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Kansas Child Death Review Board



2010 Annual Report (2008 Data)

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Attorney General Steve Six



October 2010

Dear Friends:

There are few things more tragic than the death of a child. It affects families, as well as communities. To learn more about these tragedies and to try to prevent them, the Kansas Legislature established the Child Death Review Board in 1992.

The state of Kansas is fortunate to have a dedicated, volunteer board of professionals that reviews child fatalities and identifies risk factors and trends. Through additional research and information collected annually by the board, Kansas can develop strategies to help reduce instances of child death.

This year's report comprehensively evaluates the data collected during 2008 and highlights the board's findings for the fifteen year period the board has been functioning. This report presents the board's recommendations and recognizes the most important issues and risks facing our children's health and safety.

Through the board's work, I believe we can learn more about protecting our children and reducing the dangers they face.

Sincerely,

A handwritten signature in black ink that reads "Steve Six". The signature is written in a cursive, flowing style.

Steve Six

Kansas Attorney General

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Assistant Attorney General, Topeka

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Deputy Coroner, Wichita

Katherine J. Melhorn, M.D. (Pediatrician member)
Department of Pediatrics
University of Kansas School of Medicine, Wichita

Attorney General appointee to represent advocacy groups

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City Prosecutor
Wichita City Prosecutor's Office, Wichita

Kansas County and District Attorneys Association appointee

Kim Parker, J.D.
Sedgwick County District Attorney's Office, Wichita

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Angela Nordhus
Executive Director

Staff

Susan Croucher
Administrative Specialist

General Counsel

Janet Arndt, JD
Assistant Attorney General

Acknowledgments

The review of each child death in Kansas could not be accomplished without the invaluable commitment of many people across the State. The Kansas State Child Death Review Board (SCDRB) remains grateful for the significant contributions of the Office of the Attorney General, county coroners, law enforcement agencies, the Department of Social and Rehabilitation Services (SRS), the Kansas Department of Health and Environment (KDHE), physicians, hospitals, child advocates, county and district attorneys, and all others who offer their assistance in supplying the information necessary for our review.

As a multi-disciplinary, multi-agency volunteer board we enjoy the support of our employers who allow us the time necessary to fulfill our responsibilities as board members.

Finally, the SCDRB would like to recognize and express its gratitude to the Department of Social and Rehabilitative Services for providing us with the Children's Justice Act Grant, which funds the board, as well as the publication of this report.

SCDRB SERVES AS A CITIZEN REVIEW PANEL

The Kansas Child Death Review Board serves in the capacity as one of three Citizen Review Panels in the State. Each state is required by the Federal Child Abuse Prevention and Treatment Act (CAPTA) to establish citizen review panels in order to receive federal funding for child abuse prevention services. The purpose of the citizen review panels is to determine whether state and local agencies are effectively discharging their child protection responsibilities.

Citizen review panels are required by CAPTA to do the following:

- Measure agency performance by determining whether the state agency complies with the state CAPTA plan, including the state's assurances of compliance with federal requirements contained in the plan.
- Determine the extent of the agencies' coordination with the Title IV-E foster care and adoption systems and the review process for child fatalities and near fatalities.
- Prepare and make available to the public an annual report summarizing the panels' activities.
- Review policies and procedures of state and local agencies to evaluate the extent to which the agencies are effectively discharging their child protection responsibilities.
- Provide for public outreach and comments in order to assess the impact of current policies, procedures, and practices upon children and families in the community.
- Provide recommendations to the State and public on improving the child protective services system at the state and local levels.

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I. Executive Summary

The State Child Death Review Board (SCDRB) was created in 1992 as a multi-disciplinary agency panel to review child deaths in Kansas. Kansas statute 22a-242 directs the SCDRB to review the death of every child age 17-and-under who is a Kansas resident or dies in the State of Kansas. This review process is not duplicated by any other state entity. The enclosed report contains fatality data from calendar year 2008.

In 2008, 502 Kansas children died, which is a slight reduction in the number of child deaths from the 2007 total of 514. In total, the Board has reviewed 7,484 child deaths since inception. The deaths are classified into one of the following 6 categories of manner of death:

- **Natural-Except Sudden Infant Death Syndrome (SIDS)** - death brought about by natural causes such as prematurity, congenital conditions, and disease.
- **Natural-SIDS** - children who die prior to age one, and display no discoverable cause of death. Kansas statute requires that an investigation and an autopsy be performed before this classification can be applied.
- **Unintentional Injury** - death caused by incidents such as motor vehicle crashes, drowning, or fire, which were not intentional.
- **Undetermined** - cases in which the manner of death could not be positively identified from the evidence collected.
- **Homicide** – death due to the intentional, unintentional, or criminally negligent act leading to the death of another human being; including Child Abuse Homicide and Gang-Related Homicide.
- **Suicide** – death due to the intentional taking of one’s own life.

An 18% reduction in the total number of Unintentional Injury - Motor Vehicle Crash (MVC) deaths was seen in 2008, when compared to 2007. The Board attributes a portion of this drop to the Kansas Legislature enacting the booster seat and primary seat belt law for all children under age 17.

Homicide deaths showed the largest increase from the preceding year. There were 26 homicide deaths in 2008, a 27% increase from 2007. Of the 26 deaths, ten were weapon-related, three were due to asphyxia or other trauma, and thirteen children were killed from abuse with 62% of the homicide deaths being children under the age of four.

Natural deaths remained the category with the most deaths, 316 total. 64% of these deaths were infants less than 29 days of age. Prematurity and congenital malformation account for the majority of Natural deaths.

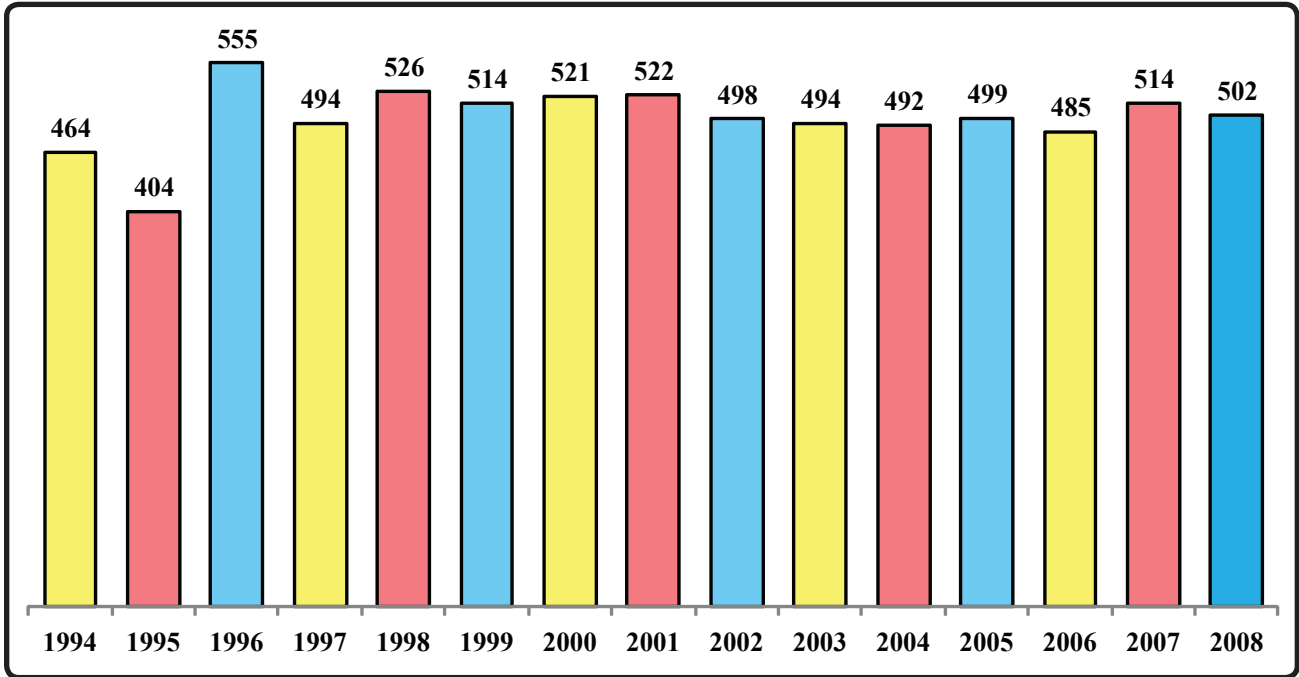
In 2008 there were nine Suicide deaths, a significant drop from the preceding two years. Of those, seven were over age 15 and two were under age 12. 67% of the suicides were due to asphyxia.

There were 23 Undetermined deaths. Often the Undetermined classification is assigned when there is a lack of thorough, comprehensive investigation and/or autopsy, leaving the Board with inadequate information upon which to make a determination of cause or manner of death. This highlights the Board’s recommendation for all entities involved in child deaths to perform thorough and complete death investigations.

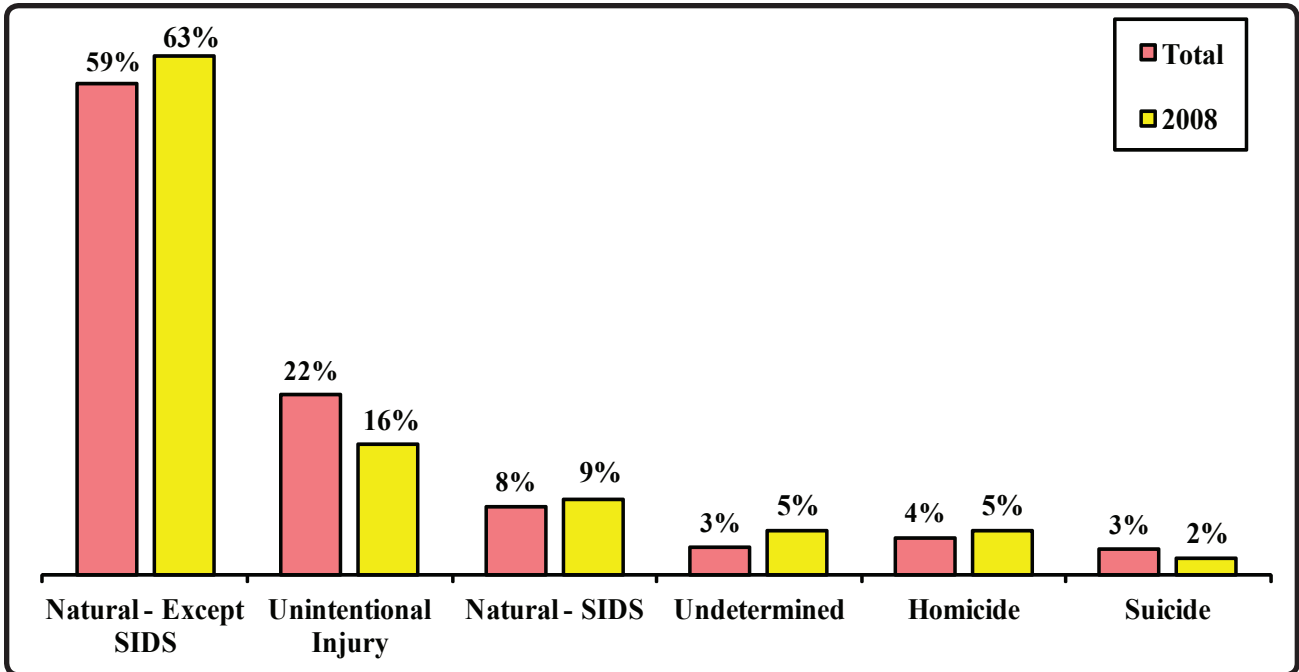
II. 2008 Overview

In 2008, 502 children died in Kansas, which is an average of 1.4 deaths every day. The following graphs compare 2008 with the number of deaths in previous years, since 1994.

Total Deaths in Kansas, 1994 to 2008, N = 7,484

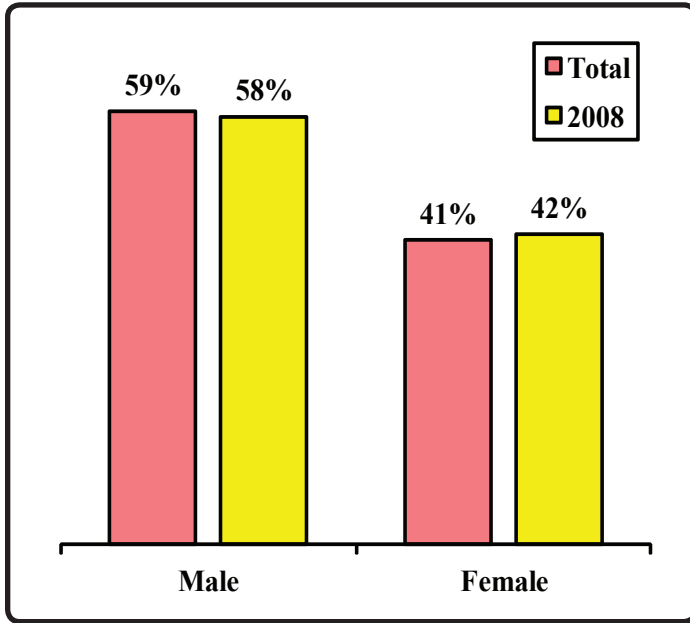


**Analysis by Manner of Death, 1994 to 2008, N = 7,484
Compared to 2008, N = 502**



II. 2008 Overview

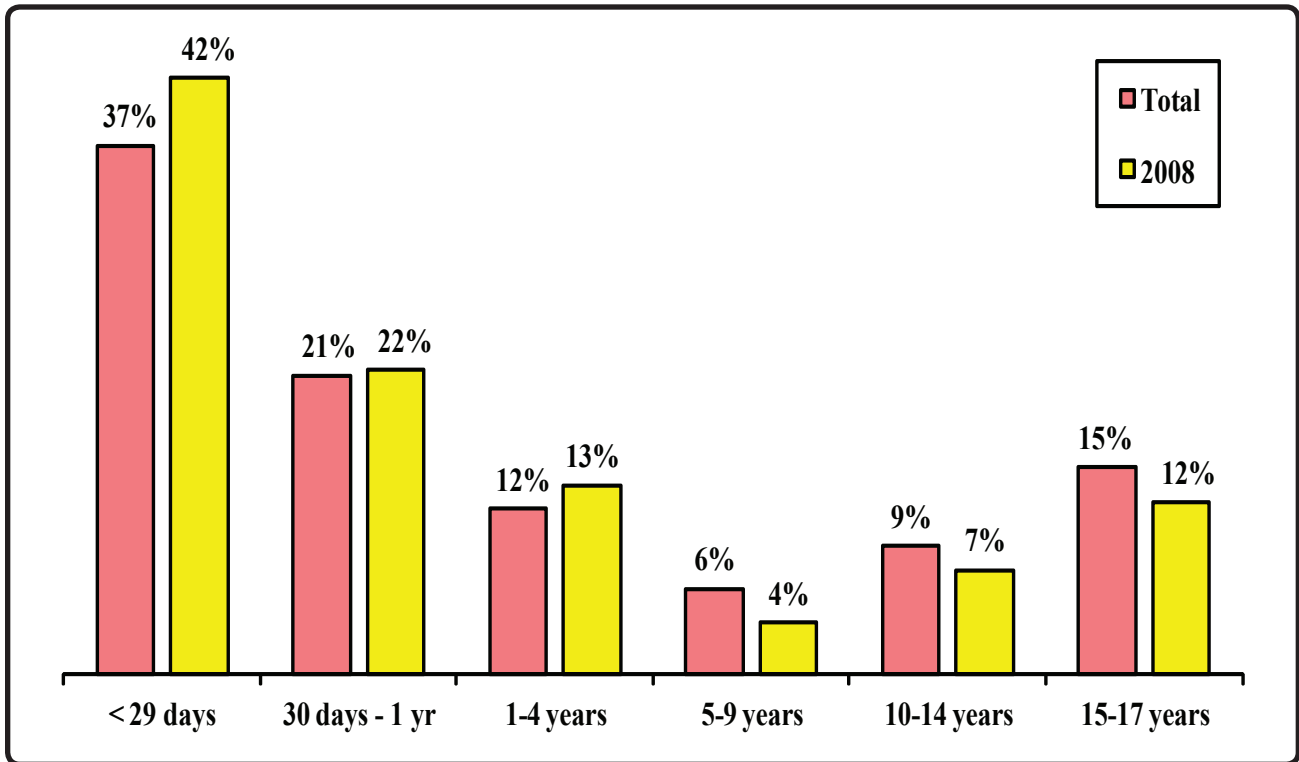
The 2008 Kansas Department of Health and Environment, Office of Vital Statistics reports that 51% of the total live births were male and approximately 2% more males under age 19 live in Kansas than females.¹ Males account for proportionately more of the child deaths.



**Analysis by Gender,
1994 to 2008, N = 7,484
Compared to 2008, N = 502**

The pattern of the total deaths by age in 2008 follows the same general distribution of the cumulative data with children under 1-year-of-age accounting for the majority of child deaths.

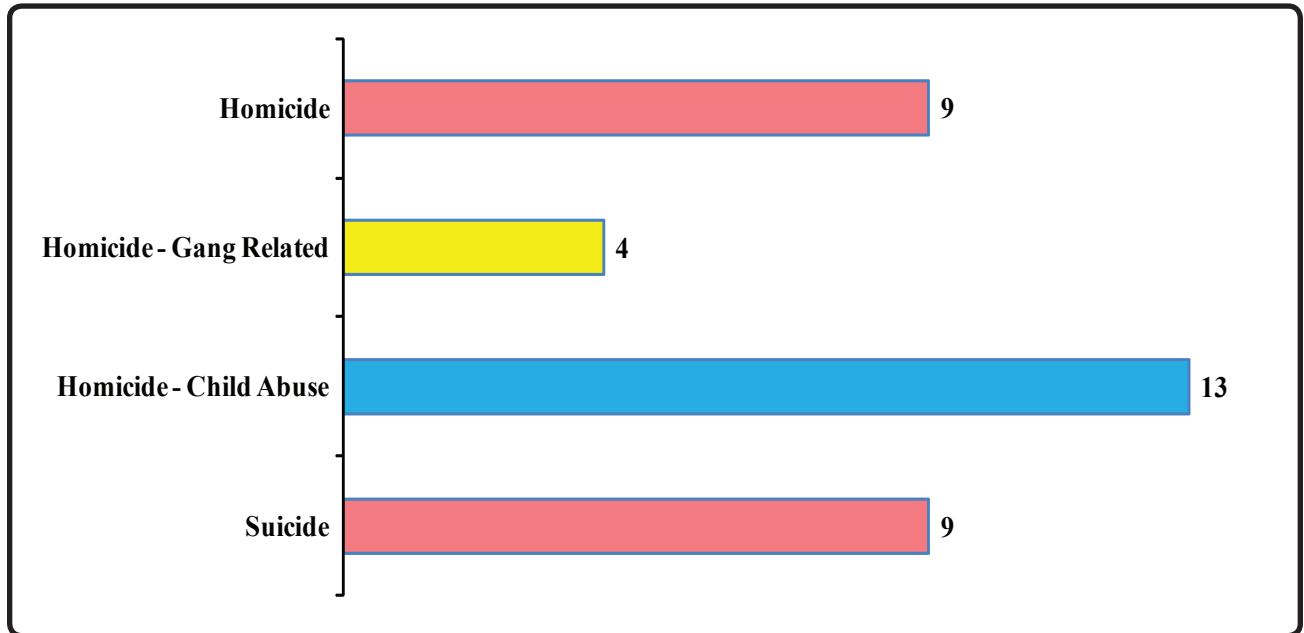
**Analysis by Age, 1994 to 2008, N = 7,484
Compared to 2008, N = 502**



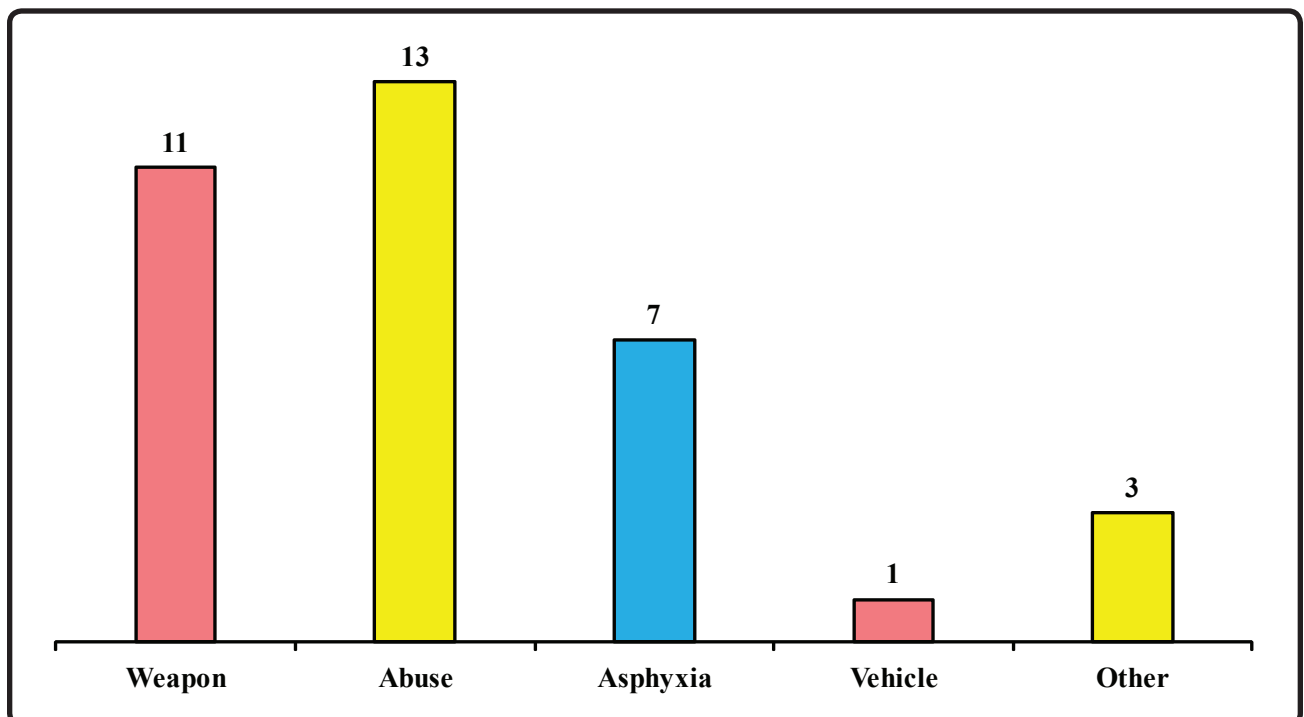
A. Violence-Related Deaths

Violence-related deaths include Homicide, Child Abuse Homicide, Gang-Related Homicide, and Suicide. Kansas experienced 35 Violence-Related Deaths in 2008. Although they represent a small number of the total deaths, they are the most alarming and always contain elements of preventability.

