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### Kansas Child Death Review Board



2009 Annual Report (2007 Data)

WWW.KSAG.ORG

### **Attorney General Steve Six**



October 2009

#### 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 2007 and highlights the board's findings for the twelve 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,

Steve Six

Kansas Attorney General

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### **Board Members**

#### **Attorney General appointee**

Jason Hart, J.D., Chairperson Assistant Attorney General, Topeka

#### Director of Kansas Bureau of Investigation appointee

David Klamm, SSA Kansas Bureau of Investigation, Wichita

#### Secretary of Social and Rehabilitation Services appointee

Brian Dempsey, J.D. SRS Assistant Director of Child Welfare, Topeka

#### Secretary of Health and Environment appointee

Shirley Orr, MHS, ARNP, CNAA Kansas Department of Health and Environment, Topeka

#### **Commissioner of Education appointee**

Sarah Johnston, M.D. University of Kansas School of Medicine, Wichita

#### **State Board of Healing Arts appointees**

Erik K. Mitchell, M.D. (Coroner member) District Coroner, Topeka

Jaime Oeberst, M.D. (Pathologist member) 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

Mary A. McDonald, J.D. 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

Staff	Staff	General Counsel
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Executive Director	Administrative Specialist	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 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 2007.

In 2007, 514 Kansas children died; a 6% increase from 2006. In total, the Board has reviewed 6,982 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.

Death trends in 2007 were consistent with previous year data, particularly in relation to natural deaths. Natural death have consistently remained the largest category with children under 1-year-of-age making up the majority of those deaths.

The Unintentional Injury - Motor Vehicle Crash (MVC) category showed an increase of 9% from 2006. As expected, most of the deaths involved teen drivers with 15 to 17-year-olds representing the largest group. The most prevalent risk factors were inexperience and inattentive driving. Excessive speed was the second highest risk factor. The majority of the decedents in the MVC's were rear-seat passengers, many of whom were not using safety restraints.

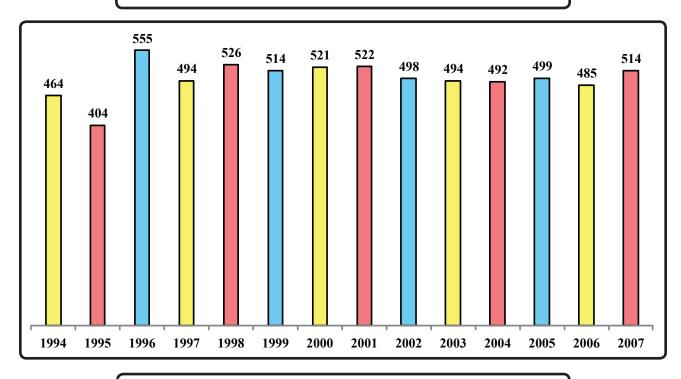
The number of child homicides increased by four in 2007; the 3rd year in a row to show an increase. The majority of the children killed were under 4-years-of-age.

There were 18 Undetermined deaths. Often the Undetermined classification is the result of a lack of thorough, comprehensive investigations and/or autopsies, 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.

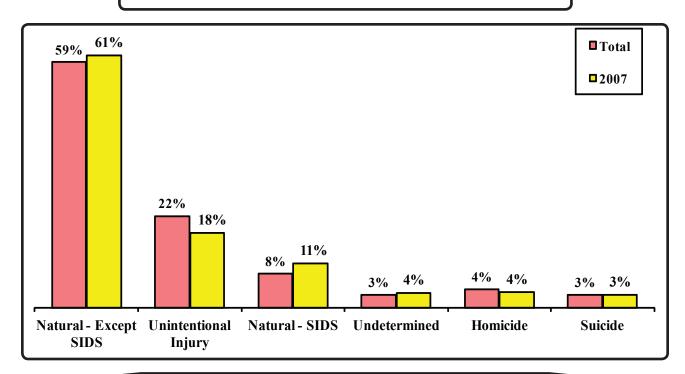
## II. 2007 Overview

In 2007, 514 Kansas children died, which is an average of 1.4 deaths every day. The following graphs compare 2007 with the number of deaths in previous years, since 1994.

Total Deaths in Kansas, 1994 to 2007, N = 6,982

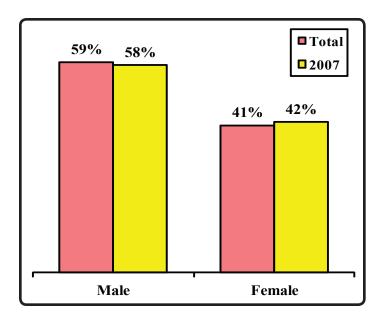


Analysis by Manner of Death, 1994 to 2007, N = 6,982Compared to 2007, N = 514



### II. 2007 Overview

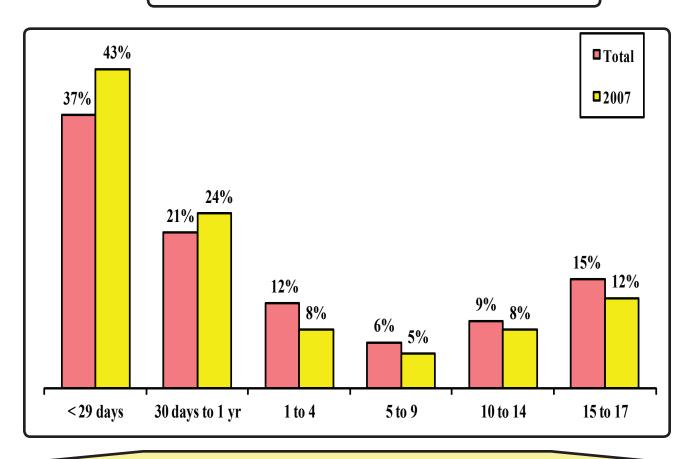
Despite the fact that there are approximately 1% more females living in Kansas than males, as reported by the U.S. Census Bureau, males have always accounted for the majority of the deaths in Kansas.



Analysis by <u>Gender</u>, 1994 to 2007, N = 6,982 Compared to 2007, N = 514

The pattern of the total deaths by age in 2007 follows the same general distribution of the cumulative data with children under 1-year-of-age making up the majority of child deaths.

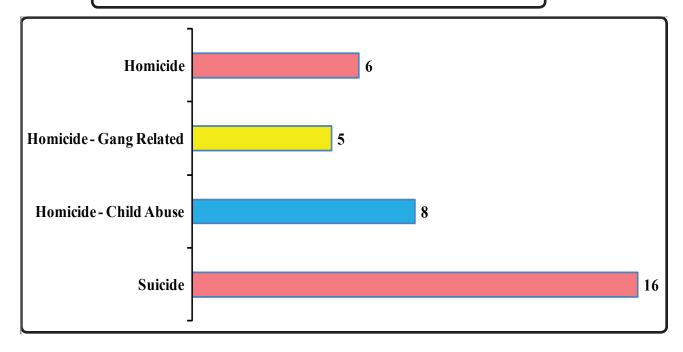
Analysis by <u>Age</u>, 1994 to 2007, N = 6,982 Compared to 2007, N = 514



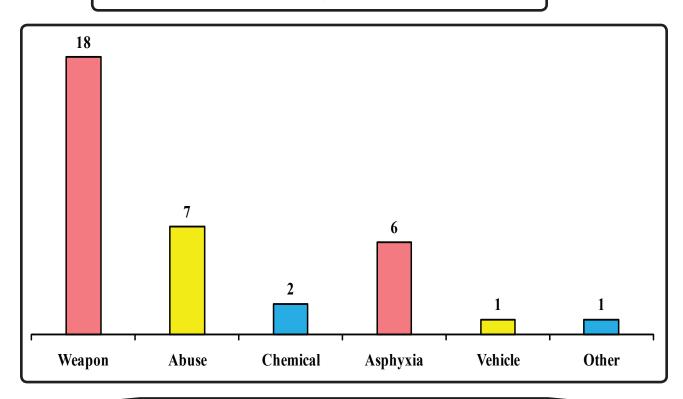
## A. Violence-Related Deaths

Violence-related deaths include Homicide, Child Abuse Homicide, Gang-Related Homicide, and Suicide. Kansas experienced 35 Violence-Related Deaths in 2007. 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 Method in 2007, N = 35

