2016



State Child Death Review Board



KANSAS ATTORNEY GENERAL Derek Schmidt

> 2016 Annual Report (2014 Data)

> > www.ag.ks.gov

Kansas Attorney General Derek Schmidt

September 30, 2016



Dear Fellow Kansans:

For almost a quarter of a century, dedicated professionals serving on the State Child Death Review Board have worked diligently to review the causes of child death in our state. They toil to compile meaningful data and analysis that can be the basis for actions that will make our kids safer. This year, as always, I am grateful for their service.

This report compiles and evaluates information collected from 2014, the most recent year for which data is available. It provides analysis, context and "prevention points" – recommendations for action that can help prevent similar deaths in the future.

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

Best wishes,

Derek Schmidt

Kansas Attorney General

Executive Summary

The State Child Death Review Board was created by statute in 1992. The board is charged with reviewing all deaths of children ages birth through 17 years old who die within Kansas and Kansas residents in that age group who die outside the state. The board works to identify patterns, trends and risk factors and to determine the circumstances surrounding child fatalities. The ultimate goal is to reduce the number of child fatalities in the state.

The board is unique in its duties as it is the only entity in the State of Kansas that conducts a thorough review of each child death by analyzing medical records, law enforcement reports, social service histories, school records and other pertinent information including birth certificate, death certificate and autopsy results. The information collected is maintained confidentially and is used to review and analyze the circumstances of each child's death. This review allows the board to assist other agencies in prioritizing education and prevention efforts. The board members and staff collaborate with other agencies on child safety issues, testify on pertinent legislation, conduct trainings and serve on committees and task forces in an effort to support the work being done to protect Kansas children.

Between July 1, 2015, and June 30, 2016, the board:

- Held 17 board meetings
- Reviewed the deaths of 410 children
- Made six public policy recommendations, including supporting the enactment of SB 323 regarding Suicide Prevention.
- Attended/participated in 44 public meetings/training seminars
- Submitted an annual report

Since 1994, the board has reviewed a total of 10,068 child deaths. In 2014, Kansas had 410 child fatalities. The manners of death are classified into one of the following six categories:

- 1. Natural-Except Sudden Infant Death Syndrome death brought about by natural causes such as prematurity, congenital conditions, and disease. Natural Death remains the category with the most deaths: 278 in total. More than three-fourths (76%) of these deaths were infants less than 30 days of age and more than half (52%) of these children were born before 32 weeks gestation.
- 2. Natural-Sudden Infant Death Syndrome (SIDS) children who die prior to age one, and display no discoverable cause of death. K.S.A 22a-242 requires an investigation and an autopsy be performed before this classification can be applied. There were 18 SIDS cases in 2014, the smallest number since the board began reviewing deaths. Fifteen of these were classified as SIDS II. A full description of SIDS categories can be found on pg. 9. Unsafe sleep environment was noted in 15 of the 18 SIDS cases. In addition, there were three Unclassified Sudden Infant Deaths (USID) for which manner of death was categorized as Undetermined. For further description of this category, see pg. 10.
- <u>3. Unintentional Injury</u> death caused by incidents such as motor vehicle crashes, drowning or fire, which were not the result of an intentional act. In 2014, there were 67 total unintentional injury deaths with the leading cause of death being motor vehicle crashes (MVC). Thirty- eight

children died because of MVC. Of all the age groups, the 15 - 17 year old group accounted for the majority of the MVC deaths. Forty- four percent of the deaths in the 15-17 year old age group were not using a safety restraint. That, coupled with inattentive driving, excessive speed and driver inexperience leaves this age group at the greatest risk.

Positional Asphyxia/Suffocation- The second most prevalent unintentional injury was positional asphyxia. In 2014, 10 children died due to asphyxia while sleeping; all 10 were sleeping in an unsafe environment.

- 4. Homicide death due to an intentional act, unintentional act, or criminally negligent act leading to the death of another human being, including Child Abuse Homicide and Gang-Related Homicide. There were 19 child homicides in 2014, and of those, 11 were under the age of 4. Ten of the 19 homicides were the result of child abuse. In 84% of the homicides, the event took place at the residence of the child.
- <u>5. Suicide</u> death due to the intentional taking of one's own life. In 2014, there were 14 suicide deaths, five of which were age 14 or under. The 14 suicides were split equally between males and females. Mental health concerns were documented in 67% of the cases. Hanging was the method used in 50% of the suicides, 36% involved a weapon and 14% involved other methods.
- **6. Undetermined** cases in which the manner of death could not be positively identified from the evidence collected. In 2014, 14 cases were classified as Undetermined and three of those were listed as Unclassified Sudden Infant Death (USID). Of the deaths listed as undetermined, 79% were children less than 1 year of age. Often the undetermined classification is assigned when there is a lack of thorough, comprehensive investigation and/or autopsy; however, in 2014, ten of the undetermined deaths were noted to have a complete investigation and the autopsy did not reveal an anatomic cause of death. Four cases were noted to have inadequate scene information, three had incomplete autopsies and in one case the board was unable to determine if an autopsy was done, (several cases were in more than one category of incomplete investigation information).

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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 appreciate the support of our employers who allow us time to fulfill our responsibilities as board members.

SCDRB SERVES AS A CITIZEN REVIEW PANEL

The Federal Child Abuse Prevention and Treatment Act (CAPTA) requires each state 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. The Kansas State Child Death Review Board serves in the capacity as one of the three Citizen Review Panels in the State. In addition to the SCDRB, the Kansas Intake to Petition Panel and Kansas Custody to Transition Panel serve as citizen review panels.

The citizen review panels, as a group, are required by CAPTA to accomplish 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.

Board Members

Attorney General appointee

Steve Karrer, J.D., Chairperson Assistant Attorney General, Topeka

Melissa G. Johnson, J.D., Chairperson (June 2016 - Present) Assistant Attorney General, Topeka

Director of Kansas Bureau of Investigation appointee

David Klamm, SSA

Kansas Bureau of Investigation, Wichita

Tony Weingartner, Assistant Director (April 2016- Present) Kansas Bureau of Investigation, Topeka

Secretary for Children and Families appointee

Susan Gile, Program Administrator Department for Children and Families, Topeka

Secretary of Health and Environment appointee

Elizabeth W. Saadi, Ph.D Kansas Department of Health and Environment, Topeka

Commissioner of Education appointee

Andy Tompkins, Ed.D Topeka

State Board of Healing Arts appointees

Erik Mitchell M.D. (Pathologist member) Deputy Coroner, Kansas City

Charles Glenn M.D. (Coroner member) District Coroner, Topeka

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

Attorney General appointee to represent advocacy groups

Mary A. McDonald, J.D. McDonald Law LLC, Newton

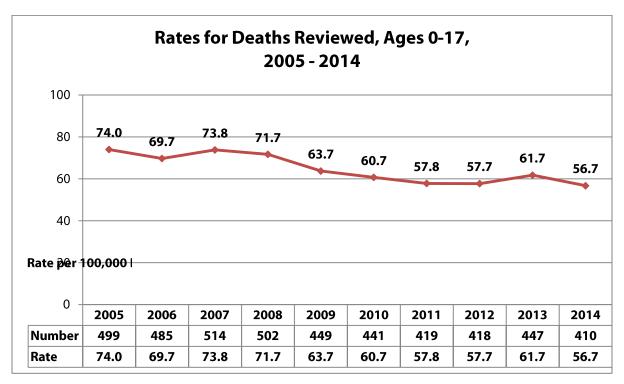
Kansas County and District Attorneys Association appointee

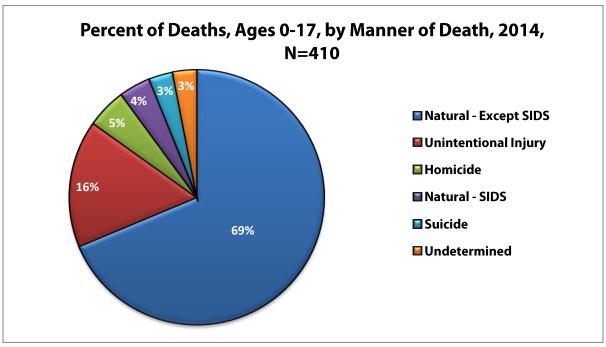
Kim Parker, J.D. Sedgwick County District Attorney's Office, Wichita

StaffStaffGeneral CounselExecutive DirectorAdministrative SpecialistAssistant Attorney GeneralSara HortenstineSusan CroucherCraig Paschang, J.D.

2014 Overview

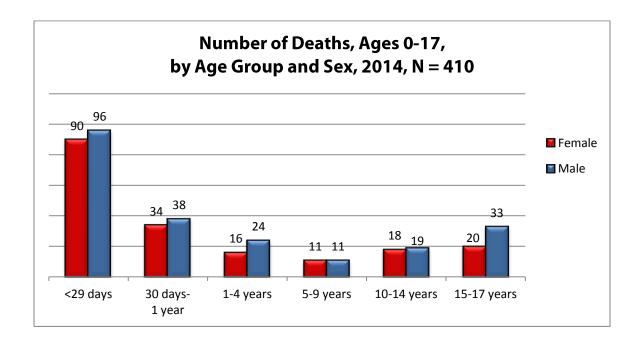
In 2014, the State Child Death Review Board reviewed the deaths of 410 children, aged 0-17, who died in Kansas, or were Kansas residents who died outside of the state. The death rate calculated per 100,000 Kansas children is trending down, and is the lowest since the board began reviewing cases in 1994.