Violence-Related Deaths by Type in 2008, N = 35



Violence-Related Deaths by Method in 2008, N = 35



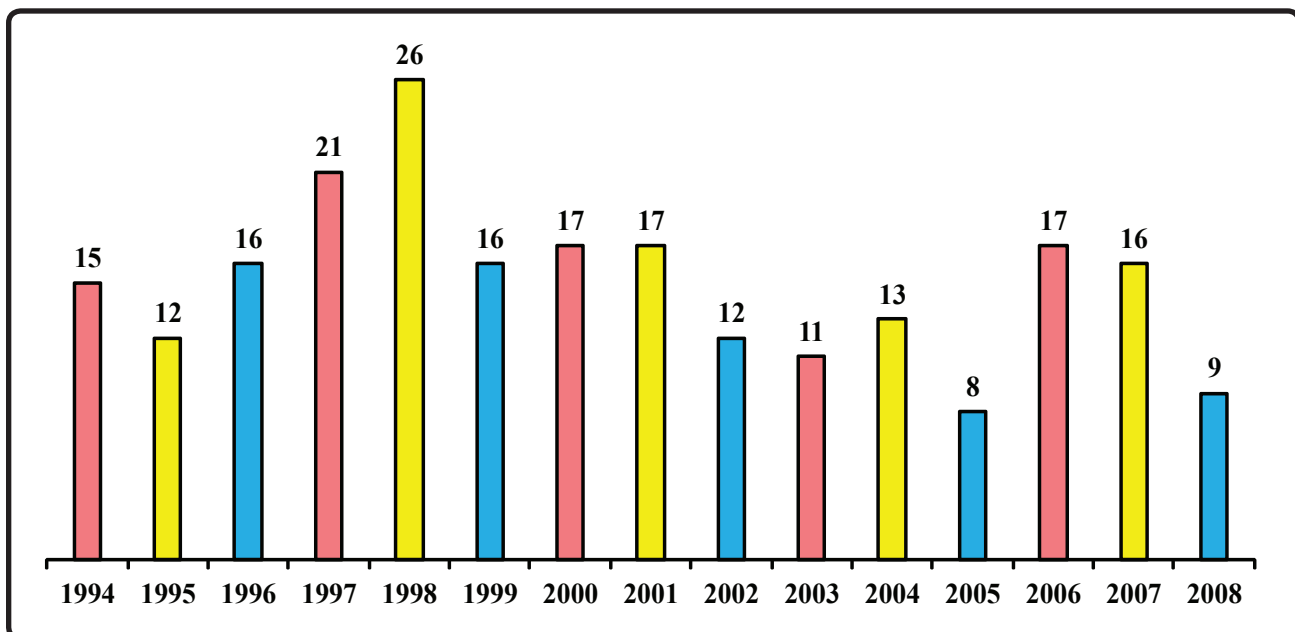
A1. Suicide

Suicide is the third leading cause of death among US children and adolescents, exceeded only by injuries and homicides (Kennebeck & Bonin). In the US, the suicide rate doubled in the 15-19-year age group and tripled in the 10-14-year age group between the 1960's and the 1990's. The rate of child and adolescent suicide has declined slightly since 1995. Adolescent girls are more likely than boys to attempt suicide, but teenage boys are more likely to complete it. The rates of suicide vary according to race and ethnicity. The adolescent suicide rate is highest for white males, but between 1980 and 1996, black males aged 15 to 19 years experienced the most rapid increase in suicide rate. The most common method used by males is firearms, while the most common methods used by females are hanging and suffocation. Although prepubertal children have suicidal ideation, suicide before puberty is rare. Suicide rates increase with age after puberty.

Risk factors for adolescent suicide may be categorized as predisposing or precipitating factors. Predisposing factors include psychiatric disorders, previous suicide attempt, family history of suicide, history of physical or sexual abuse, exposure to violence, and biologic factors. Precipitating factors include access to means, alcohol and drug use, exposure to suicide, social stress and isolation, and emotional and cognitive factors. In recent years, binge drinking has been identified as a significant risk factor. Well-identified examples of social stress include parental divorce or separation, or breakup with a significant other. Recently, bullying has been identified as a risk factor, placing both bullies and victims at risk. The impact of Internet sites which promote suicide and those which facilitate suicide pacts among strangers has not been defined. Social isolation may be a risk factor for adolescent suicide; indeed, an increased risk for suicide by girls has been correlated with a recent family move.

Nine Kansas children died from suicide in 2008. Of those, 33% attempted suicide or expressed suicidal ideation prior to death.

Total Suicide Deaths by Year, 1994 to 2008, N = 226

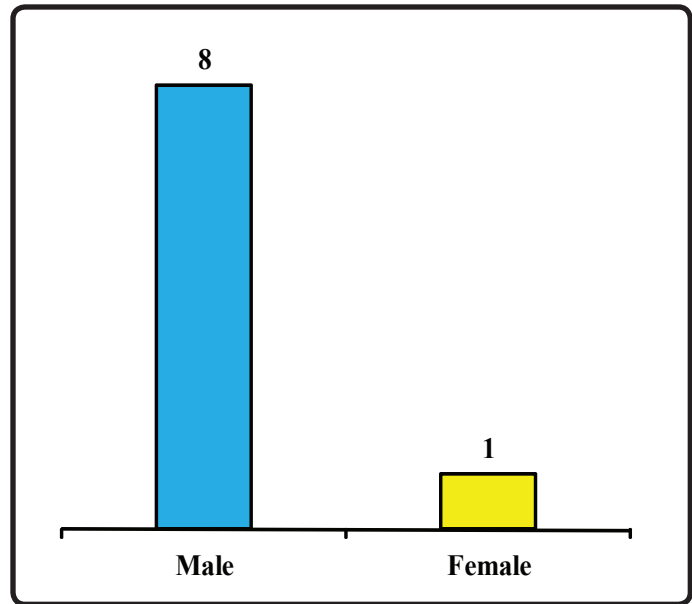


A1. Suicide

Suicide Deaths by Gender in 2008, N = 9

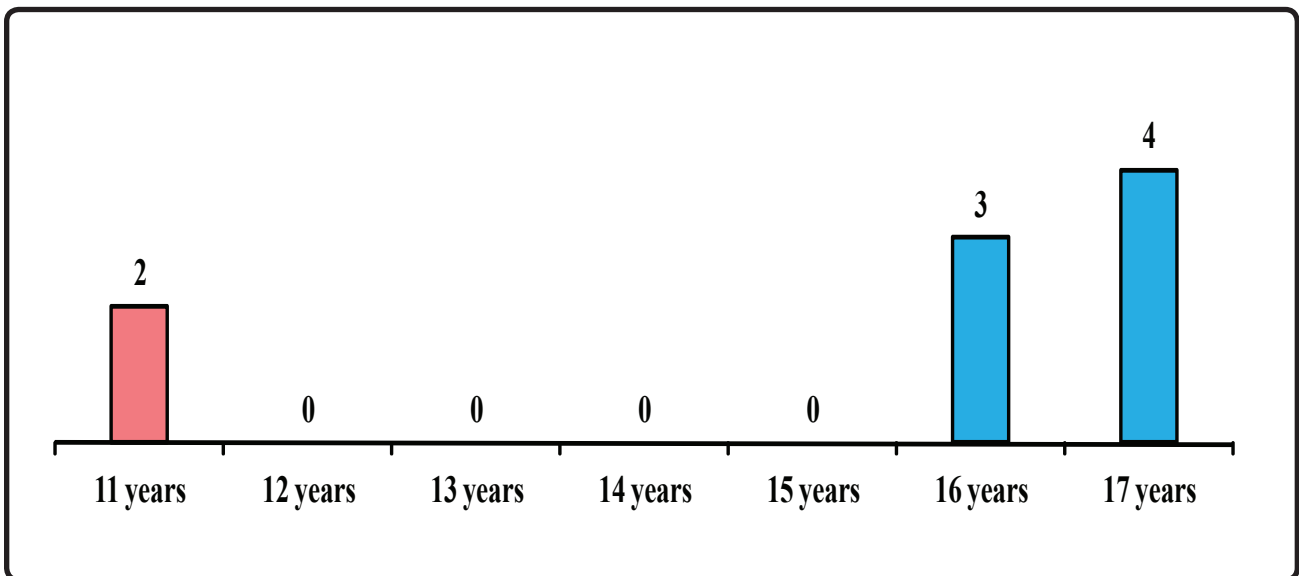
Historically, 15 to 17-year-old males represent the majority of suicide deaths.

In 2008 males accounted for 89% of the total nine suicide cases. 77% of the total were children in the 15 to 17-year-old age group.



The improper storage of firearms contributed to the death of a 16-year-old male. The guns were readily available to the teen who had made suicidal comments to both his parents and peers; however, they did not consider his comments to be a serious threat.

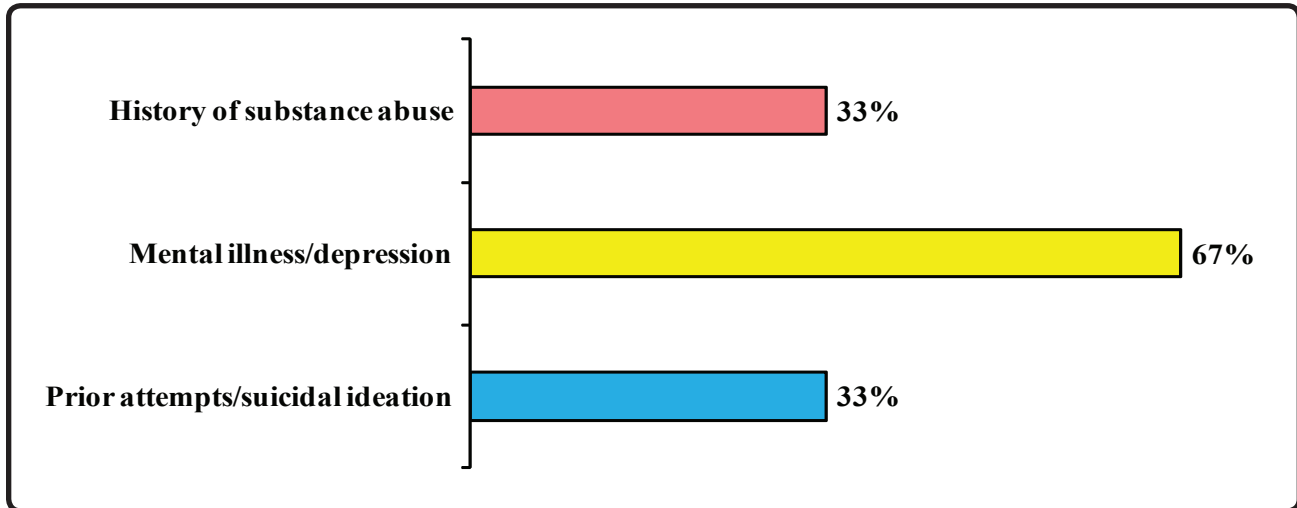
Suicide Deaths by Age in 2008, N = 9



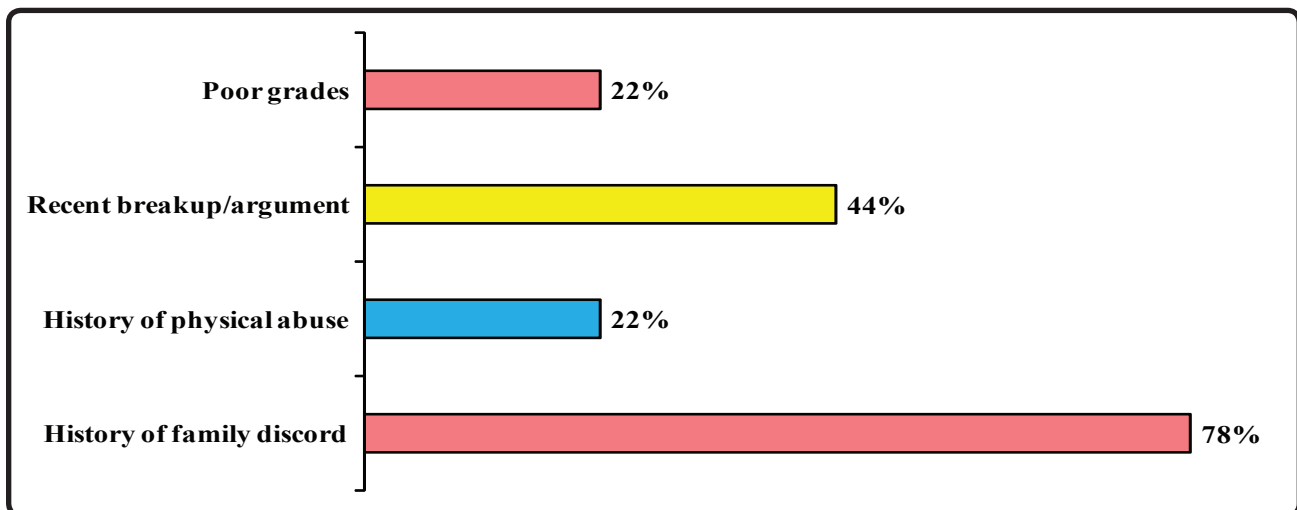
A 17-year-old male with a history of depression and daily use of alcohol took his life after a domestic dispute. The decedent's friends and mother both admitted knowledge of the alcohol use.

A1. Suicide

Suicide Deaths by Previously Diagnosed Mental Illness/Depression in 2008, N = 9



Suicide Deaths by Family, Social, and School Risk Factors in 2008, N = 9

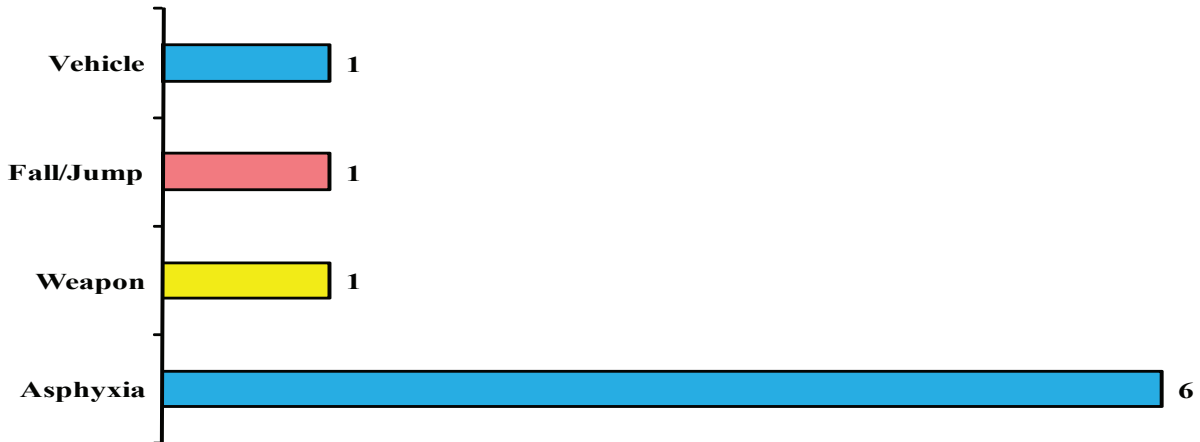


While it can be a painful process, thorough investigations of suicides are necessary for developing effective prevention strategies. Often the Board reviews suicide deaths and discovers the family has not been thoroughly interviewed or autopsies have not been performed in a manner which would provide a complete evaluation of the youth's situation and health at the time of death. The desire of families and communities to put such tragedies behind them is understandable. However, the lack of thorough investigations and autopsy examinations can hinder efforts to prevent further deaths of Kansas children.

A1. Suicide

A depressed 17-year-old female hanged herself. She had a history of mental health issues coupled with prior suicidal ideation, truancy, and alcohol and drug abuse.

Suicide Deaths by Method in 2008, N = 9



PREVENTION POINTS

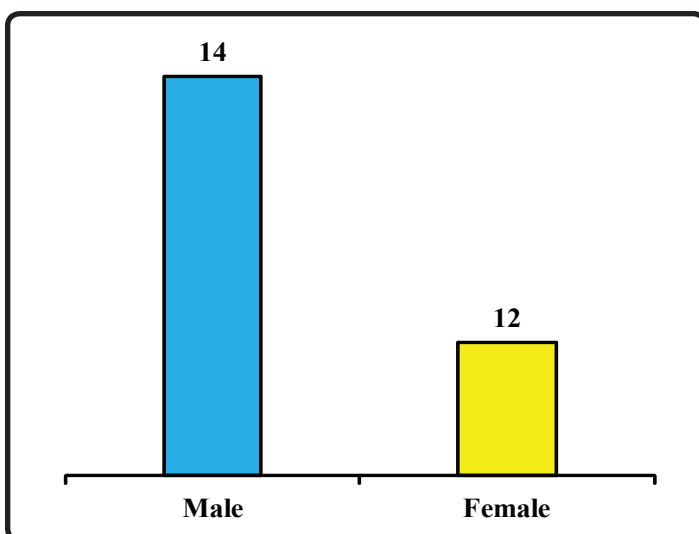
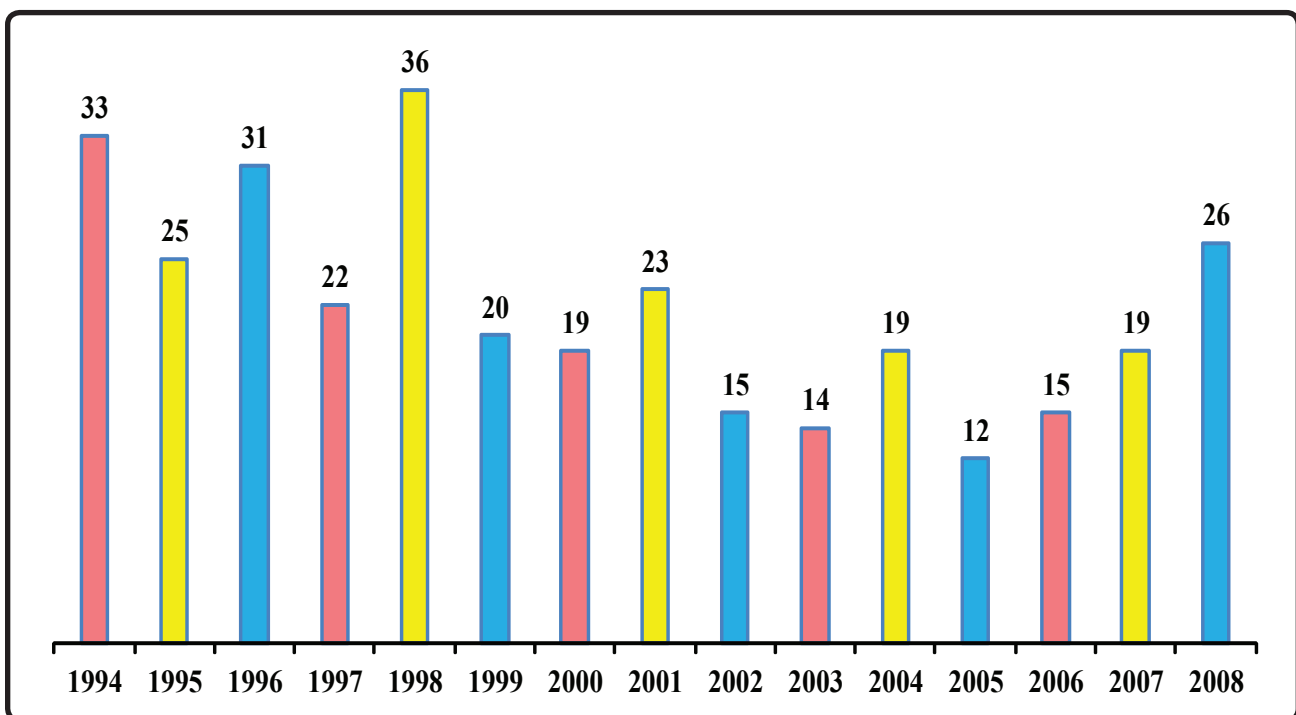
- **Early Diagnosis and Treatment of Mental Conditions** - Early involvement of mental health professionals may prevent suicide attempts. Special caution should be taken with children who are taking anti-depressant medication as health officials have issued warnings that these medications might increase the risk of hostility, mood swings, aggression, and suicide in children and adolescents.
- **Observation of Behaviors** – Watch for changes in a young person’s psychological state (increase in rage, anxiety, depression, or hopelessness), withdrawal, reckless behavior, or substance use.
- **Evaluation of Suicidal Thinking** - *Do not ignore statements about suicide, even if they seem casual or fake.* The months following a suicide attempt or severe depression can be a time of increased risk, no matter how well the child seems to be doing. This is a critical time for family interaction and securing family support systems.
- **Limit Access to Lethal Agents** - Easily obtained or improperly secured firearms and other weapons are often used in suicides. The harder it is for children to put their hands on these items, the more likely they are to rethink their intentions, allowing time for someone to intervene.
- **Talk About the Issue** - Bringing up suicide does not “give kids the idea”, but rather gives them the opportunity to discuss their thoughts and concerns. This communication be a significant deterrent.

