, one used a motor vehicle, and two were the result of poisoning (inhalation of carbon monoxide and ingestion of over-the counter medication). The CDRT strongly recommends full investigation, including autopsy, in the case of a death by suicide.







2010 Homicide Deaths

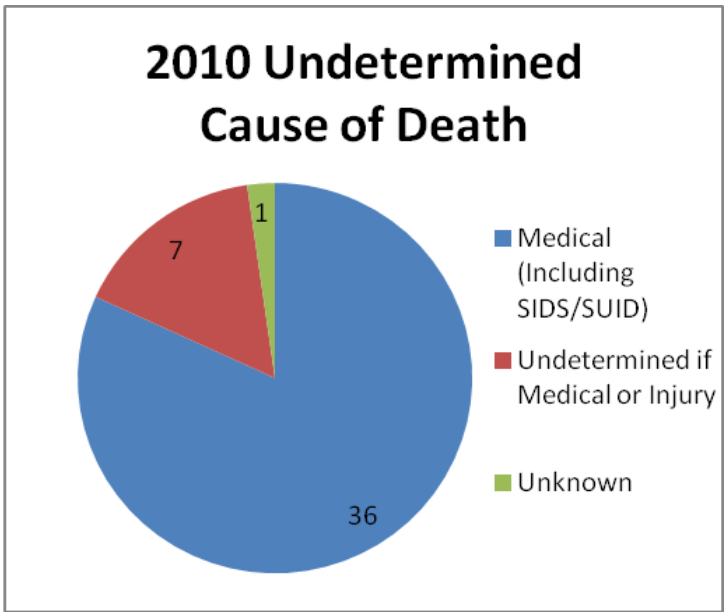
In 2010, Iowa experienced seven homicides affecting children ages 17 and under.

Three homicides were the result of abusive head trauma. One homicide was classified as "homicidal violence," as the true and exact nature of events leading to the death could not be ascertained due to the condition of the decedent when discovered. One homicide was due to blunt force injuries of the abdomen and chest. One homicide was caused by drowning (bathtub) and one homicide was caused by the use of a firearm (gunshot wound of chest).

Age	Gender	Method	Perpetrator/Criminal Sentencing
1 m	Male	Head Injuries by shaking	**Bio Father** (24 y/o) Child Endangerment: 10 years Willful Injury Causing Injury: 10 years
4 m	Female	Head Trauma	**Bio Father** (20 y/o) 1st Degree Murder and Child Endangerment Causing Death: Life
18 m	Female	Pending Litigation	Pending Litigation
20 m	Female	Homicidal Violence-Remains found in a backyard firepit	**Bio Mother** (32 y/o) Child Endangerment Causing Death: Currently incarcerated with a tentative release date of 2045.
3 y	Male	Blunt Force Injuries to Abdomen and Chest-by kicking and punching	**Bio Mother's Paramour** (20 y/o) 1st Degree Murder: Life
4 y	Male	Drowning by holding head under water	**Adoptive Mother** (31 y/o) Child Endangerment: 50 years.
16 y	Male	Gunshot Wound to Chest	**Friend** (14 y/o) Involuntary Manslaughter: To serve 3 years in a residential facility.

2010 Undetermined Deaths

In 2010, the exact cause of death for 44 children could not be determined. Of the 44 deaths, three occurred in a childcare setting. Two homes were unregistered and one home was registered with the state. The graph below shows general categories or events that likely caused or contributed to a child's death. A vast majority of these deaths were categorized as medical causes, which in the context of the exact cause being undetermined, implicates these deaths as likely being due to Sudden Infant Death Syndrome (SIDS) or Sudden Unexplained Infant Deaths (SUIDs).