In 2014, the largest percentage of child deaths in Kansas were natural deaths and occurred in the youngest age groups, with 45% of children being less than 29 days of age, and 18% ages 30 days to one year. Males accounted for more deaths in most of the age groups and comprised 54% of all child

deaths in 2014. Of the total deaths, 16% were due to unintentional injuries, 5% were due to homicide and 4% were due to Sudden Infant Death Syndrome (SIDS).

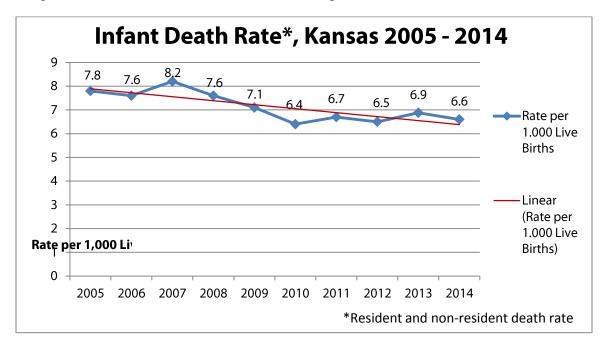


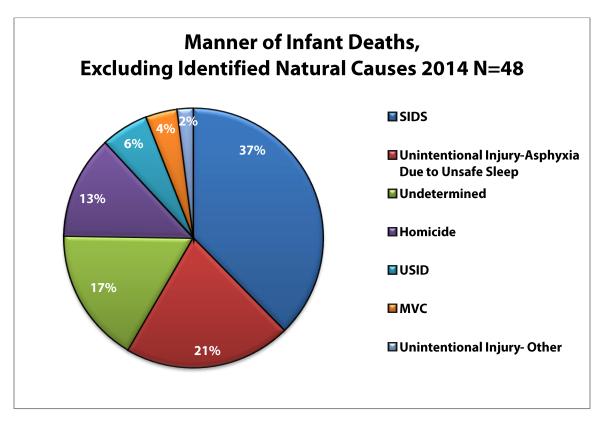
Manner Of Death	Number	Male	Female
Natural - except SIDS	278	142	136
Unintentional Injury - MVA	38	24	14
Unintentional Injury	29	16	13
Homicide	19	09	10
Natural - SIDS	18	13	5
Suicide	14	7	7
Undetermined	14	10	4
Total	410	221	189

Mortality 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. In 2014, the rate of infant deaths per 1,000 live births decreased to 6.6*.

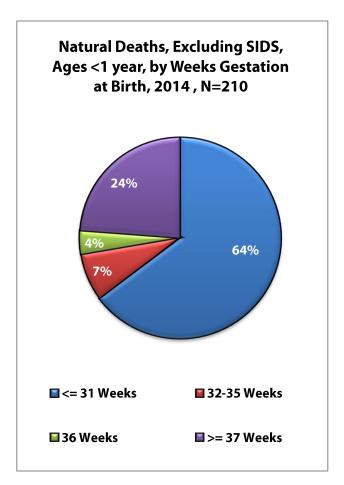


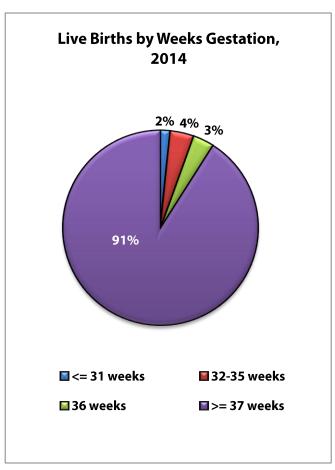


Mortality Affecting Infants, continued

Of the 258 infant deaths in 2014, almost 19% (48) were due to reasons other than identified natural causes. Sudden Infant Death Syndrome accounted for 37% of those infant deaths while another 21% were due to Unintentional Injury by Asphyxia. Undetermined deaths accounted for 17% with an additional 6% listed as Unclassified Sudden Infant Death (description on page 10). The remaining non-natural infant deaths were due to Unintentional Injuries (Other), Homicide and Motor Vehicle Crashes (MVC).

It is important to note that SIDS is considered a natural manner of death when entered into a Kansas death certificate. The SCDRB classifies SIDS deaths separately due not only to the lack of a known cause, but also due to the unique and potentially preventable risk factors associated with those deaths.





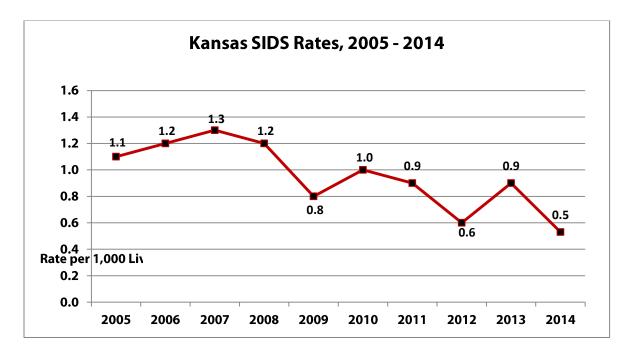
As shown above, 64% of the children who died from natural causes other than SIDS were born prior to 31 weeks gestation. Stated differently, although the majority of infants are born at or after 37 weeks gestation, deaths are disproportionately associated with those born prior to 37 weeks gestation. In addition to being a direct cause of death, prematurity is an important risk factor for infant mortality from other causes.

PREVENTION POINTS

- **Prenatal Care** Medical care during a pregnancy can identify risk factors and health problems, allowing for 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 are known to cause serious health problems and increase the risk for death in newborns and infants.
- Diagnose and Manage Chronic Health Conditions Medical care for infants and children with chronic health conditions can optimize health. Having a medical home is essential for improving such conditions. The medical home is a care delivery model where patient treatment is coordinated through a primary care physician to ensure children receive necessary and consistent care when and where they need it, in a manner that is understood, and in which education and care for chronic conditions and illnesses can be monitored.

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 clinical history. There were 18 SIDS deaths in Kansas in 2014. There were another three deaths, which were Unclassified Sudden Infant Deaths (USID), and were listed as an undetermined manner of death (see page 41). As shown in the chart below, the rate of SIDS in Kansas is at a 10-year low.



While SIDS rates in Kansas have declined since last year, the need to continue efforts to reduce these numbers remains.

Characteristics of the 18 SIDS Deaths, 2014

83% had one or more factors that contributed to an unsafe sleep environment

50% were co-sleeping with adults and/or other children

22% were sleeping on a couch

39% were sleeping in an adult bed

72% occurred at the decedent's residence

11% occurred in a child care setting

33% were not placed on their back to sleep (recommended position)

83% were white, 17% were black

The Board's concerns about unsafe sleep environments are affirmed in a safe-sleep study published in August 2014 in *Pediatrics*, the journal of the American Academy of Pediatrics. A cross-sectional examination of 8,207 sleep-related infant deaths extracted from the National Center for the Review and Prevention of Child Deaths Case Reporting System (NCRPCD) between 2004 and 2012, showed that 69% of the infants were bed-sharing (co-sleeping) at the time of their demise. It also noted that "older infants (ages 4 months to 12 months) were more likely than younger infants to have objects in their sleep area, such as pillows, blankets, bumper pads and stuffed animals, at the time of death." Causation and risk cannot be determined from these findings without a comparison group; however, it appears that co-sleeping continues to be a significant risk factor for SIDS. Data for this study were obtained from the NCRPCD Case Priority system, a database comprising reports of individual child deaths reviewed by state child death review teams. As of late 2013, 43 states were participating in the database.

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 are enhanced. The SCDRB has adopted the following sub-classifications for SIDS deaths:

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.

<u>Category IB</u>: 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.

<u>Category II</u>: 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 (USID):

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 2014, the SCDRB determined the following number of child deaths due to SIDS and Unclassified Sudden Infant Death (USID):

Category	Total	Explanation
SIDS 1A	2	These infants were found in a safe sleep environment with no evidence of any other cause of death.
SIDS 1B	1	This infant's death had incomplete scene investigation records.
SIDS II	15	In 14 of these cases, an overlay or positional asphyxia could not be ruled out. In the remaining case a respiratory infection was present, but not sufficient to be the clear cause of death
USID	3	Two of the USID cases had an element of an unsafe sleep environment. Additionally, all three of the cases had current or past DCF involvement. One case was classified as USID due to an incomplete autopsy. The board stresses the importance of concise and thorough investigations by law enforcement and medical personnel, and properly conducted complete autopsies. Information on autopsy guidelines can be found at http://ag.ks.gov/docs/default-source/forms/autopsy-guidlines.pdf?sfvrsn=4 .

The SCDRB 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 overlay or positional asphyxia as a cause of death. These are babies sleeping with parents or siblings, placed to sleep on soft surfaces, or with pillows or excessive bedding 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 as some of these deaths may have been preventable had the child been in a safe sleeping environment.

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 (co-sleeping) with adults or other siblings should be avoided.
- Many 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.safekidskansas.org/.

