SCDRB Annual Report

State Child Death Review Board of Kansas

Office of Kansas Attorney General Phill Kline
120 SW 10th Avenue
Topeka, KS 66612-1597
(785) 296-2215
Fax: (785) 291-3875
E-mail: SCDRB@ksag.org
http://www.ksag.org/Divisions/SCDRB/cdrb.htm

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KS Attorney General Phill Kline

September 2005

Dear Fellow Kansan:

The State Child Death Review Board was established by the Kansas Legislature in 1992 to help us learn more about child mortality. When a child dies, everyone in a community is affected. That is why the state of Kansas has been fortunate to have a dedicated, all-volunteer board of professionals to review child fatalities. With the information collected annually by the board, we can learn more through studying trends in child deaths and use what we learn to formulate strategies to help reduce the occurrence of further child deaths.

This year's report comprehensively addresses data from the year 2003 and highlights many of the Board's findings for the ten-year period from 1994 to 2003. The board presents its recommendations and addresses many of the most important issues facing child health and safety.

By reviewing this year's report, I hope we can all learn more about ways to protect our state's most treasured asset, our children.

Sincerely,

Phill Kline
Kansas Attorney General

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Jaime Oeberst, M.D. (Pathologist member)
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Katherine J. Melhorn, M.D. (Pediatrician member)
Program Director, Pediatrics
University of Kansas School of Medicine, Wichita

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Assistant City Attorney
Wichita City Prosecutor's Office, Wichita

Kansas County and District Attorneys Association appointee

Keith Schroeder, J.D.
Reno County District Attorney, Hutchinson

Staff	**General Counsel**
Angela Nordhus	Laura Graham
Executive Director	Assistant Attorney General

Acknowledgements

The review of each child's death in Kansas could not be accomplished without the invaluable commitment of many people across the state. The State Child Death Review Board (SCDRB) remains grateful for the significant contributions of the Office of Attorney General Phill Kline, 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 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 agencies providing the grants that help us continue this important mission. This publication is funded by the Children's Justice Act Grant through the Department of Social and Rehabilitative Services. Additional funding was provided by the Kansas Health Foundation, Wichita, Kansas. The Kansas Health Foundation is a philanthropic organization whose mission is to improve the health of all Kansans.

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I. Executive Summary

The State Child Death Review Board (SCDRB) was created in 1992 as a multi-disciplinary, multi-agency panel to review child deaths in Kansas. The SCDRB has the statutory obligation to review the death of every child that is a Kansas resident or dies in the State of Kansas. This review process is not duplicated by any other state entity. The SCDRB has completed review of the 2003 cases. This amended report presents the Board's findings for 2003, and compares data from 1994 (the first year reviewed by the Board) through 2003.

2003 matches previous years and the comprehensive numbers (1994 to 2003) very closely. While the total number of deaths was slightly down from previous years, 2003 was consistent with trends noted since the SCDRB began reviewing deaths in 1994. 494 Kansas children died in 2003.

The Board categorizes deaths in six categories: Natural-Except Sudden Infant Death Syndrome (SIDS), Unintentional Injury, Natural-SIDS, Homicide, Suicide, and Undetermined. As in the past, Natural death is the largest category, with children under one-year making up the majority of those deaths.

The next largest category is Unintentional Injury, of which over half were motor vehile crash related. The most represented age group in motor vehicle deaths was 15-17 year-olds. And, as in every year past, the majority of children dying in motor vehicle accidents were not wearing their seatbelts.

Both Homicides and Suicides were slightly down from 2002. Suicides went from 12 in 2002, to 11 in 2003. This equals the lowest level of suicides in nine years. Homicides dropped from 15 to 14. However, Homicides classified as Child Abuse rose from seven to eight.

Like last year, there was a high number of Undetermined deaths. This highlights the Board's recommendation to all entities involved in child deaths to work for more thorough and complete death investigations. Often the Undetermined classification is the result of a lack of thorough, comprehensive information.

The main thrust of the Board's policy recommendations this year is on motor vehicle deaths. These deaths are high, yet have some of the most easily implemented prevention policies. The Board strongly encourages the members of the State Legislature to consider the safety of their young constituents and implement stricter and more effective child seatbelt laws and a stronger graduated drivers license law.

II. 2003 Overview

The SCDRB reviewed 494 deaths for calendar year 2003. The U.S. Census Bureau estimated the 2003 Kansas population under age 18 to be 684,212. This gives Kansas a rate of 69 child deaths per 100,000 children for 2003. Since the Board began its reviews, Natural and Unintentional Injury have been the two leading manners of death, and 2003 was no exception.

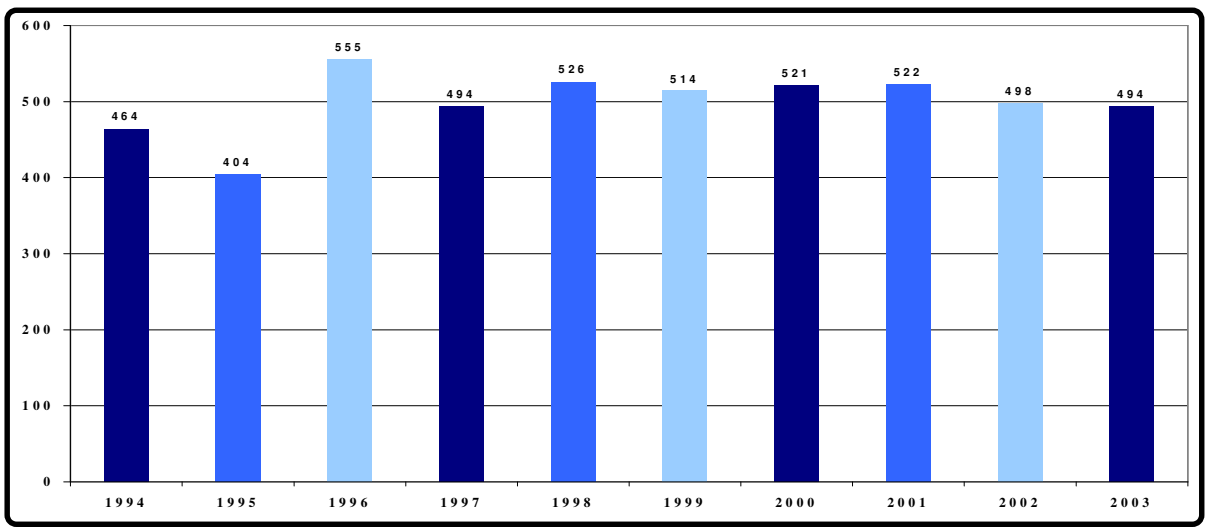
The Board categorizes deaths into six different Manners of Death.

- **Natural-Except Sudden Infant Death Syndrome (SIDS)** - deaths brought about by natural causes such as disease, congenital conditions and prematurity.
- **Unintentional Injury** - deaths caused by incidents such as motor vehicle crashes, drownings or fires, which were not intentionally caused.
- **Natural-SIDS** - children who die before the age of 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.
- **Undetermined** - cases in which the manner of death could not be positively identified from the evidence collected.
- **Homicide** - which includes Child Abuse Homicides.
- **Suicide**

Kansas has a demonstrable theme to its child deaths. The most telling point is that there have been no significant decreases in the number of fatalities. This consistency has troubling implications. Despite better and more complete information, associated prevention policies and strategies have not taken effect. Natural and SIDS deaths, the majority of which are babies one year and younger, generally rely on medical advances more than policy change for prevention. Methods of lowering death rates for Homicide and Suicide can be complex, with varying degrees of effectiveness. However, the second-largest category, Unintentional Injury, has some easily identifiable and simple prevention points. These will be addressed in the Board's recommendations at the end of the report.

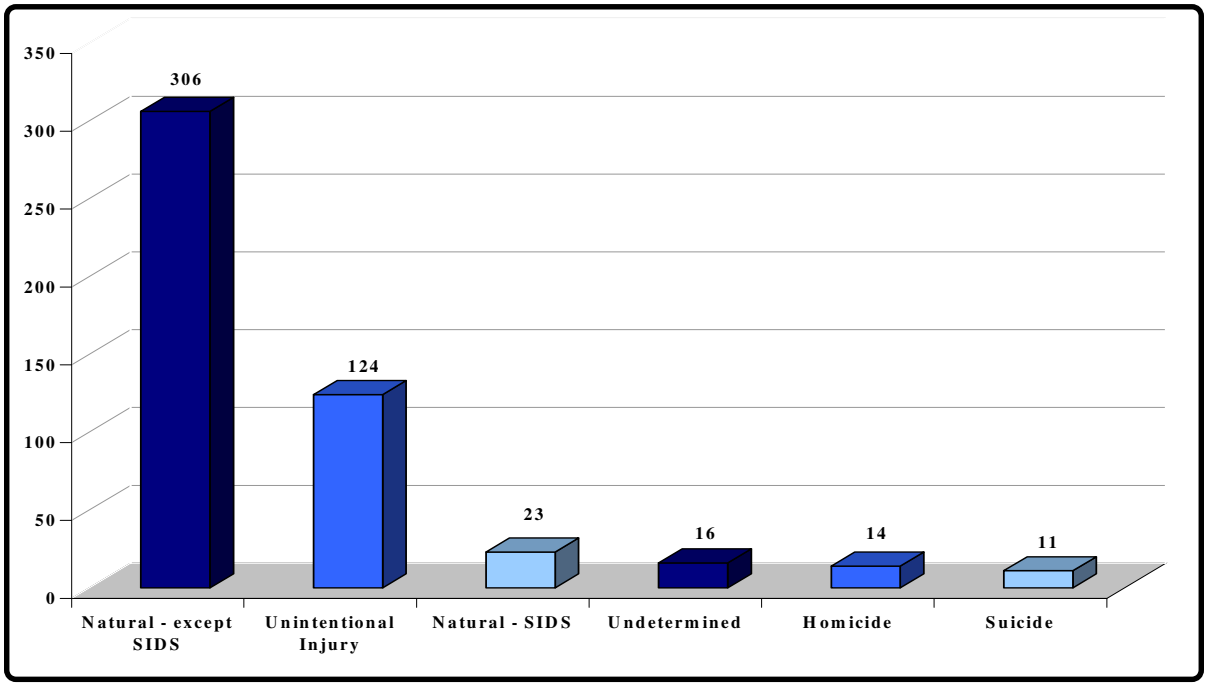
The following graphs compare 2003 with the total numbers from 1994 (the first year reviewed by the Board) through 2003.

<u>Total Deaths</u> in Kansas, 1994 to 2003. N = 4,976



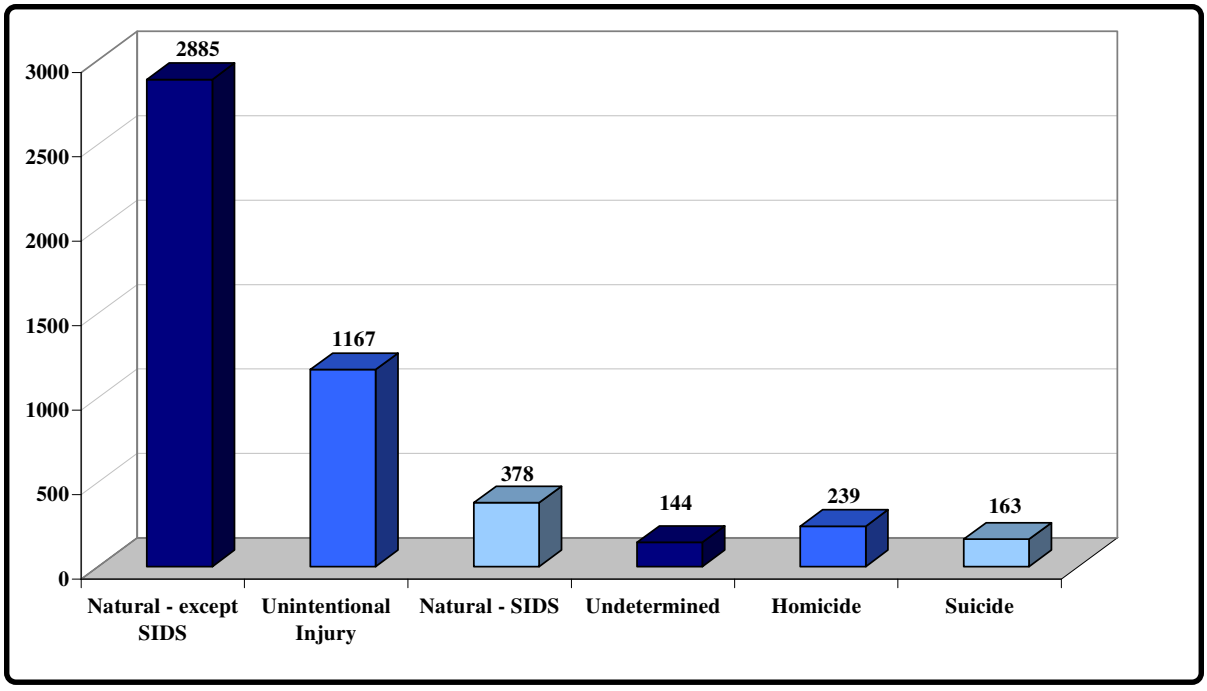
II. 2003 Overview

Analysis by Manner of Death in 2003. N = 494



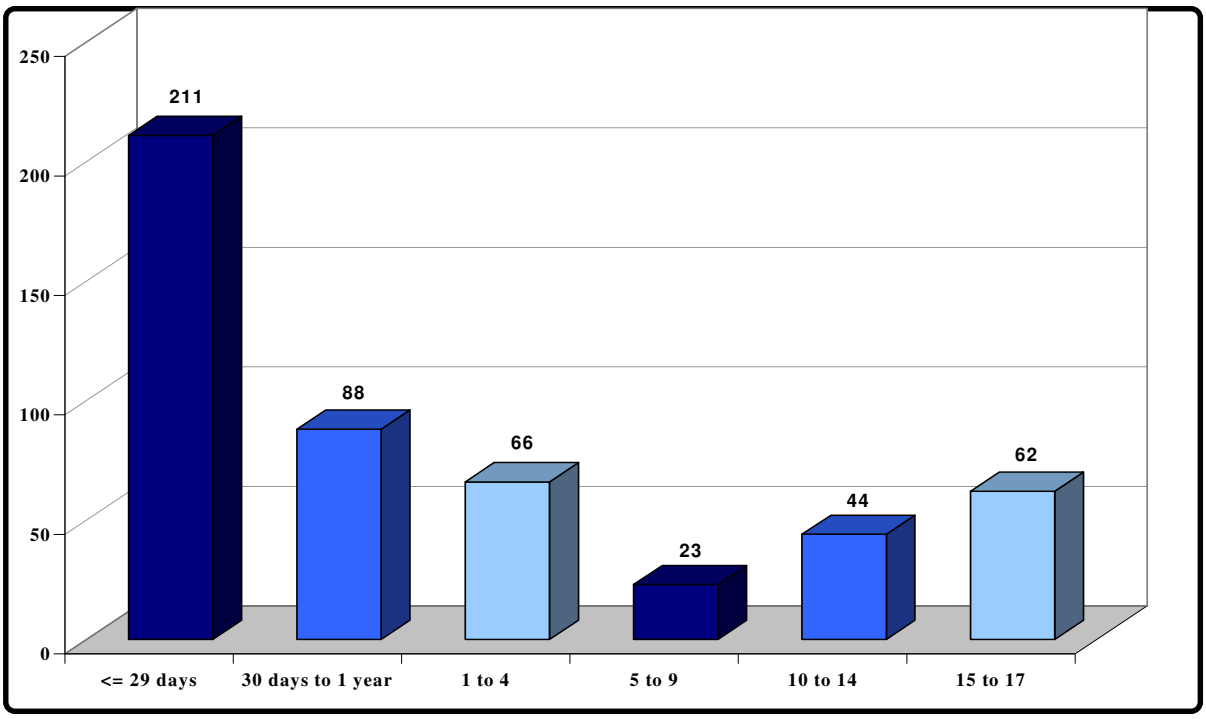
Note the similarity between 2003, and overall number of deaths from 1994 to 2003.