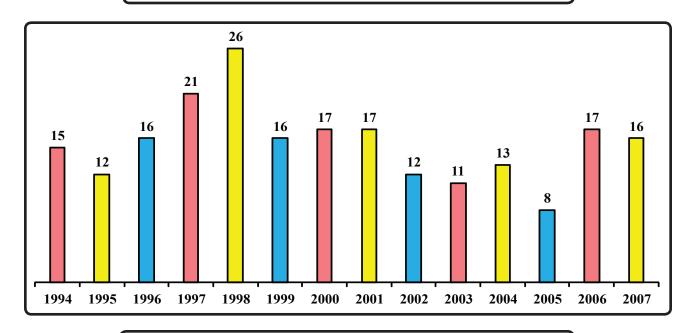


## A1. Suicide

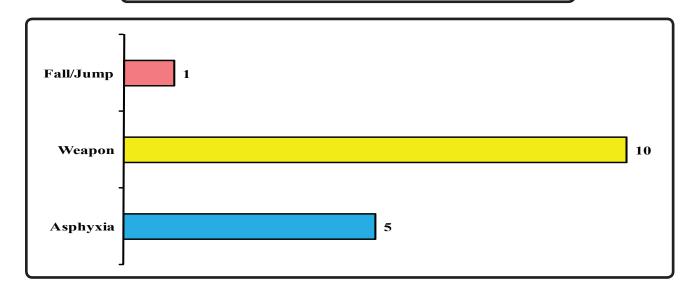
Suicide is a sensitive issue that is devastating and confusing to the family and community. Kansas families are not immune to the risks of adolescent suicide. Between the years of 1994 and 2007, the SCDRB reviewed 217 suicide deaths. While some suicide deaths were unpredictable, the Board often finds evidence that the child revealed suicidal ideation by subtle but detectable warnings. According to the Centers for Disease Control and Prevention, "nationwide 14.5% of students in grades 9 - 12 seriously considered suicide within the previous 12 months".<sup>1</sup>

Sixteen Kansas children died from suicide in 2007. Of those 16, seven attempted suicide or expressed suicidal ideation prior to death.

Total Suicide Deaths by Year, 1994 to 2007, N = 217



Suicide Deaths by  $\underline{Method}$  in 2007, N = 16

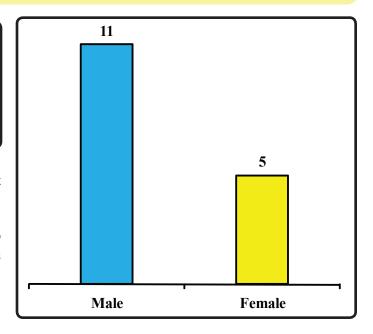


## A1. Suicide

Suicide Deaths by <u>Gender</u> in 2007, N = 16

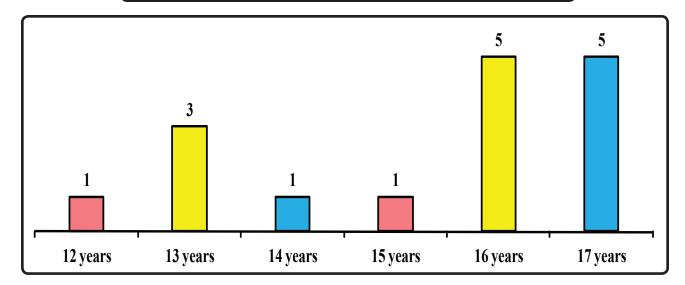
Historically, 15 to 17-year-old males represent the majority of suicide deaths.

In 2007 males accounted for 69% of the total 16 suicide cases. 68% of the total were children in the 15 to 17-year-old age group.



While it can be a painful process, thorough investigations of suicides are necessary to obtain as much information as possible in hopes of 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, improper investigation and lack of thorough autopsy exams can hinder efforts to prevent further deaths of Kansas children.



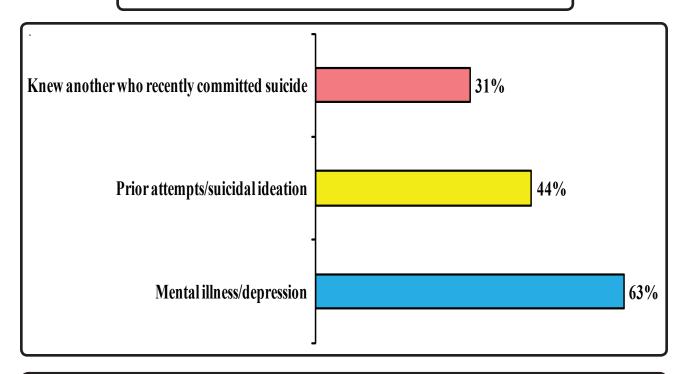


A 16-year-old male on antidepressents admitted feeling suicidal and that his medicine was not helping. Mental health care was provided after his first suicide attempt, but was limited by his health insurance coverage.

## A1. Suicide

A 13-year-old female who was depressed told friends she was going to kill herself as her friend did the previous year. The child was taking antidepression medication and had a history of self-mutilation.

Suicide Deaths by Risk Factor in 2007, N = 16

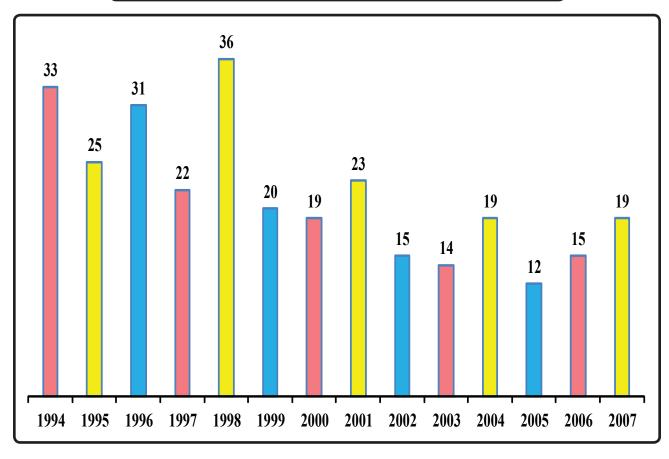


### **PREVENTION POINTS**

- Early Diagnosis and Treatment of Mental Conditions Early involvement of mental health professionals may prevent suicide attempts.
- **Observation of Behaviors** Watch for changes in one's psychological state (increase in rage, anxiety, depression, or hopelessness); withdrawal; acting recklessly; or engaging in substance abuse.
- Evaluation of Suicidal Thinking Do not ignore statements about suicide, even if they seem casual or joking. 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 supports.
- 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 can act as a significant deterrent.

### A2. Homicide

Total Homicide Deaths by Year, 1994 to 2007, N = 303



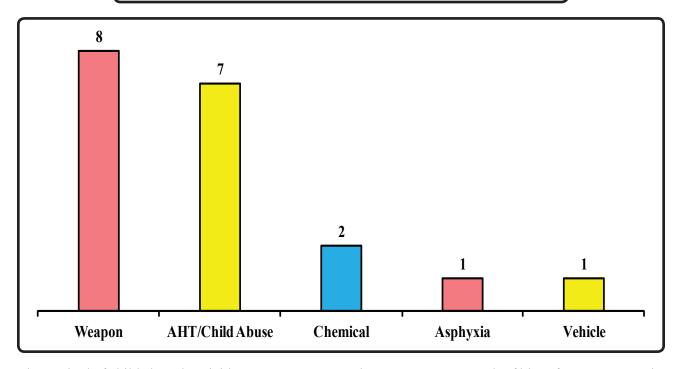
Homicide is defined as the death of one person resulting from the intentional or unintentional actions of another person. In 2007 the Board reviewed 19 homicides. They were classified as: 8 child abuse homicides, 5 gang-related, and 6 homicides. All 19 homicides were considered preventable.

An unmarried, unemployed mother left her infant in the care of her boyfriend. The infant sustained multiple child abuse injuries and died. The boyfriend confessed to being angry and harming the infant.