Deaths in Non-Relative Childcare Homes and Centers

Since many infants and children spend a significant portion of their time in day care or other childcare environments, assuring safe sleeping arrangements and compliance with state safety regulations at every site is critical. Parents should talk about safe sleep practices with anyone who will be caring for their baby, including family, friends, babysitters and childcare providers.

Many SIDS deaths have been associated with the child being prone, especially when the baby is used to sleeping on his or 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. In licensed childcare settings, it is expected that safe sleep environments and sleep position recommendations be followed. For general information regarding the basis and purpose of childcare regulations, please visit http://www.kdheks.gov/bcclr/gen_info.html.

In 2014, a total of six children died while in a childcare setting. Of those, three were due to either SIDS or USID, and five of the six were associated with an unsafe environment (sleep and/or other) at the childcare setting which is also addressed in the following section.

In the last 5 years (2010-2014), there have been 21 childcare deaths in Kansas, two of which were unintentional injuries associated with unsafe conditions, one a natural death which incidentally had an unsafe sleep environment, and two of undetermined cause and manner which were thought to be, or unknown if unrelated to sleep. In only six of the 19 known sleep related cases was the child sleeping in a safe crib or bed and appropriately supervised.

Of the total 21 child care deaths, 19 were under the age of one, with 18 of those occurring while the child was sleeping. Fifteen of the cases involving infant deaths in childcare were categorized as SIDS/USID. Between 2010 and 2014, there have been 159 SIDS cases reviewed by the SCDRB, 12% that occurred while the child was in a childcare setting.

<u>Characteristics of the 21 deaths in Non-Relative Childcare Homes and Centers</u> 2010-2015

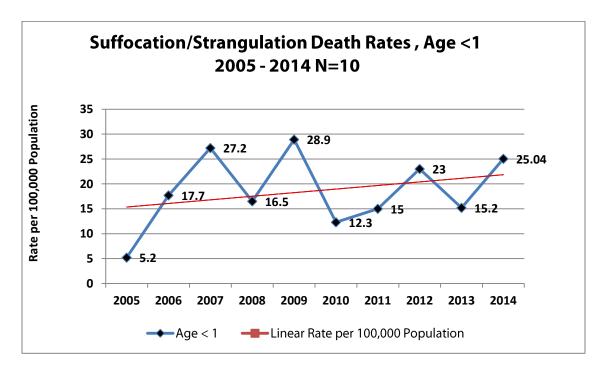
- 19 of the 21 children were under the age of 1
- In only six of the 19 sleep related cases was the child sleeping in a safe crib or bed and appropriately supervised
- 15 of the infant deaths were categorized as SIDS/USID

PREVENTION POINTS FOR PARENTS WHEN SELECTING CHILDCARE HOMES AND CENTERS

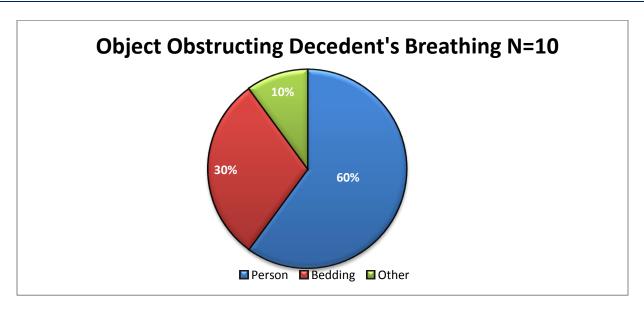
- Childcare homes and centers must be licensed by the Kansas Department of Health and Environment. Parents should ask to see the license or certificate it documents the license type and maximum number of children that may be enrolled.
- The compliance history of a regulated childcare facility in Kansas can be accessed by calling the Kansas Department of Health and Environment Child Care Licensing Program at 785-296-1270 or visiting https://kscapportalp.dcf.ks.gov/OIDS/.
- Childcare providers should develop a safe sleep policy and discuss it with parents when enrolling infants.
- Childcare providers and parents should communicate frequently to assure they understand safe sleep practices and that these practices are followed at home and at the childcare location.
- Providers should always place babies 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 significantly increased risk of sudden death.
- A firm tight-fitting mattress and fitted sheet that meet current safety standards should be used in each crib. There should be no gaps between the sides of the crib and the mattress. The same guidelines apply to portable cribs, playpens and bassinets.
- Outdated, broken, or modified cribs should not be used. Hardware should be checked regularly to keep the sides stable.
- Sleep clothing, such as a one-piece sleeper instead of a blanket or heavy quilt is preferable. The safest sleepwear is a comfortable fitting garment made of fabric labeled as flame resistant.
- Babies should not be allowed to overheat. They are comfortable with the same layers of clothing and bedding as the adults in the same environment.
- All blankets, pillows, quilts, comforters, stuffed animals, toys, bumper pads, and other baby products should be removed from the baby's sleep area.
- Sleep-positioning devices are not safe. All providers should be cautioned against positioning the baby in any manner other than on his/her back.

Suffocation/Strangulation

Ten children died in 2014 due to unintentional suffocation/strangulation. As shown below, the rate of death by unintentional suffocation or strangulation of children under the age of one increased from 15.2 in 2013 to 25.04 in 2014. While children over the age of one may experience death due to unintentional suffocation or strangulation, the following graph displays data regarding only infant deaths (prior to the first birthday).



Unintentional suffocation/strangulation 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 these deaths. 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 (co-sleeping) with parents or siblings. Although in other years infants have been suffocated or strangled in or by other objects, in 2014 these deaths were all sleeping related. Seven of the 10 deaths occurred while the infant was co-sleeping with an adult, child or both at the time his or her death. As shown in the following chart, in 60% of the deaths the child suffocated due to overlay of a person.



Parents and caregivers should always remember the ABC's of safe sleep. Children should be placed $\underline{\mathbf{A}}$ lone on their $\underline{\mathbf{B}}$ acks in a $\underline{\mathbf{C}}$ rib. While it may be tempting to bring a child to an adult bed, the safest place for them to sleep is in a crib that is clutter free.

Some cribs, bassinets and playpens have been recalled because of known or suspected risk of strangulation. Before parents purchase baby furniture, they should ensure no recalls have been issued. The U.S. Consumer Product Safety Commission (http://www.cpsc.gov/) is a resource for recall information.

Characteristics of Sleeping Related, Suffocation/Strangulation Deaths, 2014

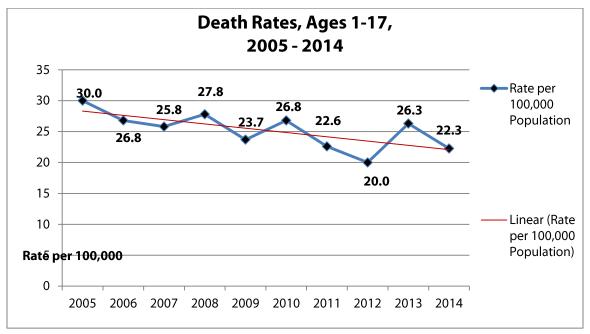
- 100% of the deaths occurred in children under the age of 1.
- 100% of these deaths occurred while both the child and caregiver were sleeping.
- 100% were reported to have an unsafe sleep environment.
- 100% were not sleeping in a crib.
- 60 % took place on an adult bed, 30% on a couch and 10% on a recliner.
- 40% had prior and/or current DCF involvement.
- 40% of the caregivers in charge of the decedent at time of death were under the influence of drugs or alcohol.

PREVENTION POINTS

- **Proper Supervision** Young children should be watched attentively. Leaving them alone for even a few minutes allows opportunities for unintentional injuries. 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 alone 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 create risk for suffocation and should not be in the crib with the baby.

Mortality Affecting Children Ages 1-17

While infant mortality has declined, so has mortality for children ages 1-17. Overall, death rates for children ages 1-17 have declined since 2005. There were 152 deaths in this age group in 2014. The tables below indicate rates per 100,000 population for the past 10 years.



7	Three Leading Causes of Death by Age Groups: Excluding Natural Causes of Death, 2014				
Cause of		Age Grou	ps in Years		
Death Ranking	1-4	5-9	10-14	15-17	
Leading Cause	Homicide-Child Abuse	Unintentional Injury Vehicular	Unintentional Injury Vehicular	Unintentional Injury Vehicular	
Number of Deaths	6	8	8	19	
Percent of Deaths	30%	72%	44%	56%	
2 nd Leading Cause	Unintentional Injury Vehicular	Fire* Homicide- Weapon*	Intentional Self Harm (Suicide)	Intentional Self Harm (Suicide)	
Number of Deaths	5	2	5	9	
Percent of Deaths in Age Group	25%	18%	28%	26%	
3 rd Leading Cause	Drowning* Undetermined*	ND	Homicide- Gunshot	Unintentional Drug Overdose	
Number of Deaths	3	-	4	4	
Percent of Deaths in Age Group	15%	-	22%	12%	
NOTE *Indicates tie in ranking ND-Data not displayed due to multiple ties in ranking					

The chart above examines the top three causes of death (excluding natural causes) for children ages 1-17. For children ages 5-17, vehicular injury was the leading cause of death. Parents and caregivers should always check that the driver and all passengers of the vehicle are using safety restraints correctly and at all times. It should further be noted that Suicide continues to be a leading cause of death in Kansas for teens. In 2014, the second leading cause of death (excluding natural causes) for children ages 10-17 was intentional self-harm (suicide). For prevention points regarding suicide, please refer to page 40.

