



# KANSAS ATTORNEY GENERAL Derek Schmidt

## Kansas Child Death Review Board

**KANSAS CARES  
ABOUT KIDS**

**State Child Death Review Board**

*Working to  
lower child death in  
Kansas through research,  
education, and legislation.*  
Photography by Harland Schuster

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## 2012 Annual Report (2010 Data)

120 SW 10<sup>th</sup> Ave., 2<sup>nd</sup> Floor • Topeka, KS 66612-1597 • (785) 368-7376

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# Kansas Attorney General Derek Schmidt



December 2012

Dear Fellow Kansans:

The dedicated professionals who serve on the Kansas Child Death Review Board have worked diligently to review the causes of child deaths in our state in an effort to compile meaningful data that will help make our kids safer in the future. They have performed this task since the board was established in 1992. As always, I am grateful for their service.

This report compiles and evaluates information collected during 2010, the most recent year for which data is available. It provides historical context and makes recommendations that the board believes are appropriate for the state's policy makers to consider.

I hope this information will add to the many discussions about our efforts, together and each of us individually, to make Kansas a safer place for our children to grow up. As one of our great Kansans, Dwight David Eisenhower, put it, "There's no tragedy in life like the death of a child. Things never get back to the way they were."

Best wishes,

A handwritten signature in black ink that reads "Derek". The signature is written in a cursive, slightly stylized font.

Derek Schmidt  
Kansas Attorney General

# Board Members

## **Attorney General appointee**

Christine Ladner, J.D., Chairperson  
Assistant Attorney General, Topeka

## **Director of Kansas Bureau of Investigation appointee**

David Klamm, SSA  
Kansas Bureau of Investigation, Wichita

## **Secretary for Children and Families appointee**

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

## **Secretary of Health and Environment appointee**

Elizabeth W. Saadi, Ph.D  
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**

Donald V. Pojman, M.D. (Pathologist member)  
Deputy Coroner, Topeka

Jaime Oeberst, M.D. (Coroner member)  
District 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.  
McDonald Law, LLC, Newton

## **Kansas County and District Attorneys Association appointee**

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

## **Staff**

Angela Nordhus  
Executive Director

## **Staff**

Susan Croucher  
Administrative Specialist

## **General Counsel**

Janet Arndt, JD  
Assistant Attorney General

# Acknowledgments

The review of each child death in Kansas could not be accomplished without the invaluable commitment of many people across the State. The Kansas State Child Death Review Board (SCDRB) remains grateful for the significant contributions of the Office of the Attorney General, county coroners, law enforcement agencies, the Department for Children and Families (DCF), 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 for Children and Families for providing the Children's Justice Act Grant, which helps fund 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. In addition to the SCDRB, the Kansas Child Safety and Permanency Review Panel and Kansas Child Welfare Quality Improvement Council serve as citizen review panels.

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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# Goals and 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 for Children and Families (DCF), 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, DCF, 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.

# Methodology

## **Kansas Child Death Review Board 2010 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's Office of Vital Statistics Department. On a monthly basis, KDHE provides the SCDRB with a listing of children whose deaths have been reported. The Office of 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 sources of 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, DCF 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 online 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 with recommendations for follow-up investigation.

It should be noted that the numbers and rates in this report should not be expected to be the same as those reported in the KDHE Annual Summary of Vital Statistics, which monitors deaths of Kansas residents only. Often full case file information is not available to the coroner when cause of death is being determined, resulting in an incomplete picture of all circumstances surrounding the death of the decedent. Once a complete picture is established by the board, the classification of the manner of death may be different from the coroner's. For example, an infant asphyxia death may be called an undetermined death by the coroner, but once the board reviews medical, law enforcement, and social history reports, the additional information supports the Board's reclassification as SIDS II.



The current publication follows the custom of presenting death rates for infants per 1,000 live births, and death rates for all other age groups per 100,000 age-group population. The exception to this rule is when rates for infants and older children are compared in the same graph. In such an instance, infant mortality is expressed as deaths per 100,000 infant population. An example is the graph for Homicide death rates on page 21.

For calculating the infant death rate per 1,000 live births in a specific year or group of years, the number of deaths is divided by the corresponding number of live births, and then multiplied by 1,000. The Kansas Department of Health and Environment (KDHE) Bureau of Epidemiology and Public Health Informatics (BEPHI) is the source for numbers of live births used as denominators in this report.

Example: Infant death rate, Kansas 2010 =

$$\left( \frac{257 \text{ (number of infant deaths which occurred in 2010, reviewed by the CDRB)}}{40,439 \text{ (number of Kansas resident live births in 2010)}} \right) \times 1,000$$

$$= 6.4$$

For calculating the death rate per 100,000 population for an age group for a specific year or group of years, the number of deaths is divided by the corresponding population, and then multiplied by 100,000. The U.S. Census Bureau is the source for population denominators for this report.

Example: Motor Vehicle Death Rate, age 15-17, Kansas 2010 =

$$\left( \frac{27 \text{ (number of MVC deaths age 15-17 which occurred in 2010, reviewed by the CDRB)}}{120,116 \text{ (population of Kansas residents age 15-17 in 2010)}} \right) \times 100,000$$

$$= 22.5$$

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](mailto:angela.nordhus@ksag.org).

# Executive Summary

The 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 birth through 17 that 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 2010.

The Board reviewed 441 deaths for 2010, a slight reduction in the number and incidence of child deaths from 2009. In total, the Board has reviewed 8,374 child deaths since inception. The manners of death are classified into one of the following 6 categories:

- **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.
- **Homicide** - death due to an 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.
- **Undetermined** - cases in which the manner of death could not be positively identified from the evidence collected.

## **Natural-Except Sudden Infant Death Syndrome (SIDS)**

Natural deaths remain the category with the most deaths, 302 in total. More than half (55%) of these deaths were infants less than 30 days-of-age. Prematurity and congenital malformations accounted for the majority of natural deaths, 62% in total.

## **Unintentional Injury**

In 2010, there were 91 Unintentional Injury deaths. Fifty-five of those were Motor Vehicle Crash (MVC) fatalities. Forty-two percent were rear-seat passengers and 74% of those passengers were not using a safety restraint. As history indicates, the most represented age group was the 15 to 17 year-olds with inattentive driving, excessive speed, and driver inexperience being the most prevalent risk factors.

## **Homicide**

The number of homicide deaths was the lowest since 2007. There were 17 homicides in 2010. Of those, 59% were under age 4 and 47% were the result of child-abuse. A firearm was the most common weapon used in the 6 weapon-related homicides.

## **Suicide**

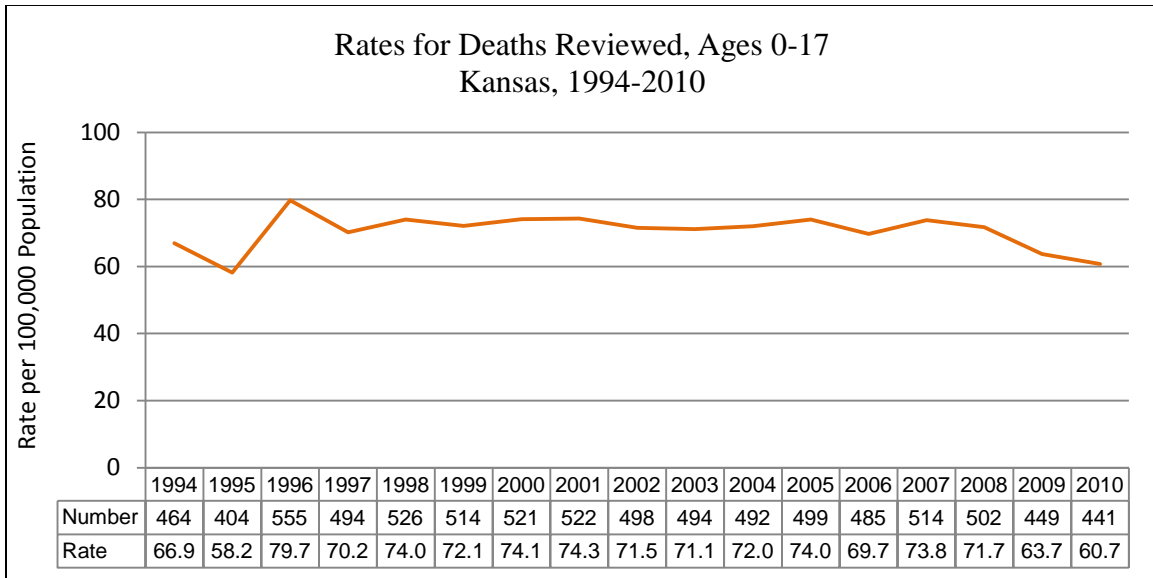
In 2010, there were 18 suicide deaths, more than twice the number from either of the preceding two years. Of the 18 deaths, 14 were male and 3 were under the age of 14. Traditionally, the most common method of suicide has been the use of a firearm, but more than half of the suicides in 2010 were by asphyxia.

## **Undetermined**

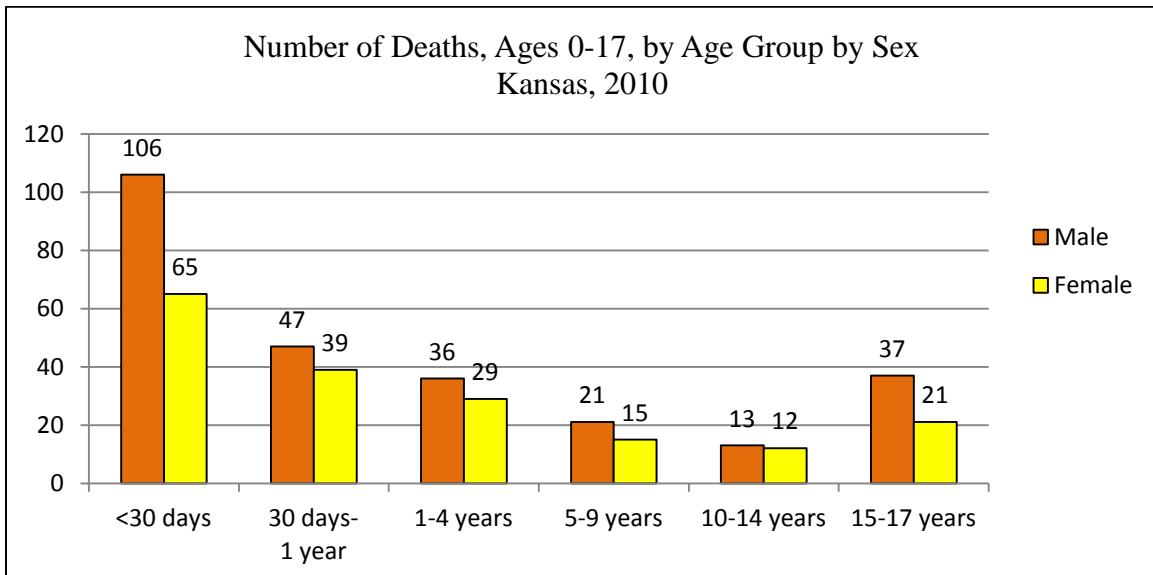
There were 13 deaths of undetermined manner. Often the Undetermined classification is assigned when there is a lack of thorough, comprehensive investigation and/or autopsy, as was the case in 92% of the undetermined deaths in 2010. This leaves the Board with inadequate information upon which to make a determination of cause or manner of death. Undetermined death classification supports the Board’s recommendation for all entities involved in child deaths to perform thorough and complete death investigations.