A2. Homicide

Homicide is defined as the death of one person resulting from the intentional or unintentional actions of another person. In 2008, Kansas had a total of 127 homicides², 20% of which were children.

As the chart below indicates, child homicide rates in Kansas have increased since a low of 12 deaths in 2005. The majority of the homicides are due to child abuse, which is preventable; however, homicides due to weapons are also increasing. Although there are a variety of weapons used, the majority are firearms. The Board recommends all firearms be stored with gun locks in a secure and locked case with ammunition stored separately. Parents and caregivers are encouraged to discuss the dangers of firearms with children and coach them on what to do if they are in a situation where a firearm is present.

Total Homicide Deaths by Year, 1994 to 2008, N = 329



**Homicide Deaths
by Gender
in 2008, N = 26**

Of the 13 Child Abuse Homicides in 2008:

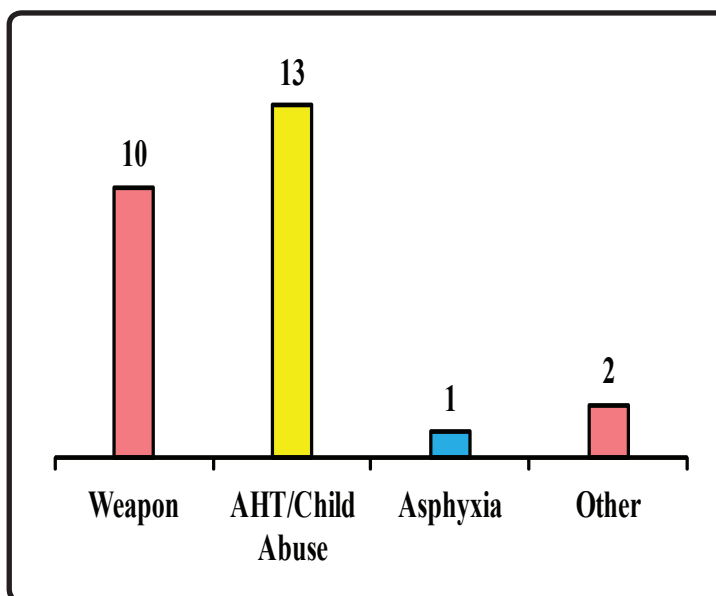
- 61% were killed by someone other than the biological parent;
- 69% were killed by a male;
- 38% were killed by the mother's boyfriend (not biologic father) who was left alone to care for the child.

A2. Homicide

The method of child abuse homicide can vary. In general, most occur as a result of blunt force trauma. The most prevalent form is abusive head trauma (AHT), commonly referred to as Shaken Baby or Shaken/Impact Syndrome. AHT occurs when an infant or toddler is severely or violently shaken resulting in serious injury and/or death. When infants are shaken or their heads sustain a severe impact, their brains move back and forth within their skulls. The blood vessels and brain tissue cannot tolerate the sheering force caused by the violent shaking. Blood vessels will break causing internal bleeding and the child may have trouble breathing which can cause brain damage due to lack of oxygen. These injuries lead to serious complications such as blindness or eye damage, delay in normal development, seizures, damage to the spinal cord (paralysis), brain damage or death. It is important to note that it is common for children who have been shaken to have evidence of impact injuries at autopsy, but no external evidence of trauma.

Homicide Deaths by Method in 2008, N = 26

Angry over a variety of domestic-related issues, an adult male abusively killed a 3-year-old. The man was not the child's biological father, but was caring for her at the time of her death. Prior concerns of abuse had been noted by family members, but effective intervention was not provided.



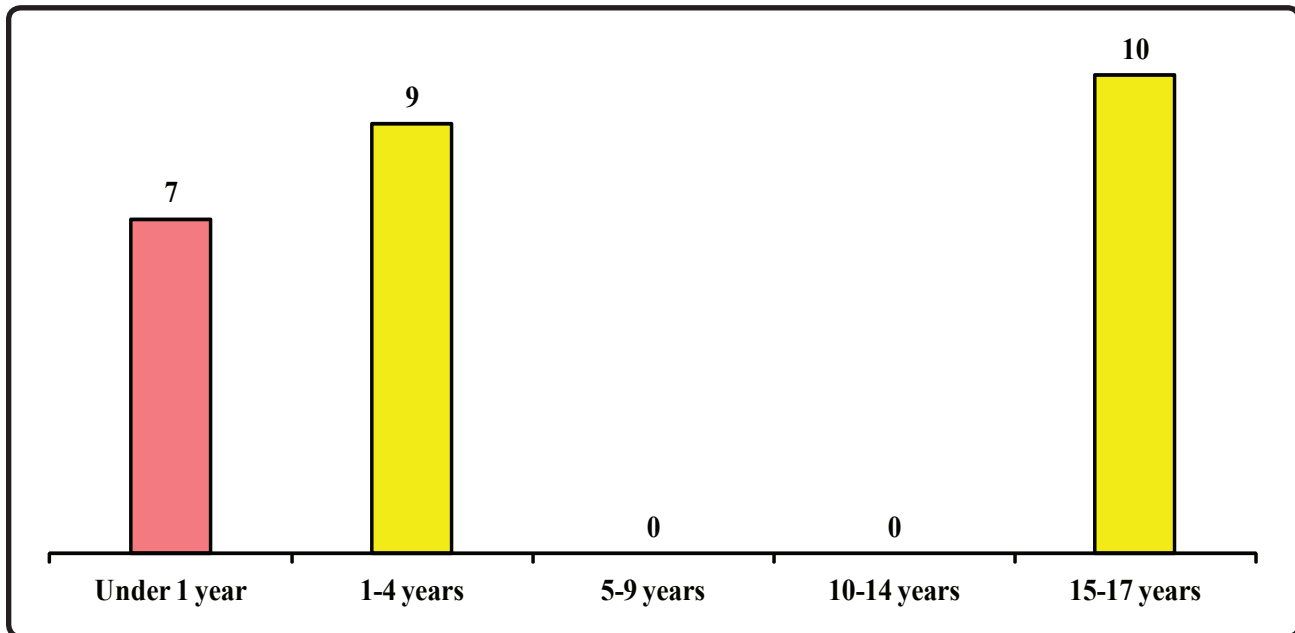
A 1-year-old was left in the care of his mother's boyfriend. The child was beaten and died of his injuries. Both the mother and her boyfriend were drug addicts.

Child abuse is a complex problem that stems from a variety of factors, including stress, poverty, substance abuse, and mental illness. The Board defines Child Abuse Homicide as children killed as the result of abuse from caretakers (inflicting injury with malicious intent, usually as a form of discipline or punishment) or neglect (failing to provide shelter, safety, supervision, and nutritional needs). There are several risk factors associated with child abuse homicide including maternal risk factors (young age, less than twelve years of education, and unmarried parents) and household risk factors (male not related to the child in home, prior substantiation of child abuse and neglect, substance abuse, and low socioeconomic status). The most effective methods for preventing child abuse involve programs that enhance parenting skills for at-risk parents. Examples of successful programs include home visits by nurses who provide coaching in parenting skills and quality childhood programs which include parent training.

A 17-year-old male lost his life when he was the victim of a gang-related drive-by shooting. The decedent was not the intended target and the assailants were not apprehended.

A2. Homicide

Homicide Deaths by Age in 2008, N = 26



PREVENTION POINTS

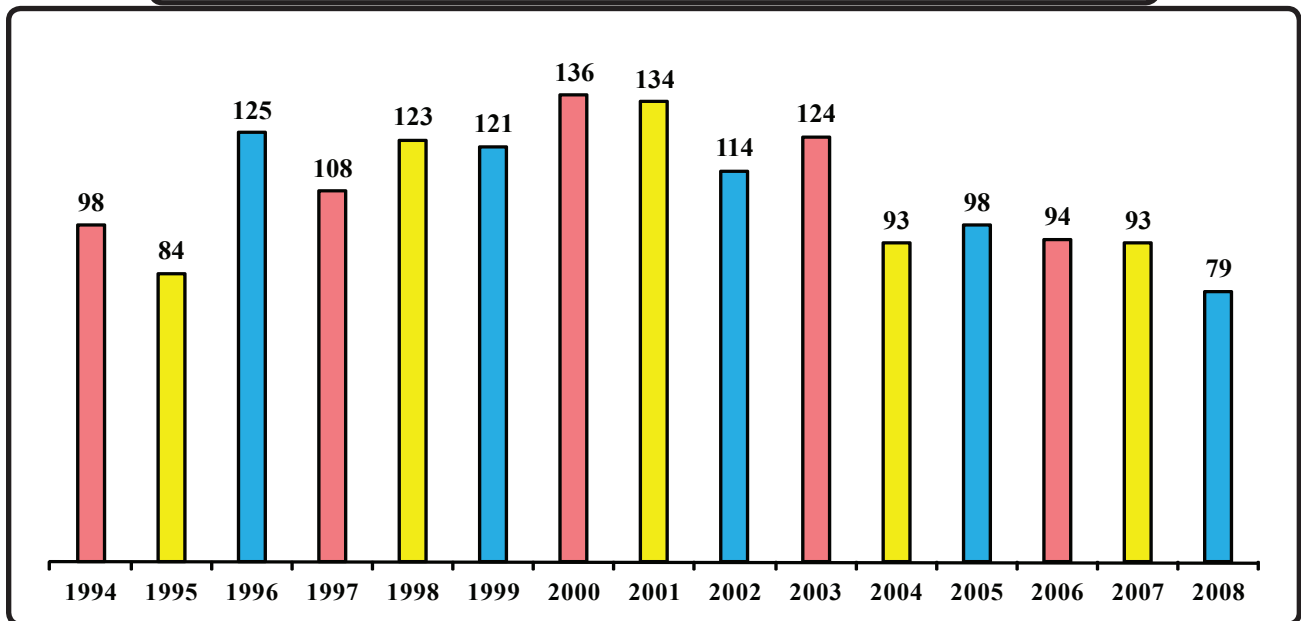
- **Family Violence** - Most homicides occur between family members, friends, and neighbors. Many of the incidents the Board encounters are not cold, calculated acts. Often they involve infants who are killed when emotions are running high and restraint of those emotions is not exercised.
- **Take Extra Care with Young Children** - The victims of child abuse homicide are more often in the younger age categories. Frustrated caregivers, often without any parental training, combine unrealistic expectations for children's behavior with a lack of appreciation for their vulnerability. Abusive head trauma is an example of how an impact or violently shaking a baby can cause serious or fatal trauma to the child's brain. Caregivers should be mindful of a child's capabilities and susceptibility. Education can be provided at all points of contact with parents and caregivers.
- **Pay Attention, Familiarize Yourself with Signs of Child Abuse** - It is important to use common sense in trying to determine if a child is being abused. Normal, active children get bruises and bumps from everyday play. These bruises are most often over bony areas such as the knees, elbows, and shins. However, if a child has injuries on other parts of the body, such as the stomach, cheeks, ears, buttocks, mouth, or thighs consider the possibility that the child is being abused. Black eyes, human bite marks, and round burns the size of a cigarette seldom come from everyday play. If you suspect a child is being abused or neglected, please telephone the Kansas Protection Report Center at 1-800-922-5330 (toll-free), 316-337-6791 (Wichita), or 785-296-2561 (Topeka).

B. Unintentional Injury

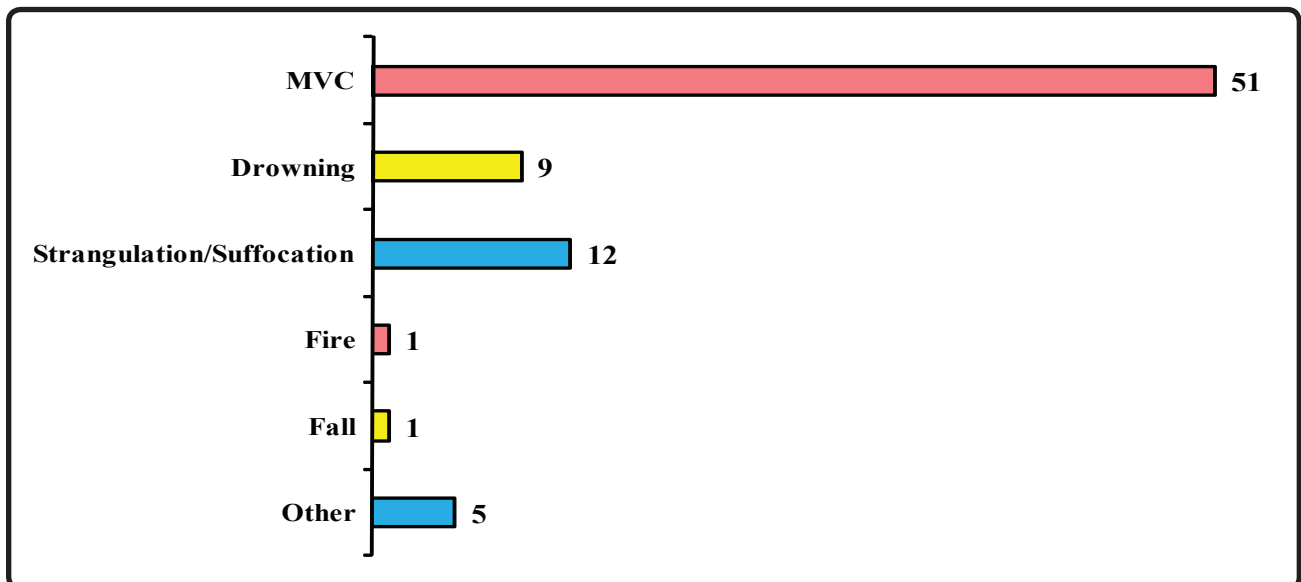
Unintentional injury remains a leading cause of death among children. In general, children are primarily at risk of unintentional injury-related death from motor vehicle crash injuries, which includes children as occupants, pedestrians and bicyclists. Other unintentional injury-related deaths occur from drowning, fire, suffocation and choking, falls, and poisoning.

The Board reviewed 79 Unintentional Injury deaths in 2008. 51 were motor vehicle crash-related and 28 were other types of injury. The majority of unintentional injury deaths occurred between the hours of 3:00 p.m. and 9:00 p.m.

Total Unintentional Deaths by Year, 1994 to 2008, N = 1,624



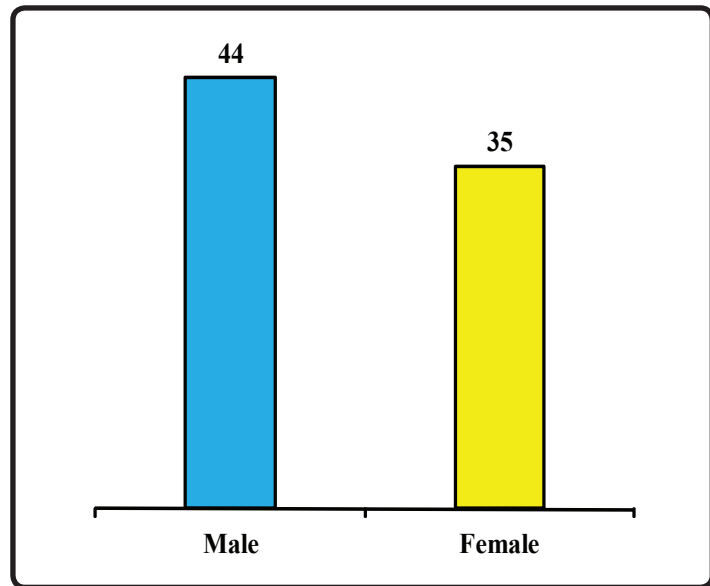
Unintentional Deaths by Cause in 2008, N = 79



B. Unintentional Injury

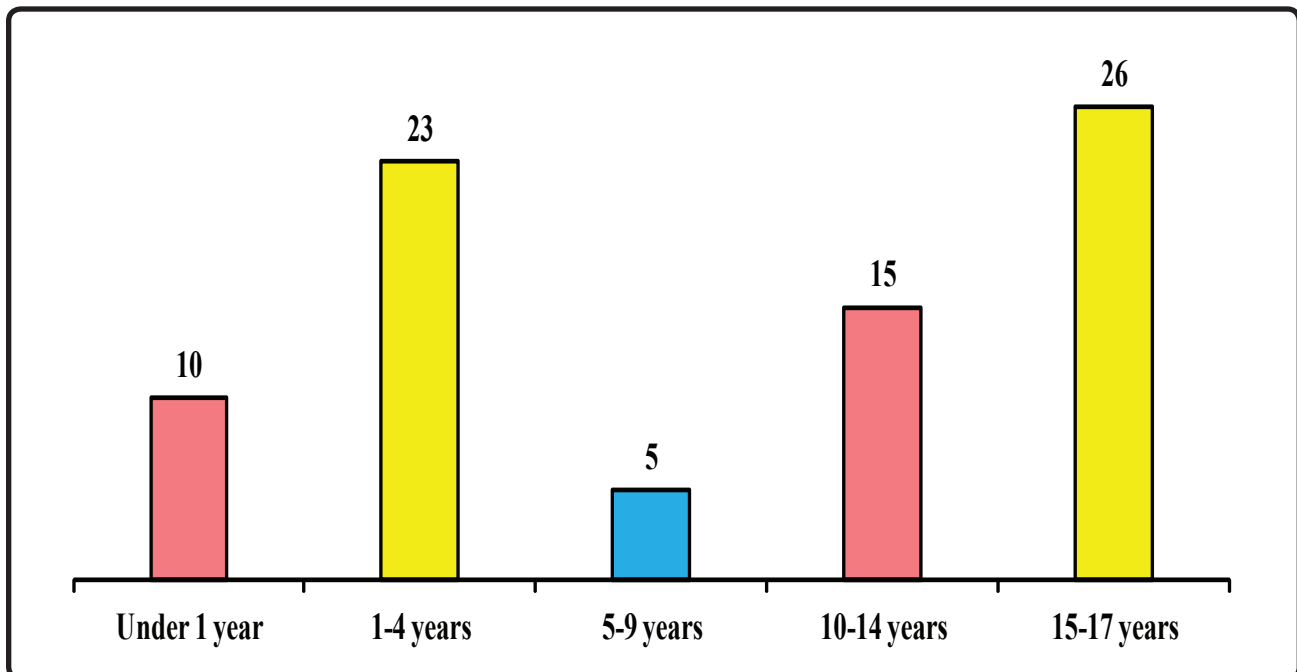
Unintentional Deaths by Gender in 2008, N = 79

The most prevalent risk factor in unintentional injury deaths is lack of supervision. Of the 28 non-MVC unintentional injury deaths, 54% occurred in the decedent's home and 89% were improperly supervised at the time of their demise.