It should not go unnoticed that the third leading cause of death for teens aged 15-17 was death due to unintentional drug overdose. Parent and school education about the dangers of alcohol and drug abuse is critical.

OVERDOSE PREVENTION POINTS

Young people are at especially high risk of prescription drug abuse. These prevention steps may help prevent teens from using alcohol and abusing prescription medications.

- **Discuss the dangers and rules of taking medications.** Medications are prescribed by a physician for specific patients and specific purposes. That fact that they are prescribed does not make them safe for others. Children and teens should be instructed to never take medications that were not prescribed for them, never to share their medications with any other person, and to not combine medications without being instructed to by a pharmacist or physician.
- **Discuss the dangers of alcohol use.** Using alcohol with medications can increase the risk of accidental overdose.
- **Prescription drugs should not be accessible to children.** Quantities of medications should be tracked and all medications kept in a locked medicine cabinet.
- The ability to order medications online is a risk factor for teens to access medications. Some websites sell counterfeit and dangerous drugs that may not require a prescription. Internet use should be monitored and parents should assure teens are not accessing drugs through friends or outside sources.
- **Properly dispose of medications.** Unused or expired drugs should be discarded. Patient information guides with the medication may provide disposal instructions, or pharmacies can be contacted for advice on disposal.

Source: http://www.mayoclinic.org/diseases-conditions/prescription-drug-abuse/basics/prevention/con-20032471

Asthma

In the last five years of SCDRB cases (2010 - 2014) there have been 10 deaths due to asthma. These deaths occurred in children from ages 1-14 with the majority of deaths occurring to children in the 10-14 age group. Although the number of deaths is small, even one death is too many since asthma is a treatable disease.

The numbers and rates of pediatric asthma hospitalizations is one indication of how well a state overall is managing asthma. If asthma is well controlled a child should rarely need to be hospitalized for the disease.

Numbers and Rates of Pediatric Asthma Hospitalizations Kansas, 2010-2014

(Admissions with principal diagnosis of asthma per 100,000 population, ages 2 through 17 yrs)

Year	Number	Rate
2010	732	113.3
2011	700	108.5
2012	886	138.2
2013	600	93.5
2014	726	112.6

Source: Kansas Hospital Association

Prepared by KDHE Bureau of Epidemiology and Public Health Informatics, 2016

Asthma is a chronic disease that affects the airways in the lungs. It is characterized by inflammation that restricts the ability to move air out of the lungs and leads to episodes of wheezing, coughing, shortness of breath and chest tightness. Severe asthma can lead to complete closure of the airways and is life threatening. There is no cure for asthma. It can be kept under control with a management plan that includes rescue inhalers and preventive medications through quality medical care and asthma education. This also includes the ability to recognize and avoid each child's specific triggers such as allergens, exercise, tobacco smoke, air pollution and infections. It is estimated that one in 11 children have asthma, which makes it a very common problem. Because it is common, parents and care providers often fail to understand that asthma is not a one-size-fits-all disease and do not appreciate how life threatening it can be if not treated quickly and appropriately.

It is imperative that children have access to medical providers who can effectively manage and control asthma in children, provide ongoing education and monitoring, and work with families, childcare facilities and schools to improve the lives of children with asthma and prevent asthma related deaths. Childcare providers and school personnel, including coaches and trainers, must have appropriate asthma education and access to each child's asthma action plan and medications. Immediate access to medical providers who can provide direction in urgent situations is also important to those caring for children with asthma.

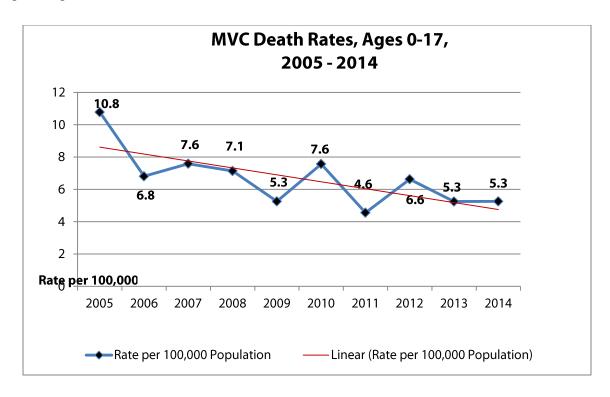
Efforts to improve asthma care and education are part of hospital quality improvement efforts across the state. Involving families and other care providers in education is also essential. Continued monitoring of Kansas asthma hospitalizations and deaths will help in our assessment of how well our state is caring for children with asthma.

PREVENTION POINTS

- Assessment and Monitoring Asthma is highly variable over time. Periodic, scheduled monitoring by health care providers familiar with standardized and evidence-based care is essential, even if the patient and family feel the child is doing well.
- **Education** Teaching and reinforcement of self-monitoring skills and devices, use of a written asthma action plan, correct use of medications and devices, and avoidance of asthma triggers in the environment are areas of knowledge to adapt and integrate into all points of a child's care.
- Control of Environmental Factors and Comorbid Conditions Avoidance of cigarette smoke exposure, determining and reducing exposures to allergens, consideration of allergen immunotherapy if indicated, and management of obesity, gastroesophageal reflux, obstructive sleep apnea and infections (including annual use of influenza vaccine) are important steps in asthma control.
- **Medications** Medications and delivery devices must meet the child's needs and circumstances. A stepwise approach with therapy adjustments based on the child's asthma control are outlined with evidence-based support in Guidelines for the Diagnosis and Management of Asthma published by the National Heart, Lung and Blood Institute of the National Institutes of Health. (http://www.nhlbi.nih.gov/health-pro/guidelines/current/asthma-guidelines/full-report)

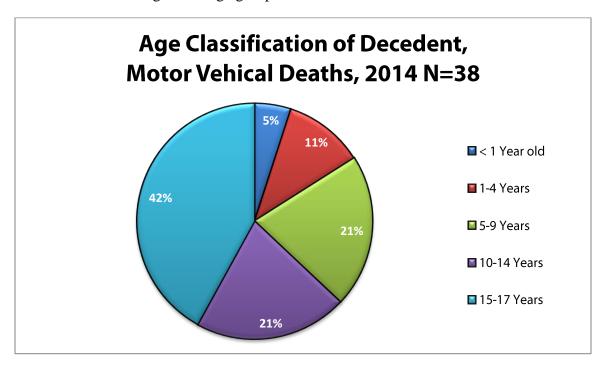
Motor Vehicle Crash Deaths

In 2014, 38 children died in Kansas because of a Motor Vehicle Crash (MVC). As shown in the charts below the death rate has shown a gradual overall decline with the 15-17 year age group consistently having the highest rate of death.

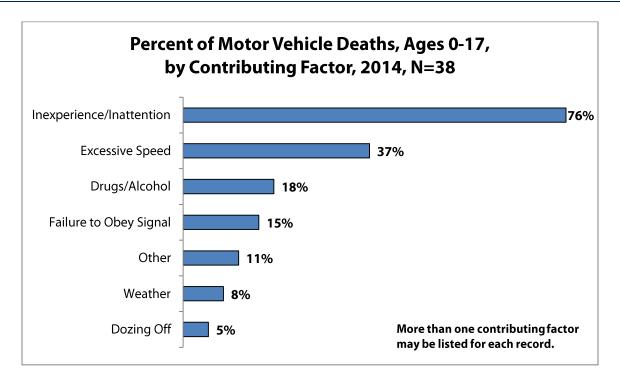


Motor Vehicle Death Rates per 100,000 Population, Ages 0-17, by Age Group, 2005-2014						
	< 1 Year	Age 1-4	Age 5-9	Age 10-14	Age 15-17	
2005	2.0	4.0	8.3	6.4	34.5	
2006	3.0	2.6	2.1	7.3	18.9	
2007	3.0	5.1	1.1	6.9	23.2	
2008	0.0	5.6	2.1	6.9	21.2	
2009	4.0	4.3	1.0	1.6	18.9	
2010	0.0	6.1	5.9	3.0	22.5	
2011	2.5	4.9	3.5	3.5	8.4	
2012	2.5	4.3	3.9	6.5	16.1	
2013	2.8	2.5	2.9	4.5	15.2	
2014	5.0	2.5	3.9	4.0	13.5	

As shown below, the likelihood of children dying due to motor vehicle crashes increases as the child becomes older. Teens aged 15-17 accounted for the highest percentage of deaths due to MVC deaths with 42% of deaths occurring in that age group.



It is important to note that there are multiple factors that can lead to a MVC death. In 2014, driver inexperience and inattentive driving were noted as contributing factors in 76% of the deaths, and excessive speed was noted in 37%. Drugs and/or alcohol use was noted to be a contributing factor in 18% of the cases, however in only one case was the decedent the driver who was under the influence of drugs.



Of the 38 Motor Vehicle Deaths in 2014, 30 occurred while the child was either a driver or passenger inside of the vehicle. In each of these 30 deaths, seatbelts were available for use; however, in only 12 were the children restrained correctly (highlighted area of the chart below).