# 2010 Overview

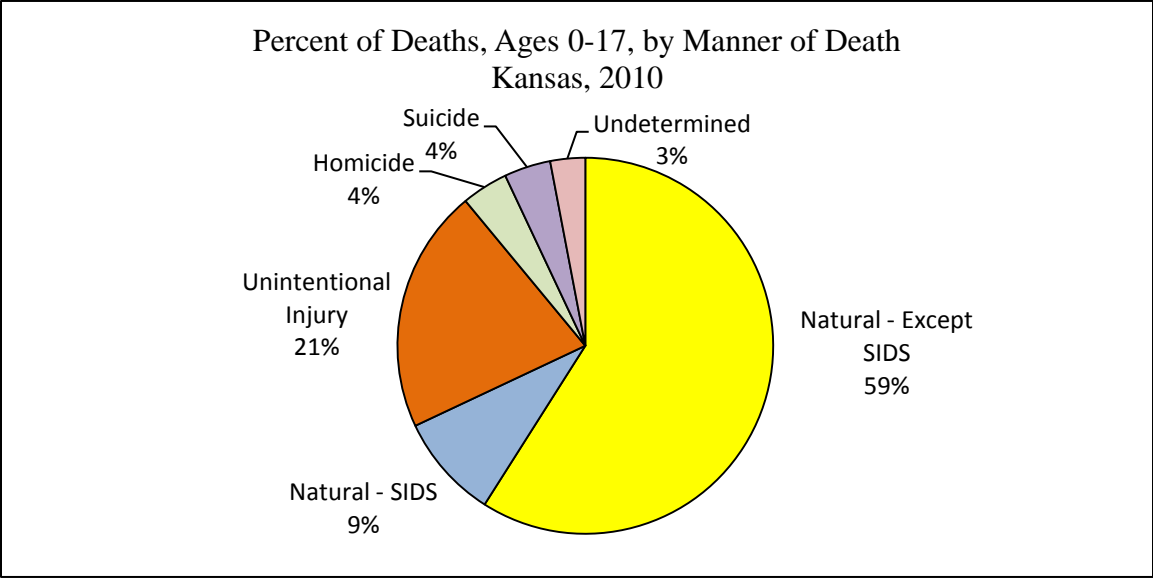
The Child Death Review Board reviewed the deaths of 441 children, aged 0-17, who died in 2010 in Kansas, or were Kansas residents deceased in another state. This was a slight decrease from the 449 child deaths reviewed in 2009 and the lowest number and incidence of child deaths since 1995.



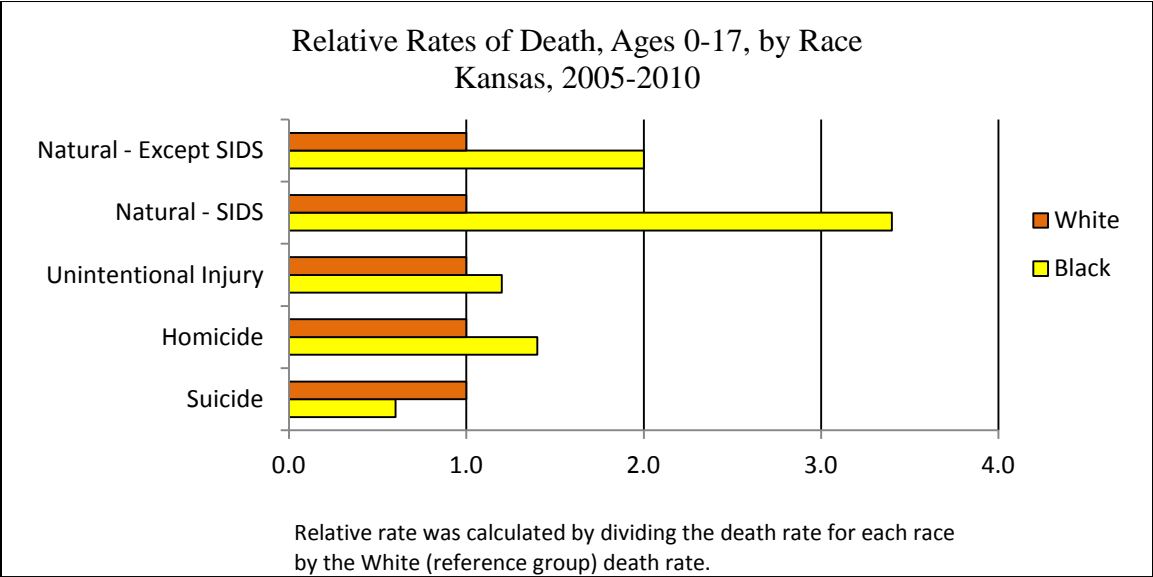
The highest percentage of child deaths occurred in the youngest age groups, with 39% less than 30 days of age, and 73% younger than four years old. Males accounted for more deaths in every age group, and comprised 59% of all child deaths in 2010.



The majority (68%) of deaths in 2010 were from natural causes, with another one-fifth (21%) from unintentional injury. The board was unable to determine a manner of death for three percent of the deaths.



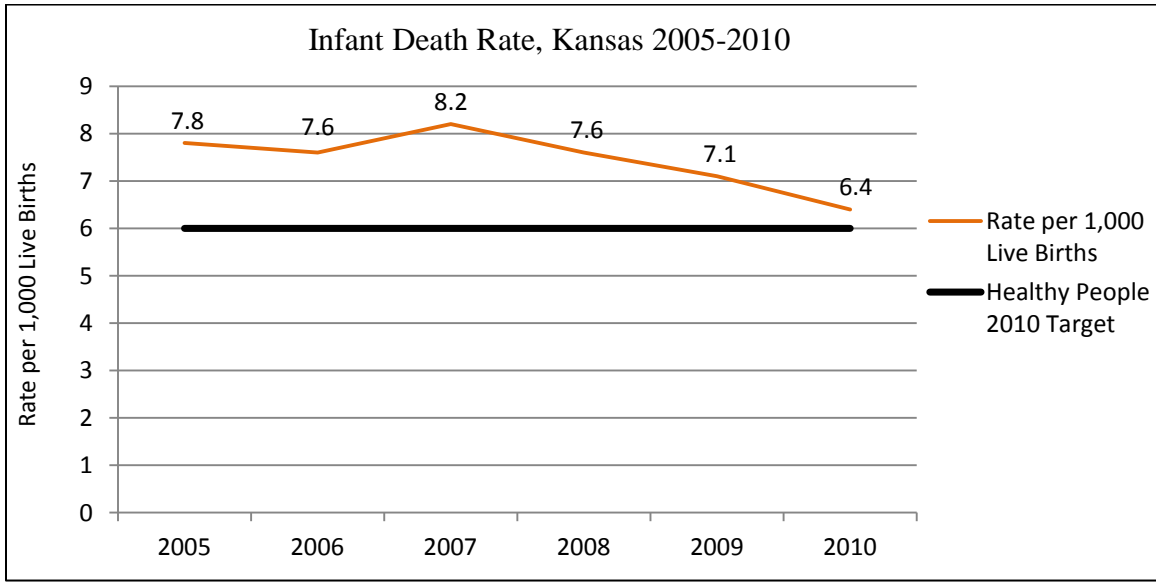
Death rates for Black children were higher than for White children for each manner of death except Suicide, with the greatest discrepancy in the SIDS category.



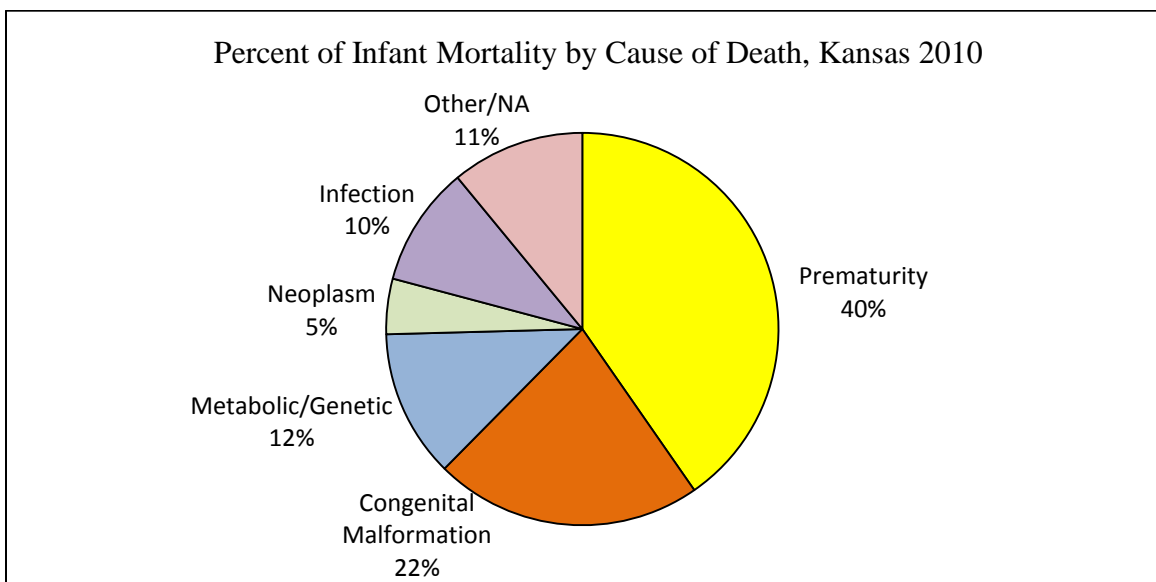
# Mortality Principally Affecting Infants

## (Age Less Than One Year)

In Kansas, special emphasis has been placed on infant mortality (age less than one-year) as an area in need of improvement. Although the rate of infant deaths per 1,000 live births decreased to 6.4 in 2010, after reaching 8.2 in 2007, it is still above the Healthy People 2020 target of 6.0.<sup>1</sup>



Prematurity was the leading cause of infant death in Kansas in 2010, followed by congenital malformation and metabolic/genetic conditions.