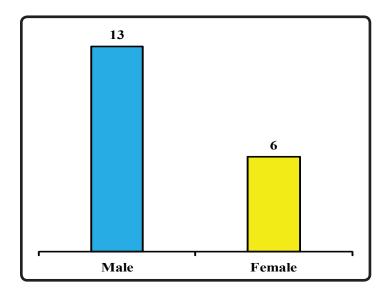
Child abuse is a complex problem that stems from a variety of factors, including stress, poverty, substance abuse, and mental illness. The Board defines Child Abuse Homicide as children killed as the result of abuse from caretakers (inflicting injury with malicious intent, usually as a form of discipline 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 12 years of education, and being unmarried) and household risk factors (male not related to the child in home, prior substantiation of child abuse and neglect, substance abuse, and low socio-economic 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.

### A2. Homicide

Homicide Deaths by Method in 2007, N = 19



The method of child abuse homicide can vary. In general, most occur as a result of blunt force trauma. The second most prevalent form is abusive head trauma (AHT), more commonly referred to as Shaken Baby Syndrome. AHT occures 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 cannot tolerate the sheering force caused by the violent shaking. The vessels break causing internal bleeding. This leads to serious injuries 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.

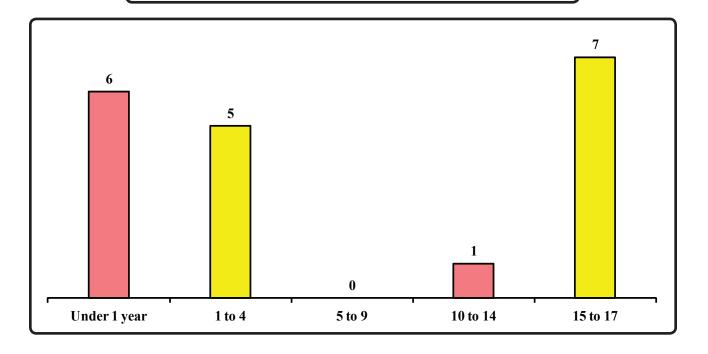


Homicide Deaths
by <u>Gender</u>
in 2007,
N = 19

Males make up 60% of the total homicide deaths reviewed by the SCDRB since their inception. 43% of the total deaths reviewed listed "weapon" as the method of death and 30% were child abuse fatalities.

## A2. Homicide

Homicide Deaths by Age in 2007, N = 19

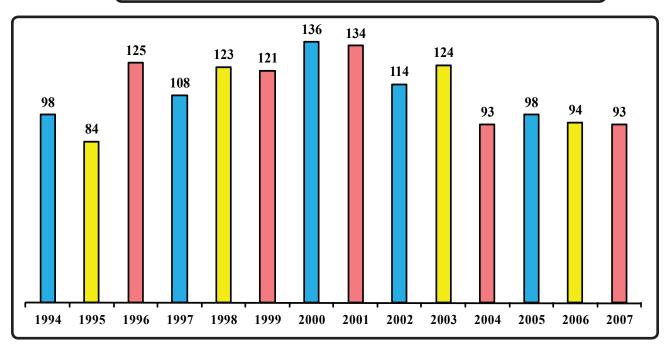


#### PREVENTION POINTS

- **Family Violence** Most homicides occur between family members, friends, and neighbors. Many of the incidents the Board encounters are not cold, calculated acts. More often, they are emotionally driven acts that could be avoided if restraint of uncontrolled emotions was 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 figure out 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 you see a child with injuries on other parts of the body, such as the stomach, cheeks, ears, buttocks, mouth, or thighs you should 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).

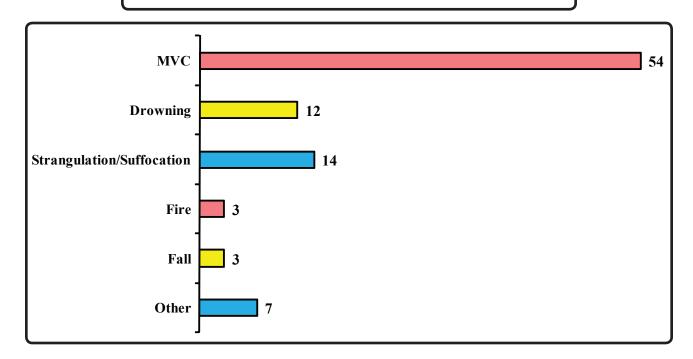
# **B.** Unintentional Injury

Total Unintentional Deaths by <u>Year</u>, 1994 to 2007, N = 1,545



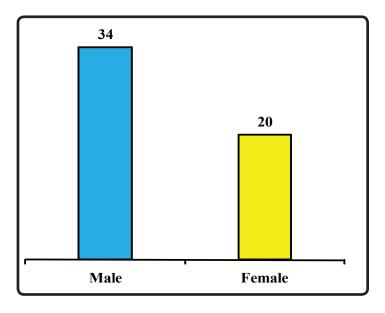
According to the Centers for Disease Control and Prevention (CDC), every year approximately 12,175 children die from unintentional injury deaths nationwide.<sup>2</sup> The majority of the deaths are transportation related; specifically, motor vehicle crashes (MVC). Kansas data correlates closely with national trends.

Unintentional Deaths by <u>Cause</u> in 2007, N = 93



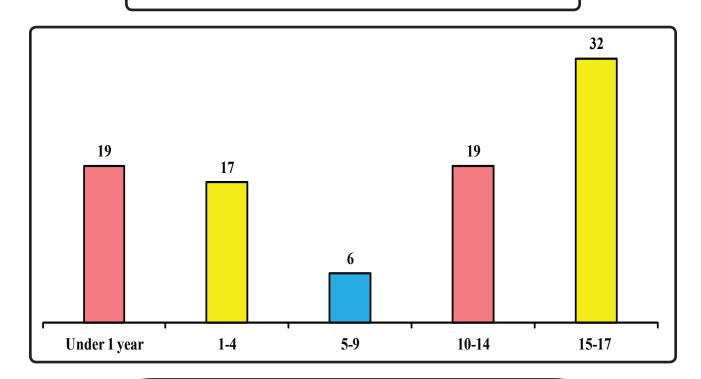
# **B.** Unintentional Injury

Unintentional Deaths
by <u>Gender</u>
in 2007,
N = 93

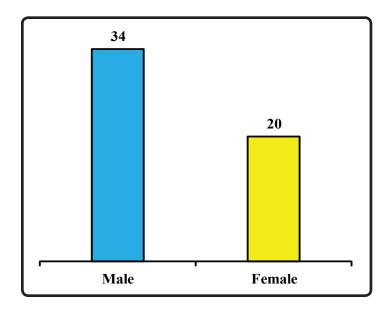


National data from the CDC show death trends that parallel Kansas deaths due to unintentional injuries in children over age 1. Most of the deaths are male and are transportation related. However, children under age 1 are most often killed by some form of suffocation. Sadly, the suffocation is often the result of improper sleeping arrangements; either the infant was placed to sleep on an improper surface (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 2007, N = 93



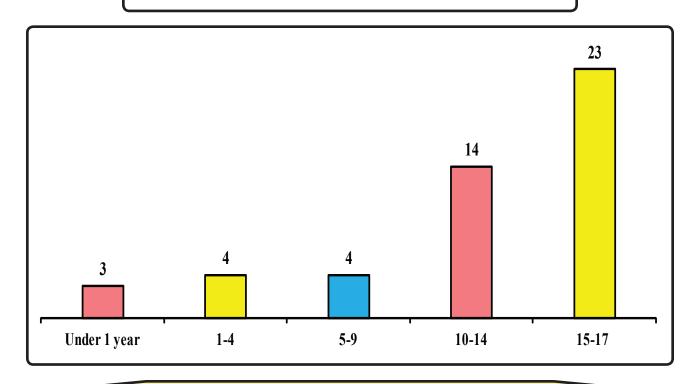
Teenagers who are either the driver or a passenger riding with other teen drivers account for the greatest number of MVC deaths in Kansas. Nationwide in 2007, there was a total of 41,059 fatalities from motor vehicle crashes.<sup>3</sup> Of those, 7,650 individuals died in crashes that involved young drivers.<sup>4</sup> In Kansas, 54 children died in 2007 in MVC's. The Board notes that almost all of the motor vehicle deaths involved factors that were preventable. For example, 43% of the MVC victims were with an inexperienced or inattentive driver; 19% involved excessive speed.