National data from the Centers for Disease Control (CDC) show death trends that parallel Kansas deaths due to unintentional injuries in children over age 1. Most of the deaths are male and are transportation-related. However, children under age 1 are most often killed by some form of suffocation. The suffocation is often the result of improper sleeping arrangements. Infants were either placed to sleep on improper surfaces (often with blankets, pillows, and other items that could cause suffocation) or they were bed sharing with an adult and experienced an overlay. The Board provides a comprehensive overview for proper sleep environments in the SIDS section of this report.

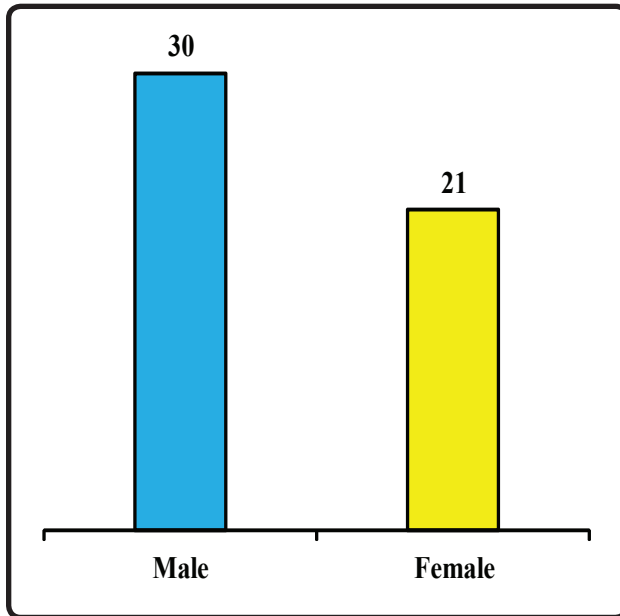
Unintentional Deaths by Age in 2008, N = 79



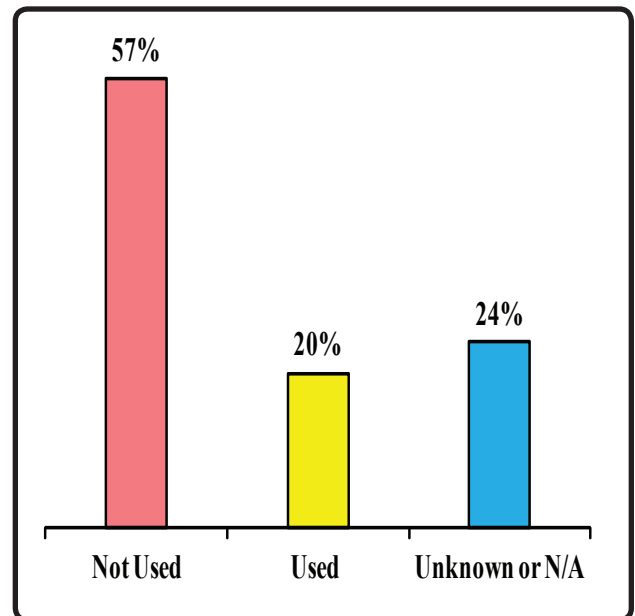
B1. Motor Vehicle Crashes

In 2008 fifty-one children died in Kansas as a result of a motor vehicle crash (MVC). Teenagers who were either the driver or a passenger riding with other teen drivers accounted for the greatest number of MVC deaths in Kansas. Of the total number of deaths, 49% were between the ages of 15 and 17 and 59% were male. Despite the proven benefit of seat belt use in preventing deaths, the percentage of Kansas teens who are unrestrained in fatal crashes remains high.

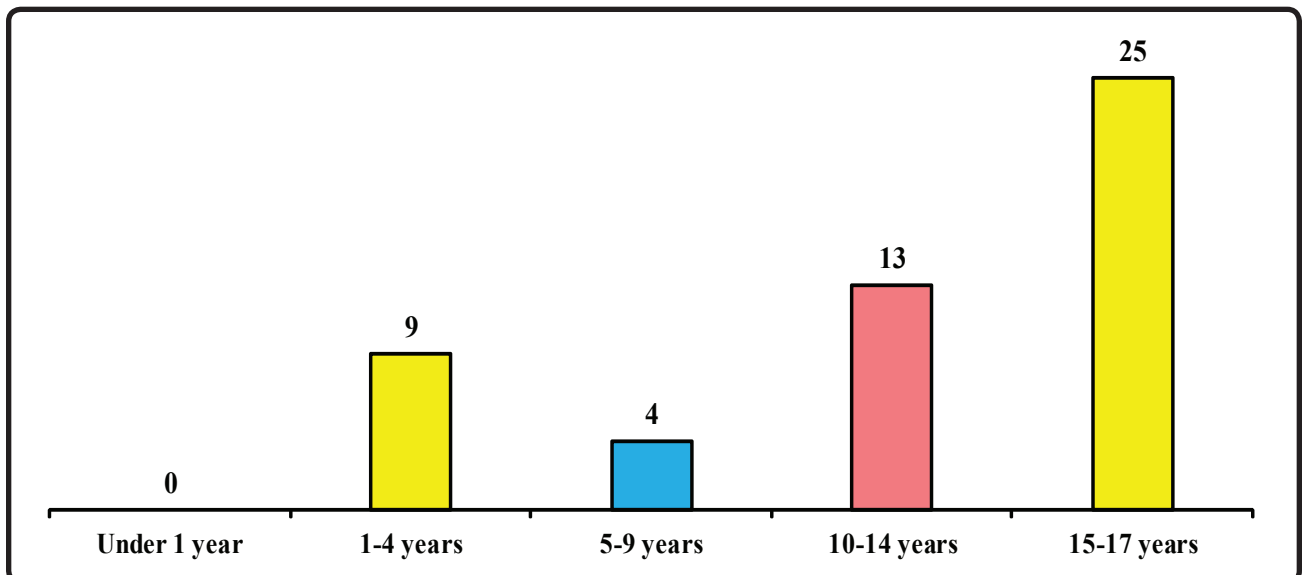
MVC Deaths by Gender in 2008, N = 51



MVC Deaths by Restraint Use in 2008, N = 51



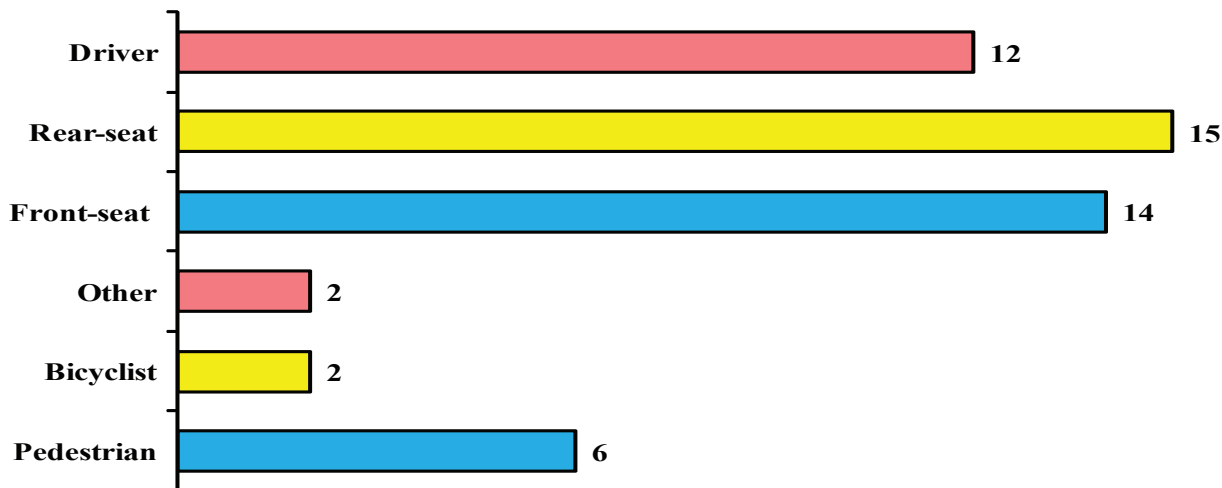
MVC Deaths by Age in 2008, N = 51



B1. Motor Vehicle Crashes

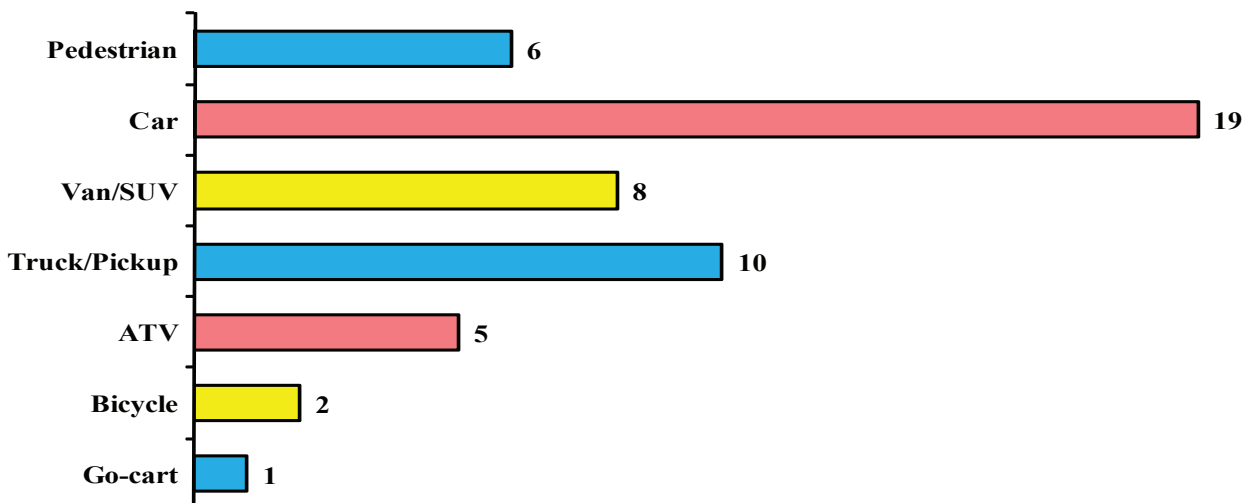
An unrestrained, intoxicated 16-year-old left a party hosted by adults. He was driving at a high rate of speed and lost control. The vehicle flipped several times, pinning him underneath. The hosts of the party were not charged.

MVC Deaths by Seating Position in 2008, N = 51



A 5-year-old child was not properly secured in the vehicle and was partially ejected when the driver, who was under the influence of numerous prescription drugs, lost control of the vehicle and crashed.

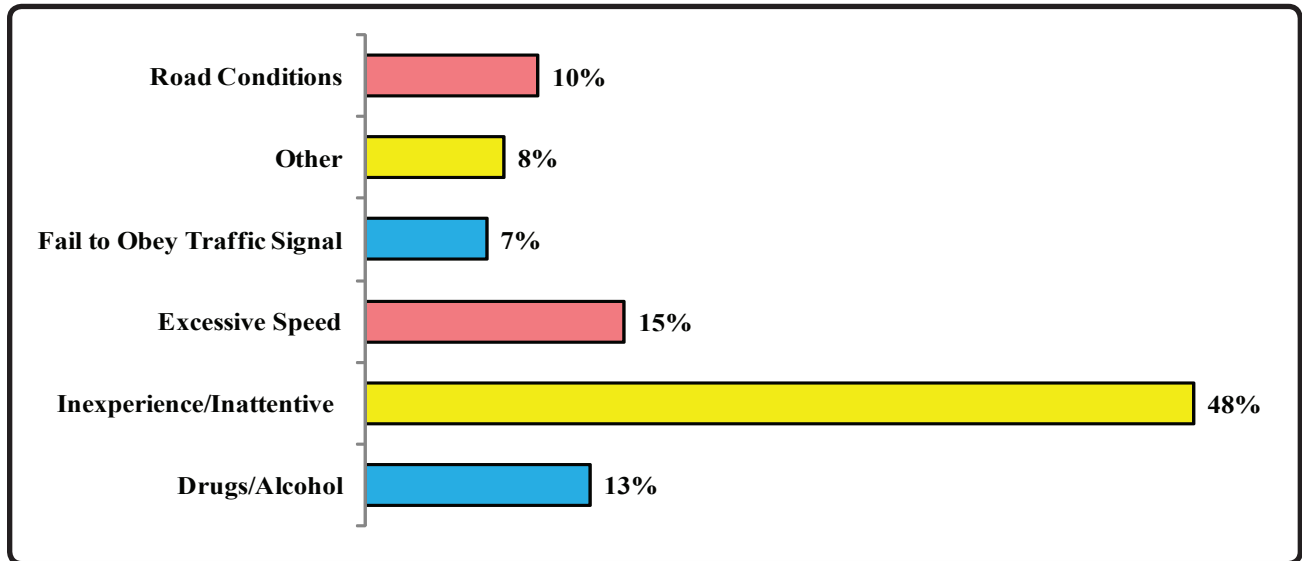
MVC Deaths by Vehicle Type in 2008, N = 51



B1. Motor Vehicle Crashes

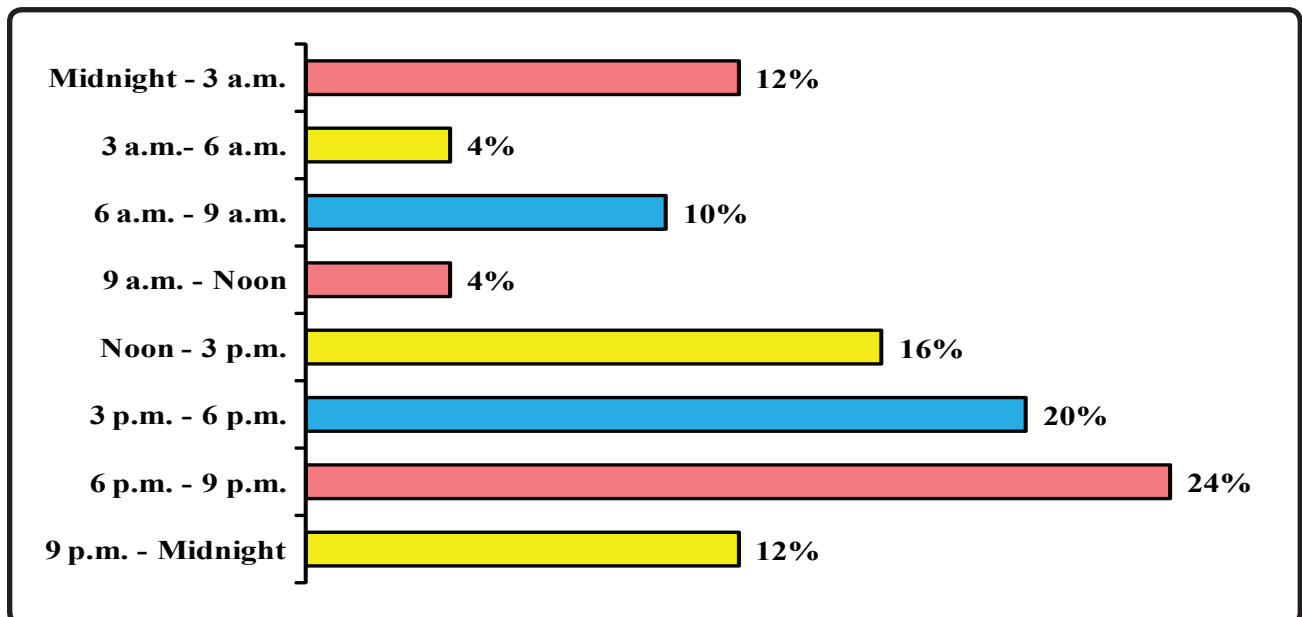
Almost all of the motor vehicle deaths involved factors that were preventable. For example, 15% of the MVC's involved excessive speed and 48% of the victims were, or were with, an inexperienced or inattentive driver.

MVC Deaths by Contributing Factor in 2008, N = 51



A 17-year-old intoxicated driver was traveling at a high rate of speed, lost control of his vehicle and crashed. He was not using any safety restraints and was pronounced at the scene.

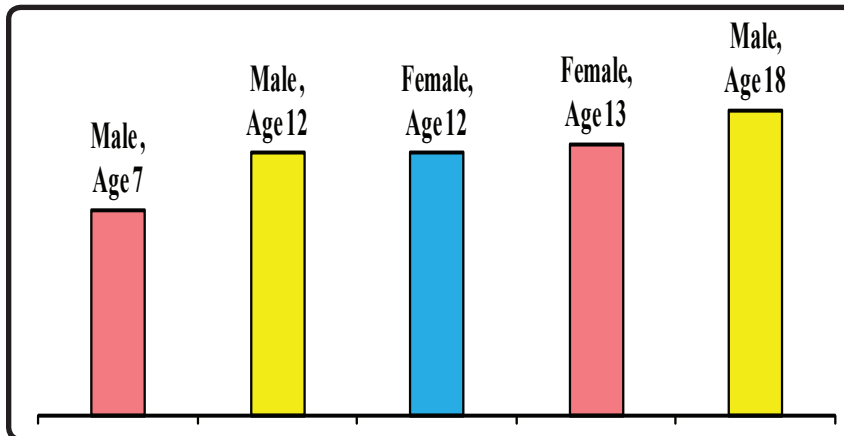
MVC Deaths by Time of Crash in 2008, N = 51



B1. Motor Vehicle Crashes

All-terrain vehicle use has become popular in both recreation and work. Their size, maneuverability, and durability make them extremely handy and fun to ride. Unfortunately, the thrills can quickly turn to tragedy. Each year in the United States, more than 100 children ages 16-and-under are killed and approximately 45,000 are injured on All-Terrain Vehicles (ATV's).³ Young riders lack the size and strength to safely control an ATV. ATV drivers often travel on roadways which are not designed for ATV travel and drive at speeds that are unsafe. Since its inception, the Board has reviewed 41 ATV-related fatalities. The Board's recommendations regarding the use of ATVs can be found in the Public Policy Recommendations section at the end of this report.

ATV Deaths by Driver in 2008, N = 5



A 12-year-old was driving an ATV at unsafe speeds. Her 15-year-old passenger was fatally injured when they crashed. Neither the driver nor the decedent were wearing helmets.

Full-size ATV's are not meant to be operated by young children. A 7-year-old lost his life when he lost control of the full-size ATV he was driving.

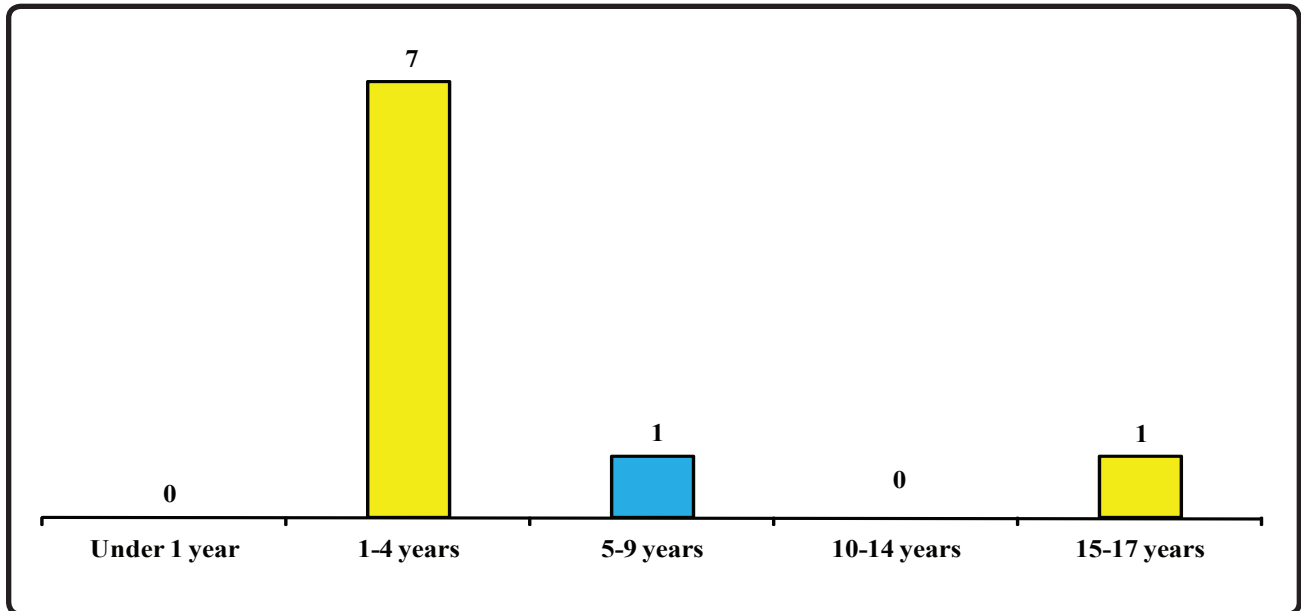
PREVENTION POINTS

- **Use of Proper Safety Restraints** - Wear seat belts. Seat belts and appropriate child safety restraints consistently prevent serious injury and death. The importance of parental seat belt use as an example is invaluable. According to the National Highway Traffic Safety Administration, parents who buckle up are more likely to use safety restraints for their children. Children under 4-years-of-age should be placed in a child safety seat firmly secured in the backseat. Children between the ages of 4 and 8 should be in belt-positioning booster seats.
- **Attentive Driving** - Avoid distractions such as cell phones and other electronic devices. Novice drivers should have limits placed on the number of passengers and nighttime driving, both known risk factors. The newly enacted SB300 prohibits a person who is operating a motor vehicle from using a wireless communication device to write, send, or read a written communication.
- **Avoiding Alcohol or Drug Use** - It is never safe to drive after drinking alcohol or using narcotics or other mood-altering drugs. Avoid riding with anyone who is suspected of being under the influence of drugs or alcohol.
- **Driving Experience** - Driving is not a quickly learned skill and requires focus and good judgment. Young drivers should be accompanied by an experienced adult and avoid complex driving situations until more practiced. The newly enacted graduated driver's license system does not confer full driving privileges until age 18 and after significant supervised driving time.