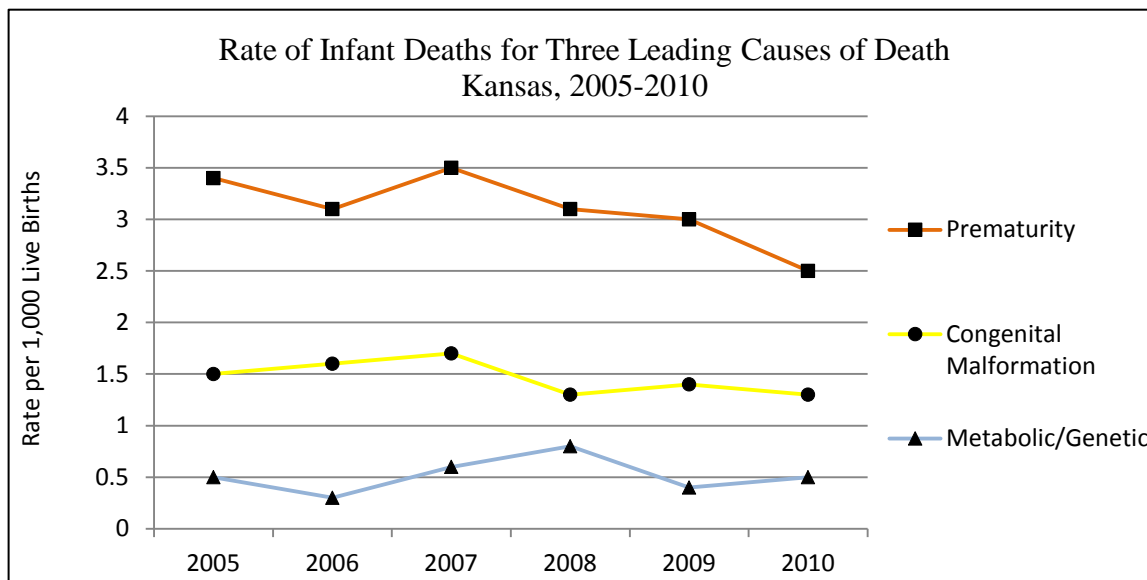


## Natural Deaths – Except SIDS

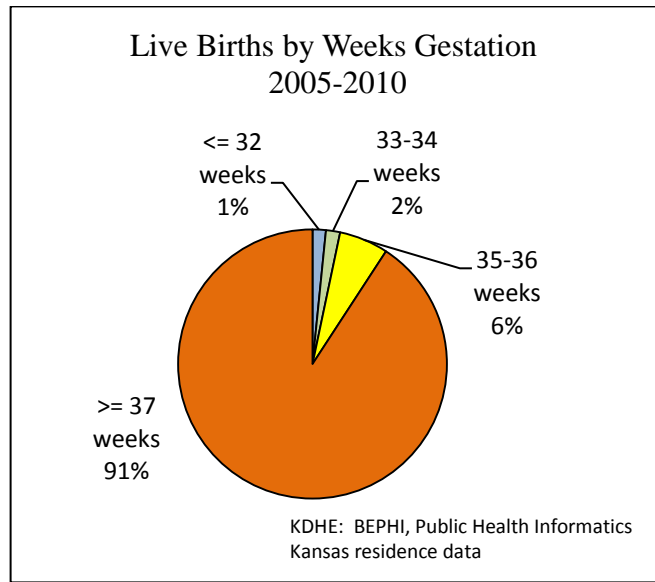
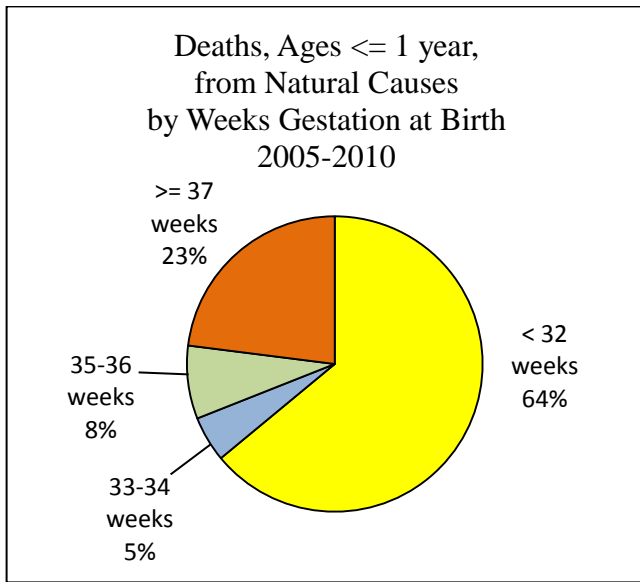
According to the Research Summary “Selected Special Statistics, Stillbirths and Infant Deaths, Kansas, 2010” congenital malformations of the circulatory system were the most frequently occurring congenital anomaly (22.7%), followed by chromosomal abnormalities (19.8%) in Kansas, 2006-2010.<sup>2</sup> Seventy-four percent of deaths due to congenital anomalies occurred before age 28 days.

As of July 1, 2008, state law mandated expanded newborn screening to include the 29 conditions recommended by the American College of Medical Genetics and the March of Dimes, including conditions which could cause early death or lifelong disability. In 2009, the newborn screening program conducted 47,495 initial tests, with nearly 4,000 requiring follow-up work.<sup>3</sup> Retesting was done where indicated, and newborns with positive test results were referred to medical specialists.

There is further work to be done to identify the causes of congenital anomalies. The State of Kansas Genetics Plan, released August 19, 2010, notes that “genetics expertise in the state is currently insufficient to meet clinical and patient needs”<sup>3</sup> and calls for continuing education for primary care physicians to enable them to discuss the impact of genetics on health outcomes.



In addition to being a direct cause of death, prematurity is an important risk factor for infant mortality from other causes. The 2008 National Vital Statistics Report, which showed the link between infant birth and deaths, reported that for every year from 2000 to 2008 approximately 35% of infant deaths were “preterm-related”. It also noted that “Infant mortality rates are highest for very preterm infants (< 32 weeks gestation), and the risk decreases sharply with increasing gestational age. Even within the term period, infants born at 37-38 weeks of gestation had mortality rates that were 1.5 times higher than those born at 39-41 weeks of gestation.”<sup>4</sup> Furthermore, the higher rates of prematurity among infants born to non-Hispanic black women were a major factor in the higher mortality rate for those infants.



The National Vital Statistics Report notes that other factors associated with increased infant mortality rates included maternal age. Infants born to teenagers and women aged 40 and over had the highest risk of death. Additionally, infants born to unmarried mothers had a mortality rate 75% higher than those born to married mothers, though marital status is often an indicator of social, emotional, and financial resources.

In 2009, the Kansas Blue Ribbon Panel on Infant Mortality was formed under the direction of the Secretary of the Kansas Department of Health and Environment with the SCDRB serving as a member. The Panel lists the above factors as well as mothers' low educational attainment, lack of prenatal care, and smoking at any time during pregnancy as being associated with increased infant mortality rates. It also notes that multiple births (twins, triplets, etc.) greatly increased the risk of poor birth outcomes.

In February of 2010, the Panel submitted a list of recommendations to the Secretary of Health and Environment through the Governor's Child Health Advisory Committee. Chief among these were the call to "promote healthy lifestyles among women of childbearing age" and to "support practices and policies that improve access to early, targeted, and comprehensive prenatal care and education."<sup>5</sup> Specifically, recommendations include the following:

- increase prenatal care in the first trimester;
- increase use of folic acid;
- increase maternal health eating and healthy weight;
- decrease maternal use of tobacco and other drugs;
- increase breastfeeding; and
- increase intervals between pregnancies.

To learn more about the Blue Ribbon Panel visit <http://www.kansasinfantmortality.org/>.

An array of social, economic, health and behavioral factors contribute to infant mortality. Kansas Maternal Child Health Program staff note, “Neonatal mortality (death in the first 27 days of life) tends to be associated with influences prenatally, during birth, in the newborn period, and even before conception. Post neonatal mortality (28 days to 1 year) is often associated with environmental circumstances for the infant, particularly those linked to poverty (inadequate food/sanitation), unsafe housing, and inadequate supervision.”

The degree to which congenital anomalies and prematurity/low birth weight can be prevented is unknown; however, it is known that the mother’s health and medical condition can play a role in an infant’s health. Maternal risk factors include:

- previous fetal or infant loss;
- poor health prior to or during pregnancy;
- inadequate prenatal nutrition, age;
- low socioeconomic status;
- low education attainment;
- smoking; and
- substance abuse.

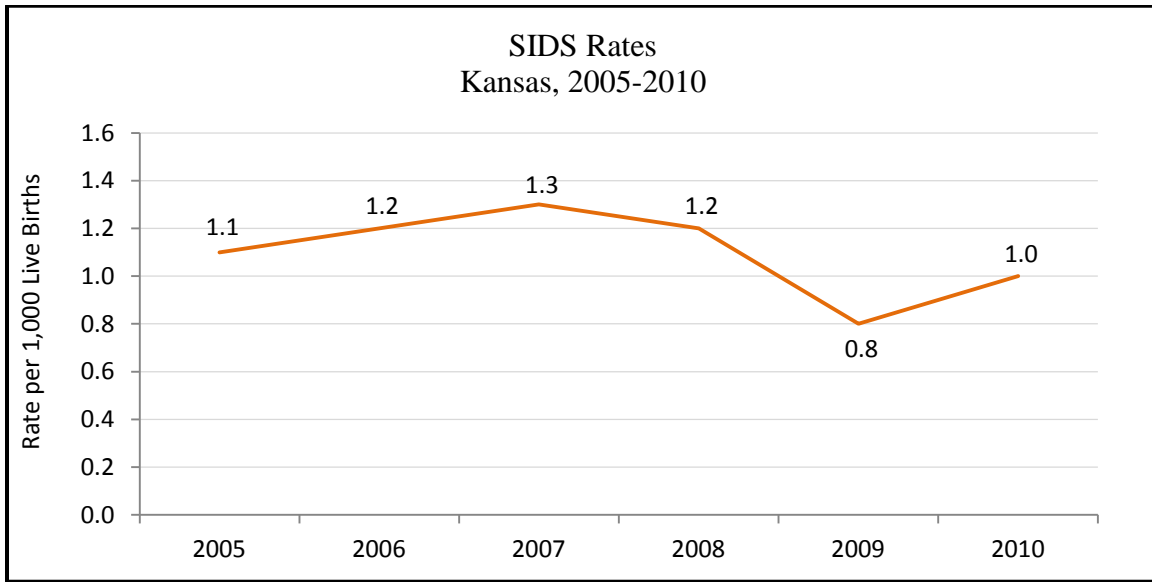
### **PREVENTION POINTS**

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



# Sudden Infant Death Syndrome (SIDS)

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. There were 40 SIDS deaths in Kansas in 2010.