Analysis by Manner of Death, 1994 to 2003. N = 4,976



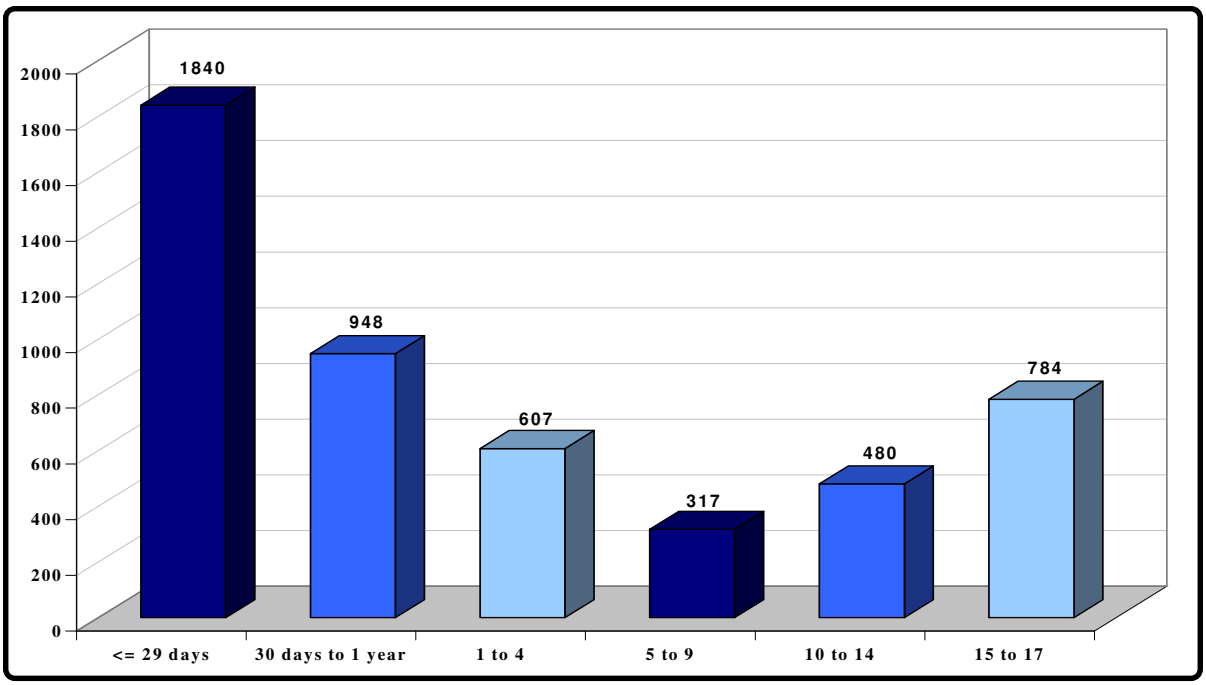
II. 2003 Overview

Analysis by Age in 2003. N = 494



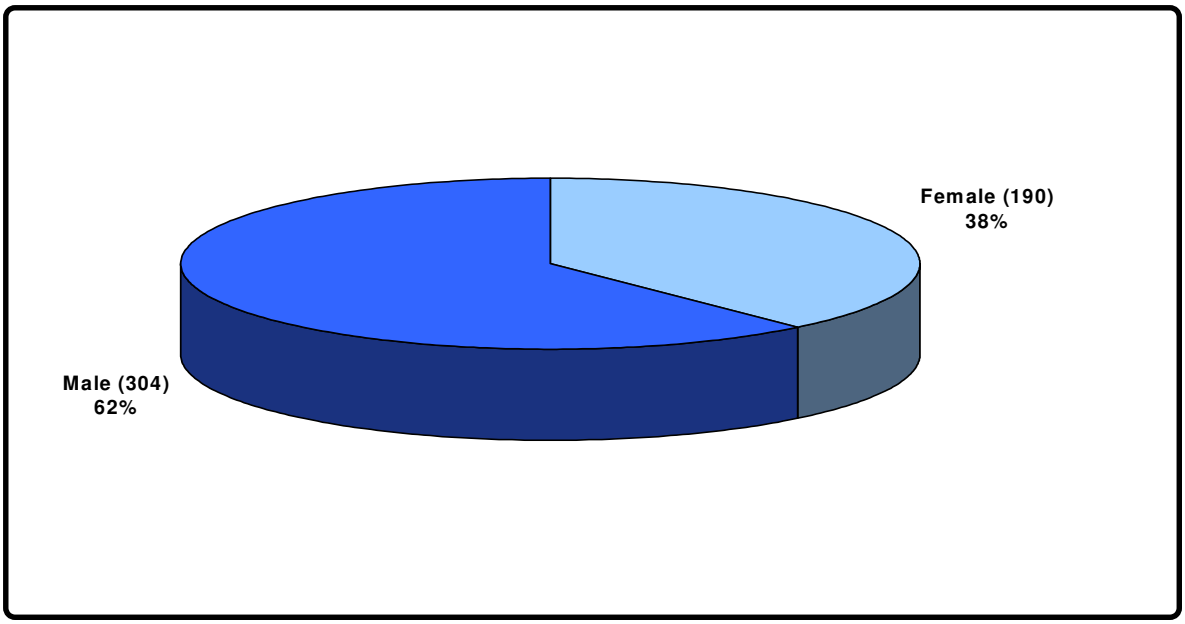
Again, the progression of total deaths by Age in 2003 and overall follows the same general distribution.

Analysis by Age, 1994 to 2003. N = 4,976



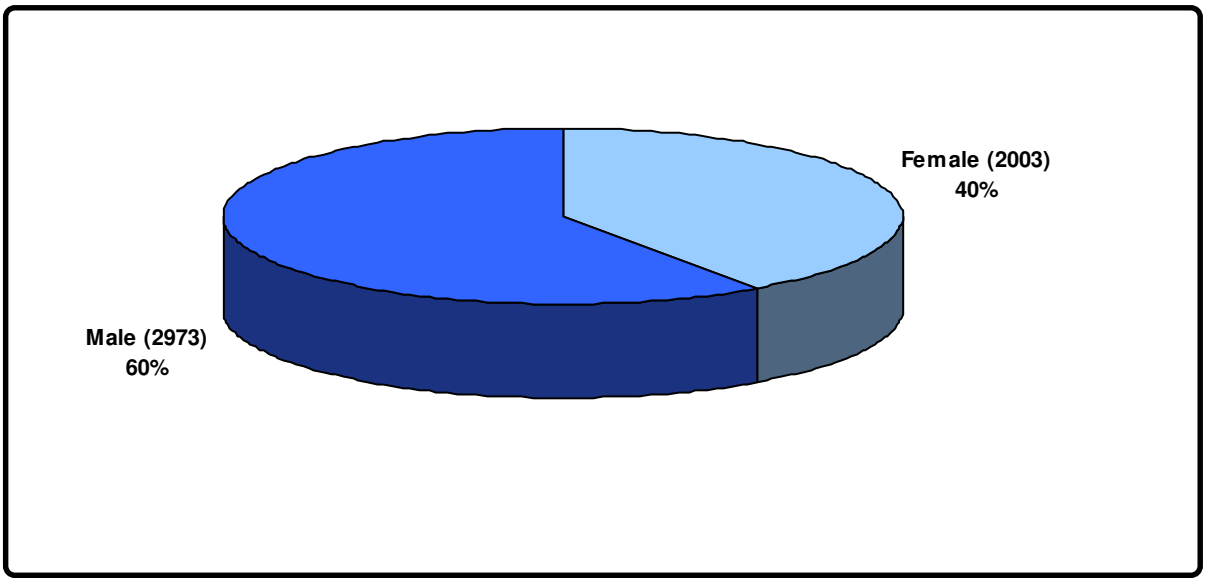
II. 2003 Overview

Analysis by Gender in 2003. N = 494



Finally, gender trends also match closely. Males consistently make up a majority of the deaths, even though the total male to female population is roughly the same.

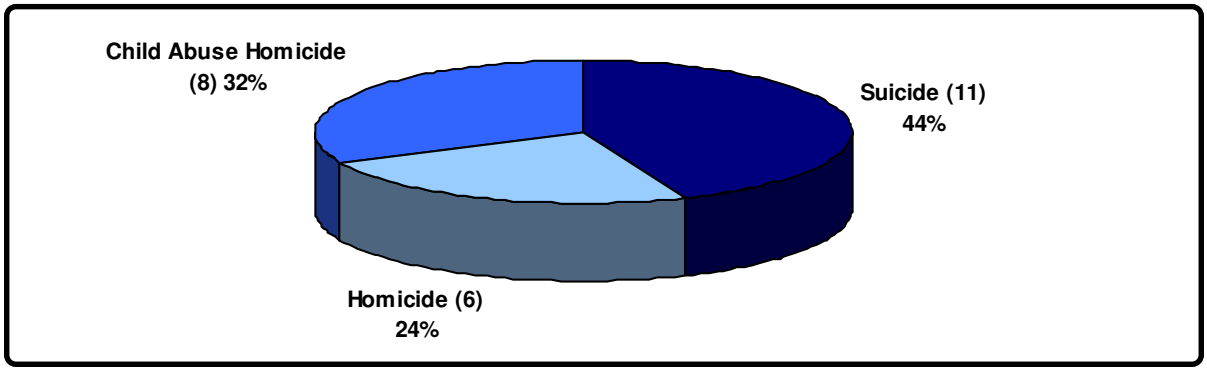
Analysis by Gender, 1994 to 2003. N = 4,976



A. Violence-Related Deaths

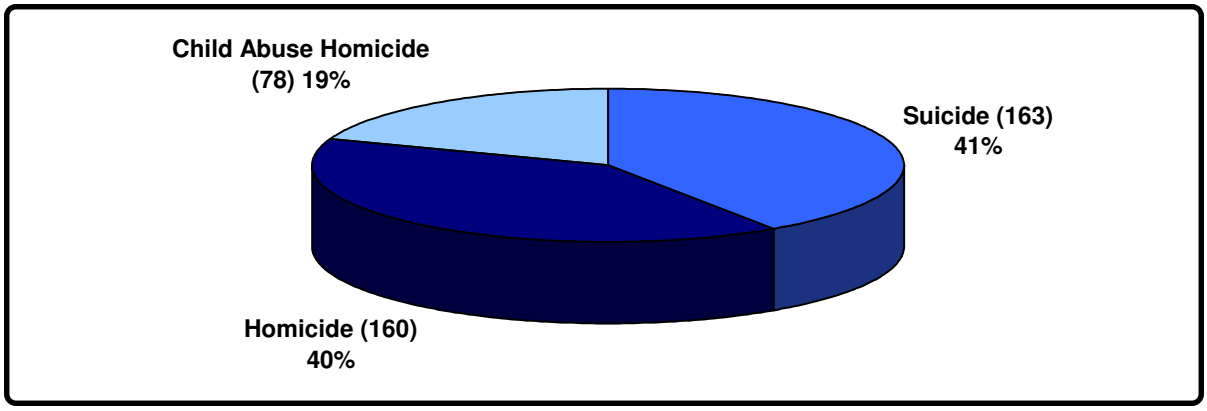
Violence-related deaths include Homicide, Child Abuse Homicide, and Suicide. They are a small but relatively consistent part of total deaths, and many of them are preventable.

Analysis by Type of Violent Death in 2003. N = 25



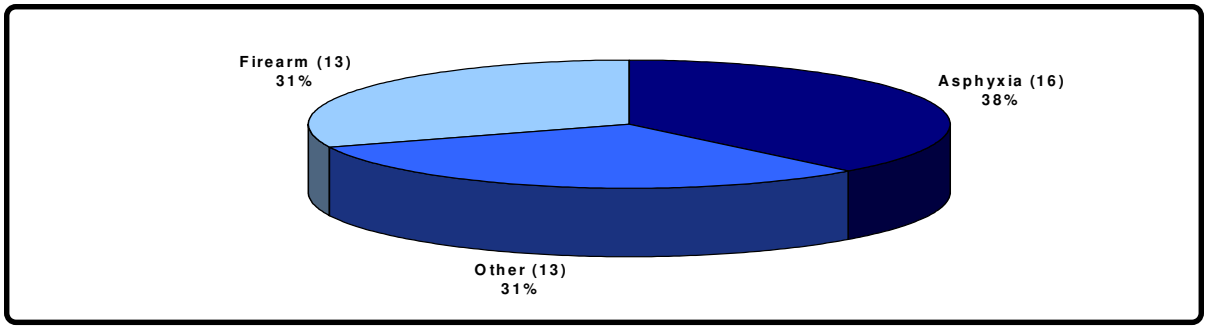
As can be seen from the graphs, 2003 was somewhat unusual in that Homicide and Child Abuse Homicide were almost equal. Though total number of suicide deaths were down, they made up a slightly larger portion of violent deaths than in the past.

Analysis by Type of Violent Death, 1994 to 2003. N = 401



Asphyxia was the most common cause of violent death in 2003.

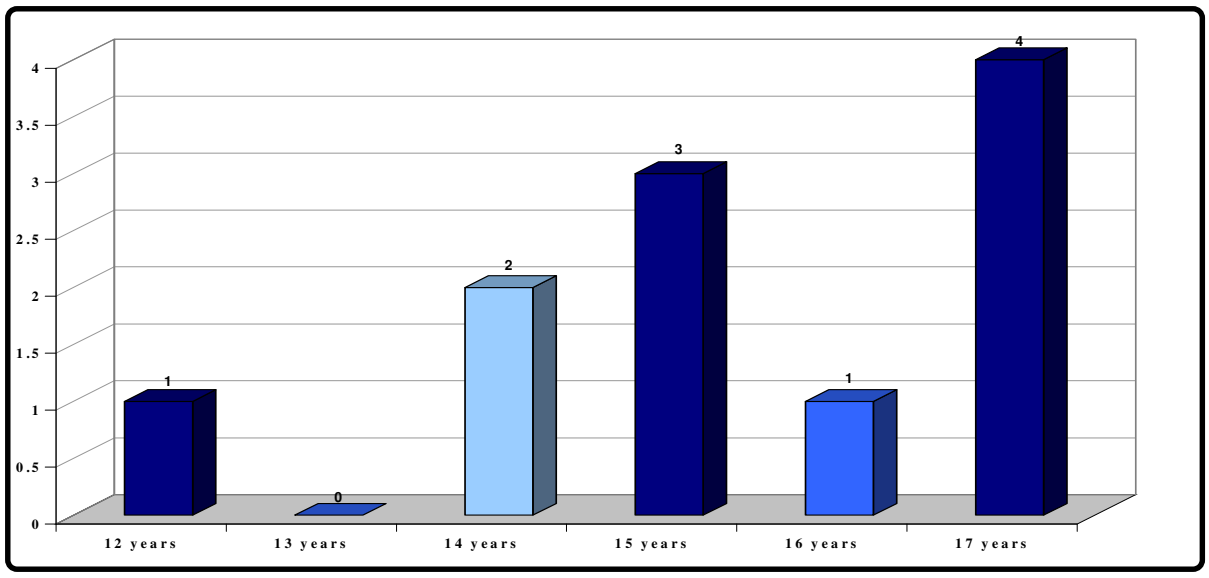
Analysis by Method of Violent Death in 2003. N = 25



1. Suicide

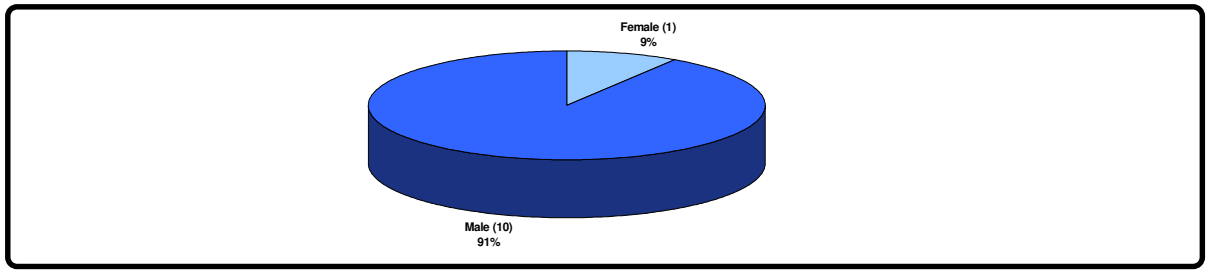
In 2003, 15 and 17 year-olds made up 64% of child suicides. Nationally, suicide is the third leading cause of death for individuals ages 15 through 24. This form of death routinely takes the lives of 10 to 25 Kansas children every year.