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2010 Sleep Associated Death Data

Data Collected
November 2012

Iowa Office of the State Medical Examiner

Iowa Child Death Review Team

Iowa SIDS Foundation

APPENDIX SUMMARY

Sleep-related death data was obtained and analyzed from those deaths in year 2010. Data showed that of the 44 total deaths, two were over 12 months of age, and 42 were 12 months of age or less. The most common sleep surfaces for children were adult beds, portable cribs and couches. Soft bedding was a significant factor in 33 of the total deaths. In eight deaths, the child was placed to sleep in the prone position and in 22 of the total cases, the child was found deceased in the prone position. In 16 of the 44 deaths, co-sleeping with one or more adults or older children was a contributing factor in the deaths.

In Twenty-eight deaths, the child was exposed to tobacco products and 14 were exposed to alcohol or illicit drugs either in utero, environmentally, or their caretakers at the time of death were under the influence of these substances (five deaths were reported as unknown use of tobacco, drugs or alcohol). Of the 44 sleep-related deaths researched, 21 deaths were certified as Sudden Unexplained Infant Death (SUID), 13 deaths were certified as Sudden Infant Death Syndrome (SIDS), three deaths were undetermined, four deaths were due to positional asphyxia, one death was due to traumatic asphyxia, one death was due to mechanical asphyxia (smothering) and one death was due to acute hypoxic ischemic injury. The acronym and certification of SUID is commonly used when a "non-natural" factor may have contributed to the death, such as exposure to drugs or alcohol, an unsafe sleep environment, etc. The acronym and certification of SIDS implies that the death scene investigation, autopsy and other laboratory tests and interviews of witnesses did not reveal any concerns or suspicions and no readily identifiable cause of death were found.

The data suggests a majority of sleep-related deaths included identifiable risk factors in the baby's sleep environment that research shows increases an infant's risk of SIDS/SUID, and can directly contribute to accidental sleep related deaths. All infants should sleep in a safety approved crib, with a firm mattress, no additional soft bedding (including bumper pads, blankets, pillows, etc.) or any other extraneous items. Sharing a bed or other adult sleep surfaces such as couches with adults or siblings should be eliminated. Care should be taken to provide a nicotine-free environment for babies, both pre- and post-natal. Caretakers of all children should never be under the influence of alcohol or drugs and their attention should be focused on creating a safe environment for the child.

Risk Factors	2010-(44 Deaths)
Gender	Female - 17 Male - 27
Age at TOD (in months)	< 1: 3 1: 10 2: 9 3: 4 4: 9 5: 4 6: 1 7: 1 8: 0 9: 0 10: 1 11: 0 12: 0 15: 1 25: 1
Place of Death (Home includes parental, grandparent or other family member.)	Home - 41 Unregistered Childcare Home - 2 Registered Childcare Home - 1
Position Laid Down (Conflicting reports were noted as Unknown.)	Supine - 21 Prone - 8 Side - 8 Seated - 1 Unknown - 6
Position Found (Conflicting reports were reported as Unknown.)	Supine - 10 Prone - 22 Side - 6 Seated - 1 Unknown - 5
Sleep Surface	Adult Bed-10 Bassinet-1 Bouncy Seat-1 Car Seat-2 Couch-8 Crib-8 Fold Out Toddler Chair-1 Nap Nanny-1 Pack & Play-9 Unknown-3
Co-Sleeping (Includes twin, siblings, parents, and other family members.)	Yes-16 No-26 UK-2
Soft Bedding (Included any item in the baby's sleep environment other than a firm mattress and tight fitting sheet.)	Yes-33 No-47 UK-7
Nicotine Exposure (Included any exposure to nicotine prior to the pregnancy, pre and post natal.)	Yes-28 No-11 UK-5
Drug/Alcohol Exposure (Included any self admission, prior use, prior charges of any of the caregivers, or evidence at the scene.)	Yes-14 No-20 UK-10
Temperature	Noted as warm/hot-4 64-70* - 11 71-72* - 5 73-74* - 5 >74* - 4 Unknown - 15
Pacifier Use	Yes-3 No-3 UK-38
Immunizations Current (Infants not eligible due to age, were counted as being current with all vaccinations.)	Yes-4 No-2 UK-38