## Characteristics of SIDS Deaths in Kansas, 2010

- 78% of decedents were less than 3 months of age.
- 50% had been placed to sleep on their back.
- 43% of decedents were found on their abdomen or side.
- 33% of decedents were sleeping in an adult bed.
- 38% were in a crib.

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

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 2010, the SCDRB categorized the 40 SIDS and 1 Unclassified Sudden Infant Death (USID) deaths as follows:

6 = SIDS IA: Two of the six infants were placed and found in the prone position. Three were placed prone and found supine, and in one case it was unknown how the child was placed, but was found prone.

1 = SIDS IB: The scene investigation was inadequate as it did not contain information about how the infant was placed to sleep or the sleeping environment.

33 = SIDS II: In all of these cases, the possibility of an overlay or mechanical asphyxia could not be ruled out. In previous cases, medical problems or inflammatory changes, such as evidence of a respiratory infection, that were present, but not sufficient to be clear causes of death, have also been included as factors in this category.

1 = USID: The Board classified this case as Undetermined because the child was embalmed prior to autopsy; thus, impairing the ability to complete a thorough investigation. This case was not included in the total 40 SIDS cases.

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

### **PREVENTION POINTS**

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

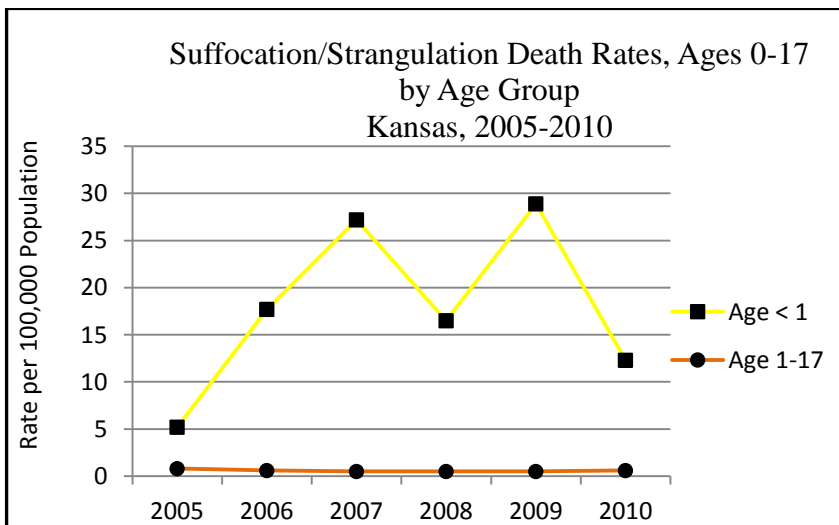
Since 1994, 76% of the total SIDS deaths reviewed by the Board have occurred in the infant's residence, 14% of the total deaths took place in daycare/child care settings, and 10% of the cases listed "other residence" (e.g. relative, friend, neighbor, etc.) as the place of death. Since many infants spend a significant portion of their time in daycare or other child care environments, the importance of assuring safe sleeping arrangements are maintained at every site is critical. Many SIDS deaths have been associated with the child being prone, especially when the baby is used to sleeping on his/her back. Babysitters and family members who provide periodic care for babies may not be aware of the importance of supine sleeping and other safe sleeping arrangements. For these reasons, the Board strongly supports and promotes a vigorous state-wide safe sleep educational campaign as further described in the Public Policy Recommendations at the end of this report.

**PREVENTION POINTS  
FOR PARENTS WHEN SELECTING CHILD  
CARE HOMES AND CENTERS**

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

# Suffocation/Strangulation

Unintentional asphyxia 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. Some cribs, bassinets, and playpens have been recalled because of known or suspected risk of strangulation. Before purchasing baby furniture ensure no recalls have been issued. The U.S. Consumer Product Safety Commission (<http://www.cpsc.gov/cpscpub/prereel/prereel.html>) is a resource to look for recalls.



Of the nine suffocation/strangulation deaths in 2010:

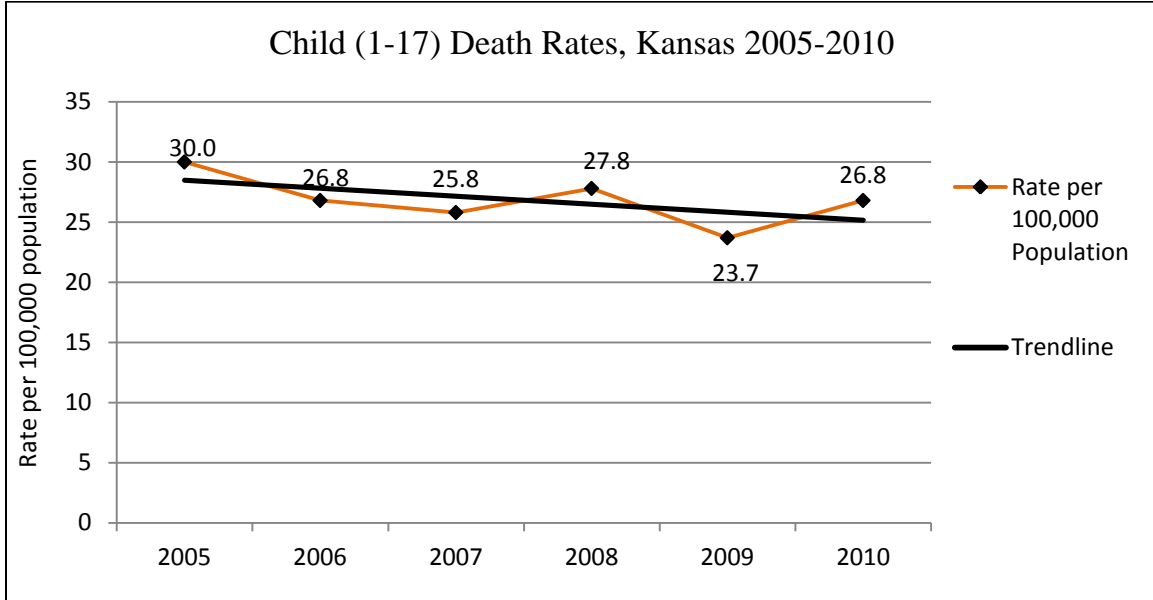
- 5 were less than one year of age
- 7 were in improper sleeping environments, (co-sleeping with an adult or sibling in an adult bed)

## PREVENTION POINTS

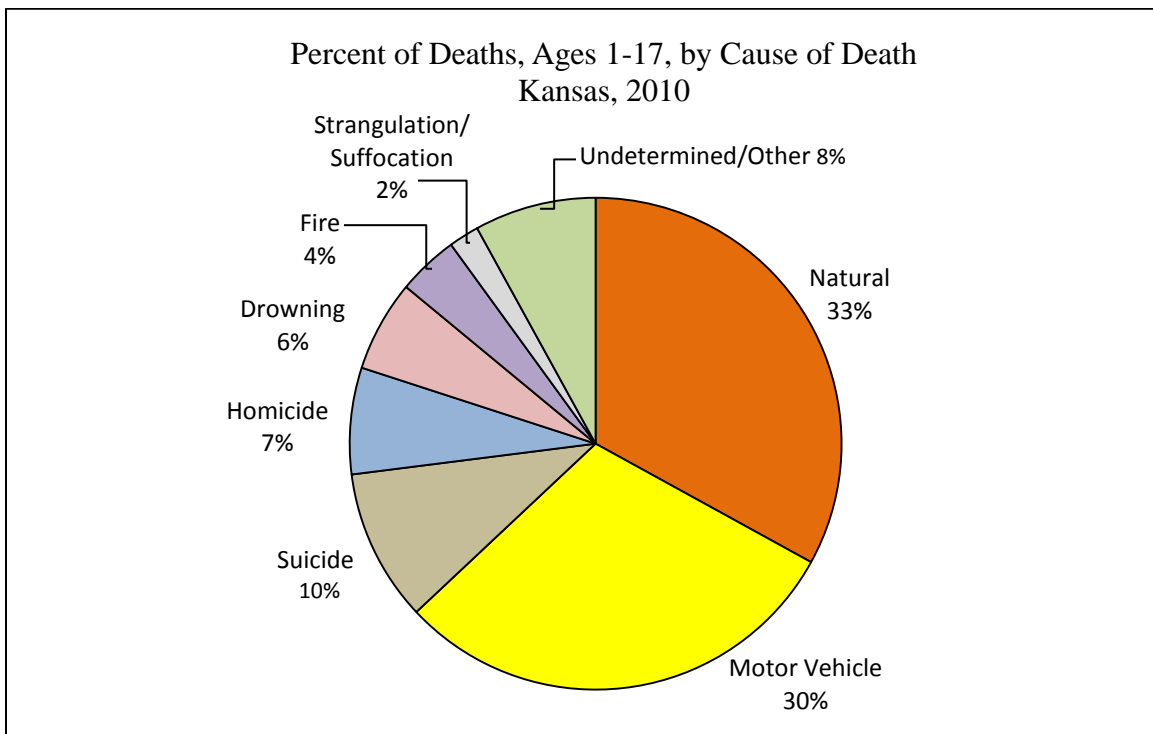
- **Proper Supervision** - Young children should be watched attentively. Leaving them alone for even a few minutes allows opportunities for accidents. Child-specific training in CPR and other emergency responses can help prevent death.
- **Safe Environments** - Be vigilant about potential dangers to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