Suicides by Age in 2003, N = 11



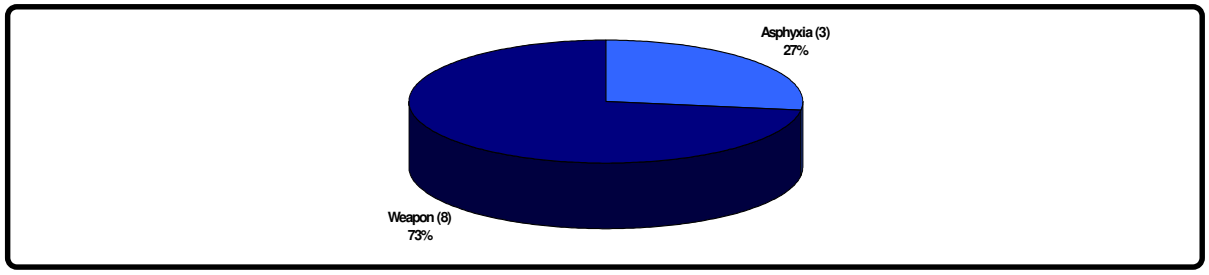
2003 continued the Kansas and national trend of males making up the majority of total and adolescent suicides.

Suicides by Gender in 2003, N = 11



2003 displays a significant shift in the method of suicide. Despite a CDC report (covering years 1992 through 2001) indicating that firearms suicides were falling and asphyxia suicides were rising, Kansas has generally seen firearm use in the majority of suicides.

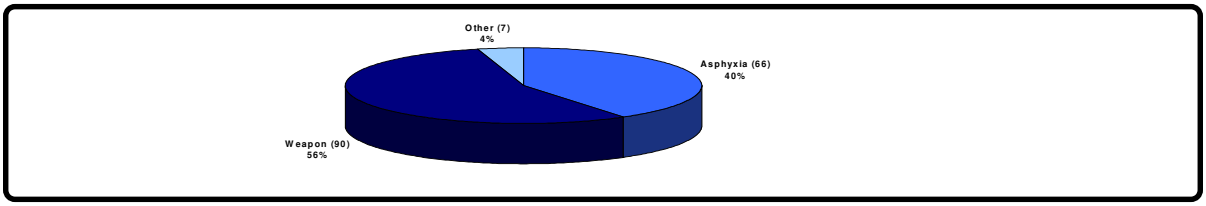
Suicides by Method in 2003, N = 11



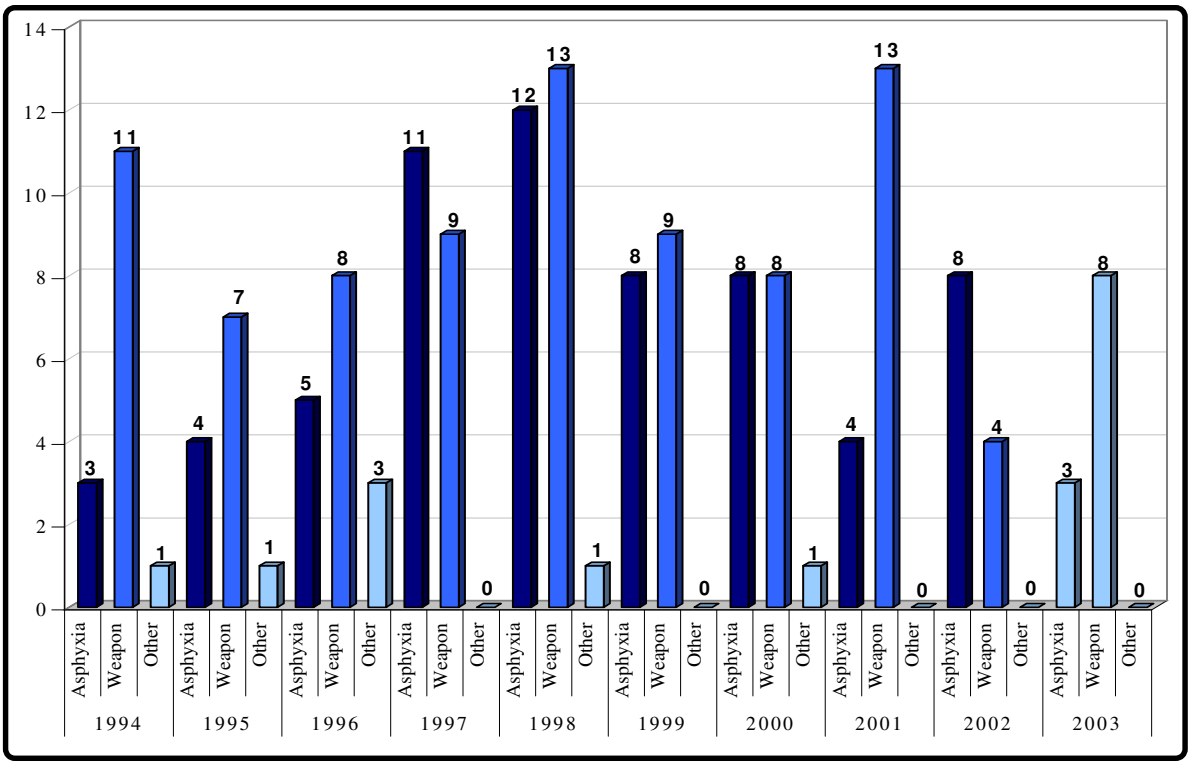
1. Suicide

These graphs present a historical view of the methods used in suicides since the Board began reviewing deaths in 1994.

Suicides by Method, 1994 - 2003, N = 163



Suicides by Method, 1994 - 2003, N = 163



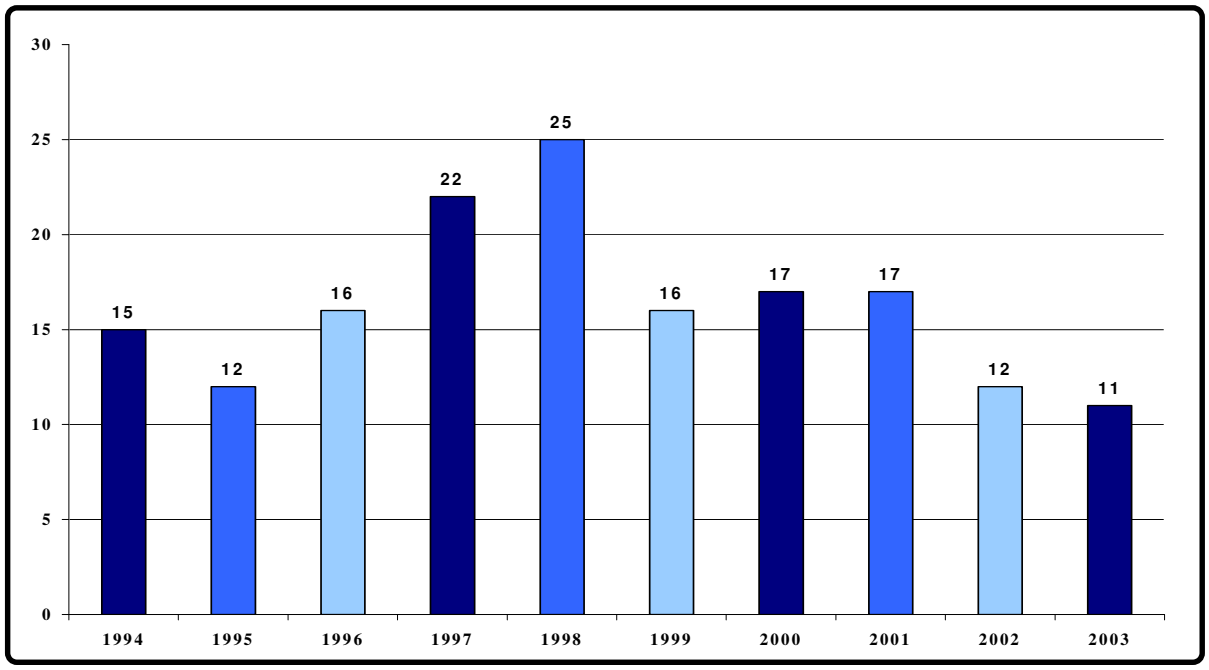
Suicide is a difficult issue, as devastating as any child death and often confusing to the family and community. While it can be a painful process, thorough investigations of suicide are necessary to develop as much information as possible, in hopes of increasing and improving prevention strategies. Often the Board reviews suicides and finds that the family has not been thoroughly interviewed, or autopsies have not been performed in a manner to have a complete medical picture of the youth at his or her death. The desire of families and communities to put such tragedies behind them is understandable; however, it hinders efforts to prevent further deaths of Kansas children.

A 16-year-old hanged himself after a fight with his mother. The child was on medication for ADHD and had been accused by his mother of stealing an anxiety drug from her. No autopsy was performed. The investigation was not detailed. It was limited to the apparent facts and prevented a thorough understanding of the circumstances that led to this tragedy.

1. Suicide

Thankfully, in 2003 suicides equaled their lowest level since the Board began reviewing cases in 1994. However, there are no obvious indications as to why 2003 saw fewer suicides than previous years. Kansas has a small enough number of suicides that the reduced numbers might be a statistical shift that is not tied to an actual, downward trend.

Total Suicides by Year, 1994 - 2003, N = 163



PREVENTION POINTS

- **Early diagnosis and treatment of mental conditions** - Early involvement of mental health professionals can increase prevention for troubled youths.
- **Evaluation of suicidal thinking** - Do not ignore statements about suicide, even if they seem casual or joking. Also, the months following a suicide attempt or severe depression can be a delicate time, no matter how well the child seems to be doing.
- **Limiting access to lethal agents** - Easily obtained or improperly secured firearms or medications are often used in suicides. The harder it is for a child to put their hands on these items, the more likely they are to re-think their intentions or allow 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.

2. Homicide

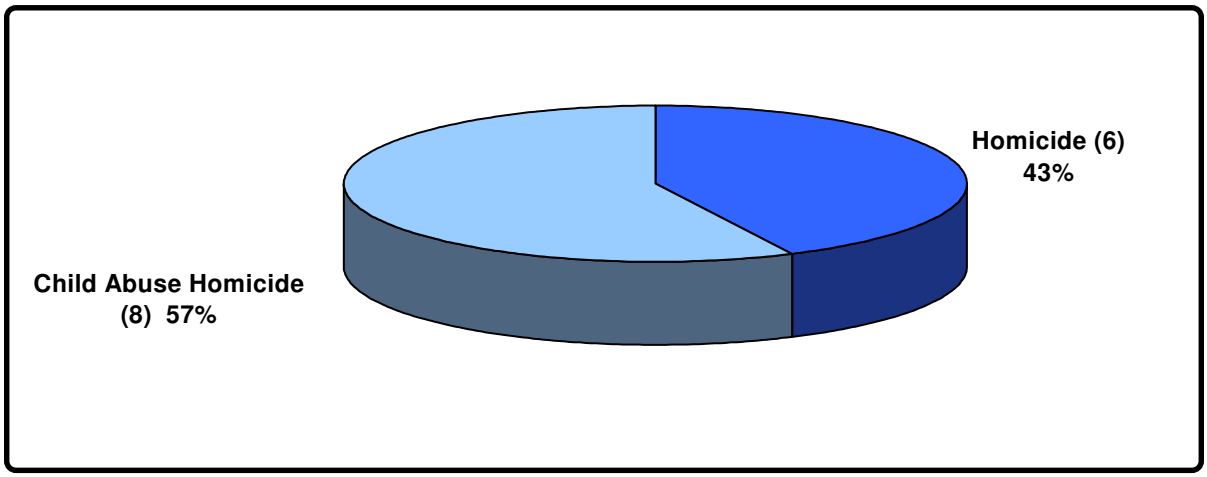
The Board reviewed 14 Homicides in 2003. **All 14 Homicides were considered preventable.**

A 17-year-old attended a party where there was under-age drinking. According to the investigation, the adolescent was continually pressured to drink against his will by a 22-year-old. This went on despite others noticing that something was wrong. During a fight that erupted later in the evening, the child was found not breathing. The child was taken to the hospital where he was pronounced dead. The child had a blood alcohol level of 0.4 and the cause of death was alcohol poisoning. The 22-year-old was charged with 2nd-degree murder.

The Board defines Child Abuse Homicide as children killed by caretakers from abuse (inflicting injury with malicious intent, usually as a form of discipline or punishment) or neglect (failing to provide shelter, safety, supervision, and nutritional needs). Board member Dr. Sarah Johnston identifies several child abuse risk factors and prevention points: "Maternal risk factors include young age, fewer than 12 years of education, late or no prenatal care, and being unmarried. Child risk factors include male gender and low birth weight. Household risk factors include prior substantiation of child abuse and neglect, substance abuse, low socioeconomic status, and presence in the household of an adult male not related to the child. The most effective methods for preventing child abuse involve programs which enhance parenting skills for at-risk parents. Examples of successful programs include home visits by nurses who provide coaching in parenting skills as well as quality early childhood programs which include parent training."

A caregiver was dealing with a struggling infant while his stepchild, a toddler, was refusing to obey him. He grabbed the toddler by the neck and strangled the child. When he realized what he had done, he tried to cover up the cause of death. He later confessed to his actions and pled guilty to second-degree murder. The investigation noted that there had been signs of abuse before this final incident.

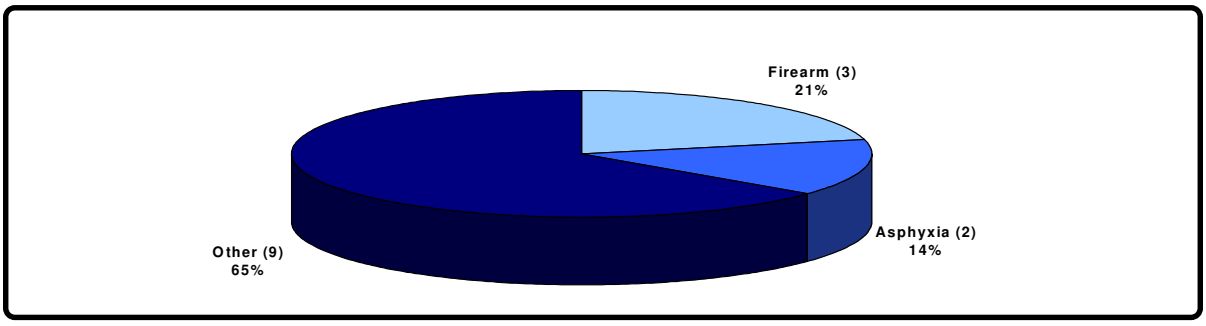
Homicides and Child Abuse Homicides in 2003. N = 14



2. Homicide

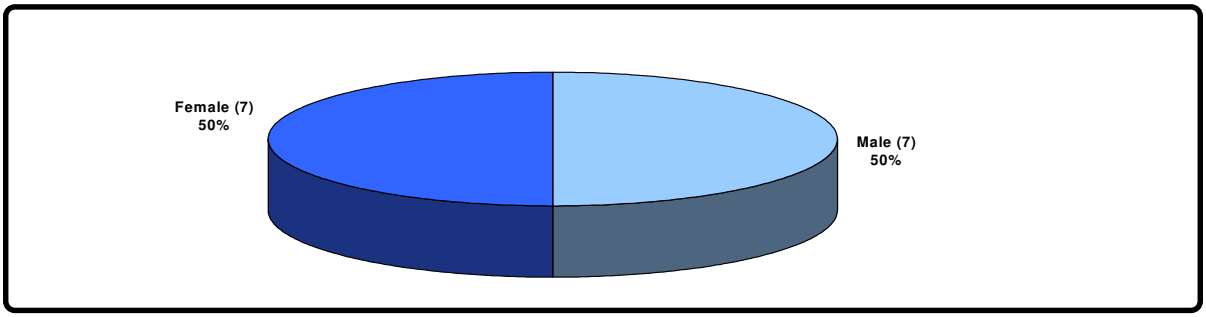
In 2003, "Other" methods made up over half of the Homicides. These included vehicular homicide, alcohol poisoning, stabbing, arson, and blunt trauma injuries.