Appendix

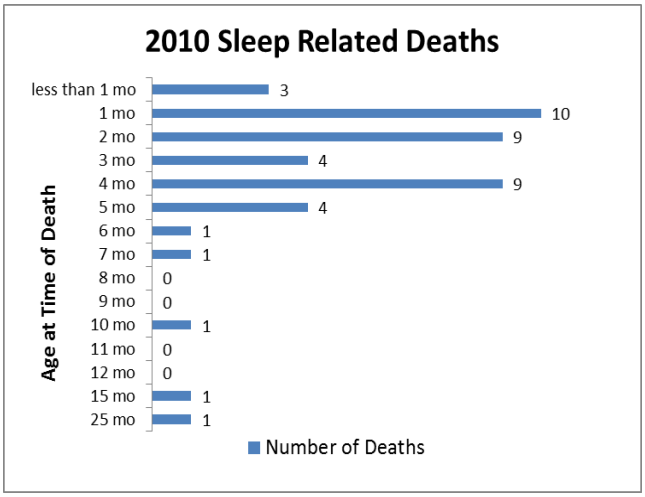
Demographics	2010 (44 Deaths)
Cause of Death (As reported on the death certificate and/or autopsy.)	Sudden Infant Death Syndrome (SIDS) - 13 Sudden Unexplained Infant Death (SUID) - 20 Undetermined - 3 Sudden Unexplained Death - 1 (25 month old) Positional Asphyxia - 4 Traumatic Asphyxia - 1 Mechanical Asphyxia/Smother - 1 Acute Hypoxic Ischemic Injury - 1
Manner of Death	Undetermined - 37 Accident - 6 Natural - 1
Deaths Per Month	Jan - 9 July - 2 Feb - 2 Aug - 2 March - 2 Sept - 7 April - 4 Oct - 4 May - 4 Nov - 1 June - 3 Dec - 4
Multiple Birth	Yes - 3 No - 41
Race	White - 31 Black - 6 Hispanic - 2 White/Black - 1 White/Hispanic - 3 Hispanic/Asian - 1
Nutrition	Formula - 30 Breastfed - 3 Combination - 3 Milk/Food - 2 Unknown - 6
DHS Involvement (Includes any involvement as a victim or perpetrator of any caregiver.)	None - 20 History - 13 Open Case at Time of Death -3 Unknown - 8
Criminal History (Includes any criminal record reported, Including drug and alcohol related charges.)	None - 15 Yes - 18 Unknown - 11
Prenatal Care (# Visits)	0-5 Visits - 3 6-9 Visits - 4 10+ Visits - 32 Unknown - 5
Gestation	Noted as Full Term - 4 <37 Weeks - 13 37-41 Weeks - 27
Birth Weight	Unknown - 6 < or = 5.5 lbs. - 9 > 5.5 lbs. - 29
Assistance	None - 12 WIC - 2 Medicaid - 4 WIC/Medicaid - 21 Food Assistance/Family Investment Program/MED - 0 Unknown - 5