Safety Restraint Use by Decedent , 2014				
	Driver	Passenger	Total	
Shoulder and Lap	4	4	8	
Child/Youth Restraint Used Properly	N/A	4	4	
Lap Only	1	0	1	
Child/ Youth Restraint Not Used Properly	0	1	1	
None Used	6	7	13	
Unknown/ Not Applicable	1	2	3	
Total	12	18	30	

While there was only one death in 2014 on an ATV, these are preventable. Additionally, the number of crashes and injuries while utilizing these vehicles continues to increase. All-terrain vehicle use continues to be popular in both recreation and work. This type of vehicle's size, maneuverability and durability makes it extremely handy and fun to ride. Unfortunately, the thrills can quickly turn to tragedy. In Kansas, children ages 10 - 14 have comprised the highest number of ATV child-related fatalities since 1994. Young riders lack the size and strength to safely control an ATV. ATV drivers often travel on roadways that are not designed for ATV travel and drive at unsafe speeds.

Characteristics of the 38 Motor Vehicle Crash Deaths, 2014

81% of the deaths in the 15-17 age groups were males

34% of the decedents were rear-seat passengers

11% were pedestrians

45% of the decedents did not use, or misused, safety restraints

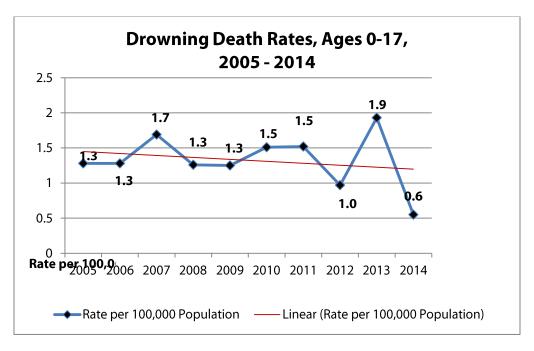
PREVENTION POINTS

- Use of Proper Safety Restraints Wear seat belts. Seat belts and appropriate child safety restraints 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. 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. Parental seatbelt use as an example to children and passengers is invaluable.
- 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 in Kansas.
- 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 practice, focus and good judgment. Young drivers should be accompanied by an experienced adult and avoid complex driving situations. 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.

Drowning

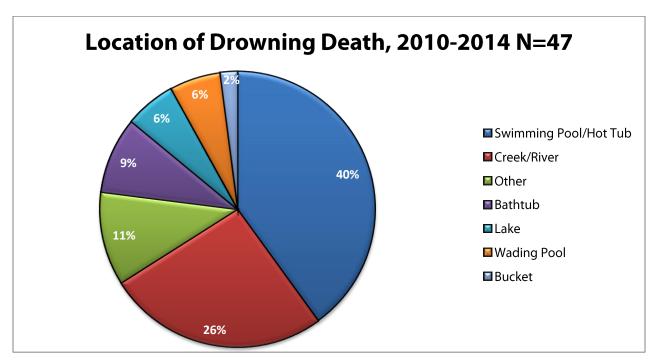
In 2014, four children died in drowning related deaths. Children are drawn to water. They like to splash and play in it, but this lure is deceptive and can lead to tragedy. Children can drown in a couple of minutes and in only a few inches of water. Drowning is a leading cause of unintentional injury deaths nationwide. Between 1994 and 2014, the board has reviewed 228 drowning cases. Since 2012, the 1 - 4 year age group has accounted for the largest number of drowning deaths.

The tables below indicate rates per 100,000 population for the past 10 years. As shown, the rate of child deaths has decreased in all age groups, as there were only four drownings this year compared to 14 in 2013. Of these four deaths, three of the children were between the ages of 1-4 and were not appropriately supervised, nor were they wearing floatation devices despite not being able to swim.



Drowning Death Rates per 100,000 population,						
	Age	s 0-17, b	y Age Gr	oup,		
		2005	-2014			
	< 1 Year	Age 1-4	Age 5-9	Age 10-14	Age 15-17	
2005	0.0	5.4	0.0	0.5	0.0	
2006	1.0	2.6	0.5	0.0	2.0	
2007	2.0	3.2	0.5	1.6	0.8	
2008	0.0	4.4	0.5	0.0	0.8	
2009	0.0	3.1	0.5	1.1	0.9	
2010	0.0	3.6	1.5	1.0	0.0	
2011	0.1	0.4	0.6	0.1	0.3	
2012	0.0	2.4	1.0	0.5	0.0	
2013	0.0	3.1	0.5	2.5	4.2	
2014	0.0	1.9	0.0	0.0	0.8	

As shown in the chart below, swimming pools and hot tubs have been the primary location of children drownings within the last five years. The importance of proper supervision and floatation devices for children of all ages is very important. Children not only are at risk during the summer when pools are mainly in use, but also when they are not in use and still accessible. Four-sided fencing of swimming pools, including soft-sided pools on residential properties is an additional and necessary tool to prevent drownings.



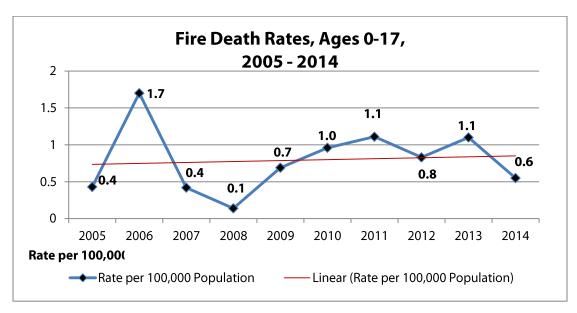
The use of personal floatation devices is essential for children of any age despite their ability to swim. Between the years of 2010 and 2014, 90% of the deaths occurred without the child using an approved floation device. Every minute counts in drowning situations. Proper supervision and appropriate personal floatation devices are key when children are near water.

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 fence 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.
- Water conditions- Lakes, ponds and ditches often contain murky water and tangled branches or other items that pose a potential danger to swimmers. Research these areas and become familiar with possible dangers such as large rocks and underwater currents. Know water depth and underwater hazards before allowing children to jump into any body of water. It is also advised to check local weather conditions prior to swimming or boating as thunderstorms with lightning or strong winds could be fatal.

Fire

In 2014, four Kansas children died in fire-related deaths. Nationwide, fires and burns are a common cause of unintentional injury deaths and home injury in the United States. The tables below indicate rates per 100,000 population for the past 10 years in Kansas.



Children 4 years old and under are most at risk. As shown in the chart below, the rate of fire-related death for most age groups decreased or stayed the same. The two age groups that saw an increase from the previous year were the 5-9 and the 15-17 year old age groups.

Fire Death Rates per 100,000 population,												
Ages 0-17, by Age Group,												
2005-2014												
	< 1 Year Ages 1-4 Ages 5-9 Ages 10-14 Ages 15-17											
2005	0.0	1.3	0.0	0.0	0.8							
2006	5.3	2.7	0.6	2.2	0.8							
2007	0.0	0.7	1.0	0.0	0.0							
2008	0.0	0.7	0.0	0.0	0.0							
2009	0.0	2.0	1.0	0.0	0.0							
2010	0.0	2.0	1.6	0.5	0.0							
2011	2.5	1.2	1.5	0.5	0.8							
2012	0.0	1.8	1.5	0.0	0.0							
2013	0.0	3.7	0.5	0.5	0.0							
2014	0.0	0.0	1.0	0.5	0.8							

Fire, continued

Parents and caregivers should be diligent about having functional smoke detectors in all appropriate 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.

There have been 33 fire-related child deaths in the state of Kansas in the last five years. Of those deaths, in only 12% of the cases was there evidence to support that a working smoke detector was present.

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.

Characteristics of the Four Fire-Related Deaths, 2014

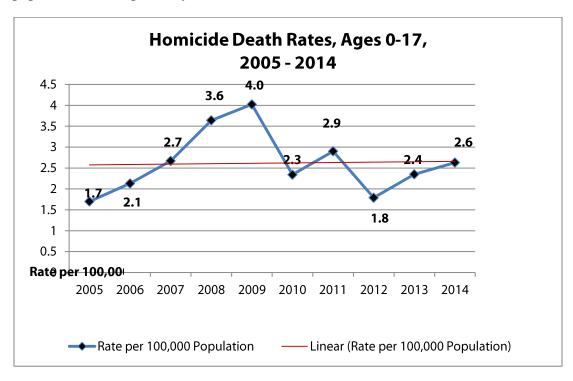
- In all four deaths, the fire departments were unable to determine conclusively what caused the fire.
- In only one death was there a working smoke detector.
- All of the fires occurred at the decedent's residence.

PREVENTION POINTS

- **Proper Supervision** Young children must be watched closely. Leaving them unsupervised, especially if there are objects such as 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. The board reviewed 19 child homicides in 2014. The tables below indicate rates per 100,000 population for the past 10 years.



When examining child homicides, the rate for infants is more than four times higher than other age groups. This striking difference is explained by the unique characteristics of the circumstances surrounding child abuse homicides, which account for nearly all infant homicides, and the vulnerability of very young children who are not capable of defending themselves against an assault, are small enough to pick up and shake, throw or strike, and whose crying can be frustrating to impatient caregivers. This is discussed in more detail in the Child Abuse Homicide section.