# Mortality Principally Affecting Children Ages 1-17

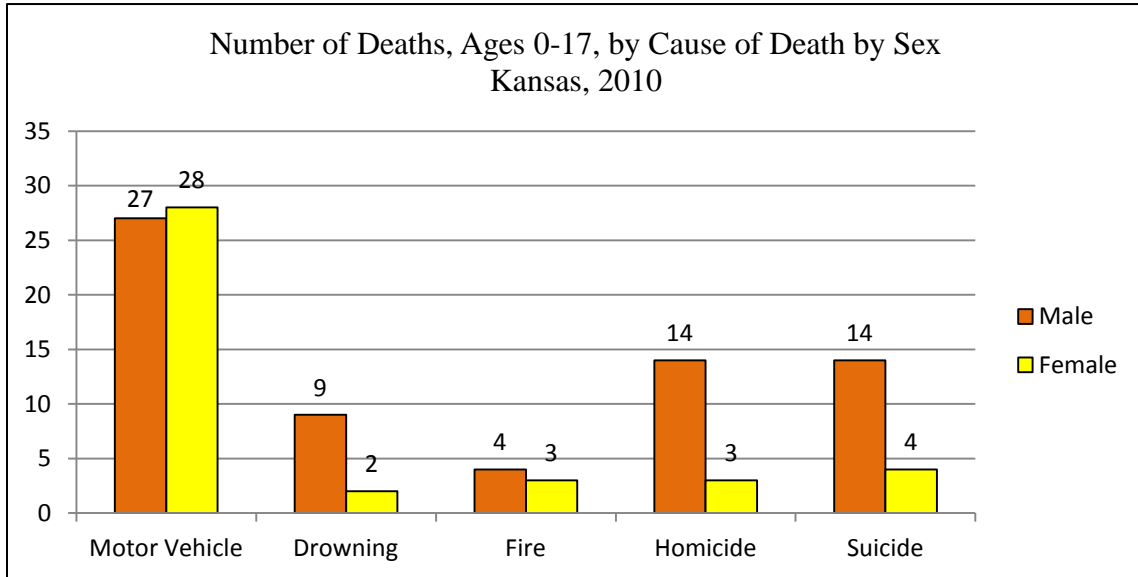
Death rates for children ages 1-17 have shown a slight decline from 1994 to 2010. There were 183 deaths in this age group in 2010.



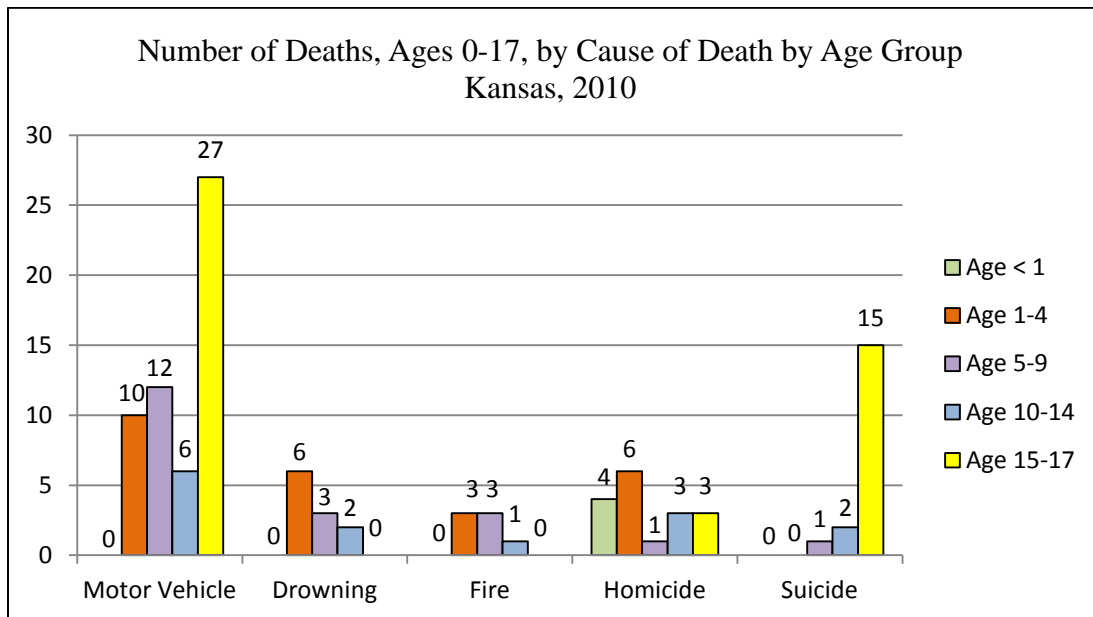
Forty percent of the deaths in this age group were the result of unintentional injuries, including 30% from motor vehicle crashes, 6% from drowning, and 4% from fire. Natural causes such as cancer, respiratory diseases or heart conditions, accounted for another 33%.



More decedents were male than female for every cause of death except Motor Vehicle Crash.

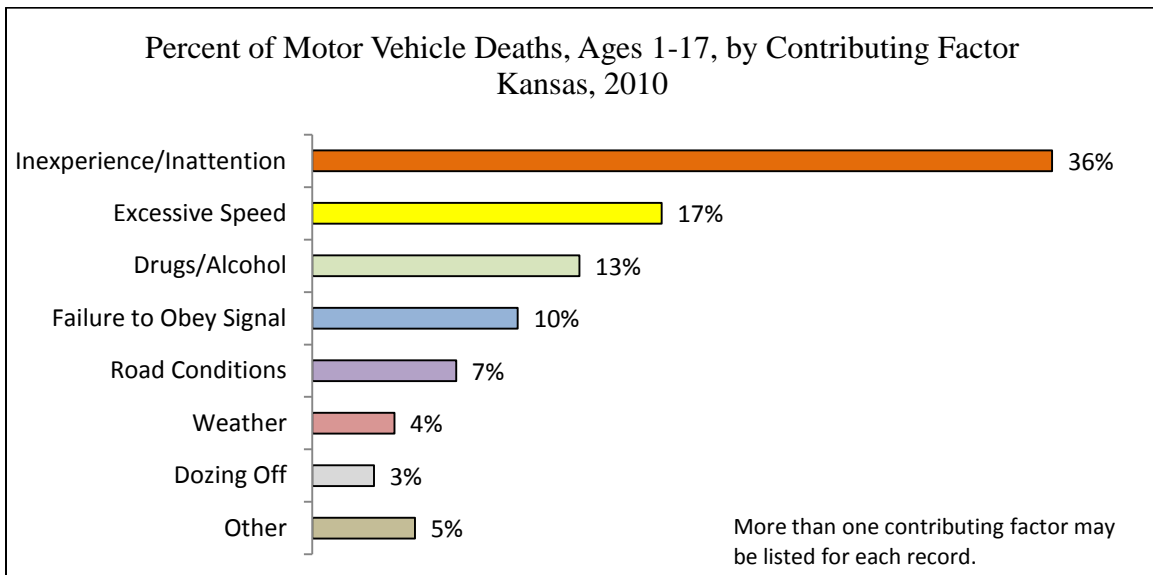
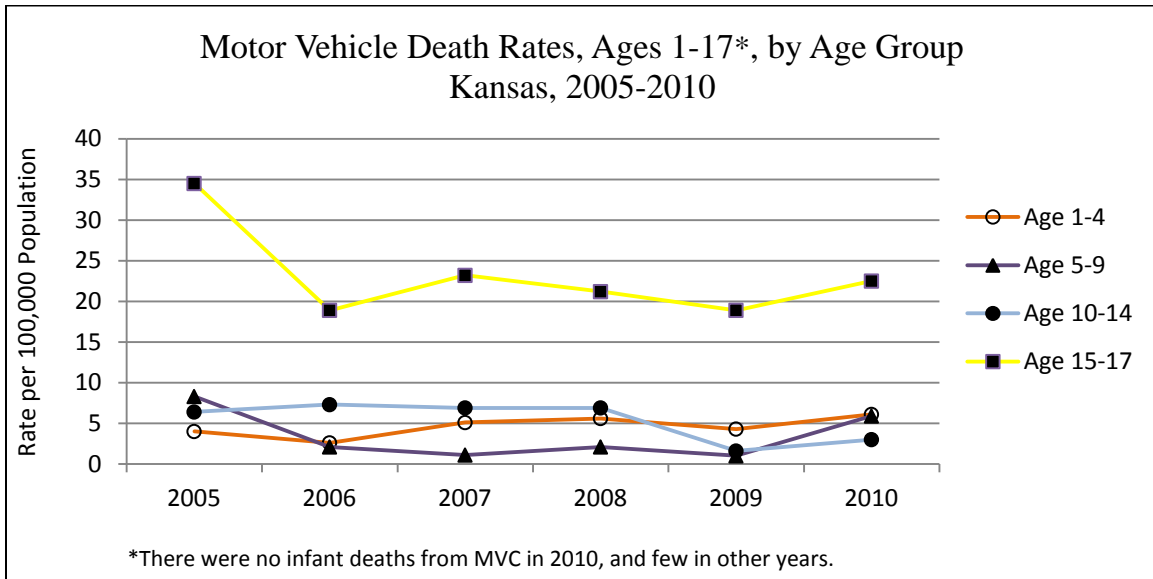


Older children were impacted most by motor vehicle crashes and suicide, while younger children accounted for the larger number of deaths by drowning and from homicide.



# Motor Vehicle Crash

In 2010, 55 children died in Kansas as a result of a motor vehicle crash (MVC). There were slightly more females involved than males, and 42% of the decedents were rear-seat passengers. There were no fatalities of children under one year of age. Seventy-one percent of the total number of decedents were not using a safety restraint and of those 40% were in the 15-17 year-old age group. Driver inexperience and inattentive driving were noted as risk factors in 36% of the cases and excessive speed was noted in 17%.





Kansas 2010 Motor Vehicle Fatalities, Ages 0-17

- 49% of decedents were 15-17 years of age.
- 27% of decedents were the driver of the vehicle.
- 73% of decedents did not use, or misused, restraints.
- 49% of fatalities occurred from 3:00 p.m. to Midnight.