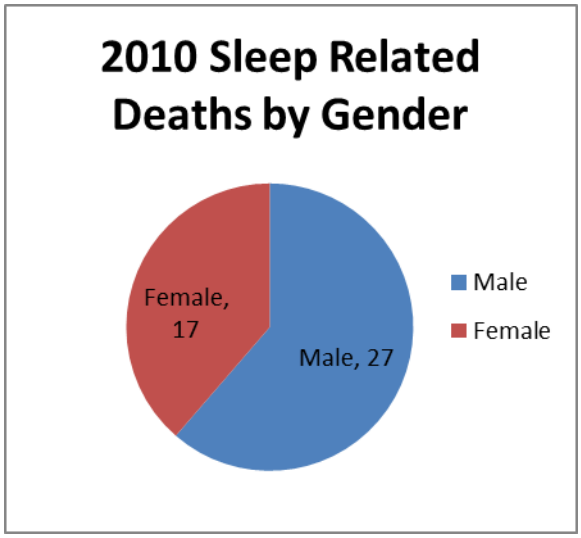
Deaths Per County - 2010 Sleep Related Deaths			
County	**2010**	**County**	**2010**
Black Hawk	3	Marshall	1
Boone	1	Monroe	1
Calhoun	1	Muscatine	1
Cherokee	1	Page	1
Clinton	1	Polk	9
Dubuque	3	Pottawattamie	1
Jackson	1	Scott	2
Jasper	1	Tama	1
Johnson	2	Union	2
Jones	2	Wapello	2
Keokuk	1	Warren	2
Linn	1	Woodbury	2
Louisa	1		

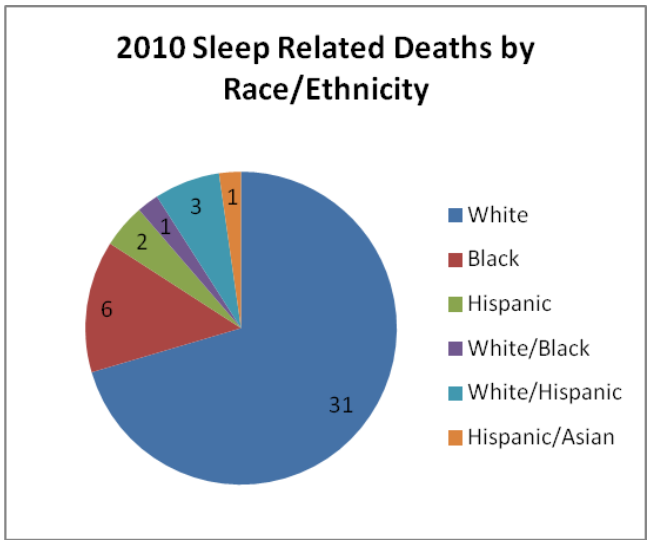
*Counties not listed reflect 0 sleep related deaths

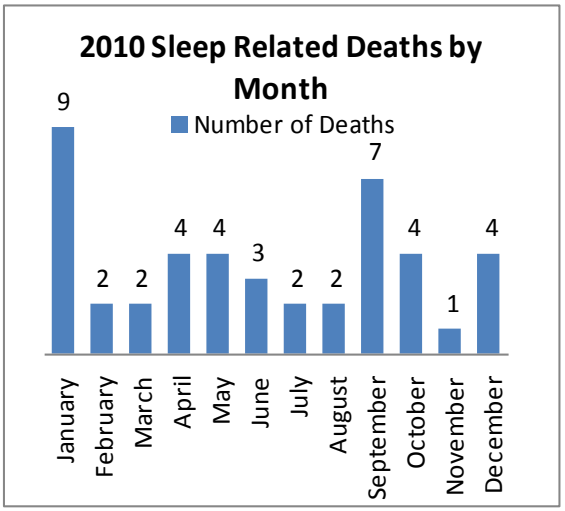
Birth Hospitals - 2010 Sleep Related Deaths			
Hospital	**2010**	**Hospital**	**2010**
Allen Health Center, Waterloo	1	Mercy Medical Center, DM	6
Boone Co. Hospital	1	Mercy Medical Center Dubuque	1
Covenant Hospital	1	Methodist West Des Moines	1
Finley Hospital, Dubuque	2	Omaha Hospital	1
Floyd Valley Hospital	1	Ottumwa Reg. Health Center	2
Genesis Medical Center	3	Pella Regional Med. Center	1
Great River	1	Shenandoah Medical Center	1
Greater Regional Hospital	1	Skiff Med. Center	1
Iowa Lutheran, DM	1	St Luke's, SC	1
Iowa Methodist, DM	2	St. Anthony Hospital	1
Mahaska County Hospital	1	St. Luke’s, CR	2
Marshalltown Med. & Surg. Center	1	University of Iowa	5
Mary Greeley	1	Unknown	3
Mercy Capitol, DM	1		