Total Homicide Deaths by Method in 2003, N = 14



Females accounted for a larger amount of violent death, contrary to national trends and past Kansas numbers.

Total Homicide Deaths by Gender in 2003, N = 14



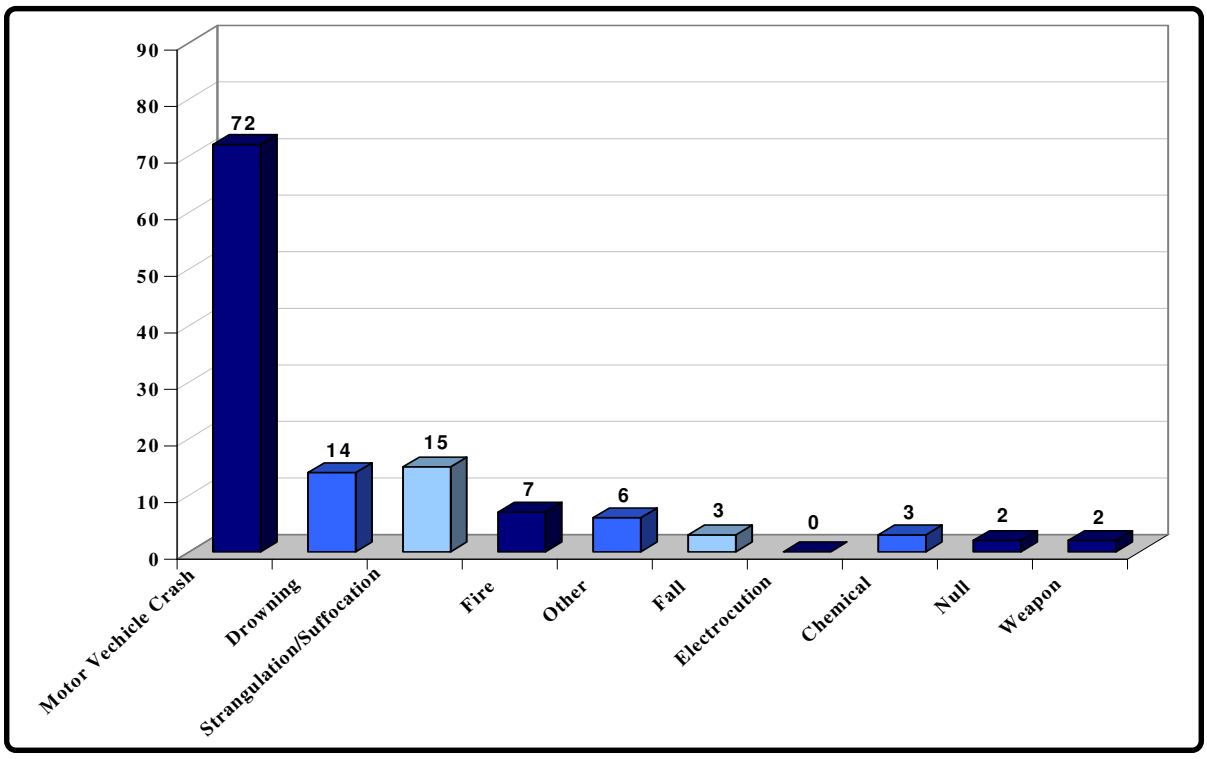
PREVENTION POINTS

- **Restraint** - Most homicides occur between family members, friends and neighbors. They happen when people lose their temper and take things too far. Many of the incidents the Board sees aren't cold, calculated acts. The killings generally occur in the midst of anger and frustration. Often if individuals could have restrained themselves for just a few minutes, the moment would pass and they would not have to live with the death of a child on their hands.
- **Taking Extra Care with Young Children** - Very young children are often the victims of Child Abuse Homicide. Frustrated caregivers, often without any parental training, combine unrealistic expectations for children's behavior with a lack of appreciation for their vulnerability. Shaken Baby Syndrome is an example. Violently shaking a baby can cause serious and fatal trauma to the child's brain.

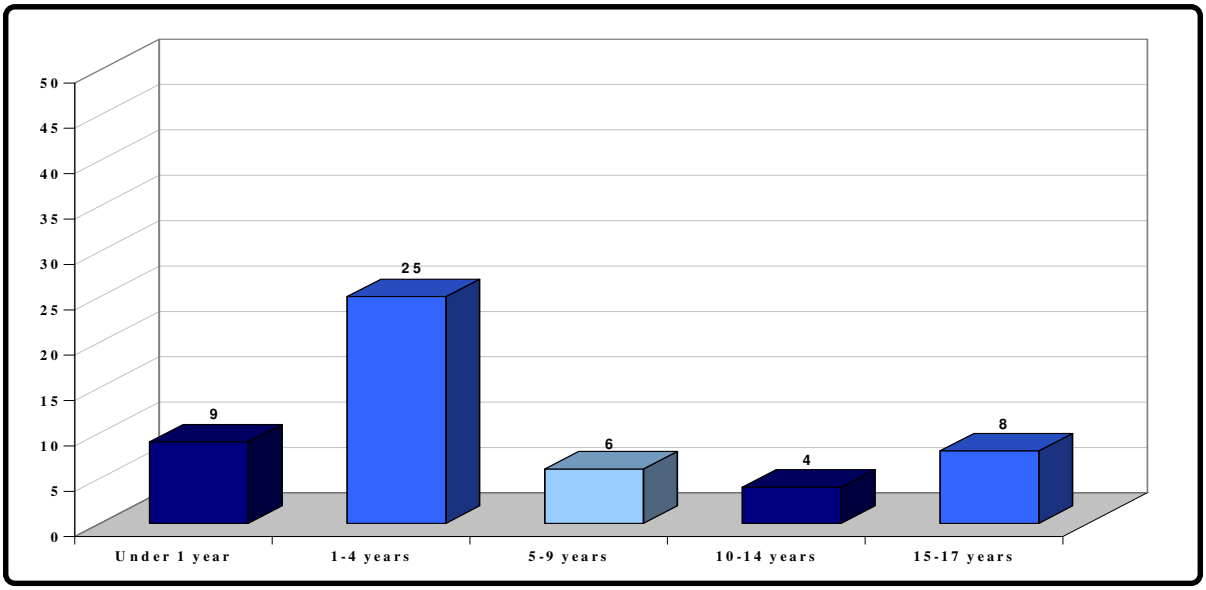
B. Unitentional Injuries

Unintentional Injury is consistently the second-largest category of death. These deaths are often the most preventable. In line with Kansas and national trends, motor vehicle crashes continue to make up a significant amount of Unintentional Injury deaths. 15-17 year-olds were the largest age group affected.

Total Unintentional Deaths by Cause in 2003, N = 124



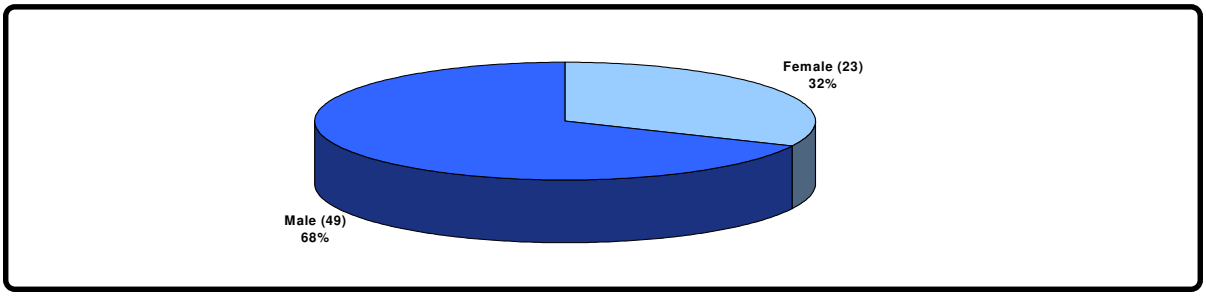
Total Unintentional Deaths by Age in 2003, N = 124



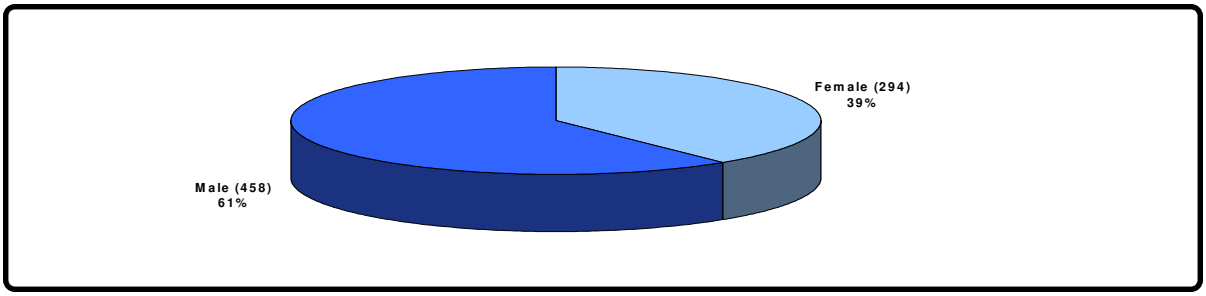
1. Motor Vehicles

Motor vehicle crashes are a major killer of Kansas youth. 61% of all child deaths in 2003 were attributed to MVCs. **The Board ruled 95% of the 72 motor vehicle deaths involved risk factors that were preventable**. 2003 displayed many of the trends previously noted by the Board in regards to motor vehicle deaths. Males make up more than half the deaths, and 15 to 17 year-olds are easily the largest age group. Drivers are a consistently large portion of the deaths, and in an overwhelming number of the cases seatbelts were not used.

Total MV Deaths by Gender in 2003, N = 72



Total MV Deaths by Gender, 1994 - 2003, N =72

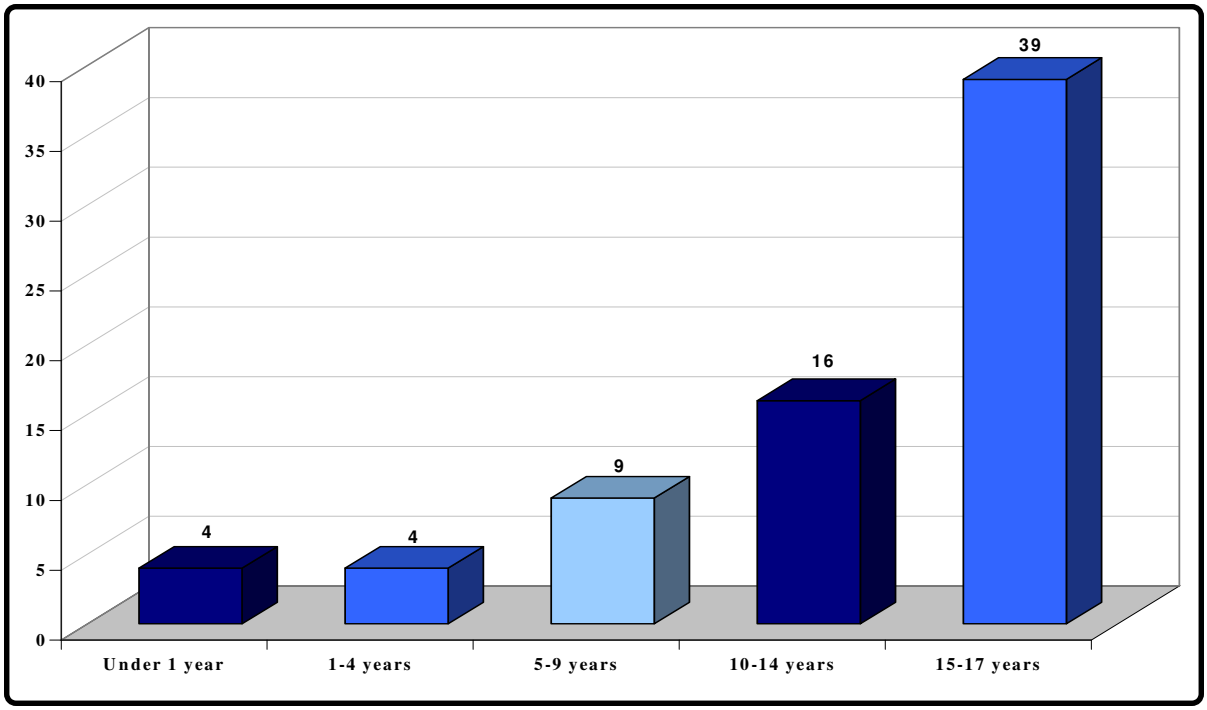


Young teenagers experience the greatest number of motor vehicle deaths. They are often the driver or a passenger riding with other teen drivers. Currently, Kansas children may begin driving at age 14. The law supported by the SCDRB would begin restricted, supervised driving at age 16. The following graphs emphasize the recommendation at the end of this report urging implementation of a stronger Graduated Drivers License program.

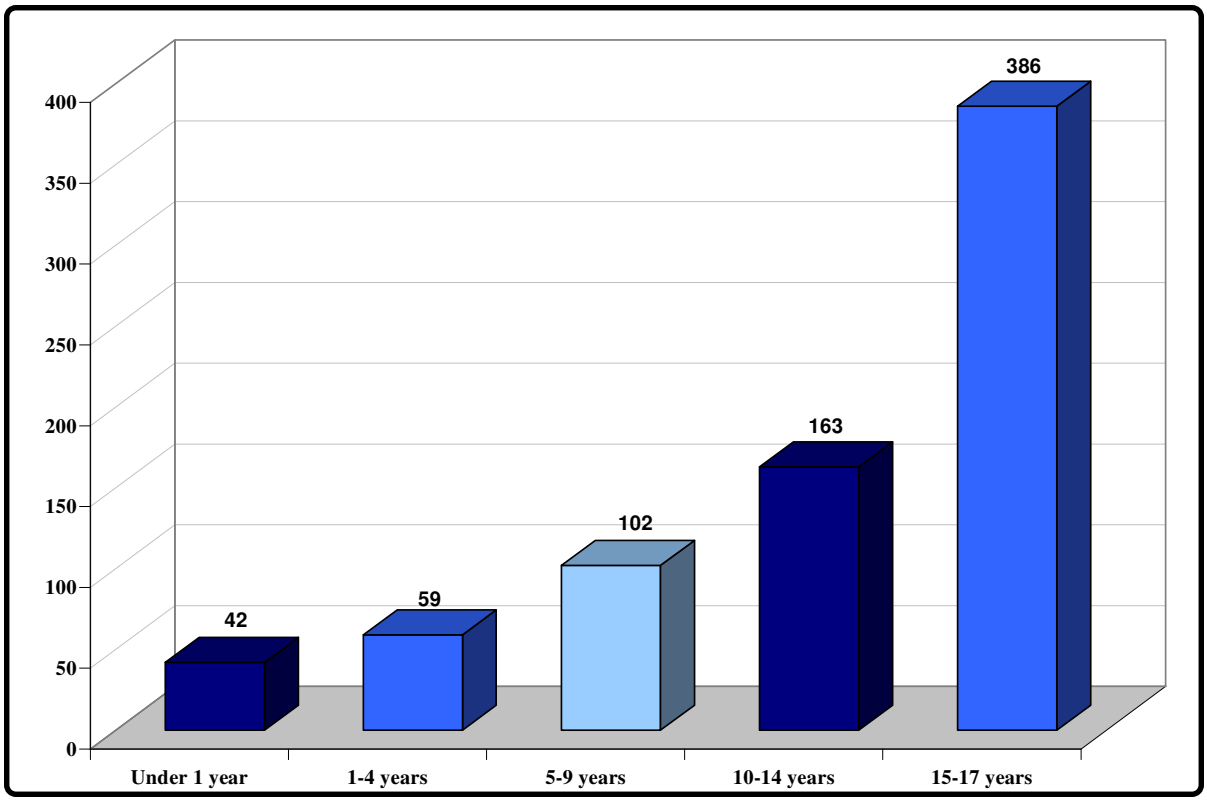
A fourteen year-old was driving a truck with two other teen passengers. She took a turn too fast and lost control of the vehicle. It rolled and all three unrestrained children were ejected. One teen was declared dead at the scene and the driver died later at the hospital from traumatic head injuries.