**PREVENTION POINTS**

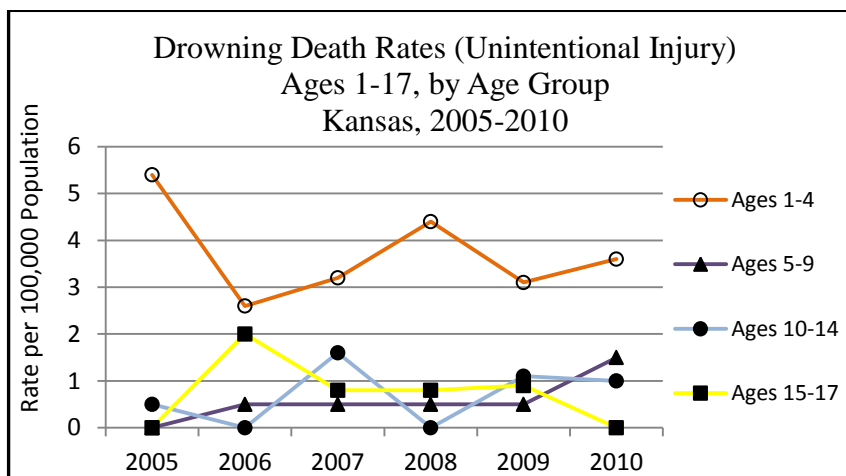
- **Use of Proper Safety Restraints** - Wear seat belts. Seat belts and appropriate child safety restraints consistently prevent serious injury and death. The importance of parental seat belt use as an example is invaluable. According to the National Highway Traffic Safety Administration, parents who 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. As of January 1, 2011, a person who is operating a motor vehicle is prohibited from using a wireless communication device to write, send, or read a written communication.
- **Avoiding Alcohol or Drug Use** - It is never safe to drive after drinking alcohol or using narcotics or other mood-altering drugs. Avoid riding with anyone who is suspected of being under the influence of drugs or alcohol.
- **Driving Experience** - Driving is not a quickly learned skill and requires focus and good judgment. Young drivers should be accompanied by an experienced adult and avoid complex driving situations until more practiced. In January 2010, the revised graduated driver's license system was enacted and does not confer full driving privileges until age 17 and after significant supervised driving time.

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 (ATVs).<sup>6</sup> 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. In addition to the three child fatalities in Kansas related to ATV use, the Board is aware of countless life-altering injuries. The Board's recommendations regarding the use of ATVs can be found in the Public Policy Recommendations section at the end of this report.

# Drowning

Children are drawn to water. They like to splash and play in it, but this lure is deceptive and can lead to tragedy. Children can drown in a couple of minutes and in only a few inches of water. Drowning is a leading cause of unintentional injury deaths nationwide. In 2010, 11 children died from drowning in Kansas. In 91% of those cases, the children had been left alone or were being improperly supervised at the time of the incident.

From 1994 through 2010, the Board has reviewed 192 drowning cases. In total, 27% occurred in rivers/lakes, 55% in pools, and 18% in other locations including bathtubs. The 1 to 4 year age group has remained the largest, accounting for 55% of the total number of drowning deaths since 1994.



Of the 11 drowning deaths in 2010:

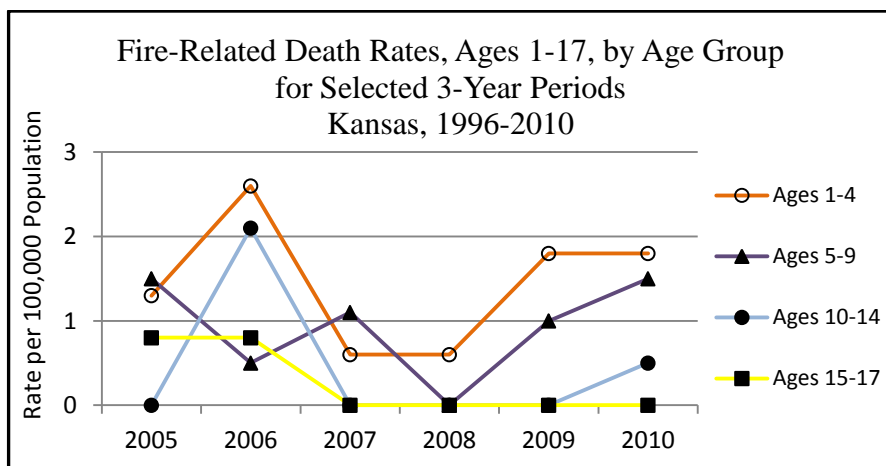
- 10 were improperly supervised
- 5 were swimming in a lake/river or pool
- 4 of the swimmers were not using a personal floatation device
- 6 were ages 1 to 4

## 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** - Most cities/counties have ordinances in place regarding fencing around pools. A 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 these less obvious dangers.
- **Use of Safety Equipment** - When participating in water activities, children should always wear Personal Flotation Devices (PFDs) that are Coast Guard Approved and suited for the proper weight of the child. PFDs should be checked for broken zippers and buckles. “Water wings” and other inflatable items are not adequate substitutes.
- **Water Safety Education** - Children should have swimming lessons and water safety education. The American Academy of Pediatrics recommends waiting until age 4 to begin lessons. While this is vital, swimming ability alone does not relieve the need for adult supervision or PFDs.

# Fire

Nationwide, deaths from fires and burns are the third most common cause of unintentional injury deaths in the United States and the third leading cause of fatal home injury.<sup>7</sup> Children four years old and under are most at risk. According to the United States Fire Association, in 2010 there were 2,555 reported civilian residential fire deaths in the United States.<sup>8</sup> Seven of those deaths were Kansas children.



Of the 7 fire-related deaths in 2010:

- 6 were age 4 to 9
- 5 had a smoke detector in the home, but only 3 homes had detectors that were working
- All of the fires occurred at the decedent's residence

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.

In the U.S. almost every home has a smoke detector. However, in 2010, 62% of the fire deaths in the U.S. occurred in homes that had non-working detectors.<sup>7</sup> Parents and caregivers should be diligent about having functional smoke detectors in various locations 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 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.

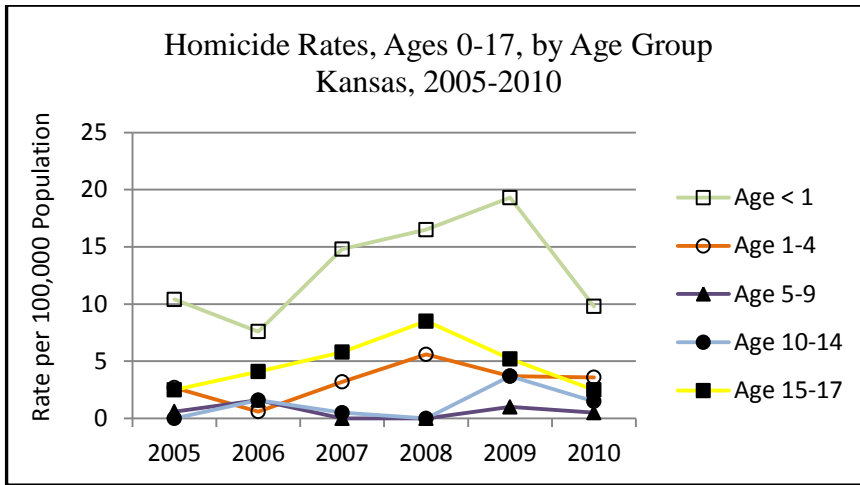
## PREVENTION POINTS

- **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.

# Homicide

Homicide is defined as the death of one person resulting from the intentional or unintentional actions of another person. In 2010, Kansas had a total of 105 homicides, 16% of which were children.<sup>9</sup>

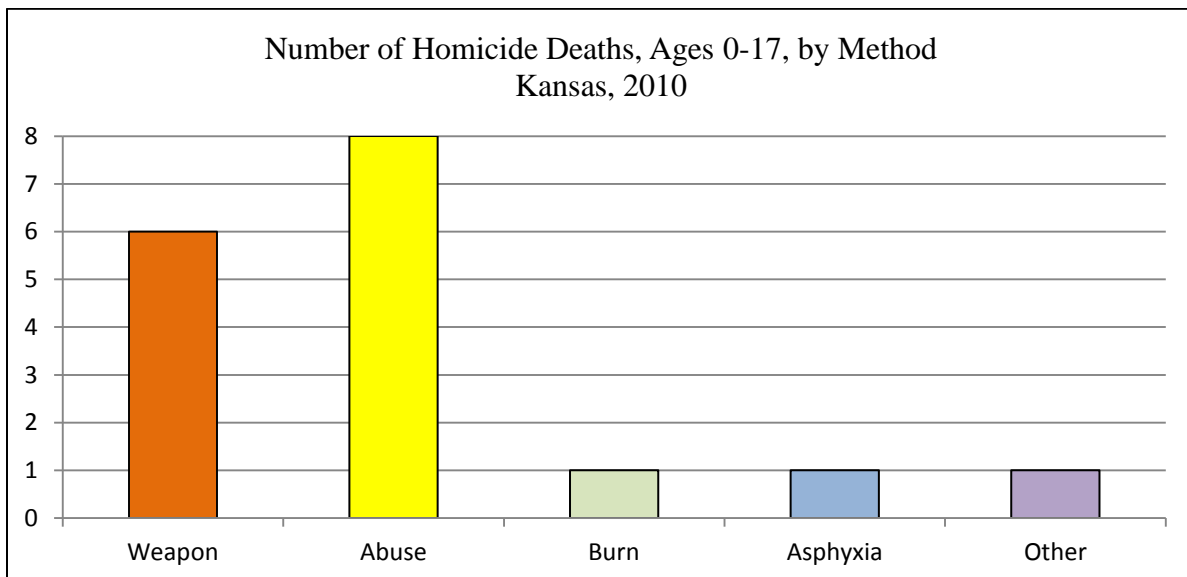
The number of child homicide deaths in Kansas reached a low of 12 deaths in 2005, steadily increased for four years peaking in 2009 and dropped to 17 in 2010. While the number of homicides in the under 1 year age group (4) was nearly equal to the number in the 10-14 group (3) and the 15-17 year old group (3) in 2010, the rate was much higher because of the smaller infant population.



Of the 8 Child Abuse Homicides in 2010:

- 4 were killed by the mother’s boyfriend (not the biological father) who was left alone to care for the child
- 8 were killed by a male, with the biological mother a suspect in 4 cases

The majority (65%) of the homicides occurred at the decedent’s residence. Forty-seven percent were child abuse events, and a firearm was used in 35% of the cases. From 2005-2010, 40% of the total 118 homicides involved the use of a firearm. The Board recommends all firearms be stored with gun locks in a secure and locked case with ammunition stored separately. Parents and caregivers are encouraged to discuss the dangers of firearms with children and coach them on what to do if they are in a situation where a firearm is present.



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 punishment or out of frustration with a child's crying or perceived misbehavior) or neglect (failing to provide shelter, safety, supervision, and nutritional needs). Child abuse is a complex problem that stems from a variety of factors, including stress, poverty, substance abuse, and mental illness.