B2. Drowning

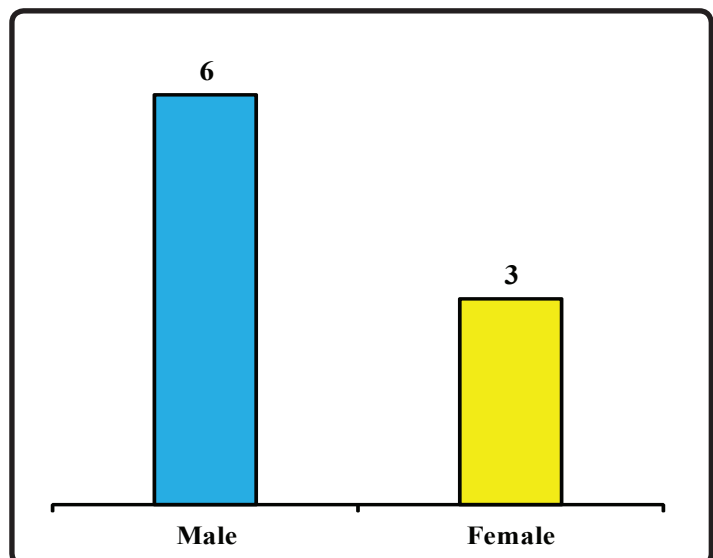
Children are drawn to water. They like the way it shimmers, it is fun to splash, and they enjoy playing in it, but this lure is deceptive and can lead to tragedy. Children can drown in a couple of minutes and in only a few of inches of water. Drowning is a leading cause of unintentional injury deaths nationwide. In 2008, nine children died from drowning in Kansas. In all of these cases, the children had been left alone or were being improperly supervised at the time of their demise.

Drowning Deaths by Age in 2008, N = 9



A 7-year-old who could not swim was playing too close to the shore when he fell in and drowned. There were several adults in the area, but no one was supervising the child.

**Drowning Deaths
by Gender
in 2008,
N = 9**

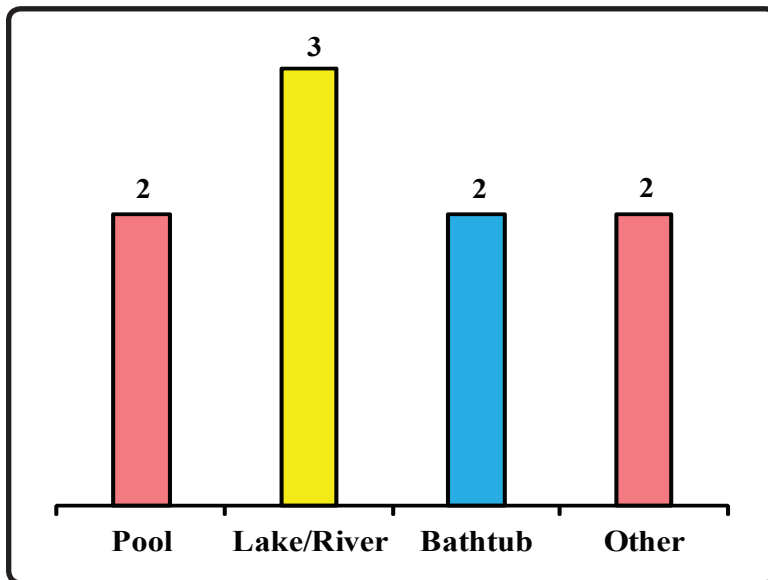


A 3-year-old was pulled from a backyard pool by a sibling who found her. The children in the home were all unsupervised at the time of the death.

B2. Drowning

From 1994 to present, 34% of the total drowning deaths have occurred in pools, 17% were in bathtubs, 40% were in rivers/lakes, and the remainder were in other locations. The 1 to 4-year-age group has remained the largest, accounting for 47% of the total number of drowning deaths since 1994.

Drowning Deaths by Location in 2008, N = 9



Improper supervision and lack of flotation devices were contributing factors in two separate drowning deaths; one was a 3-year-old who drowned in a swimming pool and the other was a 2-year-old who drowned in a decorative pool.

In the nine drowning deaths for 2008:

- 78% were age 1 to 4;
- 56% did not know how to swim;
- All were improperly supervised;
- None were using personal flotation devices.

PREVENTION POINTS

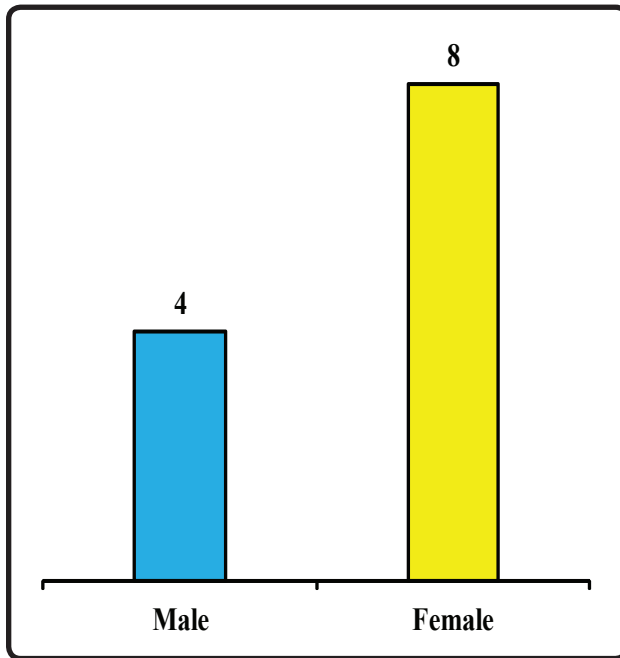
- **Proper Supervision** - There should always be an adult, who is capable of responding to an emergency, observing children around water. The adult should be actively watching and avoid distractions. Assigning swimming “buddies” is a good idea, especially if there are many swimmers. Supervision also applies to bathtubs, where children should never be left alone even for short periods of time.
- **Pool/Environment Safety** - Pools should have safety equipment available and be inaccessible to young children. Five-foot fencing with safety latched gates completely encircling a pool or hot tub is recommended. In bathtubs, seats designed to hold a baby’s head above water are no substitution for adult supervision. Also, small children can drown after falling into buckets, toilets, washing machines or other such water holding basins. Caregivers must be vigilant about less obvious dangers.
- **Use of Safety Equipment** - When participating in water activities, children should always wear Personal Flotation Devices (PFDs) that are Coast Guard Approved and suited for the proper weight of the child. PFD’s should also be checked for broken zippers/buckles. “Water wings” and other inflatable items are not adequate substitutes.
- **Water Safety Education** - Children should have swimming lessons and water safety education. The American Academy of Pediatrics recommends waiting until 4-years-of-age to begin lessons. While this is vital, swimming ability alone does not relieve the need for adult supervision or PFDs.

B3. Suffocation/Strangulation

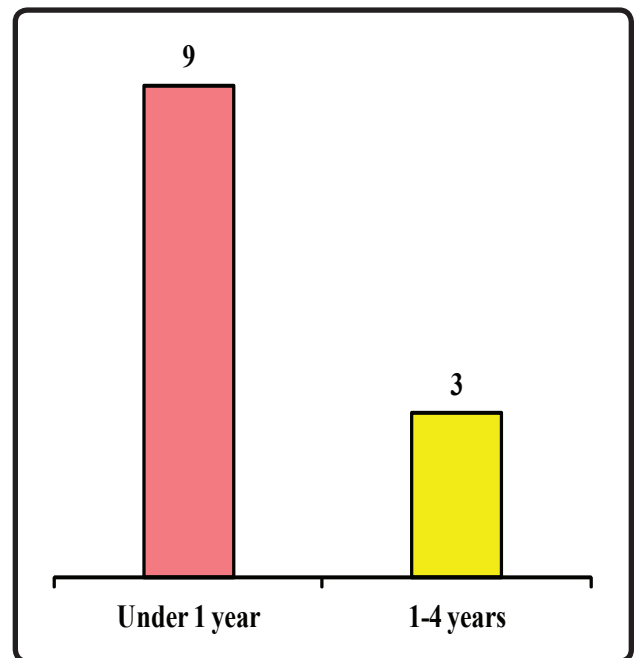
Unintentional asphyxial deaths most often affect very young children who have not yet developed the strength or motor skills to remove themselves from dangerous situations. Reviews from Kansas and across the nation show there are several common practices that increase the risk for asphyxial death. These include sleeping somewhere other than a crib, being placed on the abdomen to sleep, sleeping in a cluttered area, being placed on a soft surface such as a pillow or quilt, and bed-sharing with parents or siblings.

Since 1994, Kansas has reviewed 148 suffocation or strangulation child deaths. Twelve of those deaths occurred in 2008, four male and eight female. All of the 12 asphyxial deaths were under 2-years-of-age.

**Suffocation/Strangulation Deaths
by Gender in 2008,
N = 12**



**Suffocation/Strangulation Deaths
by Age in 2008,
N = 12**



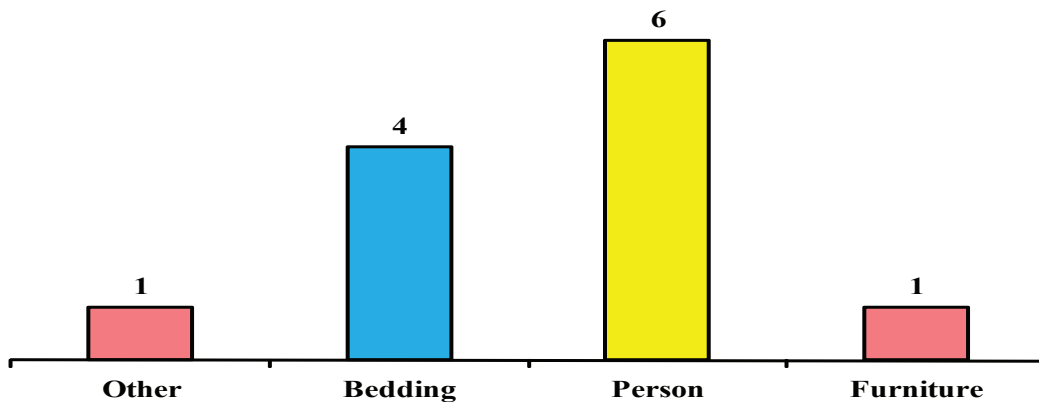
A 3-month-old was placed in her crib in the prone (on stomach) position to sleep. A “Boppy Pillow” was around her head and she was covered with an adult-sized comforter. She was checked on approximately 8 hours later and was found unresponsive and not breathing.

Some cribs, bassinets, and playpens have been known to strangle infants and toddlers. Parents and caregivers should thoroughly research baby furniture before purchasing a product and ensure no recalls have been issued. The U.S. Consumer Product Safety Commission (<http://www.cpsc.gov/cpsc/pub/prerel/prerel.html>) is a great resource to check for recalled products. Additionally, parents need to keep the area around a crib or bassinet clear of items that children can reach, such as cords, in which they could become entangled. Adults should also make certain all tables, cabinets, entertainment stands, and other furniture are solidly built and secured so as to not entrap or tip over on a child.

B3. Suffocation/Strangulation

One of the most common and concerning causes of suffocation/strangulation is improper sleeping arrangements for infants. The Board reviews multiple cases each year in which an infant was co-sleeping with another person, or a parent/caregiver placed an infant to sleep on soft bedding or pillows only to find the infant face down in the bedding and not breathing. In 2008, 75% of the suffocation/strangulation deaths were attributed to improper sleeping arrangements. Four of the 12 decedents were placed to sleep in an adult bed, five were placed on a couch/chair, two were in a crib/bassinet, and one was in a car seat. Most of the deaths were preventable had infants been sleeping in appropriate settings with proper supervision.

Suffocation/Strangulation Deaths by Cause in 2008, N = 12



Young parents made the decision to sleep with their 2 month-old-baby between them. Sometime during the night one of the parents rolled over on the infant resulting in an asphyxial death which was determined by autopsy and scene investigation.

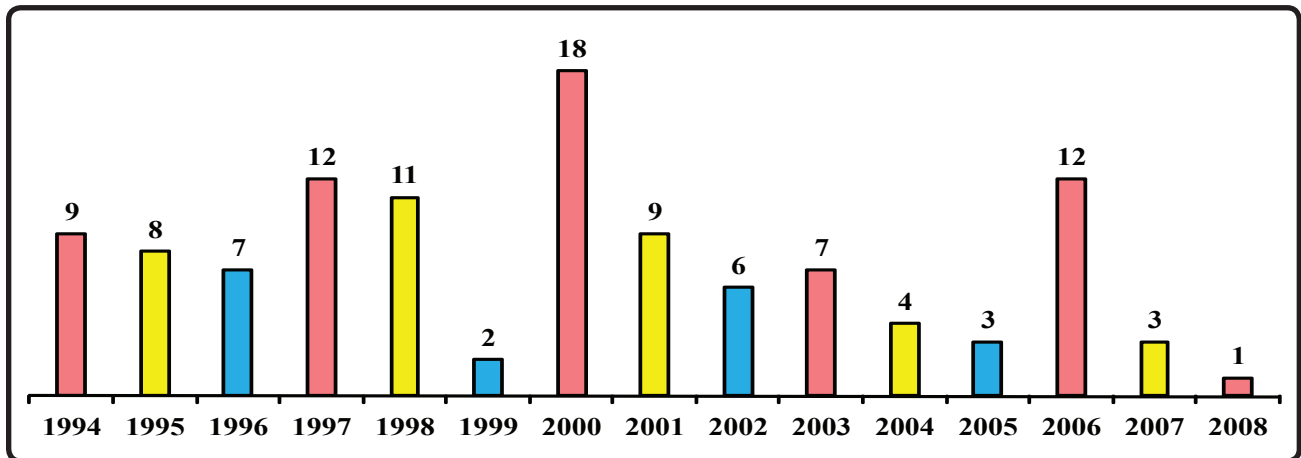
PREVENTION POINTS

- **Proper Supervision** - Young children should be watched attentively. Leaving them alone for even a few minutes, allows opportunities for accidents. Child-specific training in CPR and other emergency responses can help prevent death.
- **Safe Environments** - Be vigilant about potential dangers to children. Consideration must be given to their size, curiosity, and motor ability. Living, sleeping, and play areas should be routinely inspected for dangers which may not be threats to adults (e.g. chests/coolers, hanging cords, plastic bags), but can be deadly to children. Check play areas for hazards like protruding bolts that can catch clothing and strangulate a child. Check playground equipment parts and hand rails for spaces that may be large enough to allow a child's body to slip through and trap the head causing strangulation.
- **Infant Sleeping Arrangements** - The safest sleeping arrangement for an infant is in an approved crib, on his or her back. Babies should not sleep in adult beds and should not be placed in bed with parents or siblings. The crib mattress should be firm and fit tightly so the child cannot be trapped between the mattress and side of the crib. Soft items such as blankets, bumper pads, pillows, and stuffed animals provide opportunities for suffocation and should not be in the crib with the baby.

B4. Fire

Nationwide, deaths from fires and burns are the fifth most common cause of unintentional injury deaths in the United States and the third leading cause of fatal home injury.⁴ Children 4-years-old and under are most at risk. According to the National Fire Protection Association, in 2008 there were 3,320 reported civilian fire deaths in the United States, 85% of which were residential fires.⁵ One of those deaths was a Kansas child. This is the lowest number of fire-related child deaths since the Board's inception in 1994.

Total Fire-Related Deaths by Year, 1994 to 2008, N = 112



Fire is often started by children playing with matches or lighters. It is vital for parents and caregivers to keep all lighters, matches, and other igniting sources out of reach of children. They also need to educate children on the dangers of fire and practice escape routes in the event a fire does occur.

Smoke detectors can save lives. Parents and caregivers should be diligent about having functional smoke detectors in various locations in the home. Between 1994 and 2008, only 29% of the fire deaths reviewed by the SCDRB had working smoke detectors. Smoke detectors need to be installed on every level in the home and by each sleeping area. They need to be tested once a month, have new batteries at least once a year, and the detector itself should be replaced every 10 years. Close supervision of children, safe storage of matches and lighters, and working smoke detectors in the home are critical.

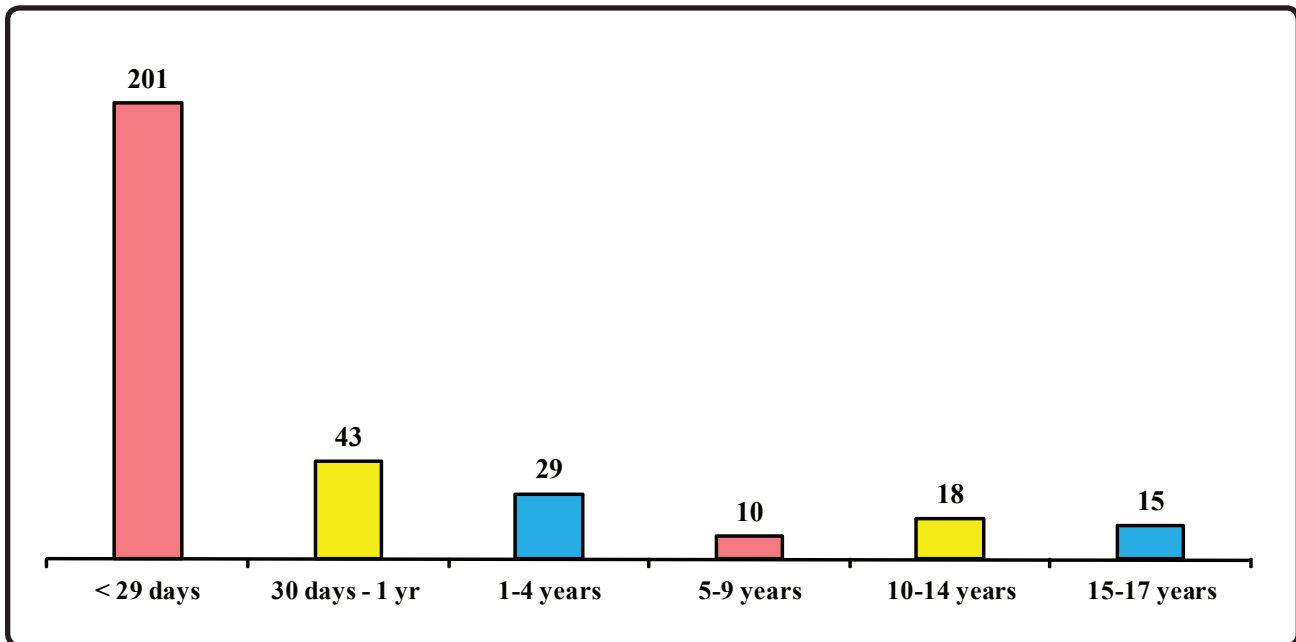
PREVENTION POINTS

- **Proper Supervision** - Young children must be watched closely. Leaving them unsupervised, especially if there are objects like candles or matches within their reach, could result in a serious injury or death.
- **Prevent Access to Fire-starting Material** - Matches, lighters, candles, etc. should be kept away from children. *Do not assume a young child cannot operate a lighter or match.*
- **Working Smoke Detectors** - Smoke detectors should be placed in several locations throughout the house and tested once a month to ensure they are working.
- **Emergency Fire Plan** - Everyone in the house, including the children, should know all exits from the house in case of a fire. Designate a central meeting location outside of the home and practice fire drills.