1. Motor Vehicles

Total MV Deaths by Age in 2003, N = 72



Total MV Deaths by Age, 1994 to 2003, N = 752



1. Motor Vehicles

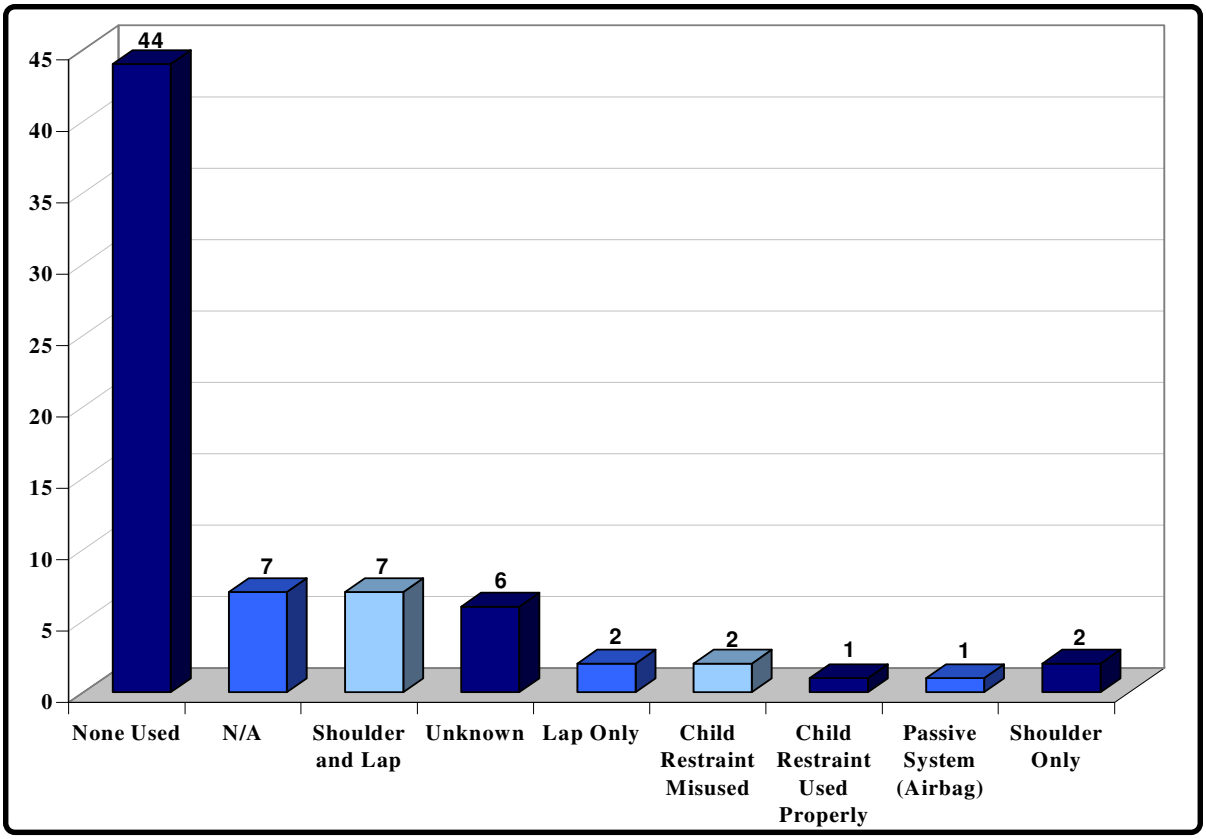
In case after case of motor vehicle deaths, the Board sees the words "unrestrained" and "ejected" before a description of traumatic, fatal injuries. **In 60% of the 72 motor vehicle deaths, seatbelts were not used at all.**

> A sixteen year-old was driving at a high rate of speed and started to go off the road. She over-corrected and hit the opposite ditch, flipping the vehicle. She was not wearing a seatbelt and was partially ejected from the vehicle, which crushed her. She was declared dead at the scene. Her passenger was wearing a seatbelt and walked away with some minor cuts.

The bulk of children not using their seatbelts are ages 15-17, with 30 instances of non-restraint. The next highest group is children 10-14 at 10 instances. This once again illustrates the need for Kansas to enhance seatbelt laws and their enforcement. However, there are instances when younger children were not properly restrained by their caregivers. Eight children under age 10 were not using a seatbelt when they died.

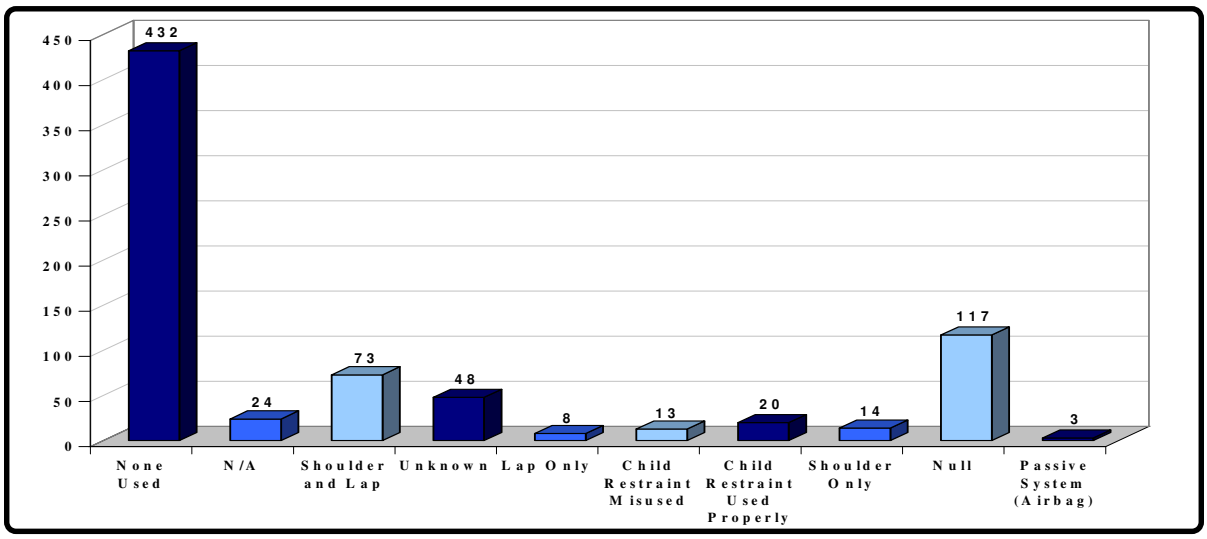
> A one-year-old was unrestrained in the backseat of a car that was struck by a fast-moving vehicle. The child's unrestrained mother was ejected and died at the scene. A younger sibling, who was in an improperly installed car seat, received serious injuries. The one-year-old child suffered head injuries and died three days later.

Total MV Deaths by Restraint Use in 2003, N = 72



1. Motor Vehicles

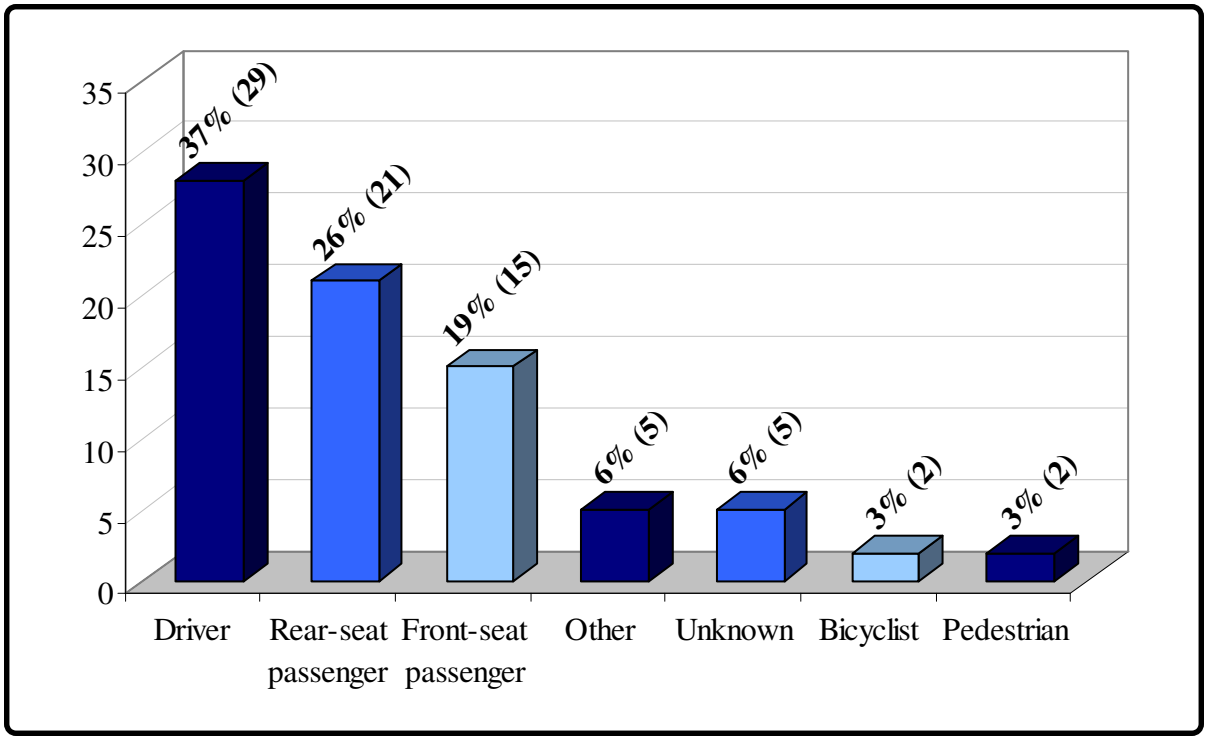
Total MV Deaths by Restraint Use, 1994 to 2003, N =752



Kansas law does not require a seatbelt to be used in the back seat of a vehicle if an individual is 14 years of age or older. In 2003, rear seat passengers were the second largest group of deaths.

A 17-year-old was an unrestrained, rear-seat passenger of a car that rolled down an embankment. The child was thrown from the car and crushed as it continued to roll. The two front-seat passengers survived.

Total MV Deaths by Position in 2003, N = 72

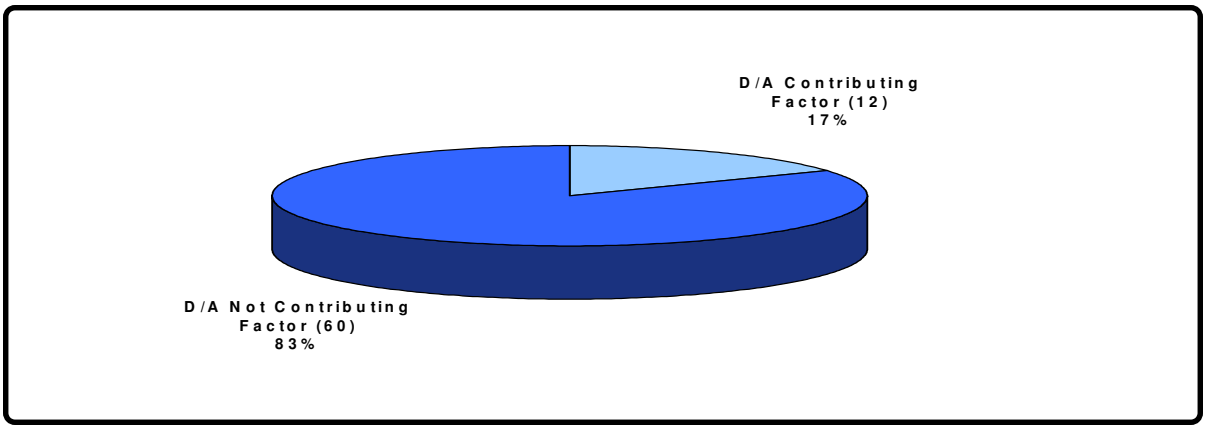


1. Motor Vehicles

In almost a quarter of motor vehicle deaths, alcohol and/or drugs were a contributing factor. **In 10 of the 12 alcohol/drug related deaths, the driver under the influence was 17 years or younger.**

A 14 year-old and his friend were driving down a dirt road at high speed when he lost control and struck some trees. The passenger was ejected and seriously injured. The driver was dead at the scene. The driver had a blood alcohol level almost twice the legal limit.

Total MV Deaths by Drug and/or Alcohol Use in 2003, N = 72



PREVENTION POINTS

- **Use of proper safety restraints** - Wear seatbelts. They consistently prevent serious injury and death. According to the National Highway Traffic Safety Administration, parents who buckle up are more likely to use safety restraints for their children than those who do not. The importance of parental seatbelt use as an example cannot be ignored. Children under four years of age should be placed in child safety seats in the backseat of the vehicle. Children between the ages of four and eight should be in belt-positioning booster seats.
- **Attentive driving** - Avoid distractions like cell phones. Young drivers should avoid driving with groups of their peers.
- **Avoiding alcohol or drug use** - It is never, ever safe to drive after using narcotics or alcohol. Children should also avoid getting in a vehicle when they know a driver has been abusing drugs or alcohol.
- **Driving experience** - Driving is not a quickly learned skill and requires safe thinking and good judgment. Young drivers should be accompanied by an experienced adult and avoid complex driving situations until more practiced. The graduated drivers license system recommended by the Board does not confer full driving privileges until age 18, after significant, supervised driving time.

2. Drowning

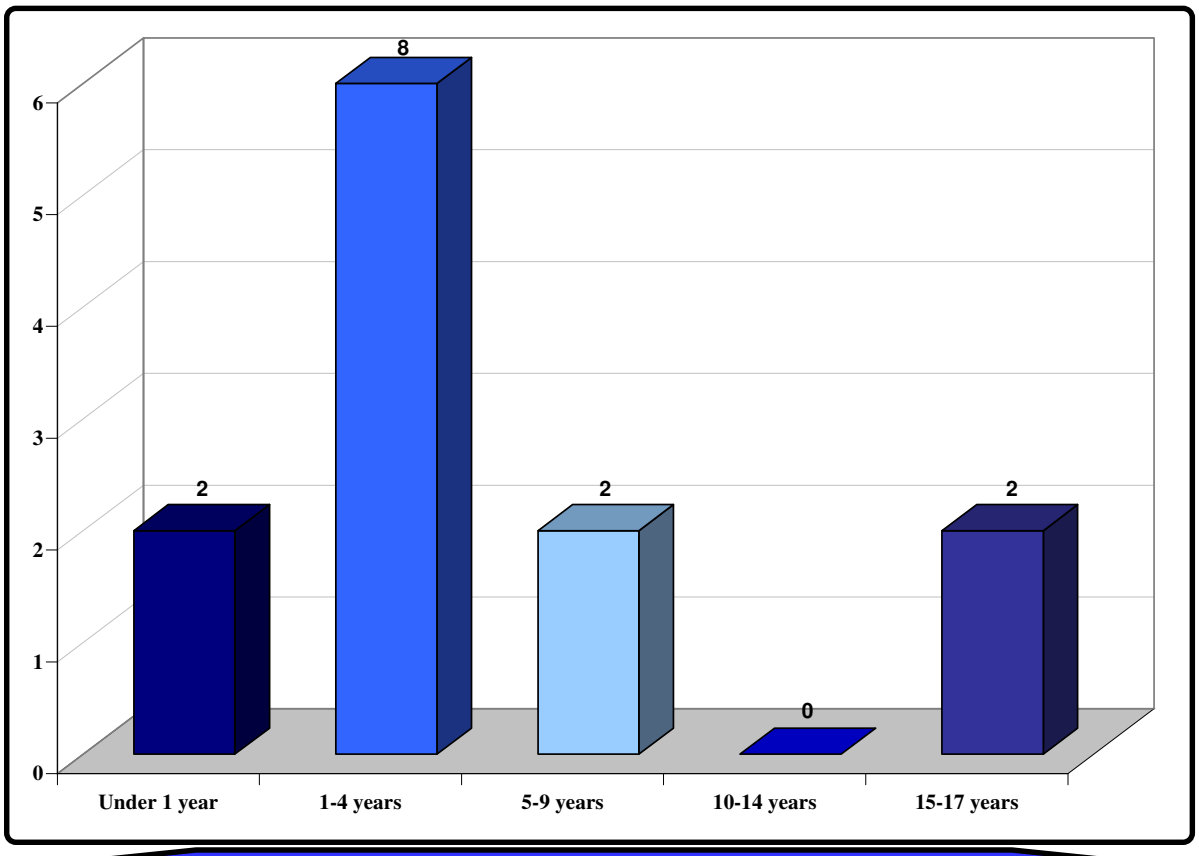
"Drowning, which can happen in as little as one inch of water, is usually quick and silent. A child will lose consciousness within two minutes after submersion, with irreversible brain damage occurring within four to six minutes." (April 2004 National Safe Kids report). 14 Kansas children drowned in 2003. In 7 out of 10 cases, children 5 years and younger were unattended when they drowned.