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

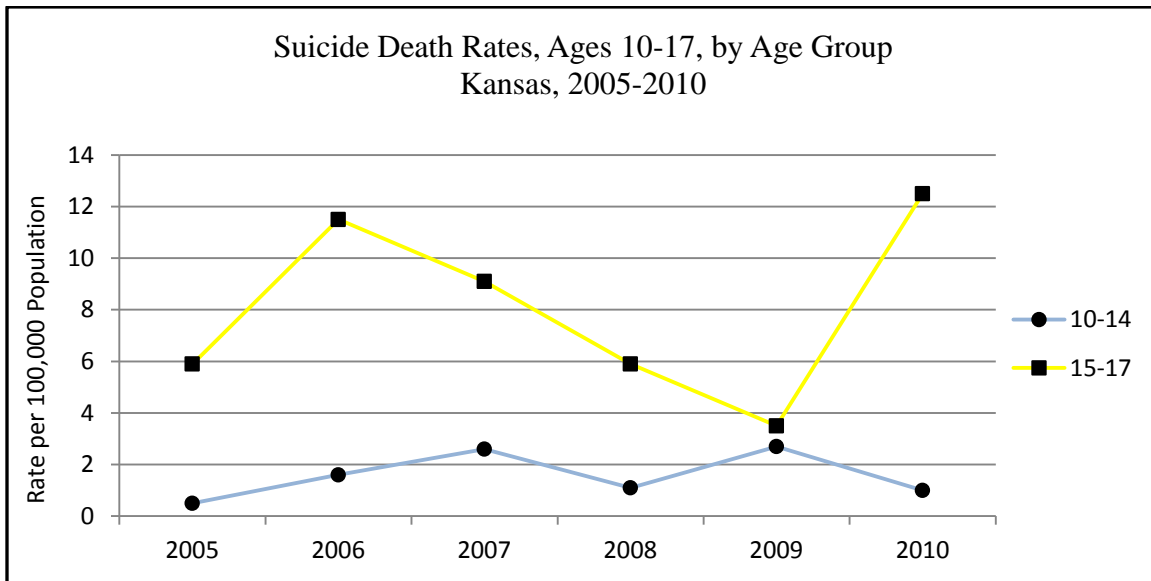
There are several risk factors associated with child abuse homicide including maternal risk factors (young age, less than twelve years of education, and unmarried parents) and household risk factors (male not related to the child in home, prior substantiation of child abuse and neglect, substance abuse, and low socioeconomic status). The most effective methods for preventing child abuse involve programs that enhance parenting skills for at-risk parents. Examples of successful programs include home visits by nurses who provide coaching in parenting skills, quality childhood programs which include parent training, and education given to parents of newborns about appropriate responses to infant crying.

### **Prevention Points**

- **Family Violence** - Domestic violence history is not consistently made available to the board; thus, data is not available to report the degree to which it plays in child fatality cases. However, national studies indicate domestic violence is a risk factor for child abuse and should be considered an additional risk factor.
- **Take Extra Care with Young Children** - The victims of child abuse homicide are more often in the younger age categories. Frustrated caregivers, often without any parental training, combine unrealistic expectations for children's behavior with a lack of appreciation for their vulnerability. Abusive head trauma is an example of how an impact or violently shaking a baby can cause serious or fatal trauma to the child's brain. Caregivers should be mindful of a child's capabilities and susceptibility. Education can be provided at all points of contact with parents and caregivers.
- **Pay Attention, Familiarize Yourself with Signs of Child Abuse** - It is important to use common sense in trying to determine if a child is being abused. Normal, active children get bruises and bumps from everyday play. These bruises are most often over bony areas such as the knees, elbows, and shins. However, if a child has injuries on other parts of the body, such as the stomach, cheeks, ears, buttocks, mouth, or thighs consider the possibility that the child is being abused. Black eyes, human bite marks, and round burns the size of a cigarette seldom come from everyday play. If you suspect a child is being abused or neglected, please call the Kansas Protection Report Center at 1-800-922-5330 (toll-free) or call 911 if the child is in imminent danger.

# Suicide

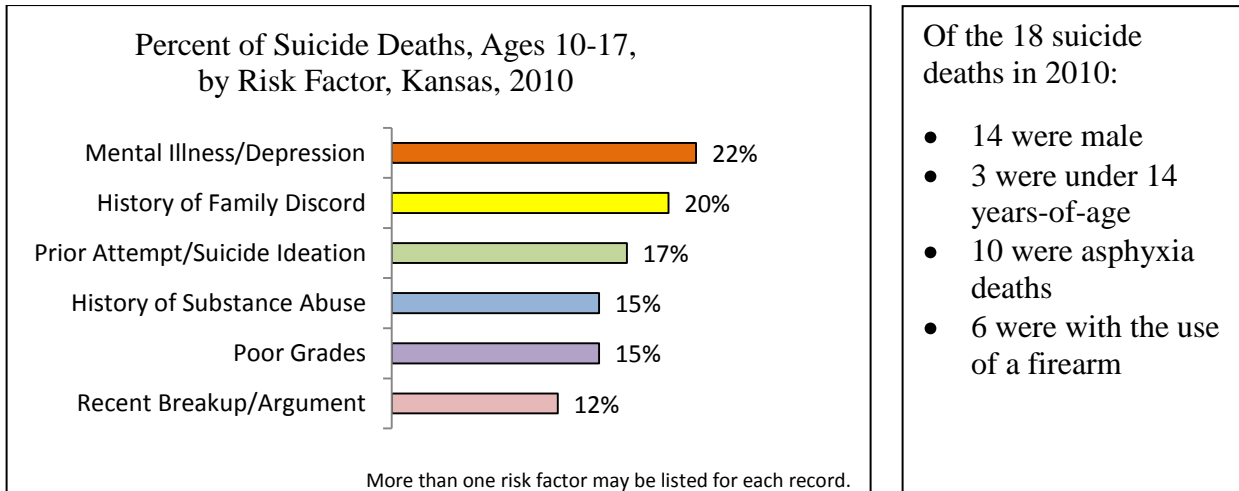
Suicide is the third leading cause of death among US children and adolescents (age 10-24), exceeded only by injuries and homicides.<sup>10</sup> In the US, the suicide rate doubled in the 15 to 19-year age group and tripled in the 10 to 14 year age group between the 1960's and the 1990's. The rate of child and adolescent suicide has declined slightly since 1995. Adolescent females are more likely than males to attempt suicide, but teenage males are more likely to complete it. The rates of suicide vary according to race and ethnicity. The adolescent suicide rate is highest for white males, but between 1980 and 1996, black males aged 15 to 19 years experienced the most rapid increase in suicide rate. The most common method used by males is firearms, while the most common methods used by females are hanging and suffocation. Although prepubescent children have suicidal ideation, suicide before puberty is rare. Suicide rates increase with age after puberty.



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

While it can be a painful process, thorough investigations of suicides are necessary for developing effective prevention strategies. Often the Board reviews suicide deaths and discovers the family has not been thoroughly interviewed or autopsies have not been performed in a manner which would provide a complete evaluation of the youth's situation and health at the time of death. The desire of

families and communities to put such tragedies behind them is understandable. However, the lack of thorough investigations and autopsy examinations can hinder efforts to prevent further deaths of Kansas children.



### PREVENTION POINTS

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

## Undetermined Manner

Periodically, the Board encounters a case where questions remain as to the cause and manner of the child's death. Contributing factors might include medications the child has taken or been exposed to, a complex medical history with no obvious cause of death, a child not being properly supervised, illicit drugs in the environment, or other concerns about the social history. When there are multiple circumstances that could have contributed to the child's death and no identifiable cause is established, the Board will classify the death as Undetermined. The Board has classified 265 deaths as "Undetermined" since 1994, 13 of which occurred in 2010. Of those deaths, 77% occurred at the decedent's residence, and 31% were less than one year old.

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

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 KDHE. Visit the SCDRB's website at <http://ag.ks.gov/about-the-office/affiliated-orgs/scdrb> .



# 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.

## **IMPROVE WOMEN’S PRECONCEPTION HEALTH TO LOWER INFANT MORTALITY**

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

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

The Board 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. The Board encourages KDHE to inform and educate the public about infant deaths in Kansas, as well as the risk factors contributing to premature births, birth defects, and domestic violence. The Board recommends a community-based approach for preconception education for women of child-bearing age with an emphasis on healthy women and access to a regular source of health care.

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

## **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 is crucial in promoting safety and preventing child deaths. In the 2007 SCDRB Annual Report, the Board expressed the need for a state-wide safe sleep campaign. The Board, along with other agencies, supported the safe sleep campaign in Sedgwick County and encouraged its expansion statewide. The SIDS Network of Kansas created a campaign, which is presently being circulated statewide.

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

# Public Policy Recommendations

## INCREASE AWARENESS OF PERTUSSIS VACCINATIONS FOR ALL CAREGIVERS

Pertussis, commonly called “whooping cough”, is an infectious respiratory illness that can result in severe complications such as pneumonia, resulting in hospitalizations and death. Infants less than twelve months of age are at greatest risk for severe disease and death and have one of the highest reported rates of pertussis. According to the U.S. Centers for Disease Control and Prevention, in 2010 there were 27,550 reported cases of pertussis nationally, resulting in 26 deaths, one of which was a Kansas child. “The majority of deaths continue to occur among infants younger than 3 months of age. The incidence rate of pertussis among infants exceeds that of all other age groups. The second highest rates of disease are observed among children 7 through 10 years old. Rates are also increased in adolescents 13 and 14 years of age.”<sup>11</sup> One of the greatest concerns of adult pertussis is the risk of transmission to vulnerable infants. Studies have shown that in infant cases where a source was identified, approximately 70% of the infants acquired the infection from an immediate family member (a source was defined as a person with an acute cough illness who had contact with the infant 7 to 20 days before the infant’s onset of cough).

In 2001, the Global Pertussis Initiative was implemented, and a key strategy of cocooning was recommended, which includes vaccinating family members and close contacts of newborns and the Advisory Committee for Immunization Practices (ACIP) mirrored these in 2006, by stating “vaccinating adults...with Tdap (pertussis vaccine) who have or who anticipate having close contact with an infant could decrease the morbidity and mortality of pertussis among infants by preventing pertussis in the adult and thereby preventing transmission to the infant.” In response to these findings, the Kansas Department of Health and Environment created the Cocoon Pilot Program in January of 2010, aimed at increased pertussis awareness and reduced number of infants exposed to pertussis from parents and other caregivers at reducing the number of newborn infants infected with pertussis. This 2010 pilot program resulted in vaccination rates above 80% for postpartum women and greater than 65% for caregivers in the pilot sites. The pilot program also provided methods for best practices for future program implementation. Since that time, it has been recommended that all caregivers receive the immunization as well as pregnant women (if they have not been already) when they are >20 weeks. To learn more about the Cocoon Pilot Program, visit <https://cdc.confex.com/cdc/nic2011/webprogram/Paper25496.html>.