MVC Deaths by <u>Gender</u> in 2007, N = 54

Males were the majority of those killed, with most of the deaths falling into the 15 to 17-year-old age group.

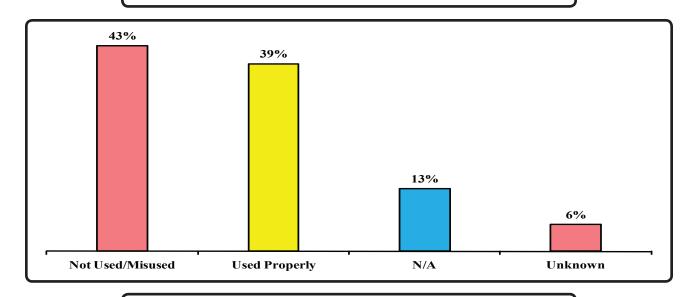
MVC Deaths by Age in 2007, N = 54



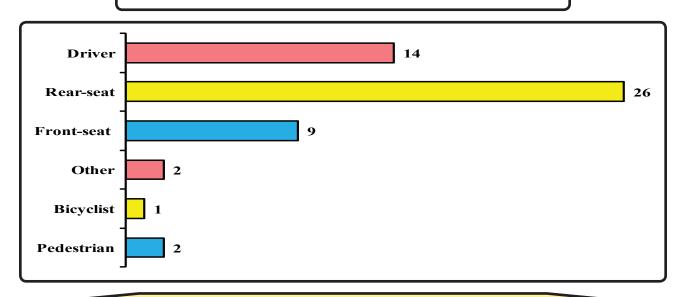
A 19-year-old was driving in excess of 100 miles per hour when he lost control on a curve and careened down an embankment. He and a 15-year-old passenger who were both unrestrained died at the scene. The 16-year-old front seat passenger, who was wearing a seat belt, survived.

Despite the proven benefit of seat belt use in preventing deaths, the percentage of Kansans who are unrestrained in fatal crashes remains high. In 2007, 43% of the MVC victims were not using a restraint. The majority (78%) of those were between the ages of 15 and 17. In the 10 to 14-year-age group, 17% were unrestrained or restrained improperly. In the 9-and-under age group, only 4% were not restrained or were restrained improperly, a significant drop in the figures from 2006. The drop in figures comes after the passage of a primary seat belt law for children; thus, demonstrating how the use of safety restraints saves lives.

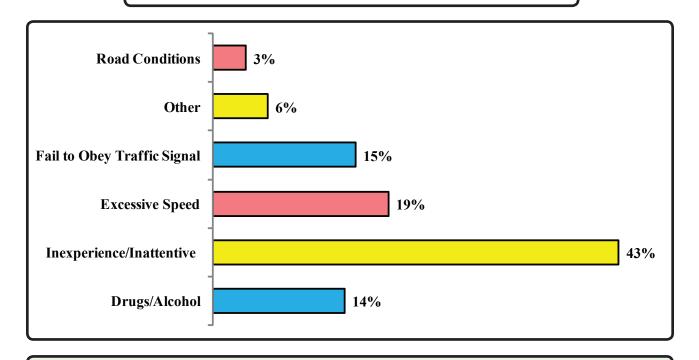
MVC Deaths by Restraint Use in 2007, N = 54



MVC Deaths by <u>Seating Position</u> in 2007, N = 54

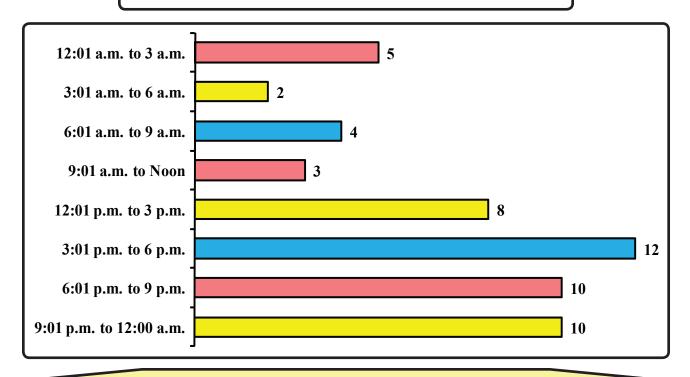


MVC Deaths by <u>Contributing Factor</u> in 2007, N = 54



A 16-year-old driver took her eyes off the road and drifted into on-coming traffic killing her 15-year-old front seat and 5-year-old back seat passengers. All occupants were wearing proper restraints.

MVC Deaths by <u>Time of Crash</u> in 2007, N = 54



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). 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 their inception, the Board has reviewed 36 ATV-related fatalities. The Board makes suggestions to Kansas law regarding the use of ATV's in the Public Policy Recommendations at the end of this report.

A 17-year-old male who was not wearing a helmet died when he crashed a motorcycle that he was recklessly operating.

ATV and motorcycle/motorbike operators need to use caution when riding near roadways. These vehicles are small and low to the ground; they are not as visible as larger vehicles. Following traffic signals, including those on rural roads, is critical. The use of lights, reflectors, or highly visible flags are recommended to make ATVs and motorcycles/motorbikes more visible. Also, terrain features can greatly affect the operating capability of such vehicles. Features such as gravel roads, slopes, ditches, blind intersections, trees, and shrubs continue to be factors in ATV and motorcycle/motorbike-related accidents.

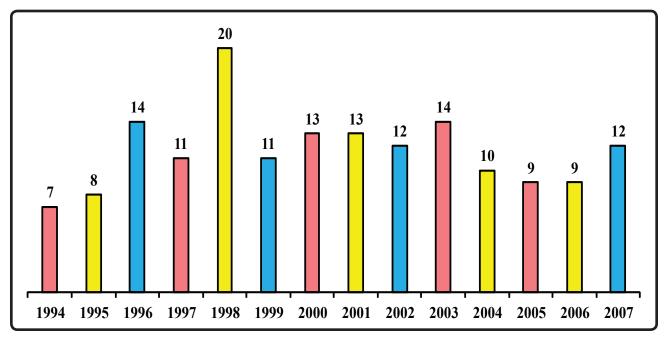
A 15-year-old intoxicated driver who was not obeying the restrictions on his license failed to stop at a stop sign and hit an on-coming car. The decedent was wearing his seat belt.

#### 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.
- 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.
- **ATV Usage** No child under age 12 should be permitted to operate an ATV of any size. All riders should wear a helmet and travel in permitted areas at safe speeds.

# **B2.** Drowning

Total Drowning Deaths by Year, 1994 to 2007, N = 163

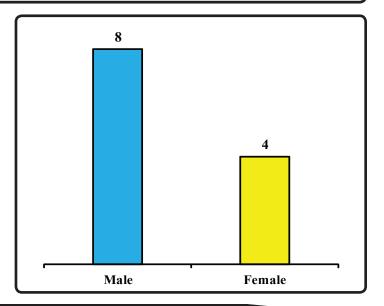


In 2007 drowning was the 3rd leading cause of death in the Unintentional Injury category. Many parents do not consider drowning a major hazard. Safe Kids USA reports "drowning can happen in as little as one inch of water and is usually quick and silent. A child will lose consciousness within two minutes after submersion, with irreversible brain damage occurring within four to six minutes." Kansas had 12 children die from drowning in the year 2007. In *all* of the cases, the children had been left alone or were unsupervised when they drowned.

Although several adults were in the area, a 2 1/2-year-old died when he fell into a pool and drowned. All of the adults thought someone else was watching the child.