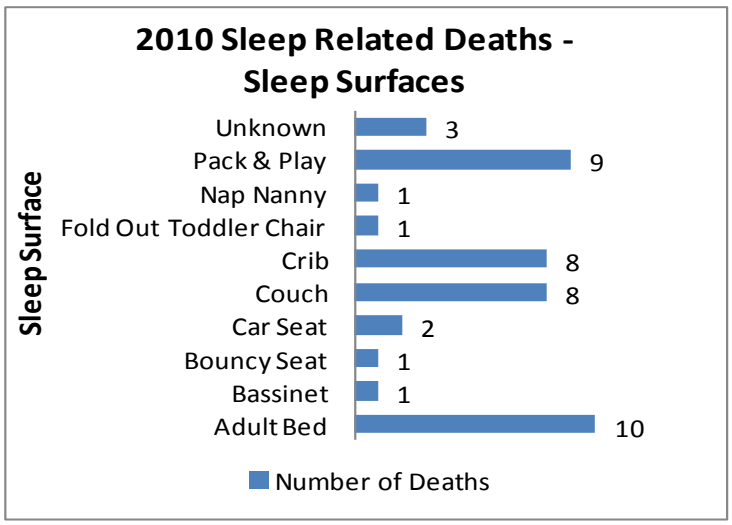
*Hospitals (including home births) not listed reflect 0 sleep related deaths

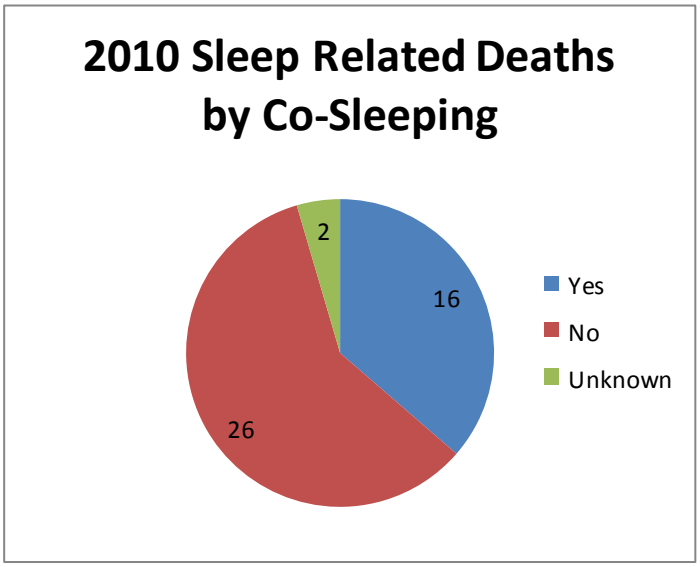

2010 Sleep Related Deaths
Age at Time of Death
less than 1 mo 3
1 mo 10
2 mo 9
3 mo 4
4 mo 9
5 mo 4
6 mo 1
7 mo 1
8 mo 0
9 mo 0
10 mo 1
11 mo 0
12 mo 0
15 mo 1
25 mo 1
Number of Deaths