## ALL-TERRAIN VEHICLE (ATV) USAGE LAWS

ATV use in Kansas has increased, and with it, the ATV injury and fatality rate. Compared to a bicycle crash, an ATV crash is six times as likely to send a child to the hospital, and twelve times as likely to result in a fatality. From 1982 through 2010, the US Consumer Product Safety Commission (CPSC) received reports of 2,775 ATV-related fatalities that were children younger than 16 years of age.<sup>6</sup> Of those, 43% were children younger than age 12. The 2010 CPSC report on ATV-related deaths and injuries noted that an estimated 28,300 ATV-related emergency department visits in the United States involved children younger than 16 years of age and 14,100 of those were younger than age 12.<sup>6</sup> In 2010, the SCDRB reviewed 4 ATV-related deaths of Kansas children. Risk factors involved speed, inexperience, and small size/lack of strength to safely control the ATV.

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

- All ATVs shall be registered and titled.
- No child under the age of 12 should be permitted to operate an ATV of any size.
- Passengers should not be carried, except for agricultural purposes, on ATVs designed to carry more than one person.
- All riders should be 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).

# Public Policy Recommendations

## ENACT LAWS PROHIBITING UNATTENDED CHILDREN IN VEHICLES

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

- Hyperthermia.
- Hypothermia.
- Strangulation from a car seat belt.
- Strangulation from an automatic power window.
- A motor vehicle crash due to the child accidentally or intentionally 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 vehicles with the engine running are at a high risk of being stolen for joy rides or used 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 can also become locked in the trunk compartment and suffocate while a frantic parent searches the surrounding area for the missing child.

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

- No child under the age of 5 shall be left in a motor vehicle unless 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 visually supervising the child.
- A fine of \$25 should be imposed for the first conviction, and subsequent convictions that occur within three years of the first violation should result in a minimum fine of \$250, not to exceed \$500.

## FARM-RELATED ISSUES

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

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

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

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

# Public Policy Recommendations

## CONTINUED COMPREHENSIVE INVESTIGATION OF CHILD DEATHS

Thorough investigation of child deaths is a mandate of the State Child Death Review Board and the National Center for Child Death Review, which lists the following operating principles of child death review:

- The death of a child is a community responsibility.
- A child's death is a sentinel event that should urge communities to identify other children at risk for illness or injury.
- A death review requires multidisciplinary participation from the community.
- A review of case information should be comprehensive and broad.
- A review should lead to an understanding of risk factors.
- A review should focus on prevention and should lead to effective recommendations and actions to prevent deaths and to keep children healthy, safe and protected.

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

The State Child Death Review Board has long recognized the limitations of resources that inhibit the extent of child death investigations. In an attempt to minimize the limitations, the SCDRB sought and obtained a change in statute in 2005 to allow counties to obtain a refund of reasonable expenses for child autopsies from the District Coroner Fund in cases that fall under guidelines set by the SCDRB. If an autopsy is performed for a child where there is reason to believe that unnatural mechanisms (accident, suicide, and homicide) or SIDS are at play, 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 these types of cases."

The State Child Death Review Board would be incapable of performing its function without the dedicated efforts of law enforcement officers, social workers, 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 gather information and generate core knowledge about child deaths to support recommendations for ways to prevent the deaths of Kansas children.

# Appendix

## CHILD DEATHS BY COUNTY OF RESIDENCE IN 2010

County	Population Age 0-17	Total Deaths	Natural - Except SIDS	Unintentional Injury - MVC	Unintentional Injury	Natural - SIDS	Undetermined	Homicide	Suicide
Allen	3148	0	0	0	0	0	0	0	0
Anderson	2057	2	0	2	0	0	0	0	0
Atchison	4093	1	1	0	0	0	0	0	0
Barber	1092	1	0	1	0	0	0	0	0
Barton	6784	4	2	0	0	0	1	1	0
Bourbon	3886	1	1	0	0	0	0	0	0
Brown	2534	2	1	0	0	0	1	0	0
Butler	17751	11	10	1	0	0	0	0	0
Chase	615	2	1	1	0	0	0	0	0
Chautauqua	758	1	0	0	1	0	0	0	0
Cherokee	5389	2	0	0	2	0	0	0	0
Cheyenne	581	0	0	0	0	0	0	0	0
Clark	559	0	0	0	0	0	0	0	0
Clay	2021	2	1	0	0	1	0	0	0
Cloud	2137	2	1	1	0	0	0	0	0
Coffey	2087	4	1	1	2	0	0	0	0
Comanche	435	0	0	0	0	0	0	0	0
Cowley	8870	6	6	0	0	0	0	0	0
Crawford	8725	3	1	0	0	1	0	1	0
Decatur	555	0	0	0	0	0	0	0	0
Dickinson	4895	4	0	1	1	0	1	1	0
Doniphan	1775	0	0	0	0	0	0	0	0
Douglas	21131	6	5	0	0	0	0	0	1
Edwards	721	0	0	0	0	0	0	0	0
Elk	615	0	0	0	0	0	0	0	0
Ellis	5981	3	2	0	1	0	0	0	0
Ellsworth	1217	1	0	0	0	0	1	0	0
Finney	11776	6	4	0	1	0	0	0	1
Ford	10470	7	4	1	0	2	0	0	0
Franklin	6750	3	2	0	0	0	0	0	1
Geary	10617	11	5	1	0	3	2	0	0
Gove	602	1	0	0	1	0	0	0	0
Graham	497	0	0	0	0	0	0	0	0
Grant	2455	0	0	0	0	0	0	0	0
Gray	1823	0	0	0	0	0	0	0	0
Greeley	266	0	0	0	0	0	0	0	0
Greenwood	1477	2	1	0	0	0	0	0	1

# Appendix

## CHILD DEATHS BY COUNTY OF RESIDENCE IN 2010, CONTINUED

County	Population Age 0-17	Total Deaths	Natural - Except SIDS	Unintentional Injury - MVC	Unintentional Injury	Natural - SIDS	Undetermined	Homicide	Suicide
Hamilton	763	0	0	0	0	0	0	0	0
Harper	1428	2	0	1	0	1	0	0	0
Harvey	8853	8	6	1	0	0	0	1	0
Haskell	1326	3	2	1	0	0	0	0	0
Hodgeman	460	0	0	0	0	0	0	0	0
Jackson	3574	5	2	2	0	0	0	1	0
Jefferson	4725	7	4	3	0	0	0	0	0
Jewell	577	1	0	0	0	0	0	0	1
Johnson	143356	59	39	7	4	4	1	0	4
Kearny	1187	2	1	1	0	0	0	0	0
Kingman	1900	1	0	0	0	0	1	0	0
Kiowa	550	1	1	0	0	0	0	0	0
Labette	5262	5	4	0	0	0	0	1	0
Lane	394	0	0	0	0	0	0	0	0
Leavenworth	19147	7	4	0	1	1	0	0	1
Lincoln	780	0	0	0	0	0	0	0	0
Linn	2240	0	0	0	0	0	0	0	0
Logan	629	1	1	0	0	0	0	0	0
Lyon	7940	7	1	4	0	2	0	0	0
Marion	2866	2	2	0	0	0	0	0	0
Marshall	2336	1	1	0	0	0	0	0	0
McPherson	6858	3	2	0	0	0	0	0	1
Meade	1328	0	0	0	0	0	0	0	0
Miami	8843	6	2	0	1	3	0	0	0
Mitchell	1367	1	1	0	0	0	0	0	0
Montgomery	8399	2	1	0	0	0	0	0	1
Morris	1272	0	0	0	0	0	0	0	0
Morton	873	0	0	0	0	0	0	0	0
Nemaha	2667	1	0	0	0	0	0	0	1
Neosho	4082	5	4	1	0	0	0	0	0
Ness	696	0	0	0	0	0	0	0	0
Norton	1133	0	0	0	0	0	0	0	0
Osage	4047	1	1	0	0	0	0	0	0
Osborne	814	0	0	0	0	0	0	0	0
Ottawa	1549	1	1	0	0	0	0	0	0

# Appendix

## CHILD DEATHS BY COUNTY OF RESIDENCE IN 2010, CONTINUED

County	Population Age 0-17	Total Deaths	Natural - Except SIDS	Unintentional Injury - MVC	Unintentional Injury	Natural - SIDS	Undetermined	Homicide	Suicide
Pawnee	1528	1	1	0	0	0	0	0	0
Phillips	1367	0	0	0	0	0	0	0	0
Pottawatomie	6411	3	3	0	0	0	0	0	0
Pratt	2205	1	1	0	0	0	0	0	0
Rawlins	475	1	1	0	0	0	0	0	0
Reno	15236	9	6	1	1	0	0	0	1
Republic	962	1	1	0	0	0	0	0	0
Rice	2409	2	0	1	0	1	0	0	0
Riley	13168	5	3	0	0	2	0	0	0
Rooks	1224	1	0	0	1	0	0	0	0
Rush	641	0	0	0	0	0	0	0	0
Russell	1483	4	4	0	0	0	0	0	0
Saline	13936	12	7	1	0	2	0	2	0
Scott	1236	3	2	0	0	0	0	1	0
Sedgwick	135376	89	55	10	10	10	0	3	1
Seward	7335	4	2	0	1	0	0	0	1
Shawnee	44171	22	15	2	2	0	0	2	1
Sheridan	603	0	0	0	0	0	0	0	0
Sherman	1350	0	0	0	0	0	0	0	0
Smith	774	0	0	0	0	0	0	0	0
Stafford	1037	1	0	1	0	0	0	0	0
Stanton	650	0	0	0	0	0	0	0	0
Stevens	1751	0	0	0	0	0	0	0	0
Sumner	6314	5	0	0	2	0	3	0	0
Thomas	1844	1	0	1	0	0	0	0	0
Trego	599	1	0	1	0	0	0	0	0
Wabaunsee	1792	0	0	0	0	0	0	0	0
Wallace	374	0	0	0	0	0	0	0	0
Washington	1328	1	1	0	0	0	0	0	0
Wichita	608	0	0	0	0	0	0	0	0
Wilson	2293	3	2	1	0	0	0	0	0
Woodson	658	2	2	0	0	0	0	0	0
Wyandotte	44435	32	21	2	2	3	1	2	1
Out of State		17	6	3	2	4	1	1	0
<b>Total</b>	<b>726,939</b>	<b>441</b>	<b>262</b>	<b>55</b>	<b>36</b>	<b>40</b>	<b>13</b>	<b>17</b>	<b>18</b>

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**State Child Death Review Board**

120 SW 10th Ave, 2nd Floor

Topeka, KS 66612-1597

(785) 368-7376

Fax: (785) 296-7796

[www.ag.ks.gov](http://www.ag.ks.gov)