Homicide Death Rates per 100,000 population,											
	Ages 0-17, by Age Group,										
	2005-2014										
	Age < 1	Age 1-4	Age 5-9	Age 10-14	Age 15-17						
2005	10.4	2.7	0.6	0.0	2.5						
2006	7.6	0.6	1.6	1.6	4.1						
2007	14.8	3.2	0.0	0.5	5.8						
2008	16.5	5.6	0.0	0.0	8.5						
2009	19.3	3.7	1.0	3.7	5.2						
2010	9.8	3.6	0.5	1.5	2.5						
2011	12.5	3.6	0.5	0.5	6.7						
2012	7.5	1.8	1.0	0.0	4.2						
2013	15.0	3.1	1.0	2.0	1.7						
2014	15.0	3.1	1.0	2.0	1.7						

Each child homicide was categorized into the following groups. By categorizing homicides in this way, the board is able to look more in depth at specific issues pertaining to each category.

<u>Homicide – Child Abuse</u>

The board defines Child Abuse Homicide as resulting from abuse (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) by caretakers. Child abuse is a complex problem that stems from a variety of factors including, but not limited to, financial stressors, domestic violence, 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), previously 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, the brain moves back and forth within the skull. The blood vessels and brain tissue cannot tolerate the sheering force caused by the violent shaking. Blood vessels will break causing internal bleeding, and brain cells are damaged. Because of the internal head injuries, the child may encounter trouble breathing or lose consciousness, 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.

Caring for children can be overwhelming at times. Often parents and caregivers are facing multiple stressors and may have limited access to support. There are several risk factors associated with child abuse homicide including maternal risk factors (young age, less than 12 years of education, and being a single parent) 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). Many of the child abuse homicides occurred when the primary caregiver was away from the home. Often the child was being cared for by the mother's paramour or by a relative who was not the primary caregiver. Of those persons caring for the child, 80% had a criminal history prior to the time they were caring for the child.

Our data reflect what is found in studies of characteristics of infant homicides from other states. Infant homicide is proportionately greater and has findings that are different from those of other homicides. Research indicates that the circumstances of infant homicides include a majority of them perpetrated by someone in a caregiving role and who is less than 25 years of age. Remarkably, a young child was more likely to be murdered by the mother's boyfriend (non-paternal) than by all other acquaintances and strangers combined. More than 80% occurred in the child's home and in more than half there were suspicions of previous abuse of the victim by the perpetrator or another person, or previous abuse of another child by the perpetrator. In sharp contrast to teen homicides where the majority of involve guns or knives, the majority of infant homicides are the result of beatings, shakings and chokings – killings by the perpetrators hands.

Infant homicides call for attention aimed at prevention. Effective methods for preventing child abuse involve programs that enhance parenting skills for at-risk parents. Examples include home visits by nurses who provide information on quality childhood programs; coaching in parenting skills which include parent training and education about normal childhood behaviors and age appropriate discipline; and information on how to select appropriate child caregivers. Educational interventions to identify abuse cases before they lead to severe injuries or death, and to teach skills for dealing with angry and impulsive responses to infant crying, especially for male caregivers, are necessary.

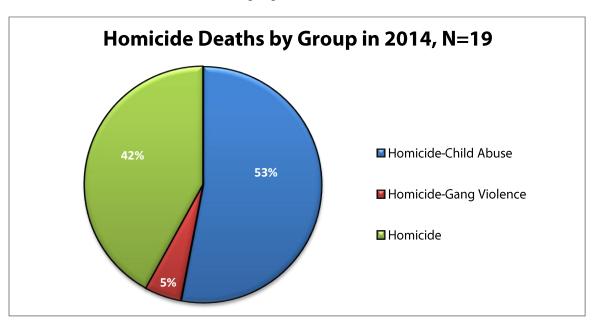
Homicide – Gang Violence

The board will categorize a homicide as Gang Violence when there is evidence to support the child died as a direct or indirect result of actions carried out by known or suspected gang members. In many of the cases reviewed, children are at the "wrong place, at the wrong time" and are caught up in gang violence. This can occur while the child is outside playing or even in the safety of his or her own home. In locations with gang activity, the child living in a home that has other members with gang associations is a significant risk factor. In other circumstances, the children killed are active members of a gang and die during disputes related to their gang activity.

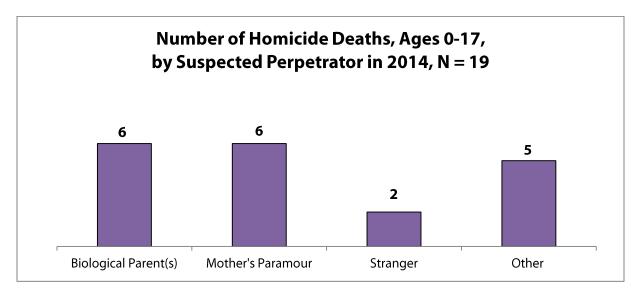
Homicide

Any death that was not categorized as Homicide- Child Abuse or a Homicide- Gang Violence will be described as Homicide. In many of these deaths, the acts of violence against these children are more random in nature and a clear indication for the murder may not be evident. In other situations, there are clear indications why they were killed, however the circumstances had nothing to do with ongoing child abuse or gang related violence.

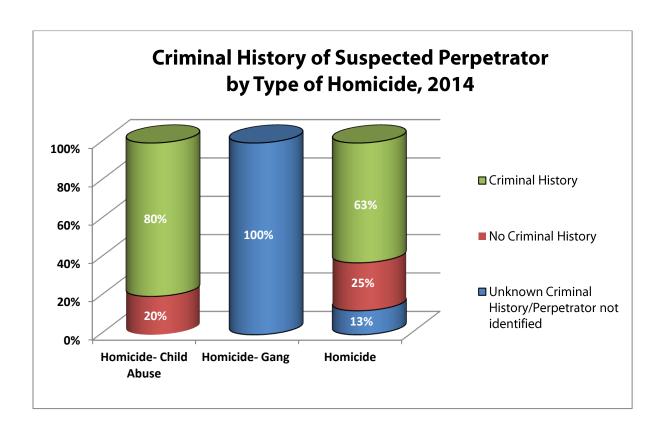
The following graph indicates 2014 homicide deaths by category. More than 50% of the 19 homicides were due to child abuse, while only 5% were due to gang violence. The other 42% were attributed to deaths that did not fall under child abuse or gang violence.



As shown in the chart below, in most child homicides the perpetrator(s) was suspected to be either the biological parent(s) of the child or the paramour of the biological mother. The five cases in which the perpetrator was listed as "other" involved cases where the perpetrator could not be determined because more than one person had access to the child, charges were not filed, or the suspected perpetrator was related to the decedent but not a biological parent.



When looking at all types of homicides combined, 68% of the suspected perpetrators in the 19 homicides had a prior criminal history.



Characteristics of the 19 Child Homicides, 2014

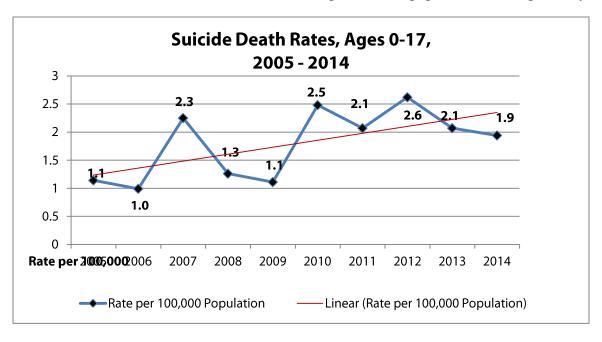
- 10 children died from child abuse; five of those children were under one year of age.
- 13 of the families had current or past DCF involvement.
- 16 of the deaths occurred at the child's home.
- In 68% of all homicides, the suspected perpetrator had a prior criminal history.

PREVENTION POINTS

- **Family Violence** –The safety of children living in homes where domestic violence occurs needs to be addressed by DCF and law enforcement when calls are made to the home. Children living in such environments are at increased risk of abuse, neglect or death.
- **Drug Environments** Children living in environments where they are exposed to drugs (including illicit drugs, prescription medication and alcohol) are at increased risk of abuse, neglect or death. If drug use is suspected, the safety of the children should be addressed.
- Education for Caregivers of 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. Education should be provided at all points of contact with parents and caregivers, especially addressing positive ways to respond to infant crying, supporting parents through stressful periods, and adjusting work policies to give parents quality time with their young children.
- Education about Signs of Child Abuse Most cases of child abuse can be suspected with attention to the characteristics of the injuries. 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 areas such as the cheeks, ears, mouth, stomach, buttocks or thighs, the possibility that the child is being abused should be considered. Bruises in these areas, human bite marks, and round burns the size of a cigarette seldom come from everyday play. If there is suspicion a child is being abused or neglected, a report should be made to the Kansas Protection Report Center at 1-800-922-5330 (toll-free) or 911 should be contacted if the child is in imminent danger.

Suicide

In 2014, 14 children in Kansas between the ages of 10-17 were identified as committing suicide. Of that number, half were male and half were female. This compares to females accounting for 33% of suicides in 2013. According to the Centers for Disease Control and Prevention, suicide is the third leading cause of death among U.S. children 10-14 and second leading cause among persons 15-34 years of age. Similar to national studies, suicides in Kansas indicate adolescent females are more likely to attempt suicide, but adolescent males are more likely to complete it. Suicide rates increase after puberty, and the rates of suicide vary according to race and ethnicity, with the adolescent suicide rate highest for white males. The tables below indicate rates per 100,000 population for the past 10 years.