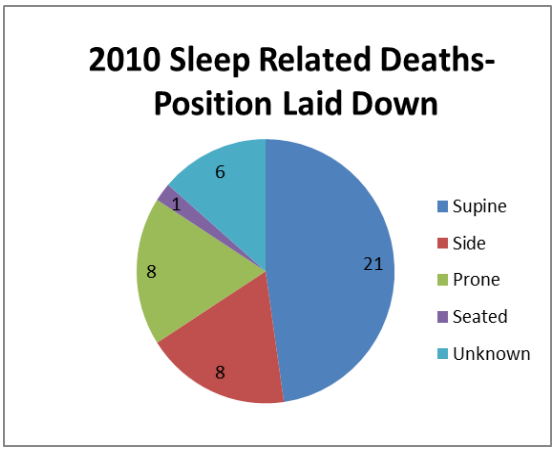

2010 Sleep Related Deaths by Gender
Female, 17
Male, 27
Male
Female

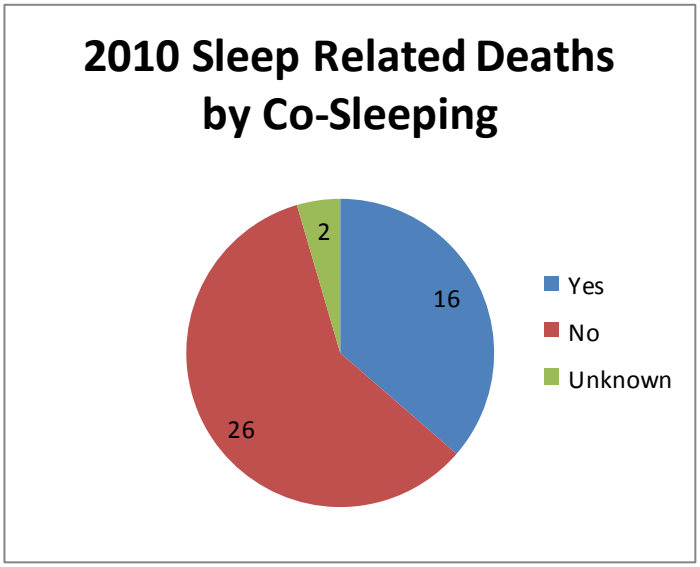

2010 Sleep Related Deaths by Race/Ethnicity
31
6
2
1
3
1
White
Black
Hispanic
White/Black
White/Hispanic
Hispanic/Asian

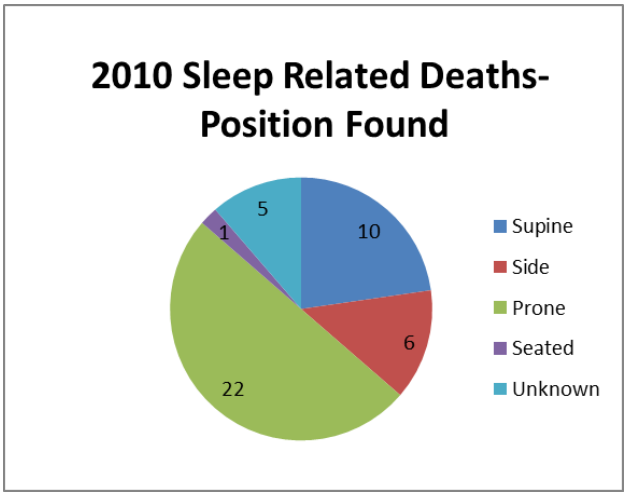

2010 Sleep Related Deaths by Month
Number of Deaths
9
2
2
4
4
3
2
2
7
4
1
4
January
February
March
April
May
June
July
August
September
October
November
December


2010 Sleep Related Deaths - Sleep Surfaces
Sleep Surface
Unknown 3
Pack & Play 9
Nap Nanny 1
Fold Out Toddler Chair 1
Crib 8
Couch 8
Car Seat 2
Bouncy Seat 1
Bassinet 1
Adult Bed 10
Number of Deaths


2010 Sleep Related Deaths by Co-Sleeping
16
2
26
Yes
No
Unknown


2010 Sleep Related Deaths- Position Laid Down
21
8
8
1
6
Supine
Side
Prone
Seated
Unknown


2010 Sleep Related Deaths by Co-Sleeping
16
2
26
Yes
No
Unknown


2010 Sleep Related Deaths- Position Found
10
6
22
1
5
Supine
Side
Prone
Seated
Unknown