Drowning Deaths
by Gender
in 2007,
N = 12

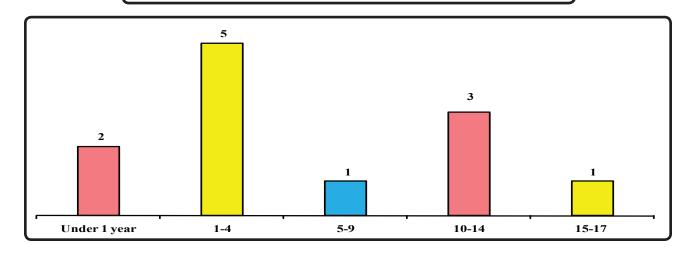
A 15-year-old male drowned in flood water after he and his friends jumped in to swim. Swimming in flood water is never a good idea regardless of how calm it may seem. Unknown currents running under the surface can cause even the best swimmer to be swept away.



# **B2.** Drowning

In 2007, 50% of the drowning deaths occurred in pools, 33% were in bathtubs, and the remainder were in rivers/lakes. From 1994 to present, 45% of the total drowning deaths fell in the 1 to 4-year-age group. Caregivers must be diligent in supervising children around water and should not rely on marketed flotation devices to keep youngsters safe.

Drowning Deaths by  $\underline{Age}$  in 2007, N = 12



In two separate cases, an unsupervised 3-year-old and 5-year-old fell into a pool and drowned. In one of the cases proper fencing was around the pool, but the gate was not properly latched.

### PREVENTION POINTS

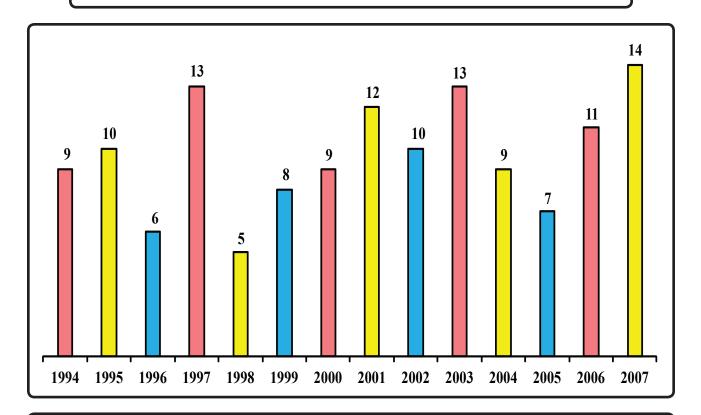
- **Proper Supervision** There should always be an adult who is capable of responding to an emergency, observing children around water. The adult should be actively watching and avoid distractions. Assigning swimming "buddies" is a good idea, especially if there are many swimmers. Supervision also applies 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 Children should always wear Personal Flotation Devices (PFDs) when participating in water activities that are Coast Guard Approved and suited for the proper weight of the child. "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. There are also instances where a child becomes entrapped and suffocates.

Since 1994, Kansas has reviewed 136 child deaths due to suffocation or strangulation, 14 of which occurred in 2007, 8 male and 6 female. Of those 14 asphyxial deaths, 11 were under 1-year-of-age.

Total Suffocation/Strangulation Deaths by Year, 1994 to 2007, N = 14



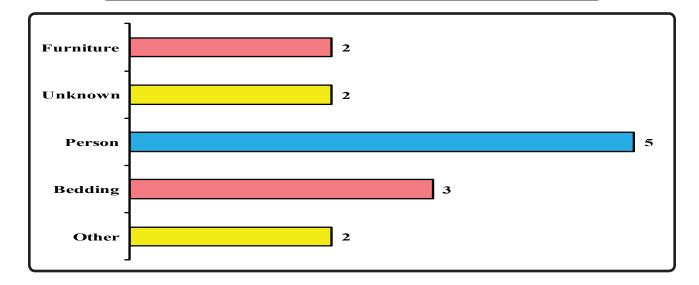
A generator running inside a home resulted in the death of a 16-year-old. Others in the home experienced carbon monoxide poisoning. Generators, gas/propane stoves, vehicles, and other sources that give off carbon monoxide should never be left running in an enclosed area.

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 (<a href="http://www.cpsc.gov/cpscpub/prerel/prerel.html">http://www.cpsc.gov/cpscpub/prerel/prerel.html</a>) is a great resource to check for recalled products. Additionally, parents need to keep the area around a crib or bed clear of items that children can reach, such as cords, in which they can become entangled. Adults should also make certain all tables, cabinets, entertainment stands, and other furniture are solid and will not tip over on top of 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 2007, 57% of the suffocation/strangulation deaths were attributed to improper sleeping arrangements. Seven of the 14 were placed to sleep in an adult bed, 3 were placed on a couch, 3 were in a crib/playpen, and 1 was unknown. Most of the deaths were preventable had infants been sleeping in appropriate settings with proper supervision.

Suffocation/Strangulation Deaths by <u>Cause</u> in 2007, N = 14



A 1-year-old who was placed in a crib to sleep, but was not checked on. The child died when she became entangled in a lamp cord that was within her reach.

### 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, playground equipment, etc.), but can be deadly to children.
- 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 fitted 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.

### **B4.** Fire

According to the National Fire Protection Association, in 2007 there were 3,430 reported civilian fire deaths in the United States. Three of those deaths were Kansas children who died in 3 separate fires. All 3 children were between the ages of 1 and 9. This is a significant drop from the 12 child fire fatalities in 2006. The number of fire deaths each year in Kansas has ranged from a high of 18 in 2000 to a low of 2 in 1999. The total number of child fire deaths since 1994 is 111. Nationwide, deaths from fires and burns are the fifth most common cause of unintentional injury deaths in the United States (CDC) and the third leading cause of fatal home injury. Kansas ranks 4th in the Nation for the most fire deaths of all ages.<sup>5</sup>

A 3-year-old playing with a lighter set a fire which took his life. The lighter was unattended and within the child's reach. It was unknown if there was a functional smoke detector in the home.

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.

An 8-year-old boy was killed when his home caught fire from burning candles left unattended. A working smoke detector was in the home; however, the child was home alone and did not escape.

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 2007, only 29% of the fire deaths reviewed by the SCDRB had working smoke detectors. In 2007, only one case listed functional smoke detectors were in the home. 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.

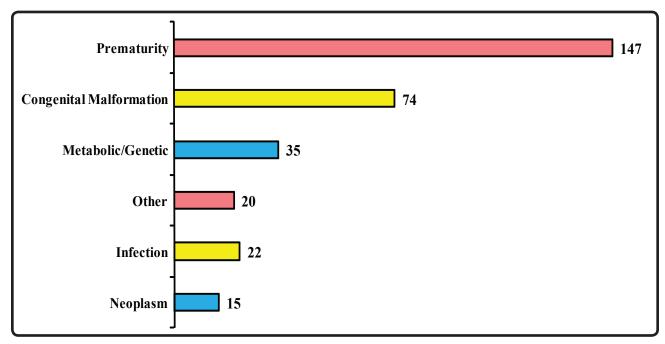
### PREVENTION POINTS

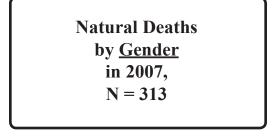
- **Proper Supervision** Young children must be watched closely. Leaving them unsupervised, especially if there are objects like candles or matches within their reach, could result in a serious injury or death.
- **Prevent Access to Fire-starting Material -** Matches, lighters, candles, etc. should be 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". Statewide efforts are underway to address the issue of maternal health and infant mortality.