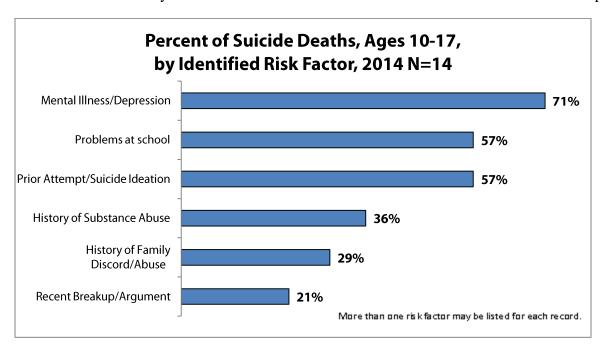
Suicide Death Rates per 100,000 age-related population, Ages 10-17, by Age Group, 2005-2014								
	10-14 Years Old	15-17 Years Old						
2005	0.5	5.9						
2006	1.6	11.5						
2007	2.6	9.1						
2008	1.1	5.9						
2009	2.7	3.5						
2010	1.0	12.5						
2011	1.5	10.1						
2012	3.0	11.0						
2013	2.0	9.3						
2014	2.5	7.6						

A variety of methods are used by children and adolescents committing suicide. The most common method for males is firearms; females more frequently use hanging, suffocation or drugs. While it is known there is a connection between suicide and vehicular crashes, the number of intentional crashes remains unidentified. The table below indicates the methods and number of occurrences over the past five years.

Suicides by Method and Gender, 2010-2014									
Ranking of Method (1 highest)	Method	Male	Female	Total					
#1	Firearm	33	5	38					
#2	Suffocation/Strangulation	27	10	37					
#3	Drug Overdose	1	4	5					
#4	Fall*	0	1	1					
#5 Other Transport-Train* 0 1 1									
*denotes tie in ranki	ng								

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 biological factors. Precipitating factors include access to means, alcohol and drug use, exposure to suicide and suicide attempts, 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 the breakup of a significant relationship. Bullying has been identified as a risk factor, placing both bullies and victims at risk. Additionally, an increased risk for suicide for females has been correlated with a recent family move and an increased risk for males with the loss of a relationship.



Due to ongoing concern about adolescent suicides, the Legislature passed SB323 in the 2016 session, which requires suicide prevention training for school district personnel and the inclusion of steps for recognizing suicide ideation in the school building crisis plan. This law was modeled after the Jason Flatt Act making Kansas the 19th state to pass it since 2007.

Characteristics of the 14 Suicide Deaths, 2014

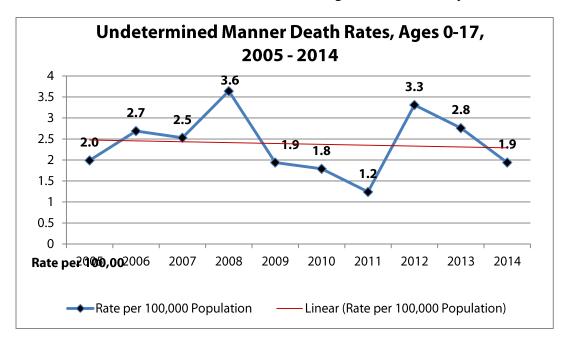
- An equal number of males and females committed suicide.
- 50% of the suicides were completed by hanging.
- 50% left a suicide note.
- 29% were under the influence of alcohol or drugs at the time of their death.

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 antidepressant 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 functioning. 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, and means such as prescription and over the counter medications, 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 or a relationship breakup. Provide counseling and support to address depression or situational difficulties.

Undetermined Manner

Periodically, the board encounters a case where questions remain as to the cause or manner of the child's death. When there are multiple circumstances that may have contributed to the child's death and no identifiable cause is established, the board will classify the death as undetermined. The SCDRB has classified 332 deaths as undetermined manner since 1994. As shown in the chart below, the number of deaths ruled as undetermined has been decreasing over the last two years.



In 2014, there were 14 such deaths. Of the 14 deaths, three were Unclassified Sudden Infant Death (USID). As noted in the SIDS section of this report, USID includes deaths that do not meet the criteria for SIDS I or II and for which alternative diagnoses of natural or unnatural conditions are unclear. The three USID cases were listed as such due to incomplete scene investigations, improperly conducted/incomplete autopsies, possible underlying medical conditions and positive toxicology results.

All non-natural child deaths should be exhaustively investigated. The circumstances and family situation should not affect the detail of the inquiry. Hospitals need to 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 apparent life-threatening event of unknown etiology that is likely to be fatal. Investigations in the undetermined cases varied significantly. In some instances, although every effort was made to determine why a death occurred, the cause of death could not be ascertained. Other cases revealed incomplete investigations or law enforcement agencies not being informed of the death. In some, autopsies were not performed or were incomplete, or toxicology testing on the victim was not performed.

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, metabolic and toxicological studies. Coroners must be mindful of their statutory duties and should be aware of the autopsy reimbursement program through KDHE. Visit the SCDRB's website at http://ag.ks.gov/scdrb for additional information.

SCDRB Public Policy Recommendations

Recommendations to Prevent Child Abuse and Neglect Deaths

1.) Increase Access to Affordable, High-Quality Child Care

Department for Children and Families and Kansas Department of Health and Environment should work towards ensuring families have access to high quality and affordable childcare. Children, and particularly young children, should be cared for by persons who are experienced and have reasonable expectations for children and their behaviors. Having access to affordable, high-quality childcare could help decrease future child deaths.

2.) Enhance Training for Child Welfare Professionals

Department for Children and Families should develop enhanced training for Child Welfare professionals regarding child abuse and neglect as well as other topics related to injury prevention.

Recommendations to Prevent Youth Suicides

1.) Increase Community Outreach Regarding Mental Health Services

Local Mental Health Coalitions should increase community outreach to raise awareness regarding available mental health services for children and youth.

2.) Increase the Depth of Suicide Investigations

Law Enforcement should increase the depth of suicide investigations to include social, mental and medical health histories of the child. Information regarding family stressors, past history of attempts, involvement in mental health services, and social media information that may be relevant should be included. By better understanding the precipitating events leading to youth suicide, our state is better equipped to understand these deaths and learn more to prevent them.

Recommendations to Prevent Motor Vehicle Deaths of Children and Youth

1.) Strengthen Seat Belt Usage

Citizens and lawmakers should support efforts in Kansas that aim to increase the use of seatbelts among drivers and child passengers. In 2014, 45% of the children who died due to motor vehicle accidents were unrestrained or improperly restrained. According to the State of Kansas Highway Safety Plan FFY 2016, "Children are much more likely to be buckled up if the driver is also belted. If the driver is belted, about 96% of the children are also belted. If the driver is not belted, only about 21% of the observed children were also belted." Efforts to increase the number of drivers who are properly restrained will also increase the likelihood that our children will be properly restrained.

2.) Decrease Distracted Driving in Kansas

Citizens and lawmakers should support efforts in Kansas to promote and encourage individuals to reduce the use of hand-held devices while operating a motor vehicle. In 2014, 76% of the crashes involving child deaths had contributing factors of inexperience and inattentive driving. Ordinances, promotional materials and advertising can all be effective ways to encourage Kansas drivers to be less distracted while driving.

Recommendations to Prevent Sleep-Related Infant Deaths

1.) Increase Education on Safe Sleep for Parents

Delivery hospitals in Kansas should create or adopt policies regarding hospital safe sleep education for new parents prior to discharge from the hospital. The education should include statistics on sleep related deaths, as well as provide consistent messaging supporting the ABC's of safe sleep. Professionals should use sleep-related suffocation language to clarify for parents that in many cases of sleep related deaths, children do not die from unexplained reasons but due to overlay, positional asphyxia and other forms of suffocation/strangulation.

Kansas communities should enhance education for primary care physicians, childcare providers and at-risk populations in the state, including low-income and adolescent parents, to provide consistent messages about safe sleep.

Recommendations to Improve the Quality of Investigations in Child Deaths and Near Fatalities

1.) Improve the Quality of Law Enforcement Investigations for Infant Deaths

Law Enforcement should increase investigators' knowledge of child fatality investigations through high quality education including the adoption of the Center for Disease Control's Sudden Unexpected Infant Death investigation (SUIDI) protocols, and the use of scene recreation and photography. Each year the SCDRB reviews deaths of infants in which law enforcement did not collect adequate information in the investigation for the board to determine a cause of death.

2.) Improve Coordination and Communication with Law Enforcement

Department for Children and Families (DCF) should immediately notify law enforcement in instances where the reported abuse may be criminal in nature for law enforcement investigation. K.S.A. 38-2226 requires a joint investigation if there is a report of child abuse or neglect that indicates that there is serious physical harm and that action may be required to protect the child.

DCF and health care providers, including hospitals, should report any death or near death of a child to law enforcement for investigation. The SCDRB has reviewed many cases in which law enforcement was not contacted in a timely manner, which has impeded the ability for law enforcement to conduct their investigation. The investigations should be a coordinated effort

by DCF and law enforcement to ensure thorough investigations and the safety of surviving children.