C. Natural Deaths-Except SIDS

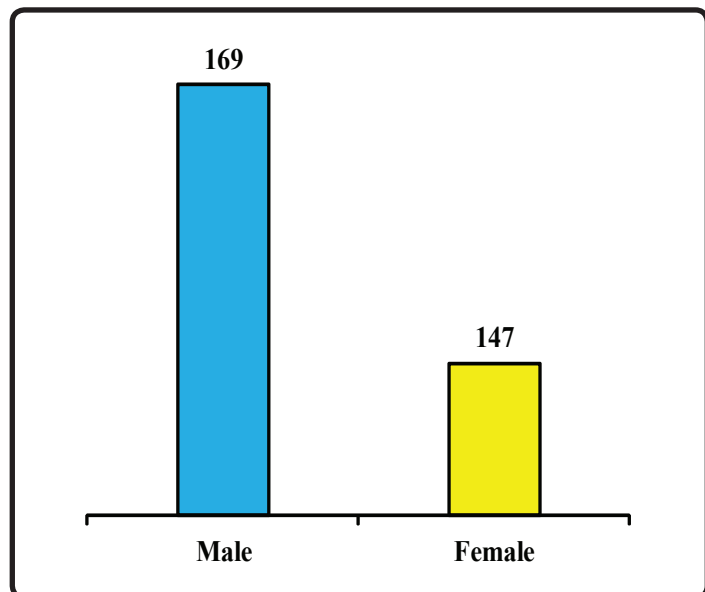
Natural deaths make up the majority of all child deaths in Kansas. Unlike other categories, prevention efforts are harder to define in natural deaths. Infant mortality stems from an array of social, economic, health and behavioral factors. Kansas Maternal Child Health Epidemiologist Garry Kelley notes, “Neonatal mortality (death in the first month of life) tends to be associated with influences prenatally, during birth, in the newborn period, and even before conception. Post neonatal (30-days to 1-year) mortality generally tends to be associated with environmental circumstances for the infant, particularly those linked to poverty (inadequate food/sanitation), unsafe housing, and inadequate supervision”.⁶ Statewide efforts are underway to address the issue of maternal health and infant mortality.

Natural Deaths by Age in 2008, N = 316



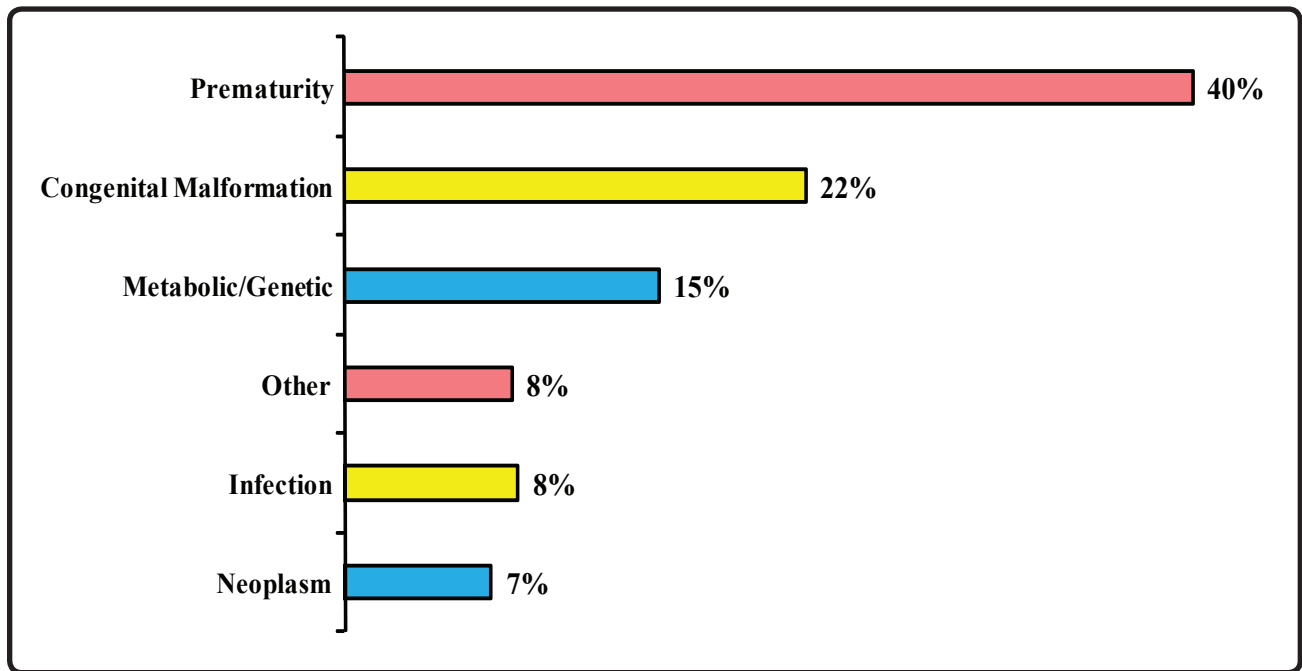
**Natural Deaths
by Gender
in 2008, N = 316**

Kansas’ infant mortality rate is 20% higher than the national rate. In response to this concern, the Secretary of Health and Environment enacted the Kansas Blue Ribbon Panel on Infant Mortality in 2009. In February of 2010, the Panel submitted a list of recommendations to the Secretary through the Governor’s Child Health Advisory Committee. To learn more about the Panel and their recommendations visit www.datacounts.



C. Natural Deaths-Except SIDS

Natural Deaths by Cause in 2008, N = 316



While the degree to which prematurity can be prevented is unknown, there are risk factors for prematurity and poor health that can be addressed. Risk factors for infant mortality include low birth weight, congenital defects, inadequate intrapartum (childbirth/delivery) and neonatal care, and race of infant. The mother's health and medical condition can also play a role in an infant's health. Maternal risk factors include previous fetal or infant loss, poor health prior to or during pregnancy, inadequate prenatal nutrition, age, low socioeconomic status, low education attainment, smoking, and substance abuse. In 2008, 19% of the mothers reported smoking during pregnancy, 2% reported use of alcohol, and 16% had no prenatal care.

An overweight 20-year-old unmarried mother gave birth to a 25-week gestation infant who weighed 2 lbs. The mother did not begin prenatal care until her 6th month of pregnancy.

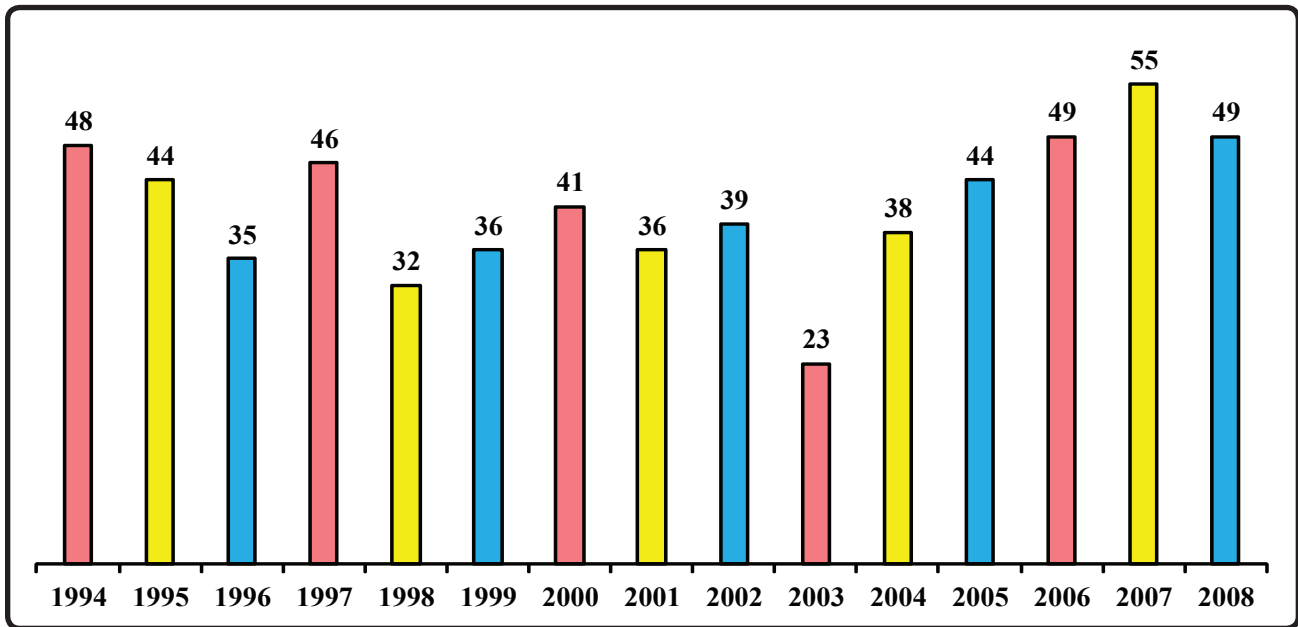
PREVENTION POINTS

- **Prenatal Care** - Medical care during a pregnancy can identify risk factors and problems, allowing early treatment and minimizing poor outcomes. Proper nutrition is vital to a pregnancy. Iron and folic acid supplements, along with other physician prescribed regimens can help ensure a healthy pregnancy and newborn.
- **Avoid Drugs, Alcohol, and Nicotine** - The use of illicit substances, alcohol, and nicotine should be avoided during pregnancy. These elements all have the ability to cause serious health issues and even death for newborns and infants.
- **Diagnose and Manage Chronic Health Conditions** - Medical care for infants and children with chronic health conditions can optimize health. Understanding how to care for conditions and illnesses will reduce poor outcomes.

D. Natural Deaths - SIDS

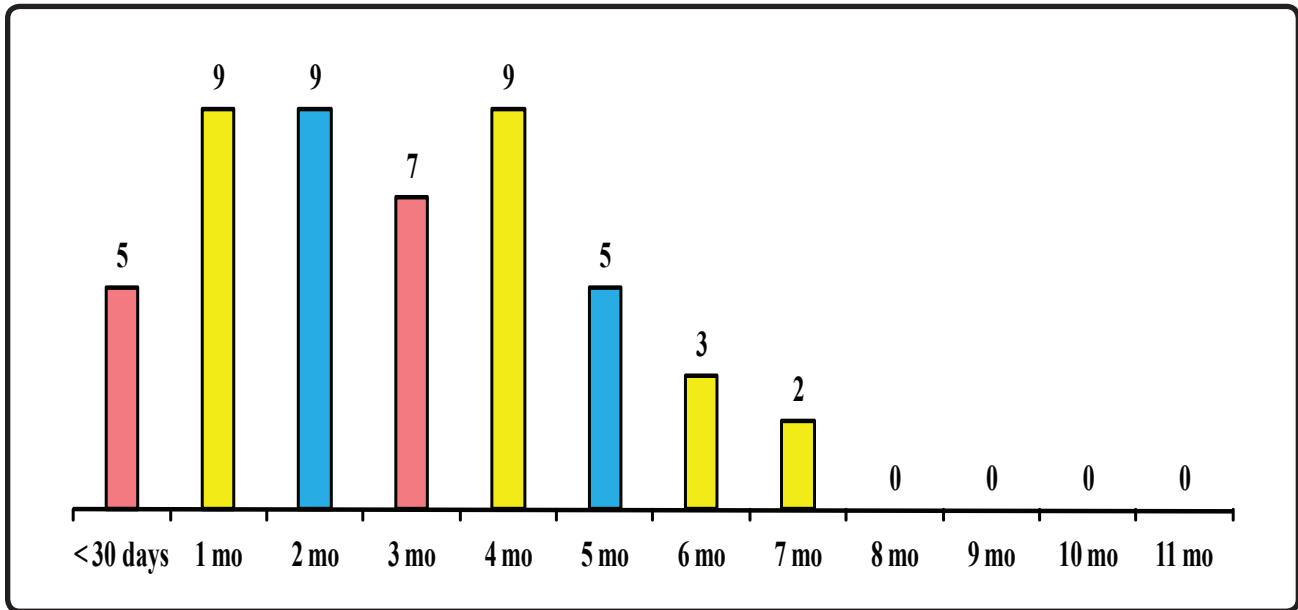
Sudden Infant Death Syndrome (SIDS) is defined as the unexpected death of an infant where investigation fails to demonstrate a definite cause of death. Kansas coroners can classify a death as SIDS only when the child is under 1-year-of-age and both investigation and a complete autopsy have revealed no known cause of death. There were 49 SIDS deaths in 2008.

Total Natural Deaths-SIDS by Year, 1994 to 2008, N = 615



85% of the SIDS deaths in 2008 occurred in the first four months of life. 82% of the cases were classified as SIDS category II. For a description of SIDS categories see pages 34 and 35 of this report.

Natural Deaths-SIDS by Age in Months in 2008, N = 49

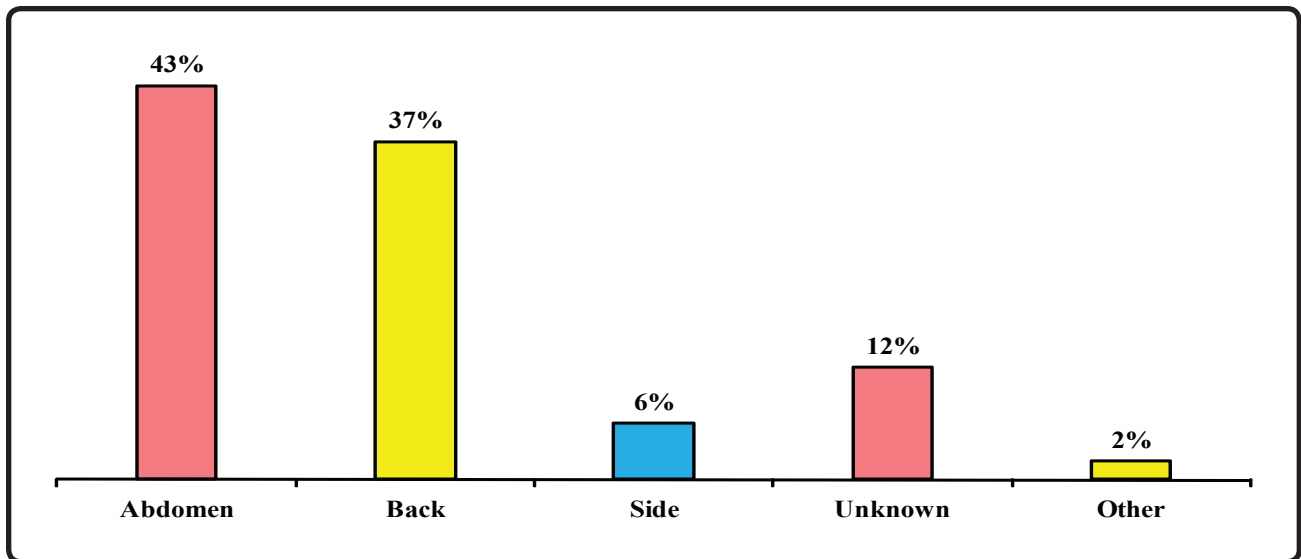


D. Natural Deaths - SIDS

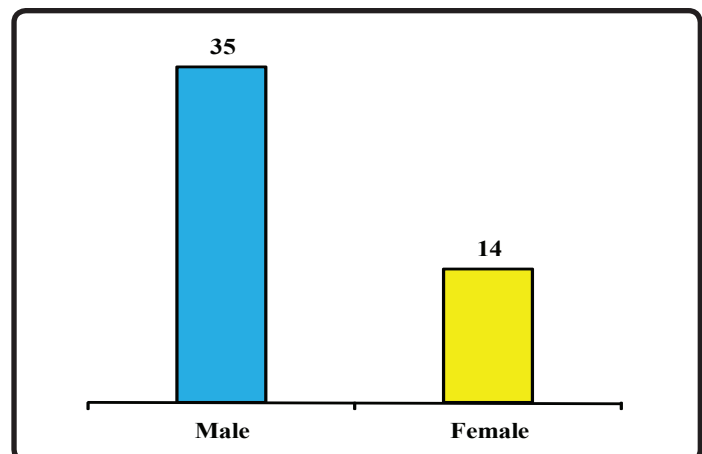
Since the cause of SIDS is unknown, by definition these deaths would not be preventable. However, the following risk factors have consistently been identified as independently related to SIDS: sleeping in the prone (stomach) position, being placed on a soft surface for sleep, overheating the sleep environment, maternal smoking during pregnancy, late or no prenatal care, young maternal age, pre-term or low-birth weight and male gender. Additionally, African American and American Indian/Alaska Native populations have a 2-3 times increased incidence of SIDS than the general population.

Although there is no medical research proving breastfeeding will prevent SIDS, it is a wonderful way to provide optimal nutrition for the growth and development of infants and is encouraged by the Board. Many mothers choose to sleep with their baby for convenience while they are breastfeeding; however, this is a dangerous situation that can lead to an accidental overlay or asphyxia. Rather than placing the infant in bed with you, the Board endorses the American Academy of Pediatrics (AAP) recommendation that parents create a close, but separate sleeping environment. For more information on breastfeeding, please visit the AAP at <http://www.aap.org/healthtopics/breastfeeding.cfm>.

Natural Deaths-SIDS by Position Found in 2008, N = 49



**Natural Deaths-SIDS
by Gender
in 2008, N = 49**

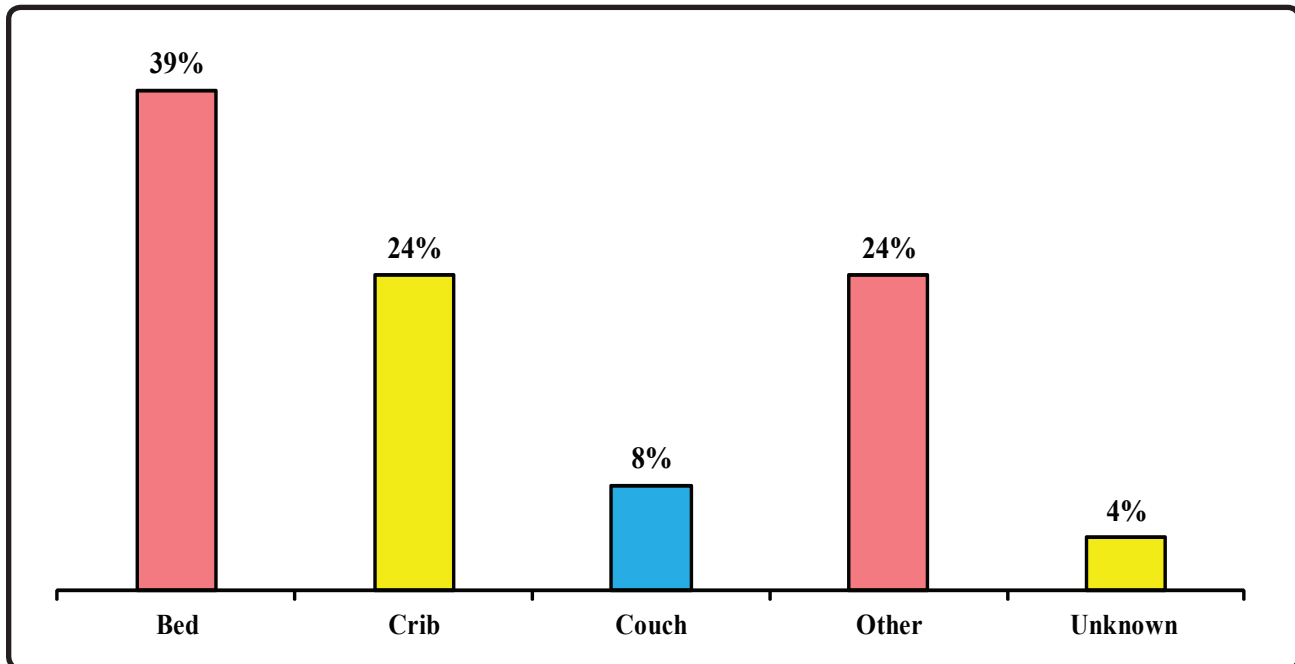


Although SIDS can occur when babies sleep on their backs (supine), the AAP notes that the likelihood of SIDS is more than 2 times greater for children who are placed on their stomachs (prone) to sleep.

D. Natural Deaths - SIDS

Since 2000, the American Academy of Pediatrics has placed an increased emphasis on additional issues related to SIDS deaths. Co-sleeping with adults or older children, sleeping on waterbeds or couches, and having pillows, stuffed animals, excess bedding, etc., in the same bed with an infant can be hazardous. Additionally, the side-sleeping position is no longer recognized as an acceptable alternative to the prone position due to the infant's potential to roll from his/her side into the prone position.