Natural Deaths by <u>Cause</u> in 2007, N = 313





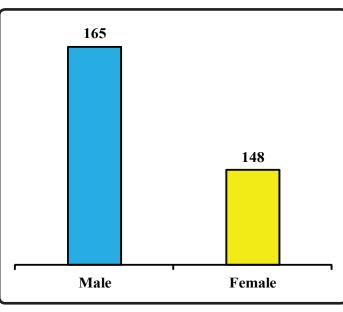
Race classification for Natural deaths in 2007:

81% White

16% African American

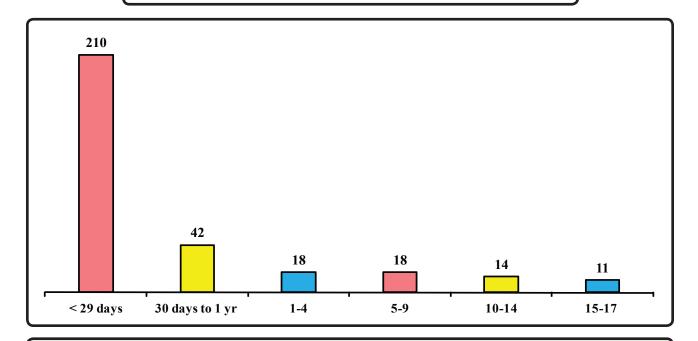
2% Asian/Pacific Islander

1% Native American



# C. Natural Deaths-Except SIDS

Natural Deaths by Age in 2007, N = 313



An 8-year-old died from an asthma attack after his caregivers ignored symptoms that should have elicited medical intervention. There were previous SRS reports alleging medical neglect, and he was exposed to heavy smoking in the home.

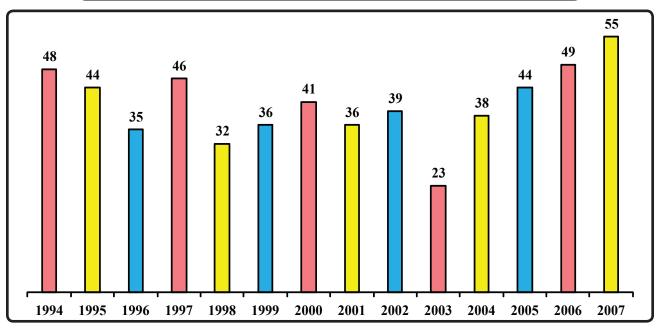
While the degree to which prematurity can be prevented is unknown, there are risk factors for prematurity and poor health that can be addressed. Risk factors for infant mortality include: low birth weight, congenital defects, inadequate intrapartum (childbirth/delivery) and neonatal care, and race of infant. The mother's health and medical condition can also play a role in an infant's health. Risk factors associated with the mother consist of: 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 2007, 20% of the mothers reported smoking during pregnancy, 3% reported use of alcohol, and 4% illicit drug use. In 7% of the cases, the mother had no prenatal care.

#### PREVENTION POINTS

- Prenatal Care Medical care during a pregnancy can identify risk factors and problems can be
  addressed early, 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.

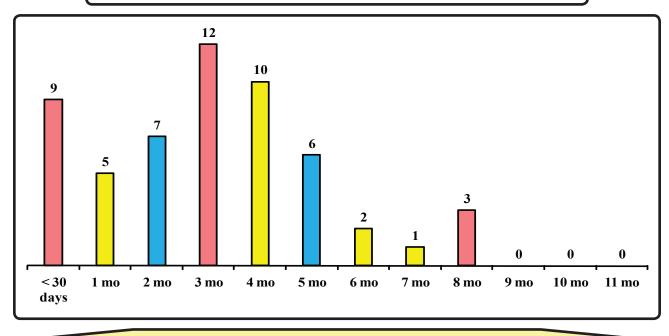
Sudden Infant Death Syndrome (SIDS) is a classification very narrowly defined as unexpected death of an infant where investigation fails to demonstrate a definite cause of death. Kansas coroners can classify a death as SIDS only when the child is under 1-year-of-age and both investigation and a complete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

Total Natural Deaths-SIDS by  $\underline{Year}$ , 1994 to 2007, N = 566



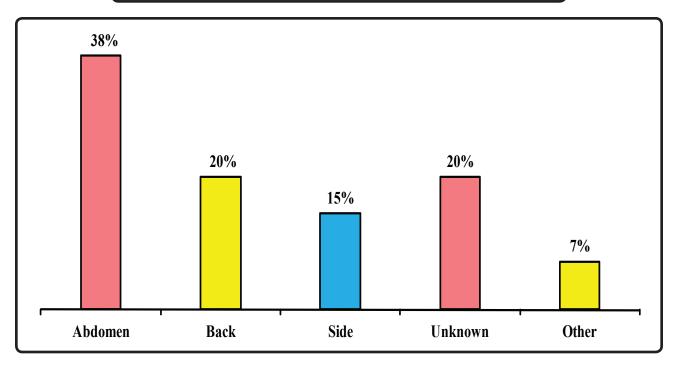
The majority (89%) of the 55 SIDS deaths in 2007 occurred in the first five months of life, which is consistent with national findings.

Natural Deaths-SIDS by <u>Age in Months</u> in 2007, N = 55

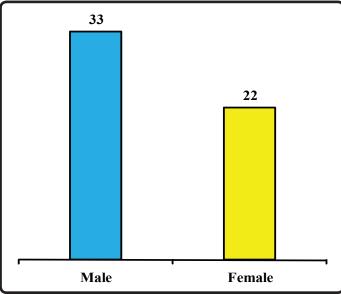


Since the cause of SIDS is unknown, by definition these deaths would not be preventable. However, the following risk factors have consistently been identified as independently related to SIDS: sleeping in the prone (stomach) position, being placed on a soft surface for sleep, overheating the sleep environment,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

Natural Deaths-SIDS by <u>Position Found</u> in 2007, N = 55

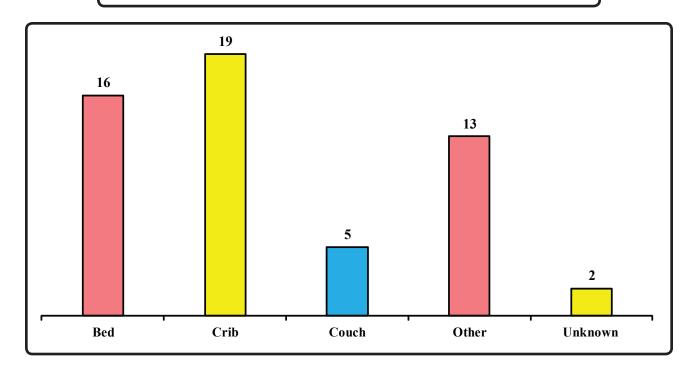


Natural Deaths-SIDS
by <u>Gender</u>
in 2007,
N = 55



Since 2000, the American Academy of Pediatrics has placed an increased emphasis on additional issues related to SIDS deaths. The sleeping environment: 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. 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 the side position into the prone position.

Natural Deaths-SIDS by Sleeping Place in 2007, N = 55



#### 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 <a href="http://www.ksag.org/page/child-safety">http://www.ksag.org/page/child-safety</a> or Safe Kids Kansas at <a href="http://www.kdheks.gov/safekids/">http://www.kdheks.gov/safekids/</a>.

Since 1994, 75% of the total SIDS deaths reviewed by the Board have occured in the infant's residence. 15% of the total deaths took place in day care/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 day care or other child care evironments, the importance of assuring that safe sleeping arrangements are maintained is critical. Many SIDS deaths have been associated with the child being prone (on their abdomen), 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 recommends, and is vastly dedicated to, promoting a state-wide safe sleep campaign as further described in the Public Policy Recommendations at the end of this report.

In 2007, Kansas had 10 SIDS deaths that occurred in day care settings. Of those, only 2 infants were placed on their back to sleep in an approved crib that had no additional pillows or blankets. This demonstrates the desperate need for a state-wide safe sleep education campaign.

# 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 (supine) 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 baby on a firm tight-fitting mattress, covered by a fitted sheet, in a crib that meets current safety standards. Never allow a gap larger than two fingers at any point 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 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 out of the baby's sleep area.
- Do not use sleep-positioning devices and assure yourself that your child care provider is not positioning the baby in any manner that you have not approved.
- Do not allow smoking in your home, car, or around your baby.

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, which was held in San Diego, California. 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.