3.) Improve the Quality of Forensic Investigations and Autopsies of Child Deaths

Thorough and complete investigations and autopsies are essential for proper death certification and eventual review and analysis of the circumstances of infant, child and adolescent deaths. The Kansas State Child Death Review Board recommends the following protocols as a guideline for a comprehensive investigation and pediatric autopsy.

A forensic pathologist should investigate all:

- Known or suspected non-natural deaths, including those due to violence, trauma, drugs or associated with police action;
- Unexpected or unexplained deaths of infants and children, including those with underlying or chronic illness;
- o Deaths occurring under the unusual or suspicious circumstances;
- o Deaths of children or youth in custody;
- o Deaths known or suspected to involve diseases constituting a threat to public health;
- o Deaths of persons not under the care of a physician.

A forensic pathologist should perform the autopsy when the:

- Death is known or suspected to have been caused by violence, trauma, drugs or associated with police action;
- o Death occurs in custody of a local, state, or federal institution;
- o Death is unexpected and unexplained in an infant or child;
- o Death is due to acute workplace injury;
- Death is the result of a motor vehicle crash. Clinical judgment is recommended in the case of delayed deaths;
- Death is caused by or involves apparent injury, including but not limited to electrocution, fire, chemical exposure, intoxication by alcohol, drugs, or poison, unwitnessed or suspected drowning or fall;
- o Body is unidentified and the autopsy may aid in identification;
- Death is unexpected, including those that are sports related, suicides, possible cardiac related and motor vehicle crashes.

Appendix: Death by County of Residence

County	Population Age 0-17	Total Deaths	Natural Deaths Except SIDS	Unintentional Injury Motor Vehicle	Unintentional Injury	Natural SIDS	Homicide	Suicide	Undetermined
Allen	3,007	1			1				
Anderson	1,990	1	1						
Atchison	3,860	1			1				
Barber	1,103	0							
Barton	6,722	3	2	1					
Bourbon	3,699	0							
Brown	2,490	2	1					1	
Butler	17,217	12	11	1					
Chase	569	0							
Chautauqua	715	1			1				
Cherokee	5,055	1	1						
Cheyenne	556	0							
Clark	581	1	1						
Clay	1,933	2	1	1					
Cloud	2,125	0							
Coffey	1,889	1		1					
Comanche	519	0							
Cowley	8,613	4	4						
Crawford	8,623	2	1	1					
Decatur	587	0							
Dickinson	4,682	3	3						
Doniphan	1,719	0							
Douglas	22,130	11	8	2			1		
Edwards	720	0							
Elk	541	0							
Ellis	6,344	3	3						
Ellsworth	1,148	0							
Finney	11,565	7	4		2	1			
Ford	10,551	6	5	1					
Franklin	6,363	8	7	1					
Geary	11,099	8	8						
Gove	649	0							
Graham	514	1	1						
Grant	2,498	1			1				
Gray	1,777	1							1
Greeley	320	0							
Greenwood	1,348	1	1						

Appendix: Death by County of Residence, continued

County	Population Age 0-17	Total Deaths	Natural Deaths Except SIDS	Unintentional Injury Motor Vehicle	Unintentional Injury	Natural SIDS	Homicide	Suicide	Undetermined
Hamilton	779	0							
Harper	1,383	4	3	1					
Harvey	8,780	5	3					1	1
Haskell	1,188	1		1					
Hodgeman	434	0							
Jackson	3,495	1	1						
Jefferson	4,437	3	2	1					
Jewell	593	0							
Johnson	145,456	48	36			4	3	4	1
Kearny	1,142	0							
Kingman	1,683	0							
Kiowa	520	1		1					
Labette	4,953	4	2	2					
Lane	359	0							
Leavenworth	19,148	9	4		1	1	1	2	
Lincoln	770	0							
Linn	2,217	1	1						
Logan	624	1	1						
Lyon	7,454	4	2	1		1			
Marion	2,635	1	1						
Marshall	2,310	4	1	3					
McPherson	6,774	4	2			1		1	
Meade	1,181	0							
Miami	8,435	7	7						
Mitchell	1,369	1	1						
Montgomery	8,136	7	3	1	2		1		
Morris	1,206	2	2						
Morton	804	0							
Nemaha	2,584	2	2						
Neosho	4,073	3	1				2		
Ness	720	0							
Norton	1,057	0							
Osage	3,793	3	1			1			1
Osborne	769	1	1						
Ottawa	1,450	0							

Appendix: Death by County of Residence, continued

County	Population Age 0-17	Total Deaths	Natural Deaths Except SIDS	Unintentional Injury Motor Vehicle	Unintentional Injury	Natural SIDS	Homicide	Suicide	Undetermined
Pawnee	1,332	1		1					
Phillips	1,301	1	1						
Pottawatomie	6,716	3	2		1				
Pratt	2,405	6	5				1		
Rawlins	512	0							
Reno	14,775	11	5		3	3			
Republic	923	1	1						
Rice	2,383	6	4			1			1
Riley	13,237	7	5		1		1		
Rooks	1,202	1							1
Rush	624	0							
Russell	1,503	1							1
Saline	13,501	4	2		1		1		
Scott	1,314	0							
Sedgwick	134,715	65	41	3	8	4	1	4	4
Seward	7,340	7	5	1	1				
Shawnee	43,345	28	19	4	3			1	1
Sheridan	594	0							
Sherman	1,457	1	1						
Smith	747	0							
Stafford	1,031	0							
Stanton	590	0							
Stevens	1,784	1		1					
Sumner	5,858	3	2				1		
Thomas	1,814	2	2						
Trego	523	1							1
Wabaunsee	1,758	0							
Wallace	370	1	1						
Washington	1,269	0							
Wichita	574	2	1	1					
Wilson	2,160	2	1			1			
Woodson	660	0							
Wyandotte	45,817	36	28	2	1		4		1
Out of State		20	12	5	1		2		
Total	722,666	410	278	38	29	18	19	14	14

Methodology

Kansas Child Death Review Board 2014 Data

The SCDRB meets monthly to examine the circumstances surrounding the deaths of all Kansas children aged birth through 17 years old, as well as children who are not residents but died in Kansas. As a rule, the SCDRB is notified of a death when a death certificate, matched with its corresponding birth certificate, is received from the Kansas Department of Health and Environment's Office of Vital Statistics. On a monthly basis, KDHE provides the SCDRB with a list of children whose deaths have been reported. The Office of Vital Statistics has a close working relationship with other state vital statistics departments per inter-jurisdictional agreement and receives death certificates from those departments when a Kansas child dies in another state. This provides relevant information about out of state deaths to the SCDRB for review.

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, pertinent records that could provide circumstances that led to the child's demise are collected for the file. Such records may include coroner reports, autopsy reports and photos, medical records, law enforcement reports, scene photographs, DCF records, school records, media reports and obituaries, and other relevant documents. 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 is expected to review his or her assigned cases and enter case information into a secure web-based database. All case information entered by the board is maintained in the online database. ¹

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. Upon agreement of the cause and manner of death, cases are finalized. In some instances, the SCDRB may determine that it is appropriate to refer a case to the county or district attorney in the county where the death occurred with recommendations for further action.

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. Case file information may not be available to the coroner when cause of death is determined, resulting in incomplete information about the circumstances of the death. After review by the board, the classification of the cause or manner of death may be different from the coroner's. For example, an infant death suspicious for asphyxia may be called an undetermined death by the coroner, but after the board reviews medical, law enforcement, and other pertinent reports, additional

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¹ Transfer of information between outdated software to the new system in 2000 created the possibility for slight number adjustments when reviewing data from past years.

information may support the board's classification of the death as Sudden Infant Death Syndrome, Category II or Unintentional Injury due to Suffocation depending on the review findings.

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 pg. 31.

To determine the infant death rate per 1,000 live births in a specific year or 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 2014 =

$$\frac{258 \text{ (number of infant deaths that occurred in 2014, reviewed by the CDRB)}}{39,193 \text{ (number of Kansas resident live births in 2014)}} X = 1,000$$

To determine the death rate per 100,000 population for an age group for a specific year or 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 2014=

$$\frac{16 \text{ (number of MVC deaths age 15-17 that occurred in 2014, reviewed by the CDRB)}}{118,511 \text{ (population of Kansas residents age 15-17 in 2014)}} X 100,000$$

$$= 13.50$$

Any questions about this report or about the work of the SCDRB should be directed to Sara Hortenstine, Executive Director, at (785) 296-7970 or by e-mail at sara.hortenstine@ag.ks.gov.

The information and data contained in this report are compiled from multiple reporting sources and have been represented to be accurate as of the date of this report. The information and data contained herein are subject to later modification by the reporting sources.

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 old) 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 to examine circumstances surrounding the deaths of Kansas children (birth through 17 years old). Members bring a wide variety of experience and perspective on children's health, safety and maltreatment issues, which strengthen the decision-making of this body.

With assistance from law enforcement agencies, county and district attorneys, DCF, KDHE, physicians, coroners, and other medical professionals, the SCDRB is given necessary information needed to examine the circumstances that led 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, which improves comparison of data and trends related to child deaths.

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