A three-year-old was playing in the front yard where his father was working. There was an easily accessible pool with a ladder in the backyard. The father guessed it was only 10 minutes from the time he last saw the child playing, to the time he saw him floating facedown in the pool. Resuscitation efforts by the father and EMS were unsuccessful. The child was pronounced dead at the hospital.

According to the Safe Kids report, drowning is the second-leading cause of injury-related death for children 14 years and younger, yet it was noted that many parents do not consider drowning a major hazard.

A five-year-old was camping with his family. The mother had fallen asleep, leaving the child unattended. He was found dead in a pond the family used for swimming. He had taken some swimming lessons.

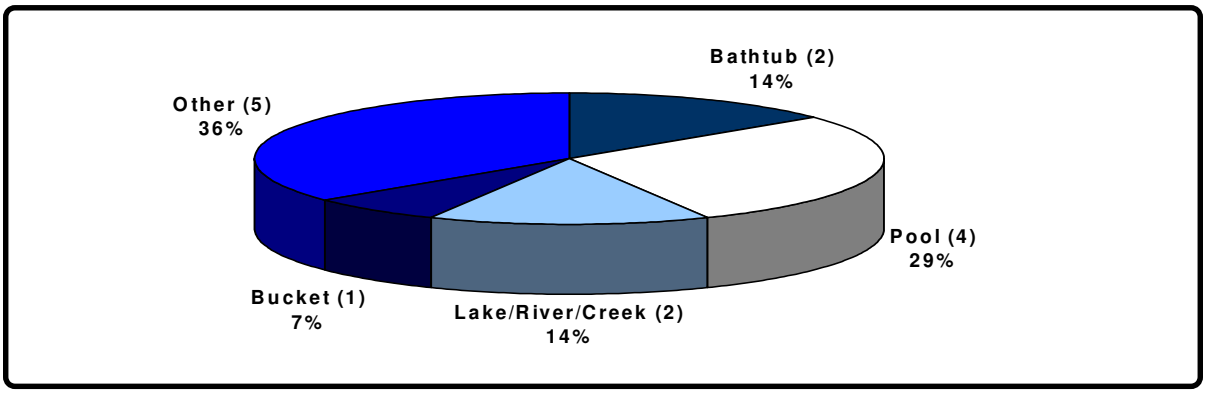
Total Drowning Deaths by Age in 2003, N = 14



2. Drowning

In 2003, home pools were the main sites of drowning incidents. Generally these deaths were the result of lack of supervision and easy access to water.

Total Drowning Deaths by Location in 2003, N = 14



PREVENTION POINTS

- **Proper Supervision** - There should always be an adult capable of responding to an emergency observing children around water. The adult should be actively watching and avoid distractions like reading and phone calls. Assigning swimming "buddies" is also a good idea, especially if there are many swimmers. Supervision also applies to bathtubs, where children are often left alone for short periods of time.
- **Pool/Environment Safety** - Pools should have safety equipment available and be closed off from small children. Five foot fencing, completely encircling a pool or hot tub, with safety latch gates, is recommended. Specifically related to bathtubs, seats designed to hold a baby's head above water are absolutely no substitution for adult supervision. Also, there are cases where small children fall into buckets or toilets and drown. Caregivers should be on the lookout for these less obvious dangers.
- **Use of Safety Equipment** - Children should wear Personal Flotation Devices (PFDs) when participating in water activities. "Water wings" and other inflatable items are not adequate substitutes.
- **Water Safety Education** - Children should have swimming lessons and water safety education. While this is vital, swimming ability alone doesn't relieve the need for adult supervision or PFDs. (The American Academy of Pediatrics recommends waiting until four years of age to begin lessons.)

3. Suffocation/Strangulation

There were 13 Suffocation/Strangulation deaths in 2003. Like many of the injury categories, lack of supervision is often a contributing factor in these deaths, and most could have been prevented.

A child was placed in a car seat for a nap by a caregiver. The bottom strap was not used and while unattended, the baby slipped down in the seat and was strangled by the upper strap. The caregiver, who ran an unlicensed daycare, was charged with involuntary manslaughter.

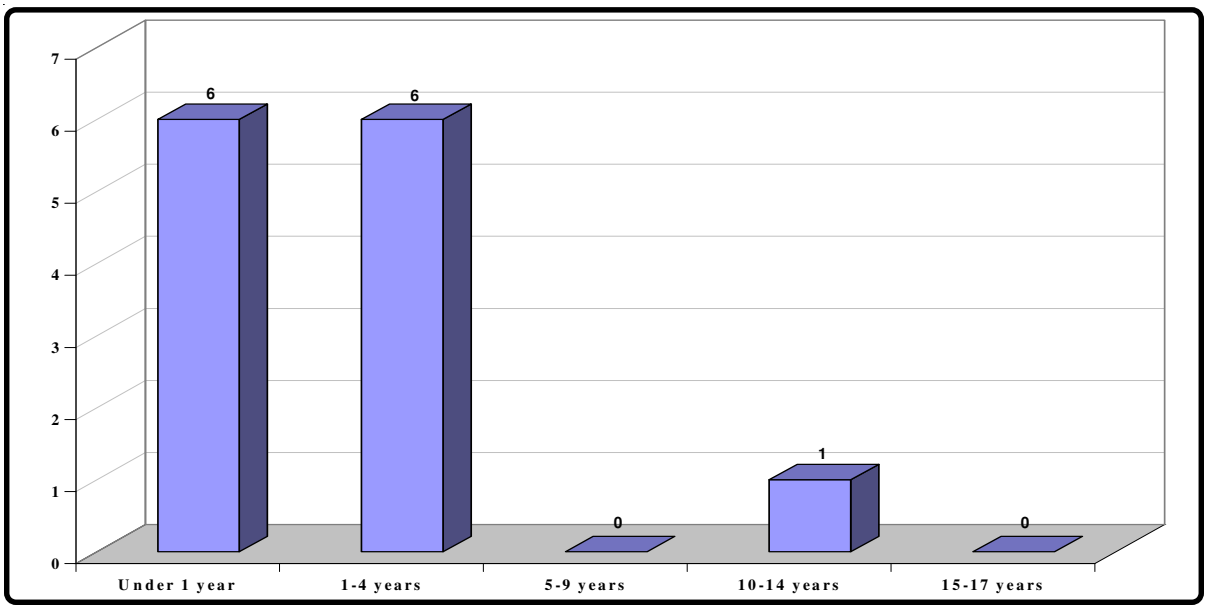
Generally, accidental suffocation/strangulation deaths affect very young children. They have not yet developed the strength or motor skills to remove themselves from dangerous situations. However, there are occasions where older children are trapped and lapse of supervision can lead to death.

A parent left a two-year-old child unattended in a car to make a quick stop. The child put his head out the window and somehow activated the automatic window control. The child was strangled to death between the window and the door frame.*

*The Board has received notices that power window rocker switches have caused child deaths across the country. New regulations from the National Highway Traffic Safety Administration are requiring design changes to lessen this risk in all cars manufactured after October 1, 2008.

A five-year-old was playing outside, being checked on every once and while. At one point the child could not be found. After a search, he was found inside a container that locked from the outside. The child was declared dead due to suffocation after transport to a hospital.

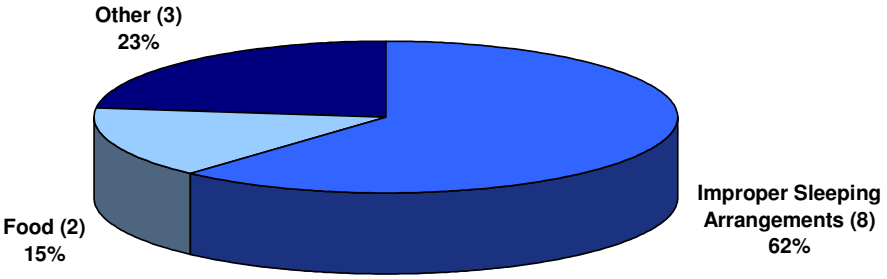
Total Suffocation/Strangulation Deaths by Age in 2003, N =13



3. Suffocation/Strangulation

Another issue that falls within this category is improper sleeping arrangements for babies. Reviews from Kansas and across the nation show that there are several common practices that increase the risk for asphyxial deaths. These include: not using a crib, not placing a child on their back, not removing clutter from a sleeping area, using soft bedding like pillows and quilts, and placing the child in bed with others.

Total Suffocation/Strangulation Deaths by Cause in 2003, N = 13



A soft quilt was placed over the top of a playpen to make an improvised crib for a baby. There was a slight depression in one corner of the quilt. The child ended up facedown in the depression which resulted in a clear case of positional asphyxia. Use of a proper sleeping surface could have prevented this death.

PREVENTION POINTS

- **Proper Supervision** - Young children should be watched carefully. Leaving them alone for extended periods of time, or even 10 to 15 minutes allows opportunities for accidents. Child-specific training in CPR and other emergency responses can help prevent death.
- **Environment Safety** - Be on the look out for dangers to your child. Think about their size, curiosity, and motor ability. Many things that aren't threats to adults (e.g. chests or coolers with latches, cords, and plastic bags) can be deadly to small children.
- **Infant Sleeping Arrangements** - The safest sleeping space for your infant is in an approved crib, on his or her back. The mattress should be fitted to the crib so that the child cannot be trapped between the mattress and side of the crib. Soft items like blankets, pillows and stuffed animals provide opportunities for asphyxia. Babies should not sleep in adult beds and should not be placed in bed with parents or siblings.

4. Fire

Seven Kansas youths died in fires in 2003. **Review showed all seven fire deaths to be preventable.** The seven deaths were the result of four fires. In two of the four incidents, smoke detectors were present but were not working. In the other two cases it was unknown if the detectors were functioning. Two of the fires were started by faulty electrical wiring.

A family knew there was an electrical problem and had not gotten around to fixing the problem. A fire started in the night, originating where several cords and appliances were plugged in. An 11-year-old child was taken to the hospital where he died from smoke inhalation. Three other family members died in the same fire. It was unknown if there was a working smoke detector.

In two of the other fires, children were unattended with access to candles or lighters. In both cases the children were toddlers and left alone long enough to allow the fire to spread significantly.

A three-year-old was by himself in a bedroom. The night before, someone had lit candles with a lighter brought to them by the toddler. The next morning, family members heard the child screaming and found the room in flames. Firefighters were unable to save him. Investigation revealed that the candles might have been left burning, and the child probably started the fire with the candles or the lighter. No one in the house heard the smoke detector go off.

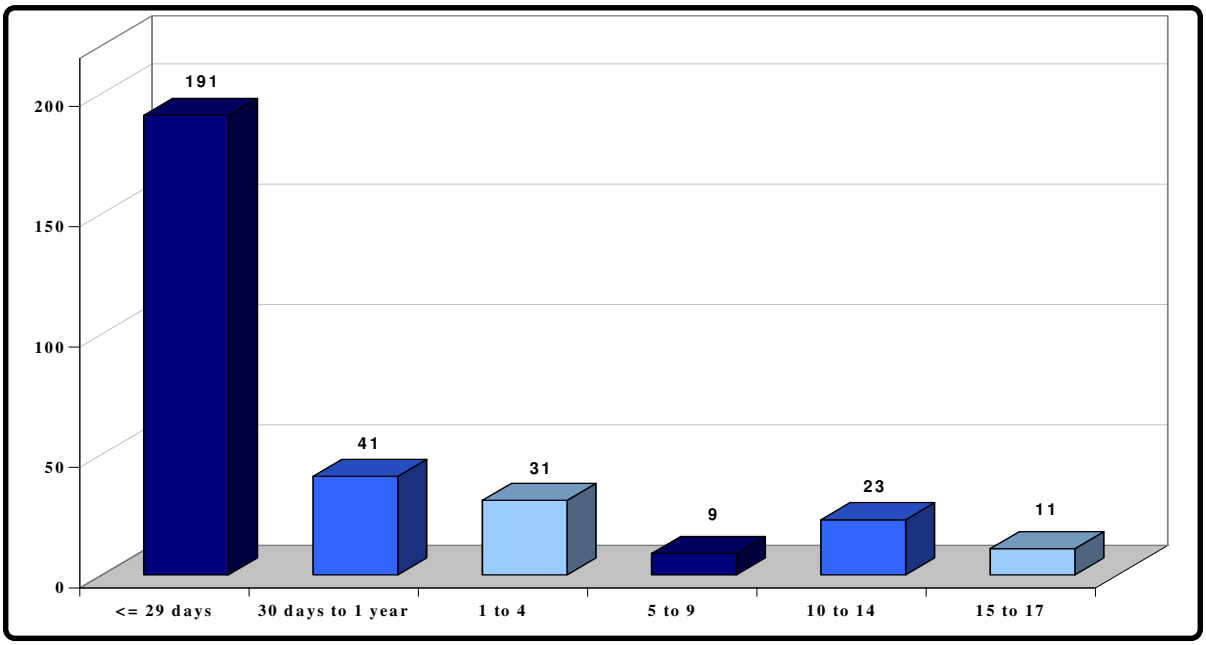
PREVENTION POINTS

- **Proper Supervision** - Again, young children should be watched carefully. Leaving them alone, especially if there are objects around like candles or matches, could result in a serious accident.
- **Prevent Access to Fire-starting Material** - Matches, lighters, candles, etc. should be kept away from children. Don't assume a young child can't operate a lighter or matches. Two of the four fatal fires in 2002 may have been started by 3-year-olds with lighters.
- **Make Sure You Have Working Smoke Detectors** - Smoke detectors should be tested once a month to ensure the battery is not dead and that the detector itself is working.
- **Have an Emergency Fire Plan** - Make sure everyone in the house, especially the children, know all exits from the house in case of a fire.

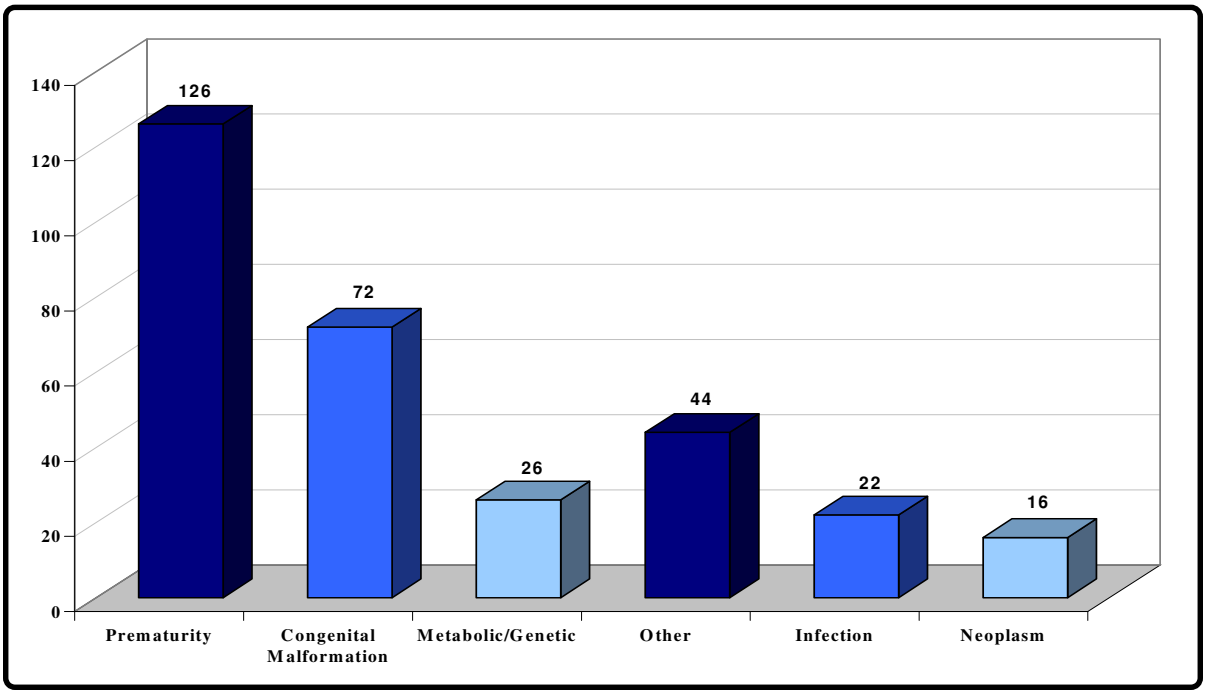
C. Natural Death-Except SIDS

Natural deaths are the largest category of child deaths in Kansas. In 2003 they made up 60% of the total 494 cases. Unlike other categories, prevention efforts are harder to define. Historically, natural deaths are prevalent in the first 29 days of life. This correlates with prematurity being the largest cause for natural deaths.