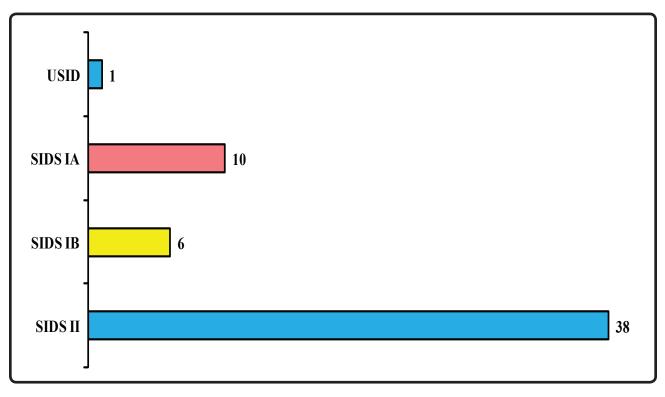
#### Unclassified Sudden Infant Death:

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.

In 2007, the SCDRB categorized the 55 SIDS deaths and unclassified SIDS as follows:

- 10 = SIDS IA -- 4 of the 10 infants were found in the prone position (on stomach), 5 were found on their back or in the supine position, and 1 was found on his/her side.
- 6 = SIDS IB -- 4 scene investigations did not provide adequate scene information/description, 2 deaths had no investigation conducted at all, one of which was due to the decedent's parents obtaining counsel and refusing.
- 38 = SIDS II -- The possibility of an overlay or mechanical asphyxia could not be ruled out.
- 1 = USID -- The Board generally classifies these cases as Undetermined.

Natural Deaths-SIDS by <u>Category</u> in 2007, N = 55

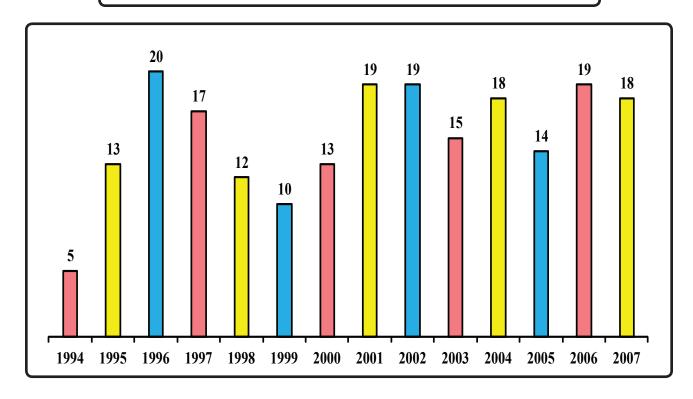


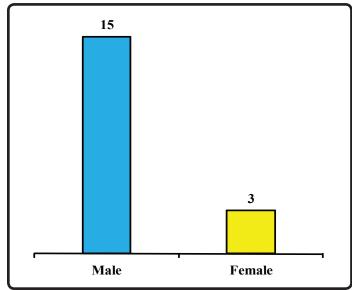
The Board has significant concern about the number of SIDS deaths classified as Category II. Most Category II deaths are classified as such due to the inability to definitively eliminate the possibility of overlay or mechanical asphyxia as a cause of death. These are babies sleeping with parents or siblings, or placed to sleep on inappropriately soft surfaces, or with excessive bedding or pillows in the sleep environment. Although these cases are appropriate to classify as SIDS, the possibility exists that some of the deaths are due to overlay by a parent, or mechanical asphyxia from getting caught in bedding or under 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. This could occur through the hospitals, physicians' offices, child care centers, WIC offices, SRS and other family service agencies.

### E. Undetermined

Periodically, the Board encounters cases where questions remain as to what could have contributed to the child's death. Contributing factors could include the mother taking medication while breast feeding, a child not being properly supervised, illicit drugs in the environment, or concerns about 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 212 Undetermined deaths since 1994.

Total Undetermined Deaths by Year, 1994 to 2007, N = 18





Undetermined Deaths
by Gender
in 2007,
N = 18

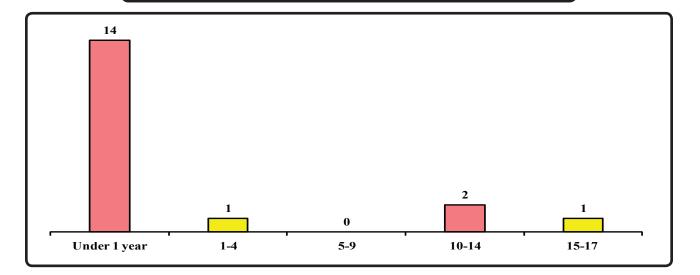
13 of the 18 Undetermined deaths were noted to have an incomplete or inadequate investigation. While some deaths will remain Undetermined for a variety of reasons, many could be classified if full and complete autopsies and investigations were conducted.

### E. Undetermined

There were 18 Undetermined deaths in 2007, which cover a broad spectrum of investigative thoroughness. 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. Although only 4 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.

A mother had not checked on her 5-month-old infant for 7 hours. When she did, she found him blue and cold to the touch. 911 was called and the infant was transported to the hospital. Although law enforcement responded to the medical call, they did no follow-up investigation; thus, the cause death could not be determined.

### Undetermined Deaths by <u>Age</u> in 2007, N = 18



#### 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

According to Dr. Erik Mitchell, District Coroner and Board member, "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. For example, in a single car crash the investigation should include sufficient examination of the vehicle and environment to exclude or to describe mechanical and physical factors that caused or increased the probability of the crash. Also, the examination should include investigation of potential medical factors - toxicology and previously undiagnosed physical infirmities or illnesses - that could play a role in causing the crash. While a single car crash looks deceptively simple on superficial examination, there can be factors that affect the crash, or the outcome of injuries where only a detailed examination of the event and of the decedent will permit a complete understanding of how and why this death occurred."

"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 (accident, suicide, 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. Although the Board currently partners with these agencies, there is no cohesive state-wide educational program promoting safe sleep for infants and prevention of child drowning. As is evidenced in the preceding material, both SIDS Category II and drowning deaths increased in 2007. The Board supports the implementation of a state-wide safe sleep campaign orchestrated through agency partnership. Currently a safe sleep campaign exists in Sedgwick County and the surrounding area; however, expanding the campaign across the state would be ideal. Additionally, as lack of supervision continues to be an issue, particularly in relation to drowning deaths, the Board supports a state-wide awareness campaign to prevent drowning. The campaign should be designed to encompass all ages of children, and focus on the importance of supervision.

## IV. Public Policy Recommendations

#### IMPROVE WOMEN AND MATERNAL HEALTH

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, avoiding alcohol consumption, 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 and birth defects. 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. Additionally, 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.

#### **FARM-RELATED ISSUES**

Kansas has a rich farming history and Kansas farmers are dependent on farm help, which are 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 a person is restricted to driving to or from, in connection with, farm-related work and may not transport non-sibling minor passengers. Unfortunately, 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.

## 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 finds itself reviewing cases of children who were left unattended in a vehicle, which resulted 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. Kids and Cars reports that between the years of 2001 and 2007, 1,297 children have died as a result of being left alone in a vehicle.

It is the Board's belief that the Legislature should enact laws that encompasse 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.

#### **ENHANCE 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 U.S. Consumer Product Safety Commision reports that in 2007, 27% of the estimated number of ATV-related, emergency room-treated injuries involved children under 16-years-of-age.<sup>7</sup>

Since 1994, 36 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 be 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 for ATV's designed to carry more than one person.
- All ATV's shall be registered and titled.

#### **METHODOLOGY**

#### Kansas Child Death Review Board 2007 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 for the previous month. 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.