Natural Deaths-SIDS by Sleeping Place in 2008, N = 49



PREVENTION POINTS

- Infants should be placed to sleep in a supine position (on the back). Side sleeping is not as safe as supine sleeping and is not advised.
- A firm sleep surface should be used. Soft materials such as pillows, quilts, comforters, or sheepskins should not be placed with the infant.
- Use sleep clothing, such as sleep sacks designed to keep the infant warm instead of bedding that could overheat the infant or cover the baby's head. Avoid overheating the infant's room.
- Smoking during pregnancy is a major risk factor and should be avoided.
- A separate, but proximate sleeping environment is recommended. Bed sharing with adults or other siblings should be avoided.
- Devices promoted to reduce SIDS have not been proven to reduce the incidence of SIDS. Obtain an evaluation/recommendation from a medical professional before use of such products.
- For more information on safe sleep, visit the SCDRB's website at <http://www.ksag.org/page/childsafety>, Safe Kids Kansas at <http://www.kdheks.gov/safekids/>, or the AAP at <http://www.aap.org/>.

D. Natural Deaths - SIDS

Since 1994, 76% of the total SIDS deaths reviewed by the Board have occurred in the infant's residence. 14% of the total deaths took place in daycare/child care settings, and 9% of the cases listed "other residence" (e.g. relative, friend, neighbor, etc.) as the place of death. Since many infants spend a significant portion of their time in daycare or other child care environments, the importance of assuring that safe sleeping arrangements are maintained is critical. Many SIDS deaths have been associated with the child being prone, especially when the baby is used to sleeping on his/her back. Babysitters and family members who provide periodic care for babies may not be aware of the importance of supine sleeping and other safe sleeping arrangements. For these reasons, the Board strongly support and is promoting a state-wide safe sleep campaign as further described in the Public Policy Recommendations at the end of this report.

A healthy 4-month-old infant was placed in the supine (on back) position to sleep in a crib that had a firm mattress. However, the crib also contained an adult pillow, two blankets, and some stuffed animals. Due to the possibility of asphyxia, the death was classified as a SIDS category II.

PREVENTION POINTS FOR PARENTS WHEN SELECTING CHILD CARE HOMES AND CENTERS

- Child care homes and centers must be licensed or registered by the Kansas Department of Health and Environment. Ask to see the license or certificate – it will tell you the type of license held and the maximum number of children that may be enrolled.
- Check the compliance history of a regulated child care facility in Kansas by calling the Kansas Department of Health and Environment at 785-296-1270 and requesting a provider check.
- Child care providers should develop a safe sleep policy and discuss it with parents when enrolling infants.
- Child care providers and parents should communicate frequently to assure that they understand safe sleep practices and that these practices are followed at home and at the child care location.
- Babies must always be placed on their backs to sleep during every sleep period, including naps. Sleep position should be consistent each time and at every location. When babies who usually sleep on their backs are placed to sleep on their stomachs, they are at a markedly increased risk of sudden death.
- Place a baby on a firm tight-fitting mattress, covered by a fitted sheet, in a crib that meets current safety standards. Never allow a gap between the sides of the crib and the mattress. The same guidelines apply to portable cribs and bassinets.
- Do not use old, broken or modified cribs; regularly tighten hardware to keep the sides firm.
- Use sleep clothing, such as a one-piece sleeper, instead of a blanket or heavy quilt. The safest sleepwear is a comfortable fitting garment made of fabric labeled as flame resistant.
- Do not let a baby overheat. Babies are comfortable with the same layers of clothing and bedding as the adults in the same environment.
- Remove all blankets, pillows, quilts, comforters, stuffed animals, toys, bumper pads and other baby products from the baby's sleep area.
- Do not use sleep-positioning devices and make certain your child care provider is not positioning the baby in any manner that you have not approved.

D. Natural Deaths - SIDS

Reviews of SIDS deaths has led to the recognition that not all SIDS deaths appropriately fit the 1989 National Institute of Child Health and Human Development definition: “The sudden death of an infant under 1-year-of-age, which remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene, and review of the clinical history.”

In 2004, the CJ Foundation sponsored a meeting of experts in SIDS research. The panel agreed that the existing definition of SIDS was in some cases being applied too generally and in others, too restrictively. By more clearly defining subsets of infant deaths that occur suddenly and unexpectedly, uniformity of diagnosis, accuracy of information, and accumulated data for research and assessment of recommendations could be enhanced. The recommendations include the following definition and subclassifications:

Definition:

“SIDS is defined as the sudden unexpected death of an infant less than 1-year-of-age, with onset of the fatal episode apparently occurring during sleep, which remains unexplained after a thorough investigation, including performance of a complete autopsy and review of the circumstances of death and the clinical history.”

Category IA: Classic Features of SIDS Present and Completely Documented

- Age more than 21 days and less than 9 months.
- Normal clinical history, growth and development.
- No similar deaths in the family or in the custody of the same caregiver.
- Found in a safe sleeping environment with no evidence of accidental death.
- No evidence of unexplained trauma, abuse, neglect or unintentional injury.
- No evidence of substantial thymic stress effect.
- Negative results of toxicologic, microbiologic, radiologic, vitreous chemistry and metabolic screening studies.

Category IB: Classic Features of SIDS Present, but Incompletely Documented

Investigation of the various scenes where incidents leading to death might have occurred was not performed and/or one or more of the analyses listed above was not performed.

Category II: Infant Deaths That Meet Category I Criteria Except for One or More of the following:

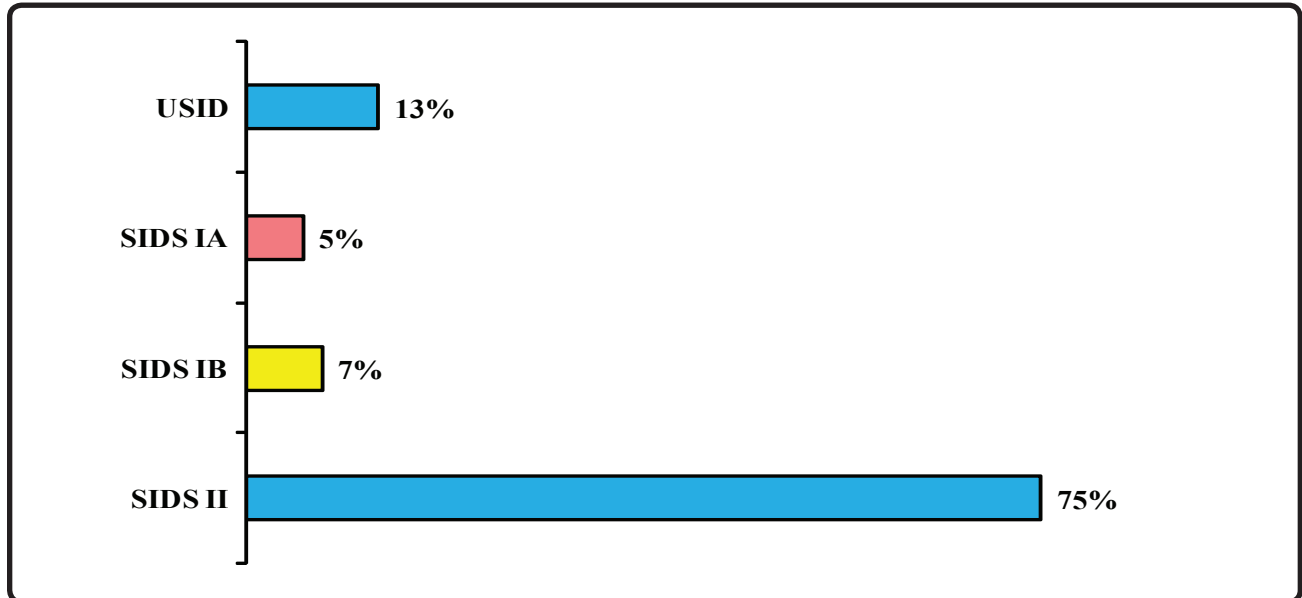
- Age range outside Category I.
- Similar deaths among family members or in the custody of the same caregiver.
- Neonatal or perinatal conditions that have resolved by the time of death.
- Mechanical asphyxia, or suffocation caused by overlay, cannot be ruled out with certainty.
- Presence of abnormal growth and development not thought to have contributed to the death.
- Marked inflammatory changes or abnormalities not sufficient to be unequivocal causes of death.

Unclassified Sudden Infant Death:

Includes deaths that do not meet the criteria for Category I or II SIDS but for which alternative diagnoses of natural or unnatural conditions are equivocal, including cases for which autopsies were not performed. The Board most generally classifies these cases as Undetermined.

D. Natural Deaths - SIDS

Natural Deaths-SIDS by Category in 2008, N = 56
49 SIDS and 7 USID



In 2008, the SCDRB categorized the 49 SIDS and 7 Unclassified Sudden Infant Death (USID) deaths as follows:

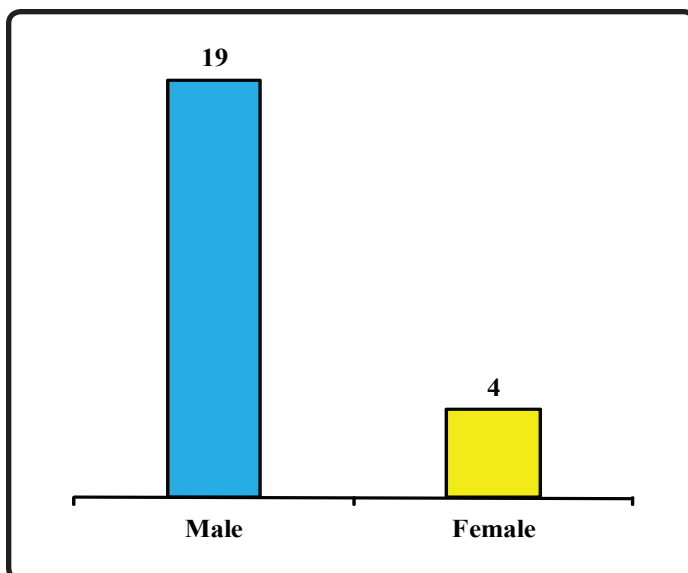
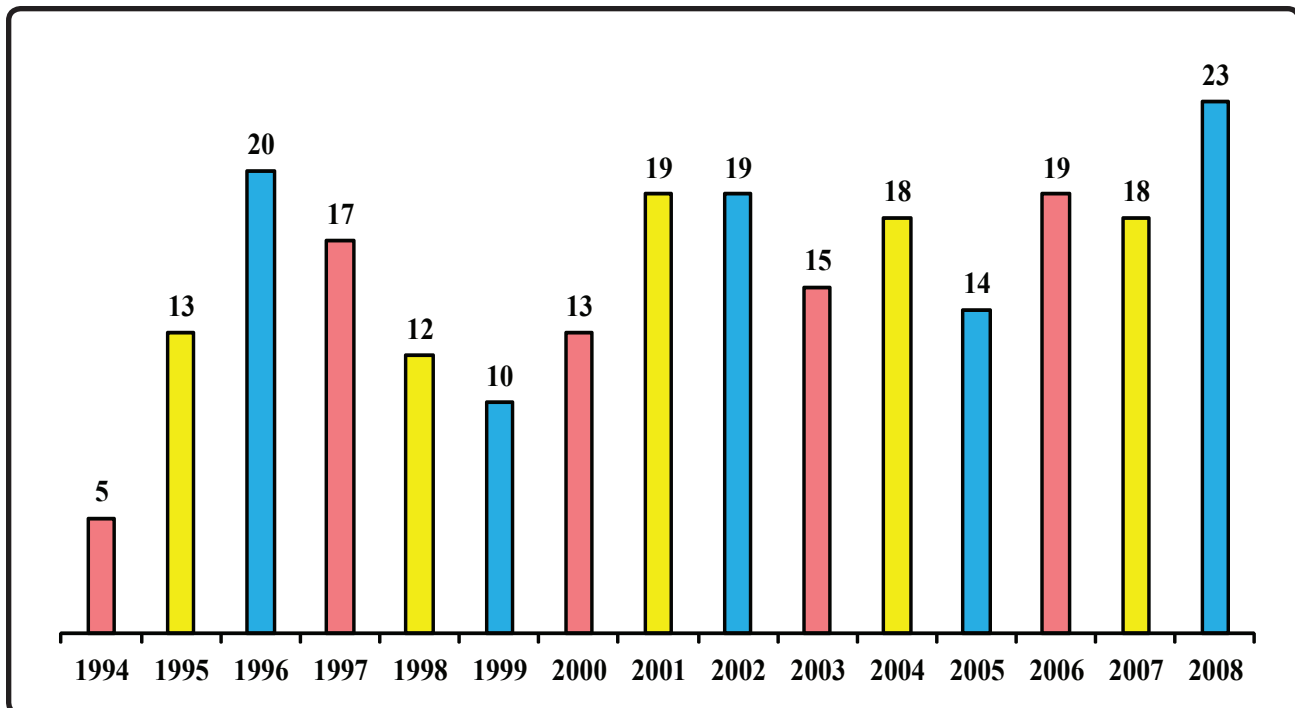
- 3 = SIDS IA: 1 of the 3 infants was placed and found in the prone position, the other 2 were placed and found in the supine position.
- 4 = SIDS IB: All 4 were categorized in this manner because scene investigations did not provide adequate scene information or description of place where infant was found.
- 42 = SIDS II: For 37 of the infants, the possibility of an overlay or mechanical asphyxia could not be ruled out, the remainder had medical problems or inflammatory changes, such as evidence of a respiratory infection, that were present, but not sufficient to be clear causes of death.
- 7 = USID: The Board generally classifies these cases as Undetermined; these cases are not included in the total 49 SIDS cases.

The Board has significant concern about the number of SIDS deaths classified as Category II. Most Category II deaths are classified as such due to the inability to definitively eliminate the possibility of overlay or mechanical asphyxia as a cause of death. These are babies sleeping with parents or siblings, or placed to sleep on soft surfaces, or with excessive bedding or pillows in the sleep environment. Although these cases are suitable to classify as SIDS, the possibility exists that some of the deaths are due to overlay by a parent, or mechanical asphyxia from bedding or pillows. The large number of infants who sleep in less than ideal circumstances leads the Board to recommend a vigorous state-wide educational program to address safe sleep for babies.

E. Undetermined

Periodically, the Board encounters a case where questions remain as to the cause and manner of the child's death. Contributing factors might include medications the child has taken or been exposed to, a complex medical history with no obvious cause of death, a child not being properly supervised, illicit drugs in the environment, or other concerns about the social history. When there are multiple circumstances that could have contributed to the child's death and no identifiable cause is established, the Board may classify the death as Undetermined. The Board has reviewed 235 Undetermined deaths since 1994, twenty-three of which occurred in 2008. Of those 23 deaths 87% occurred at the decedent's residence.

Total Undetermined Deaths by Year, 1994 to 2008, N = 235



**Undetermined Deaths
by Gender
in 2008, N = 23**

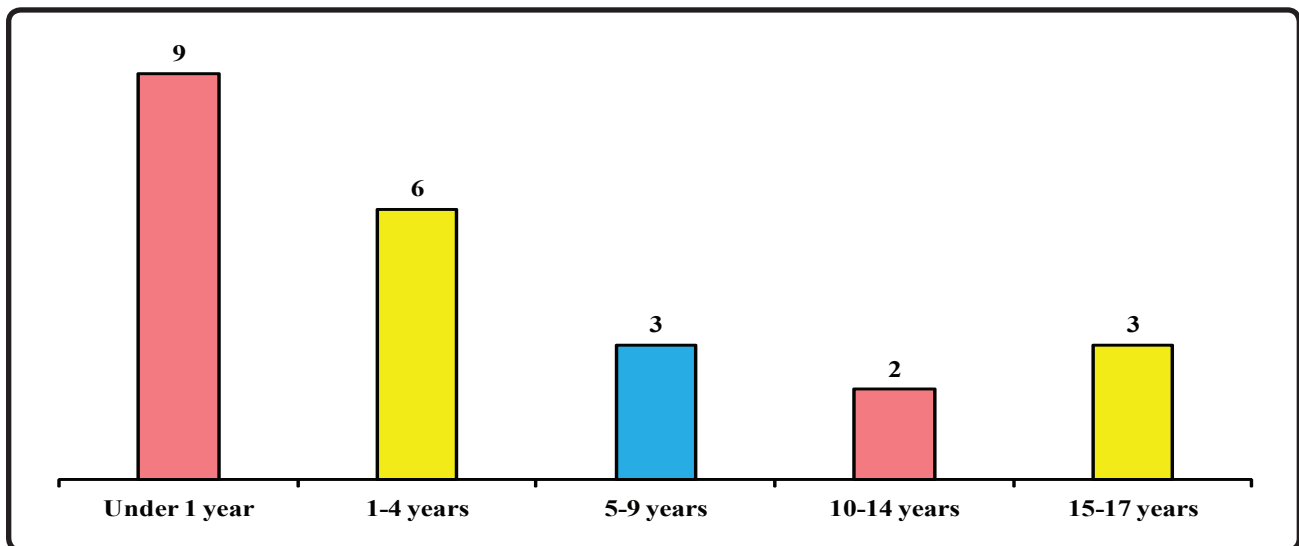
A 4-year-old with cerebral palsy was found deceased in his bed. The cerebral palsy was the result of an alleged injury that occurred when the child was 3-months-old. A history of previous reports of physical abuse and unexplained bruising on the child caused the Board to classify the death as Undetermined.

E. Undetermined

In 2008, there were 23 Undetermined deaths. The resulting investigations varied significantly. In some cases, although every effort was made to determine why a death occurred, there was no way to ascertain a cause of death. Other cases revealed incomplete investigations or law enforcement agencies not being informed of the death. In some instances, autopsies were not performed or were incomplete, or toxicology reports on the victim were not requested. Thirteen percent of the cases were listed as having inadequate investigations. This issue is important enough that the SCDRB has once again included in its Public Policy Recommendations a call for thorough investigations.

Due to improper investigation, specifically no interviews of family/witnesses, the death of a 5-month-old who was found unresponsive in his playpen was classified as Undetermined.

Undetermined Deaths by Age in 2008, N = 23



PREVENTION POINTS

- **Thorough Investigations** - All non-natural child deaths should be exhaustively investigated. The circumstances and family situation should not affect the detail of the inquiry. Hospitals should have protocols in place to ensure law enforcement is notified when a child dies from other than expected natural causes and when a child is admitted with what appears to be an acute life threatening event of unknown etiology that is expected to be fatal.
- **Complete Autopsies** - Combined with excellent law enforcement investigations, complete autopsies often provide a better understanding of child deaths. However, there are situations in which an autopsy should have been performed and was not, or the autopsy did not include all aspects of a standard forensic investigation such as full-body x-rays, cultures, and metabolic/toxicologic studies. Coroners must be mindful of their statutory duties and should be aware of the reimbursement program through the Kansas Department of Health & Environment. Visit the SCDRB's website at <http://www.ksag.org/page/child-safety>.

IV. Public Policy Recommendations

The Child Death Review Board has chosen to provide policy recommendations in areas that could significantly affect child deaths in Kansas. The information gathered and analyzed by the Board provides compelling support for the recommendations made below.

COMPREHENSIVE AND THOROUGH INVESTIGATION OF CHILD DEATHS

Thorough investigation of child deaths is a mandate of the State Child Death Review Board. Such an investigation should include more than the cause of death and manner of death. An understanding of the mechanisms of death is of critical importance if we are to develop strategies for the prevention of future deaths. Investigations should include sufficient examination of all factors: home environment; family history; social history; and any other mechanical and/or physical factor that could have contributed to the death. Also, thorough investigations should include examination of medical history and other potential medical factors such as previously undiagnosed physical infirmities or illnesses. A complete and properly conducted autopsy should be performed which includes toxicology. While some incidents are deceptively simple on superficial examination, there can be factors that contributed to the death where only a detailed examination of the event and the decedent will permit a complete understanding of how and why this death occurred.

District Coroner Erik Mitchell states, “The State Child Death Review Board has long recognized the limitations of resources that inhibit the extent of death investigations. Consequently, in 2002, the SCDRB sought and obtained a change in statute. Counties can now obtain a refund of reasonable expenses for child autopsies from the District Coroner Fund in cases that fall under guidelines set by the SCDRB. In other words, if an autopsy is performed for a child where there is reason to believe that unnatural mechanisms are at play (SIDS, accident, suicide, and homicide), the County can request and receive reimbursement for reasonable autopsy costs from the District Coroner’s Fund. It is hoped that the availability of funds will encourage the inclusion of autopsies in all potentially unnatural child deaths.”

The State Child Death Review Board would be incapable of performing its function without the dedicated efforts of law enforcement officers and county and district coroners. While the investigation of child deaths is a difficult task, only thorough examinations of these incidents allow the Board to gather accurate information. Without that foundation, the Board cannot make recommendations for ways to prevent the deaths of Kansas children.