Natural Deaths-Except SIDS by Age, N = 306



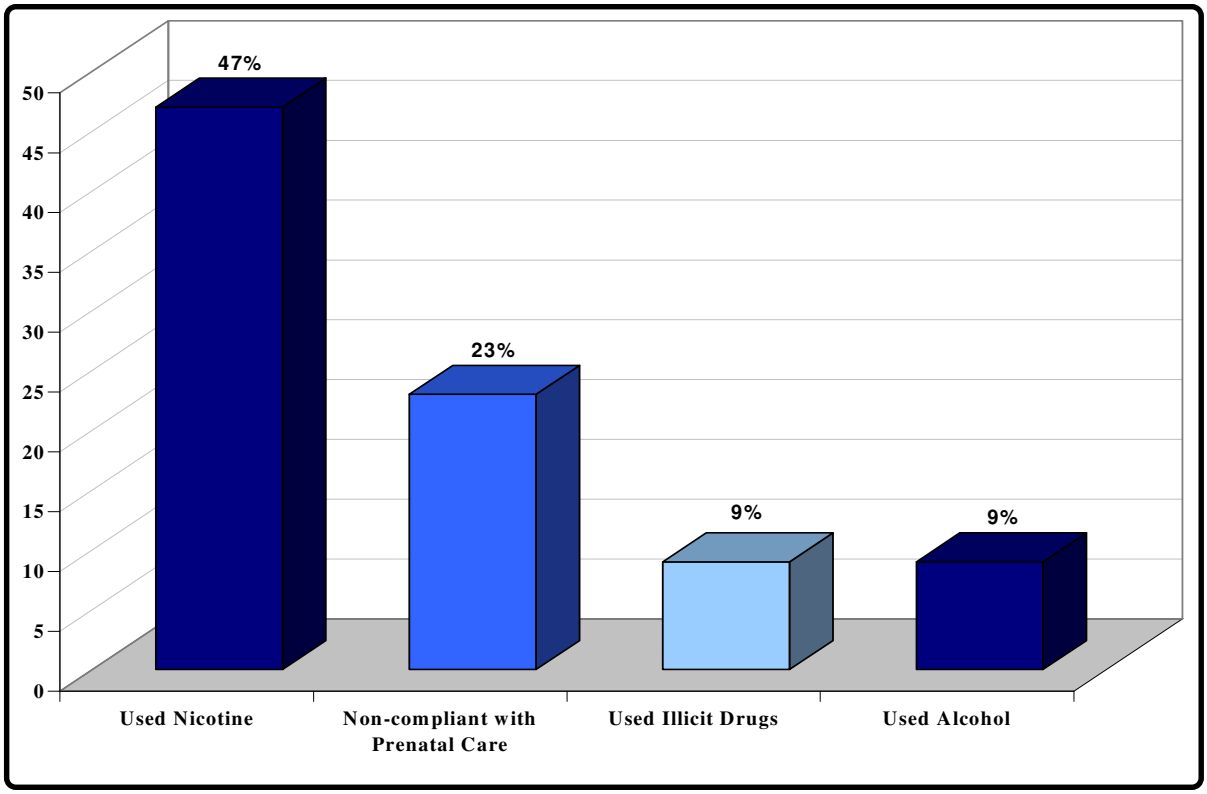
Natural Deaths-Except SIDS by Cause, N = 306



C. Natural Death-Except SIDS

While prevention is difficult with these kinds of deaths, there are steps that can be taken to limit some problems. In 2003, there were some mothers who used alcohol, drugs, and cigarettes while pregnant. In those cases, the board considered the mother's medical condition a factor in the child's death. In 60 cases, it was unknown if the mother's condition contributed to the death, and in over 100 cases it was unknown if the mother used nicotine, drugs or alcohol. The graph below shows the instances where mothers used substances that might have had a negative impact on the health of their babies.

Natural Deaths-Except SIDS by Risk Factor, N = 306



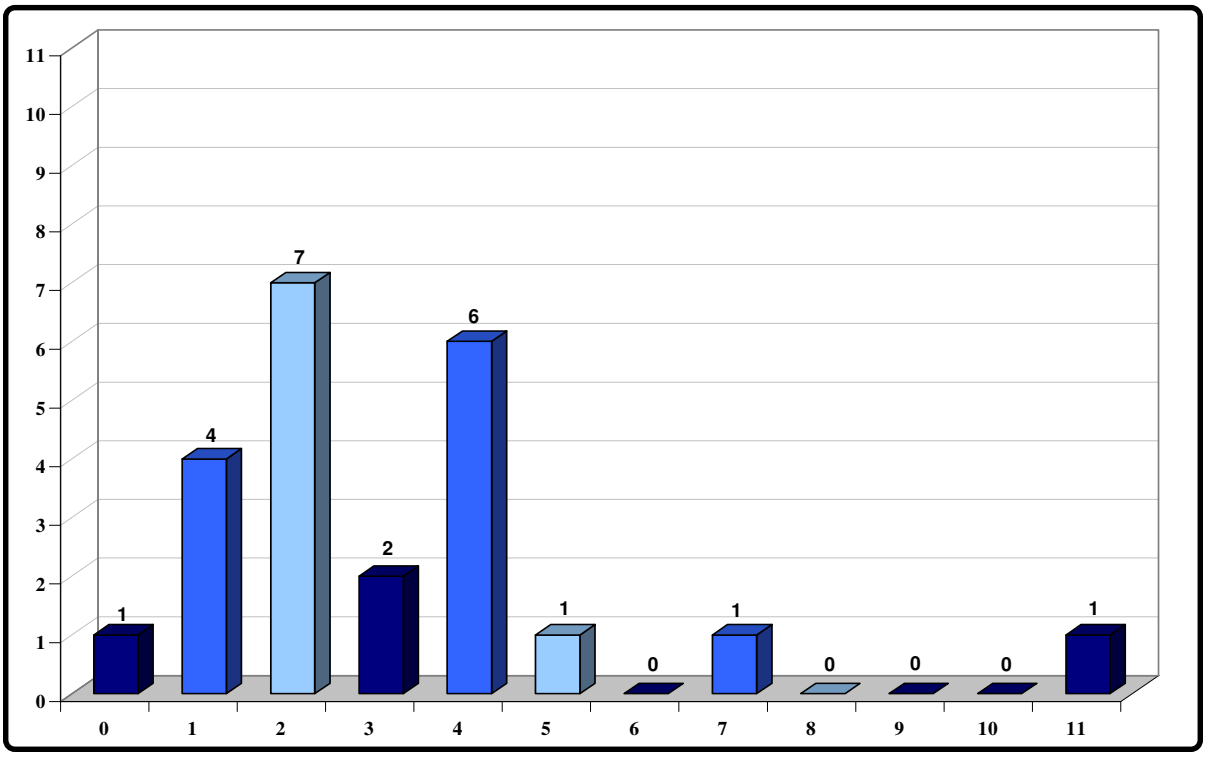
PREVENTION POINTS

- **Utilize Prenatal Care** - Visiting a doctor during your pregnancy is invaluable. The doctor can educate you on steps necessary to contribute to a safe delivery and healthy baby. The doctor also has a chance to diagnose possible problems early on and advise measures to minimize them, if possible.
- **Avoid Drugs, Alcohol, and Nicotine** - Do not use drugs, alcohol or nicotine while pregnant. These elements all have the ability to cause serious health issues and even death for your child.

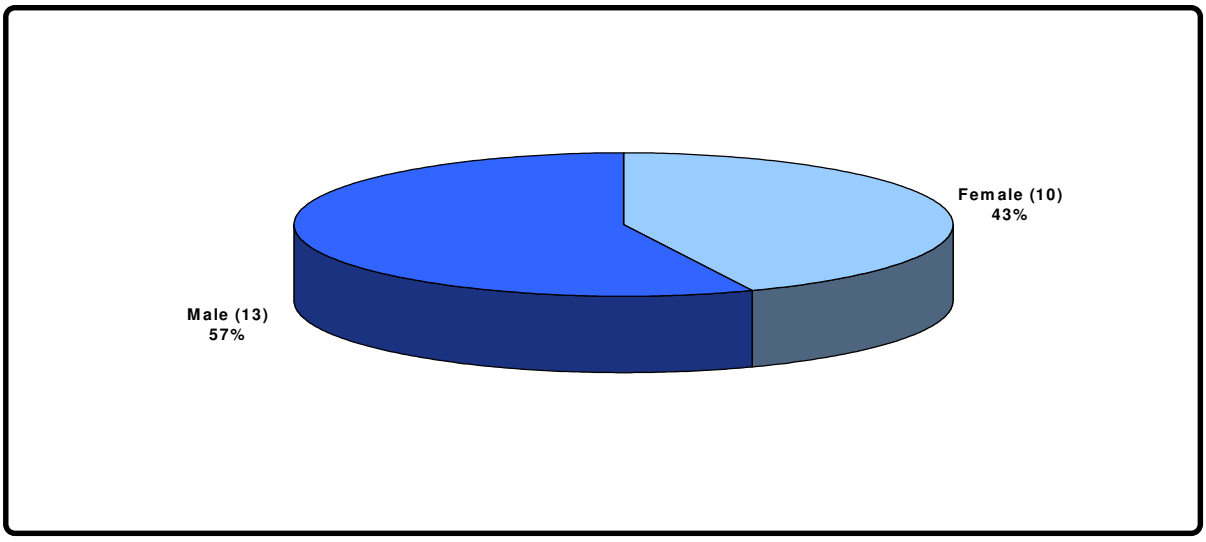
D. Natural - SIDS

Sudden Infant Death Syndrome (SIDS) is a very narrow classification of death specifically addressing infants. A coroner in Kansas can only rule SIDS if the child is under one-year of age, and an investigation and autopsy have revealed no known cause of death. In 2003, none of the SIDS deaths were deemed preventable. The majority (97%) of SIDS deaths in 2003 occurred in the first six months of life.

Natural Deaths-SIDS by Age in Months, N = 23



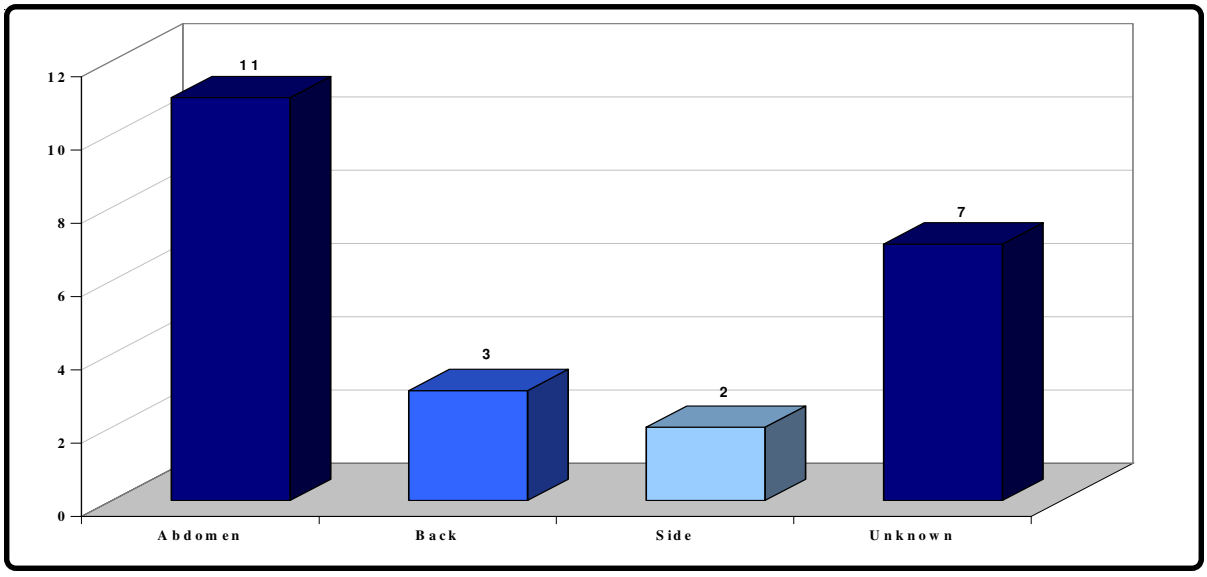
Natural Deaths-SIDS by Gender, N = 23



D. Natural - SIDS

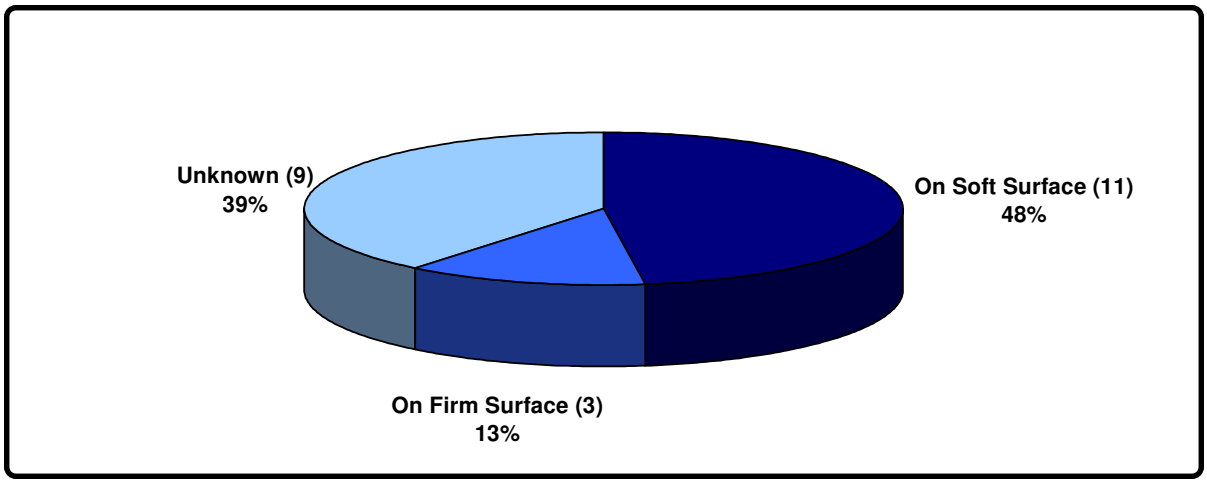
SIDS by definition has no known cause. There is, however, some correlation with certain risk factors. The number one risk factor is placing a baby to sleep on its stomach. As the graph below shows, SIDS can occur when babies sleep on their backs. However, according to the American Academy of Pediatrics, the chances for SIDS can be five times greater for children who are placed on their stomachs for sleeping. High temperatures (overheating, over bundling), improper sleeping environment (co-sleeping, lots of pillows, stuffed animals, etc.), and second-hand smoke can also increase the risk of SIDS. Other risk factors include low birth weight, prematurity, maternal smoking during pregnancy, multiple births (twins, etc.), young maternal age, and births less than 18 months apart.

Natural Deaths-SIDS by Baby's Position, N = 23



Placing babies on firm surfaces, in approved cribs reduces both the risk of SIDS and of accidental suffocation.