#### **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.

### **Child Deaths By County of Residence in 2007**

County	Total Population	Total Deaths	Natural - Except SIDS	Unintentional Injury - MVC	Unintentional Injury	Natural - SIDS	Undetermined	Homicide	Suicide
Allen	13,432	4	3	0	0	1	0	0	0
Anderson	7,898	1	0	1	0	0	0	0	0
Atchison	16,529	2	2	0	0	0	0	0	0
Barber	4,779	1	1	0	0	0	0	0	0
Barton	27,765	4	3	0	1	0	0	0	0
Bourbon	14,784	3	1	1	0	0	0	0	1
Brown	10,044	3	3	0	0	0	0	0	0
Butler	62,879	9	4	1	2	1	1	0	0
Chase	2,850	0	0	0	0	0	0	0	0
Chautauqua	3,797	0	0	0	0	0	0	0	0
Cherokee	21,312	3	2	0	0	1	0	0	0
Cheyenne	2,773	0	0	0	0	0	0	0	0
Clark	2,087	0	0	0	0	0	0	0	0
Clay	8,691	1	1	0	0	0	0	0	0
Cloud	9,388	4	2	0	0	0	2	0	0
Coffey	8,414	3	2	1	0	0	0	0	0
Comanche	1,877	0	0	0	0	0	0	0	0
Cowley	34,208	17	10	2	0	3	0	0	2
Crawford	38,732	9	4	3	1	1	0	0	0
Decatur	2,945	0	0	0	0	0	0	0	0
Dickinson	18,968	4	3	1	0	0	0	0	0
Doniphan	7,767	1	0	0	0	0	0	1	0
Douglas	113,400	10	7	0	1	1	0	0	1
Edwards	3,098	1	0	1	0	0	0	0	0
Elk	3,022	0	0	0	0	0	0	0	0
Ellis	27,421	1	0	0	0	0	0	0	1
Ellsworth	6,298	0	0	0	0	0	0	0	0
Finney	40,782	8	3	2	0	2	1	0	0
Ford	33,077	7	3	1	1	0	1	1	0
Franklin	26,411	6	3	1	1	0	1	0	0
Geary	29,539	9	5	0	2	1	0	1	0
Gove	2,629	0	0	0	0	0	0	0	0
Graham	2,605	0	0	0	0	0	0	0	0
Grant	7,481	3	1	1	1	0	0	0	0
Gray	5,633	2	0	2	0	0	0	0	0
Greeley	1,289	0	0	0	0	0	0	0	0
Greenwood	7,007	1	1	0	0	0	0	0	0
Hamilton	2,613	0	0	0	0	0	0	0	0
Harper	5,827	0	0	0	0	0	0	0	0
Harvey	33,471	2	2	0	0	0	0	0	0
Haskell	3,981	1	1	0	0	0	0	0	0
Hodgeman	1,946	0	0	0	0	0	0	0	0
Jackson	13,348	2	1	0	0	1	0	0	0
Jefferson	18,436	3	3	0	0	0	0	0	0
Jewell	3,196	0	0	0	0	0	0	0	0
Johnson	524,801	73	54	3	4	6	2	2	2

### Child Deaths by County of Residence in 2007, Continued

County	Total Population	Total Deaths	Natural - Except SIDS	Unintentional Injury - MVC	Unintentional Injury	Natural - SIDS	Undetermined	Homicide	Suicide
Kearny	4,121	1	0	0	0	0	0	0	0
Kingman	7,831	0	0	0	0	0	0	0	0
Kiowa	2,933	0	0	0	0	0	0	0	0
Labette	21,984	2	0	0	0	0	2	0	0
Lane	1,746	2	2	0	0	0	0	0	0
Leavenworth	73,507	8	6	0	0	1	0	1	0
Lincoln	3,291	2	0	1	0	1	0	0	0
Linn	9,726	0	0	0	0	0	0	0	0
Logan	2,629	0	0	0	0	0	0	0	0
Lyon	35,846	4	0	0	0	4	0	0	0
Marion	29,150	3	2	0	0	0	1	0	0
Marshall	12,220	0	0	0	0	0	0	0	0
McPherson	10,169	1	1	0	0	0	0	0	0
Meade	4,355	2	1	0	0	1	0	0	0
Miami	30,897	4	3	0	0	0	0	1	0
Mitchell	6,294	1	0	1	0	0	0	0	0
Montgomery	34,460	4	2	0	0	1	0	1	0
Morris	5,949	1	0	1	0	0	0	0	0
Morton	3,024	3	2	1	0	0	0	0	0
Nemaha	10,177	3	2	1	0	0	0	0	0
Neosho	16,220	3	2	0	0	1	0	0	0
Ness	2,991	0	0	0	0	0	0	0	0
Norton	5,409	1	0	0	1	0	0	0	0
Osage	16,419	4	1	2	0	0	0	0	1
Osborne	3,863	1	1	0	0	0	0	0	0
Ottawa	6,003	2	0	0	0	1	0	0	1
Pawnee	6,406	2	2	0	0	0	0	0	0
Phillips	5,359	1	1	0	0	0	0	0	0
Pottawatomie	19,416	5	3	1	0	1	0	0	0
Pratt	9,404	1	1	0	0	0	0	0	0
Rawlins	2,561	0	0	0	0	0	0	0	0
Reno	63,090	11	7	1	1	2	0	0	0
Republic	4,899	2	0	1	1	0	0	0	0
Rice	10,043	1	1	0	0	0	0	0	0
Riley	69,278	7	3	1	1	0	1	0	1
Rooks	5,156	1	0	1	0	0	0	0	0
Rush	3,203	0	0	0	0	0	0	0	0
Russell	6,723	2	2	0	0	0	0	0	0
Saline	54,462	13	9	2	0	1	1	0	0
Scott	4,573	3	3	0	0	0	0	0	0
Sedgwick	475,149	106	68	8	10	12	3	3	2
Seward	22,889	4	4	0	0	0	0	0	0
Shawnee	173,247	31	20	0	2	5	0	4	0
Sheridan	2,485	0	0	0	0	0	0	0	0
Sherman	5,973	3	2	0	0	1	0	0	0

### Child Deaths by County of Residence in 2007, Continued

County	Total Population	Total Deaths	Natural - Except SIDS	Unintentional Injury - MVC	Unintentional Injury	Natural - SIDS	Undetermined	Homicide	Suicide
Smith	3,947	0	0	0	0	0	0	0	0
Stafford	4,373	0	0	0	0	0	0	0	0
Stanton	2,138	0	0	0	0	0	0	0	0
Stevens	5,040	0	0	0	0	0	0	0	0
Sumner	23,822	3	1	2	0	0	0	0	0
Thomas	7,342	0	0	0	0	0	0	0	0
Trego	2,906	1	1	0	0	0	0	0	0
Wabaunsee	6,845	2	1	0	0	0	0	0	1
Wallace	1,439	0	0	0	0	0	0	0	0
Washington	5,824	1	0	1	0	0	0	0	0
Wichita	2,204	0	0	0	0	0	0	0	0
Wilson	9,825	1	0	0	1	0	0	0	0
Woodson	3,316	1	0	1	0	0	0	0	0
Wyandotte	153,601	42	24	2	5	5	2	3	1
Out of State		20	10	5	3	0	0	1	2
Total	2,777,382	514	313	54	39	55	18	19	16

### **Kansas Counties**

Chey e	_   '''	awlins RA	Decatur	Norton NT	Phillips PL	Smith SM	Jewell JW	Republic RP	Washingto WS	Marshal	Nemal	BR	n Doniph DP	See See	
Sherr SH		nomas TH	Sheridan SD	Graham	Rooks RO	Osborne OB	Mitchell MC	Cloud CD Ottawa		Pott an	vatomie r	ckson	AT ferson Le	eakenwort	th yandotte
Wallace WA	e Log	gan G	Gove GO	Trego TR	Ellis EL	Russell <b>RS</b>	Lincoln  LC  Ellaworth	OT Saline	Dickinson	CSP I	baun see		Douglæ	′ \~ <u>-</u>	andotte
Greeley GL	Wichita WH	Scott SC	Lane	Ness NS	Rush RH	Barton BT	<b>EW</b> Rice	SA McPherson	Warion	MR	Lyon	OS	Franklin FR Andersor	Miami MI Linn	
Hamilton	Kearny KE	Finne FI	, Gray	Hodgeman HG Ford	Pawnee PN Edwards ED	St aff ord	RC Reno RN	MP Han HV Sed on	v n	CS_ Gre		CF Woodsor WO	AN Allen AL	LN_Bourbon	
Stanton ST	Grant GT	Haskell HS	GY	FO	Kiowa KW	Pratt PR	Kingmar KM	┰ ╌		3U	Elk	Wilson WL	Neosho NO	Crawford	
Morton MT	Stevens SV	Sew and	Meade ME	Clark CA	Comanche	Barber <b>BA</b>	Harper HP	Surrr SU		or Ch	EK autauqu CQ	entgome MG	Labette ary LB	Cherokee CK	

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