STRENGTHEN PARTNERSHIPS FOR PUBLIC EDUCATION PURPOSES

The Board’s partnership with agencies such as Safe Kids Kansas, the SIDS Network of Kansas, and the Kansas Department of Health and Environment (KDHE) is crucial in promoting safety and preventing child deaths. In the 2007 SCDRB Annual Report, the Board expressed the need for a state-wide safe sleep campaign. The Board, along with other agencies, supported the safe sleep campaign in Sedgwick County and encouraged it be expanded state-wide. The SIDS Network of Kansas created an actionable campaign, which is presently being circulated state-wide.

As lack of supervision continues to be an issue, particularly in relation to drowning deaths, the Board also supports a state-wide awareness campaign to prevent drowning. The campaign should be orchestrated through agency partnership and be designed to encompass all ages of children, focusing on the importance of supervision.

IV. Public Policy Recommendations

IMPROVE WOMEN'S/MATERNAL HEALTH TO LOWER INFANT MORTALITY

The majority of the cases reviewed by the SCDRB are Natural deaths. While there are a variety of reasons for these deaths, prematurity and congenital malformations are the most frequent reasons for infant deaths. Healthy women are more likely to have a healthy pregnancy. Risk factors that can impact pregnancy outcomes include a mother's health before pregnancy, poor nutritional status, the use of substances such as alcohol, tobacco or drugs, educational and income level, age and ethnicity of the woman, presence of domestic abuse and the desire for the pregnancy.

Improving health of women before conception or pregnancy can help prevent poor birth outcomes for both the mother and her baby. Measures that improve preconception health include: reducing obesity, managing chronic health conditions, improving nutritional status, such as taking folic acid, and improving health behaviors that include smoking cessation and avoiding alcohol consumption. Other measures that may be helpful are healthy spacing of pregnancies, improving social conditions such as education, income, and personal relationships, and having access to a regular source of health care prior to and throughout the pregnancy.

The Board encourages KDHE to inform and educate the public about infant deaths in Kansas, as well as the risk factors contributing to premature births, birth defects, and domestic violence. The Board recommends a community-based approach for preconception education for women of child-bearing age with an emphasis on healthy women and access to a regular source of health care. The Board supports collaborative efforts with KDHE for a more thorough review of neonatal and infant deaths to determine the underlying causes that have contributed to the death.

Additionally, in 2009, the Governor's Kansas Blue Ribbon Panel on Infant Mortality was created and charged with the duty to review infant mortality in Kansas and deliver recommendations to the Secretary of KDHE through the Governor's Child Health Advisory Committee. The Panel held a series of meetings and submitted a list of recommendations to the Secretary in February of 2010. To learn more or to see the Panel's full list of recommendations visit www.datacounts.net/chac.

ALL-TERRAIN VEHICLE (ATV) USAGE LAWS

ATV use in Kansas has increased, and with it, the ATV injury and fatality rate. Compared to a bicycle crash, an ATV crash is six times as likely to send a child to the hospital, and 12 times as likely to kill a child. The 2008 US Consumer Product Safety Commission report on ATV-related deaths and injuries noted that 28% of the estimated number of ATV-related, emergency room-treated injuries involved children under 16-years-of-age.⁶

Since 1994, forty one children have died in ATV-related crashes in Kansas. Speed, inexperience, size, and lack of strength to safely control an ATV are major risk factors.

To prevent such incidents, the Board makes the following recommendations:

- No child under the age of 12 is permitted to operate an ATV of any size.
- All riders are required to wear a helmet.
- ATV use on highways, byways, city and county roadways, or right-of-ways be prohibited; except for stipulations as stated in K.S.A. 8-15, 100 (b).
- Passengers may not be carried except for agricultural purposes and except on ATV's designed to carry more than one person.
- All ATVs shall be registered and titled.

IV. Public Policy Recommendations

ENACT LAWS PROHIBITING UNATTENDED CHILDREN IN VEHICLES

There is no substitute for supervision, especially when it involves children and vehicles. The Board reviews cases of children who were left unattended in a vehicle, resulting in the death of the child. Most often the deaths take place within minutes of the child being left alone, and usually occur from one of following:

- Hypothermia.
- Hyperthermia.
- Strangulation from a car seat belt.
- Strangulation from an automatic power window.
- A motor vehicle crash from the child putting the vehicle in gear.

Another significant risk to the child's health and safety when left unattended in a vehicle is a car-jacking or theft. Unlocked and running vehicles are at a high risk of being stolen for joy rides or for use in the commission of a crime. If a child is in the vehicle when the thief takes control, the outcome could be tragic. Unattended children could also become locked in the trunk compartment and suffocate, while a frantic parent searches the surrounding area for the missing child.

It is the Board's belief that the Legislature should enact laws that encompass the following:

- No child under the age of 5 may be left in a motor vehicle unless they are accompanied by another person 13-years-of-age or older.
- No child under the age of 5 shall be left unsupervised or unattended in a vehicle, unless the vehicle is being loaded or unloaded and an adult is in the immediate vicinity.
- A fine of \$25 should be imposed for the first conviction, and subsequent convictions that occur within three years of the first violation should result in a minimum fine of \$250, not to exceed \$500.

FARM-RELATED ISSUES

Kansas has a rich farming history and Kansas farmers are dependent on farm help, often young teens. The Board recognizes this invaluable relationship while also recognizing the dangers related to farming. It is with this understanding that the Board proposes changes to Kansas law, which will reduce the number of farm-related child fatalities.

To obtain a Farm Permit for driving purposes in Kansas an applicant must be at least 14-years-of-age, have formal government issued proof that the person either lives on or works for a farm, have a signed affidavit by either a parent or guardian stating that the applicant has completed at least 50 hours of adult supervised driving with at least 10 of those hours being at night, and have passed a written and vision test. When using a farm permit the driver's travel is restricted to and from, or in connection with, farm-related work and may not transport non-sibling minor passengers. The Board has reviewed several cases that indicate the farm permit requirements were not followed and contributed to a fatality.

The Board would like to see the following changes made to the Kansas Farm Permit law:

- All drivers are required to pass a formal driver's education course.
- Driving to and from school be prohibited.
- Strict adherence to, and enforcement of, Kansas law by law enforcement officials.

V. Appendix

GOALS & HISTORY

The SCDRB has developed the following three goals to direct its work:

- 1) To describe trends and patterns of child deaths (birth through 17-years-of-age) in Kansas and to identify risk factors in the population;
- 2) To improve sources of data and communication among agencies so that recommendations can be made regarding recording of the actual cause of death, investigation of suspicious deaths, and system responses to child deaths. This interagency communication should occur at the individual case level and at the local and state levels;
- 3) To develop prevention strategies including community education and mobilization, professional training, and needed changes in legislation, public policy, and/or agency practices.

The SCDRB was created by the 1992 Kansas Legislature and is administered by the Office of the Kansas Attorney General. SCDRB membership is appointed according to K.S.A. 22a-241 et. seq. Membership includes: one member each from the Office of the Attorney General, the Kansas Bureau of Investigation (KBI), the Department of Social and Rehabilitation Services (SRS), the Kansas Department of Health and Environment (KDHE), and the Department of Education; three members appointed by the Board of Healing Arts: a district coroner, a pathologist, and a pediatrician; one representative of a child advocacy group appointed by the Attorney General; and one county or district attorney appointed by the Kansas County and District Attorneys Association. No term limit is set on appointments. In 1994, the Legislature amended the statute to enable the SCDRB to appoint an executive director.

This multi-agency, multi-disciplinary volunteer board meets monthly, with no travel or expense reimbursement, to examine circumstances surrounding the deaths of Kansas children (birth through 17-years-of-age). Members bring a wide variety of experience and perspective on children's health, safety, and maltreatment issues. As a result of this combination of expertise, the effectiveness of intervention and prevention is greatly increased.

With assistance from law enforcement agencies, county and district attorneys, SRS, KDHE, physicians, coroners, and other medical professionals, the SCDRB is given the comprehensive information needed to thoroughly examine circumstances which lead to the deaths of children. By understanding how children are dying, the SCDRB is able to propose ways of reducing the number of preventable deaths.

When the SCDRB began its work, data was compiled on a fiscal year (July 1993 – June 1994) basis. In 1997, the SCDRB changed its review to a calendar year format, beginning with the 1995 study year, to bring its data in to conformity with fatality review boards in other states, so that future trends and patterns can be compared.

V. Appendix

METHODOLOGY

Kansas Child Death Review Board 2008 Data

The SCDRB meets monthly to examine the circumstances surrounding the deaths of all Kansas children aged birth through 17 years, as well as children who are not residents but died in the State. As a rule, the SCDRB is alerted of a death when they receive birth/death certificates from the Kansas Department of Health and Environment (KDHE) Vital Statistics Department. On a monthly basis, KDHE provides the SCDRB with a listing of children whose deaths have been reported. The Vital Statistics Department also has a close working relationship with other state vital statistics departments and receives death certificates from those departments when a Kansas child dies in another state.

When a death certificate is received, the SCDRB staff creates a file. Death and birth certificates, as well as the coroner information are used to identify additional information necessary for a comprehensive review. Before a case can be reviewed, all coroner information, e.g. coroner report form, autopsy report, and the report of death, must be in the file. In addition, all pertinent records which could provide a complete picture of the circumstances that led to the child's demise must accompany the file. Such records may include: medical reports, law enforcement reports, scene photographs, social history notes, SRS records, obituaries, etc. All information obtained by the SCDRB is confidential.

After all records have been collected, cases are assigned to board members for initial review and assessment. Each member reviews his or her assigned cases and enters case information into a secure web-based database. The on-line database provides a relatively easy way to maintain information. However, transfers of information between outdated software to the new system in 2000 have created the possibility for slight number adjustments when reviewing data from past years.

During the SCDRB's monthly meetings, members present their cases orally and circumstances leading to the deaths are discussed. If additional records are needed or specific questions are raised, a case may be continued to the next meeting. Otherwise, upon full agreement of the cause and manner of death, cases are closed. In some instances the SCDRB may determine that it is appropriate to refer a case back to the county or district attorney in the county where the death occurred. This would include recommendations for follow-up investigation.

Any questions about this report or about the work of the SCDRB should be directed to Angela Nordhus, Executive Director, at (785) 296-7970 or by e-mail at angela.nordhus@ksag.org.

V. Appendix

Child Deaths By County of Residence in 2008

County	Total Population	Total Deaths	Natural - Except SIDS	Unintentional Injury - MVC	Unintentional Injury	Natural - SIDS	Undetermined	Homicide	Suicide
Allen	13,319	1	1	0	0	1	0	0	0
Anderson	7,984	1	1	0	0	0	0	0	0
Atchison	16,481	2	2	0	0	0	0	0	0
Barber	4,674	0	0	0	0	0	0	0	0
Barton	27,703	4	3	0	0	0	0	1	0
Bourbon	14,851	4	2	1	0	1	0	0	0
Brown	10,009	3	3	0	0	0	0	0	0
Butler	63,562	13	3	2	3	4	1	0	0
Chase	2,804	2	1	1	0	0	0	0	0
Chautauqua	3,768	1	1	0	0	0	0	0	0
Cherokee	21,082	6	5	1	0	0	0	0	0
Cheyenne	2,742	0	0	0	0	0	0	0	0
Clark	2,108	0	0	0	0	0	0	0	0
Clay	8,859	1	1	0	0	0	0	0	0
Cloud	9,453	5	5	0	0	0	0	0	0
Coffey	8,409	1	1	0	0	0	0	0	0
Comanche	1,950	0	0	0	0	0	0	0	0
Cowley	34,065	4	2	1	0	0	1	0	0
Crawford	38,868	4	1	1	0	1	1	0	0
Decatur	2,912	1	1	0	0	0	0	0	0
Dickinson	19,328	1	0	0	0	1	0	0	0
Doniphan	7,753	0	0	0	0	0	0	0	0
Douglas	114,748	16	13	0	1	2	0	0	0
Edwards	3,082	0	0	0	0	0	0	0	0
Elk	3,047	1	1	0	0	0	0	0	0
Ellis	27,801	2	1	0	0	0	0	0	1
Ellsworth	6,250	1	0	0	0	0	1	0	0
Finney	40,998	8	4	1	0	2	1	0	0
Ford	33,293	14	7	3	1	1	0	2	0
Franklin	26,562	5	4	1	0	0	0	0	0
Geary	31,171	15	11	0	2	1	1	0	0
Gove	2,548	0	0	0	0	0	0	0	0
Graham	2,592	1	0	0	0	0	1	0	0
Grant	7,395	8	1	6	1	0	0	0	0
Gray	5,688	2	0	0	2	0	0	0	0
Greeley	1,266	0	0	0	0	0	0	0	0
Greenwood	6,861	3	2	1	0	0	0	0	0
Hamilton	2,631	0	0	0	0	0	0	0	0
Harper	5,857	1	1	0	0	0	0	0	0
Harvey	33,675	4	2	0	0	0	0	0	2
Haskell	3,919	1	1	0	0	0	0	0	0
Hodgeman	1,948	0	0	0	0	0	0	0	0
Jackson	13,240	3	2	1	0	0	0	0	0
Jefferson	18,421	1	0	1	0	0	0	0	0
Jewell	3,142	0	0	0	0	0	0	0	0
Johnson	534,093	71	50	4	4	7	1	2	3

V. Appendix

Child Deaths by County of Residence in 2008, Continued

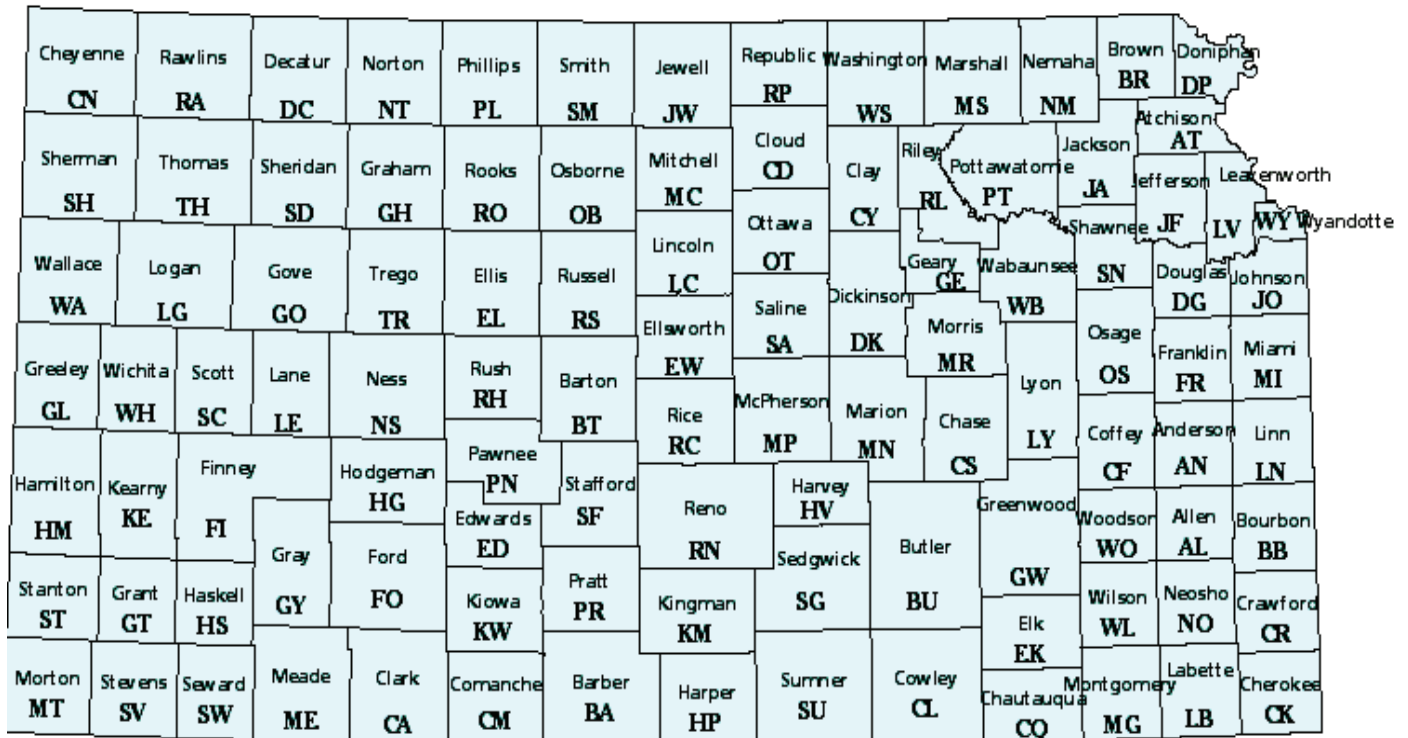
County	Total Population	Total Deaths	Natural - Except SIDS	Unintentional Injury - MVC	Unintentional Injury	Natural - SIDS	Undetermined	Homicide	Suicide
Kearny	4,159	1	0	0	0	0	0	1	0
Kingman	7,719	1	1	0	0	0	0	0	0
Kiowa	2,541	0	0	0	0	0	0	0	0
Labette	21,871	4	3	0	0	0	1	0	0
Lane	1,743	1	0	1	0	0	0	0	0
Leavenworth	74,276	6	4	2	0	0	0	0	0
Lincoln	3,261	0	0	0	0	0	0	0	0
Linn	9,616	1	1	0	0	0	0	0	0
Logan	2,593	2	1	1	0	0	0	0	0
Lyon	35,562	4	4	0	0	0	0	0	0
Marion	29,044	2	1	1	0	0	0	0	0
Marshall	12,100	1	1	0	0	0	0	0	0
McPherson	10,178	5	3	1	0	0	1	0	0
Meade	4,359	0	0	0	0	0	0	0	0
Miami	30,989	3	1	2	0	0	0	0	0
Mitchell	6,292	2	1	0	0	0	0	1	0
Montgomery	34,395	5	0	1	2	1	0	1	0
Morris	6,037	0	0	0	0	0	0	0	0
Morton	2,978	1	0	0	0	0	1	0	0
Nemaha	10,112	1	1	0	0	0	0	0	0
Neosho	16,223	4	2	0	1	1	0	0	0
Ness	2,945	0	0	0	0	0	0	0	0
Norton	5,370	0	0	0	0	0	0	0	0
Osage	16,327	0	0	0	0	0	0	0	0
Osborne	3,804	0	0	0	0	0	0	0	0
Ottawa	6,026	0	0	0	0	0	0	0	0
Pawnee	6,291	0	0	0	0	0	0	0	0
Phillips	5,339	0	0	0	0	0	0	0	0
Pottawatomie	19,695	3	3	0	0	0	0	0	0
Pratt	9,411	1	0	0	0	0	1	0	0
Rawlins	2,503	1	0	0	0	1	0	0	0
Reno	63,427	8	8	0	0	0	0	0	0
Republic	4,812	0	0	0	0	0	0	0	0
Rice	10,060	2	1	0	0	0	1	0	0
Riley	71,069	6	3	0	2	0	1	0	0
Rooks	5,136	1	1	0	0	0	0	0	0
Rush	3,232	0	0	0	0	0	0	0	0
Russell	6,641	0	0	0	0	0	0	0	0
Saline	54,657	10	6	0	0	3	1	0	0
Scott	4,577	0	0	0	0	0	0	0	0
Sedgwick	482,863	88	57	4	4	8	4	9	2
Seward	23,016	7	4	1	1	1	0	0	0
Shawnee	174,709	33	19	1	3	6	2	2	0
Sheridan	2,510	0	0	0	0	0	0	0	0
Sherman	6,013	0	0	0	0	0	0	0	0

V. Appendix

Child Deaths by County of Residence in 2008, Continued

County	Total Population	Total Deaths	Natural - Except SIDS	Unintentional Injury - MVC	Unintentional Injury	Natural - SIDS	Undetermined	Homicide	Suicide
Smith	3,901	0	0	0	0	0	0	0	0
Stafford	4,326	0	0	1	0	0	0	0	0
Stanton	2,148	1	1	0	0	0	0	0	0
Stevens	5,056	1	1	0	0	0	0	0	0
Sumner	23,616	3	2	0	0	1	0	0	0
Thomas	7,277	5	3	1	0	1	0	0	0
Trego	2,882	0	0	0	0	0	0	0	0
Wabaunsee	6,922	0	0	0	0	0	0	0	0
Wallace	1,404	0	0	0	0	0	0	0	0
Washington	5,791	0	0	0	0	0	0	0	0
Wichita	2,148	1	0	0	0	1	0	0	0
Wilson	9,698	1	0	1	0	0	0	0	0
Woodson	3,285	2	1	0	0	1	0	0	0
Wyandotte	154,287	38	28	3	0	3	1	3	0
Out of State		35	21	5	1	0	1	4	1
Total	2,802,134	502	316	51	28	46	26	26	9

Kansas Counties



V. Appendix

RESOURCES

- 1) Kansas Department of Health and Environment, Vital Statistics Department.
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