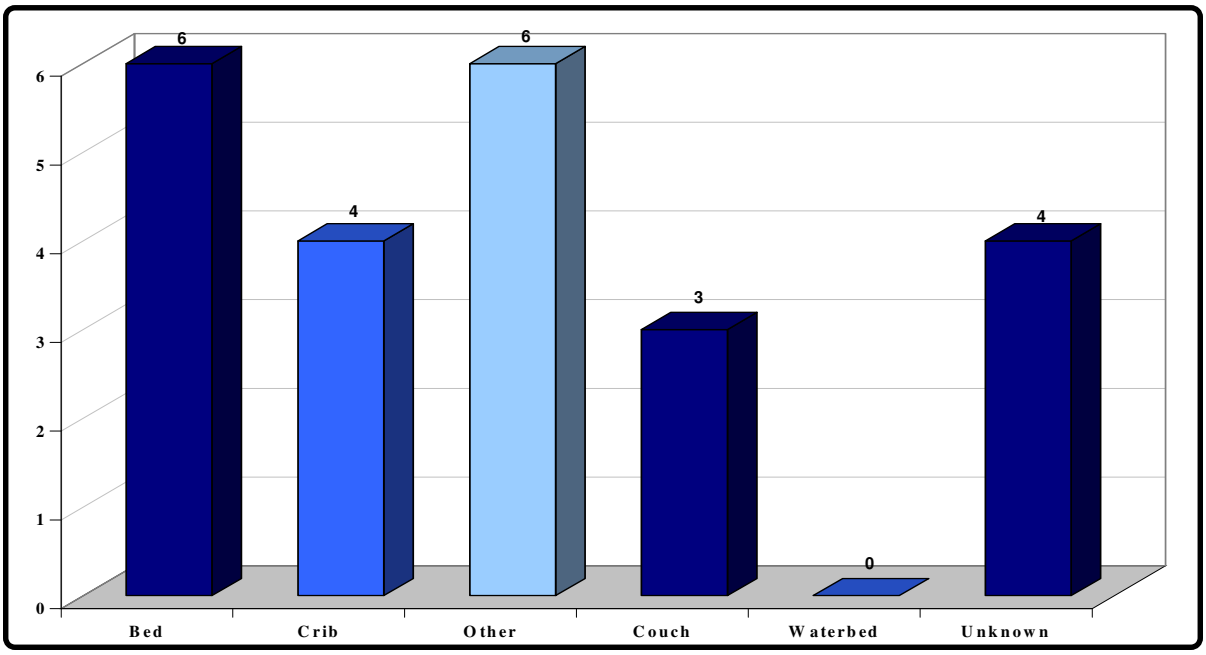
Natural Deaths-SIDS by Sleeping Surface, N = 23



D. Natural - SIDS

Placing babies in approved cribs automatically eliminates risks associated with SIDS, such as sleeping on soft surfaces and heavy, soft bedding.

Natural Deaths-SIDS by Sleeping Area, N = 23



PREVENTION POINTS

- **Infant Sleeping Arrangements** - The prevention suggestions for SIDS are very similar to the ones for accidental suffocation.

  -The safest sleeping space for your infant is in an approved crib, on his or her back.

  -The mattress should be fitted to the crib so that the child cannot be trapped between the mattress and side of the crib.

  -Soft items like blankets, pillows, and stuffed animals should be removed from the crib.

  -Babies should not sleep in adult beds and should not be placed in bed with parents or siblings.

  -Babies should not be over bundled or have their rooms overheated.

E. Undetermined

There were 16 Undetermined deaths in 2003. These deaths cover a broad spectrum of investigative thoroughness. In some cases, every effort was made to determine why a death occurred, but there was simply no way to be sure what actually happened. In other cases, investigations were cursory, or law enforcement was never informed of the death. In some instances, autopsies were not performed, or toxicology reports on the victim were not requested.

A baby had been hospitalized for difficulties associated with prematurity. After being released, the caregiver brought the child back claiming to have seen signs of continued illness. The medical evaluation, during which the caregiver consistently exaggerated the previous hospitalization, found no problems. When the baby died, toxicology showed evidence of medicine that was not prescribed by physicians. However, investigation of the caregiver was not thorough enough to determine whether the death was natural or possibly intentional.

This issue is important enough that the SCDRB has once again made a call for thorough investigations in its policy recommendations on page 36.

PREVENTION POINTS

- **Thorough Investigation** - All child deaths should be exhaustively investigated. The circumstances and family situation should not affect the detail of the inquiry. Also, the Board has found instances where law enforcement was not informed because the child died in the hospital. Hospitals should have protocols in place to ensure law enforcement is notified when a child dies from other than natural causes.

- **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. Coroners should be aware of an excellent program through the Department of Health & Environment that allows the state to reimburse counties for child death autopsies.

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.

> Between 1994 and 2003, 752 Kansas children under 18 died in motor vehicle crashes. In **432** of the incidents, **seatbelts were not used** by the children that died.

ENHANCE CHILD MOTOR VEHICLE RESTRAINT LAWS

The number one policy priority of the Board is to create more effective laws for child restraint in vehicles. More than any other area, motor vehicle deaths are consistently shown to be preventable. A significant portion of that preventability comes with the proper use of safety restraints. **In 2002, the National Highway Traffic Safety Administration estimated total seatbelt use in Kansas at 61%, compared to a national rate of 75%.** The Board has three specific recommendations to address this serious problem. These recommendations match legislation put forward by the Kansas SAFE Kids Coalition during the 2004 legislative session. This legislation was not approved.

- **Passage of legislation requiring use of Belt Positioning Booster Seats for children ages 4 through 8**
  - Current law has no provision for booster seats
- **Expansion of the current law to require all children under the age of 18 to be properly restrained regardless of seating position within the vehicle**
  - Current law only requires this for children 13 and under
- **Increase the fines for non-compliance with child safety restraint laws to a level that effectively promotes proper use of safety restraints.**
  - Current law requires a mere $20 fine for violation of child safety restraint laws and a $10 fine for violation of the front-passenger/any age seatbelt law

BOOSTER SEATS

Many parents hold the misconception that their child is ready for adult safety restraints after age 3. Age 4 is the year in which the requirement for safety seat use is lifted in Kansas. As of April 2004, 26 states have passed laws requiring the use of booster seats in recognition of data showing the need for a transition period between child seats and adult seatbelts.[1] Booster seats provide proper seatbelt positioning for children between the ages of 4 and 8 or those who weigh under eighty pounds and are less than four feet nine inches tall. A report in the June 2003 Journal of the American Medical Association stated that **use of seatbelt positioning booster seats reduced the risk of injury to children ages 4 through 7 by 59%.** This was in comparison to children who wore only vehicle seatbelts.[2] Passage of legislation requiring booster seat use would close a significant gap in the laws that protect Kansas children as they travel in vehicles.

IV. Public Policy Recommendations

INCREASE AGE OF MANDATORY, ANY-POSITION SEATBELT USE

Since its inception, the State Child Death Review Board has consistently found a lack of safety restraint use in the majority of vehicular deaths, with 15 through 17 year-olds representing the largest group of these deaths. However, Kansas law does not require children 14 and older to use a seatbelt if seated in the back of a vehicle. **In over a third (36%) of the deaths in 2003, the child was in the rear-seat of the vehicle.** A simple expansion of the current law would enhance the safety of Kansas children.

INCREASE FINES FOR NON-COMPLIANCE WITH CHILD SAFETY RESTRAINT LAWS

Vehicular accidents take the lives of many Kansas children every year. **72 children died in crashes in 2003, more than one death a week.** National data showed 1,563 deaths and 227,000 injuries for children 0 to 14 in 2002. 50% of those killed were completely unrestrained.[3] **60% of the children killed in Kansas were unrestrained.** Unlike some of the causes the Board sees in its review process, there is a simple, effective way to decrease these deaths. The Board earnestly supports strong enforcement of child safety restraint laws. The penalty for failing to follow age-appropriate restraint use should be more meaningful than the current $20 fine.

INSTITUTE GRADUATED DRIVERS LICENSE LAW

The early years of learning to drive are often the most dangerous. According to the National Center of Health Statistics, 36% of deaths for 15 through 20 year-olds are caused by motor vehicle crashes. **In Kansas in 2003, 65% of deaths for 15 to 17 year olds were caused by car wrecks. In 37% of the 72 total deaths, the child was driving.** Graduated licensing laws allow adolescents to become more proficient and experienced in their driving before having full driving privileges. A U.S. Department of Transportation report lists 38 states that have instituted a graduated licensing system. Kansas is not among them.[4]

An effective graduated licensing system requires a learning permit at age sixteen. At least six months and 30 to 50 hours of supervised driving would be required before moving to the intermediate stage. At this level there would be restrictions on night driving and the transportation of teenage passengers. States with night-time restrictions have shown crash reductions of up to 60%.[5] There would be zero tolerance for drugs or alcohol use during this process. Finally, full driving privileges would be granted at age 18. The Board encourages using this sensible law to let Kansas children more safely exercise the privilege of driving.

The State Child Death Review Board would like to express its gratitude to the legislators who supported efforts to increase the safety of Kansas children during the 2004 Session. Senate Bill 329 and House Bill 2624 were introduced and would have implemented the Board's first recommendation to increase the effectiveness of Kansas child safety restraint laws. SB329 was passed by the Senate, but not voted on in the House. HB2624, which also included a variety of other transportation measures, was not approved by the House.

IV. Public Policy Recommendations

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 of 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 non-natural 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 non-natural 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.

Endnotes

[1] "CLOSING THE GAP between current science and public policy." CPS Issue Report. 13 July 2004 <http://www.chop.edu/traumalink/download/2004/pcps_cpsreport.pdf>.
[2] "Booster Seats: Easy to Use and Effective" CPS Issue Report. 13 July 2004 <http://www.chop.edu/traumalink/download/2004/pcps_cpsreport.pdf>.
[3] Child Passenger Safety: Fact Sheet. CDC. <http://www.cdc.gov/ncipc/factsheets/childpas.htm>.
[4] United States. National Highway Traffic Safety Administration. Traffic Safety Facts. Apr. 2004.
[5] Ibid

V. Appendix

METHODOLOGY

Kansas Child Death Review Board 2003 Data

Each month, the KDHE Vital Statistics Office provides the SCDRB with a listing of children whose deaths have been reported in Kansas for the previous month. The SCDRB reviews the deaths of all children (birth through 17-years-of-age) who are residents of Kansas and die in Kansas, children who are residents of Kansas and die in another state, and nonresident children who die in Kansas. Attached to the listing is a death certificate for each child and a birth certificate, if available.

The SCDRB's executive director must receive a Coroner Report Form before a case can be opened for investigation. The death certificate and coroner's report contain the information necessary to begin a case review. These documents serve as a double-check system to ensure that each child death in Kansas is being reviewed.

Once a case is opened, the death and birth certificates, the coroner's report, and the report of death are assessed to identify additional information necessary for a comprehensive review. Any additional information that is needed is then requested from the appropriate agency. Additional information may consist of autopsy reports, law enforcement reports, medical records, SRS records, and records from the State Fire Marshal. In some cases, it is necessary to obtain mental health, school, and other protected records. 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 an on-line 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 numbers adjustments when looking at 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 with a recommendation that a follow-up investigation be done based on the SCDRB's findings.

Any questions about this report or about the work of the SCDRB should be directed to Angela Nordhus, Executive Director, at (785) 296-7970.

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. Because 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 into conformity with fatality review boards in other states so that future trends and patterns can be compared.

V. Appendix

Child Deaths By County of Residence, 2003

County	Total Population	Total Deaths	Natural-Except SIDS	Unintentional Injury-MVA	Unintentional Injury	Natural-SIDS	Undeter-mined	Homicide	Suicide
Allen	3,427	1	1						
Anderson	2,058	2	2						
Atchison	4,216	1			1				
Barber	1,151	0							
Barton	6,929	9	5		2		1	1	
Bourbon	3,668	2	2						
Brown	2,635	1	1						
Butler	16,364	11	3	3	2	2	1		
Chase	645	0							
Chautauqua	912	1			1				
Cherokee	5,496	6	4	1				1	
Cheyenne	702	0							
Clark	568	0							
Clay	2,032	6	1		4	1			
Cloud	2,099	2	1			1			
Coffey	2,251	2	2						
Comanche	453	0							
Cowley	9,109	4	4						
Crawford	8,548	8	6	1					1
Decatur	739	0							
Dickinson	4,660	0							
Doniphan	1,956	0							
Douglas	20,437	14	9	2	1		1		1
Edwards	795	2	1	1					
Elk	664	0							
Ellis	5,730	0							
Ellsworth	1,243	2	1	1					
Finney	13,309	15	8	4	1	1	1		
Ford	9,903	9	7	1			1		
Franklin	6,728	4	1	3					
Geary	7,900	9	8		1				
Gove	747	2	1		1				
Graham	568	1						1	
Grant	2,441	1	1						
Gray	1,773	0							
Greeley	376	0							
Greenwood	1,720	4	2	2					
Hamilton	721	1						1	
Harper	1,455	0							
Harvey	8,338	7	4	3					
Haskell	1,331	1	1						
Hodgeman	553	0							
Jackson	3,372	10	8	2					
Jefferson	4,768	4		2			1		1
Jewell	689	0							
Johnson	124,728	49	37	2	4	2		2	2

V. Appendix

Child Deaths by County of Residence, Continued

County	Total Population	Total Deaths	Natural-Except SIDS	Unintentional Injury-MVA	Unintentional Injury	Natural-SIDS	Undeter-mined	Homicide	Suicide
Kearny	1,455	1	1						
Kingman	2,210	1			1				
Kiowa	693	1	1						
Labette	5,465	5	2			1	1		1
Lane	467	1		1					
Leavenworth	17,994	10	9			1			
Lincoln	763	0							
Linn	2,306	2		1	1				
Logan	736	0							
Lyon	8,934	7	4	2	1				
Marion	3,110	1		1					
Marshall	2,414	0							
McPherson	6,982	7	2	5					
Meade	1,295	4	1	3					
Miami	7,647	4	1	1		1	1		
Mitchell	1,533	0							
Montgomery	8,582	11	5	1	2	2		1	
Morris	1,436	1	1						
Morton	938	1	1						
Nemaha	2,831	1		1					
Neosho	4,051	1		1					
Ness	702	1		1					
Norton	1,270	1	1						
Osage	4,282	2	1	1					
Osborne	937	0							
Ottawa	1,530	1		1					
Pawnee	1,641	1	1						
Phillips	1,420	0							
Pottawatomie	5,189	2	2						
Pratt	2,153	4	3			1			
Rawlins	610	0							
Reno	14,924	9	3	2	3	1			
Republic	1,157	0							
Rice	2,421	0							
Riley	11,574	9	6	1	1	1			
Rooks	1,243	1	1						
Rush	755	0							
Russell	1,459	0							
Saline	13,737	5	3	1		1			
Scott	1,245	0							
Sedgwick	127,989	95	69	6	10	3	4	1	2
Seward	7,254	4	2		2				
Shawnee	42,374	34	19	3	4	3	2	2	1
Sheridan	639	0							

V. Appendix

Child Deaths by County of Residence, Continued

County	Total Population	Total Deaths	Natural-Except SIDS	Unintentional Injury-MVA	Unintentional Injury	Natural-SIDS	Undetermined	Homicide	Suicide
Sherman	1,500	0							
Smith	867	2		2					
Stafford	1,147	0							
Stanton	689	2	1						1
Stevens	1,541	1	1						
Sumner	6,916	1		1					
Thomas	1,994	2	1		1				
Trego	700	0							
Wabaunsee	1,649	0							
Wallace	436	0							
Washington	1,409	2		2					
Wichita	659	1	1						
Wilson	2,489	5	4					1	
Woodson	713	1	0						1
Wyandotte	44,556	48	34	2	6	1	2	3	
Total	**696,519**	**484**	**302**	**68**	**50**	**23**	**16**	**14**	**11**
Out of State		*10*	*4*	*4*	*2*				
Total		***494***	***306***	***72***	***52***	***23***	***16***	***14***	***11***

County Population Source:
National Center for Health Statistics. Estimates of the July 1, 2000-July 1, 2002, United States resident population from the Vintage 2002 post censal series by year, age, sex, race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. Available on the Internet at: http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm. 2003.

V. Appendix

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