

2019



**2019 Annual Report
(2017 Data)**

www.ag.ks.gov/scdrb



**KANSAS
ATTORNEY GENERAL
DEREK SCHMIDT**

Kansas Attorney General Derek Schmidt



September 25, 2019

Dear Fellow Kansans:

For more than 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 children safer. This year, as always, I am grateful for their service.

This report compiles and evaluates information collected from 2017, 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. It also makes several public policy recommendations intended to reduce child mortality.

I hope this information will add to the many discussions about efforts in Kansas, both together and individually, to make our state 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,

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

Derek Schmidt
Kansas Attorney General

Executive Summary

The State Child Death Review Board (SCDRB) 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 findings. 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 of protecting Kansas children.

Between July 1, 2018, and June 30, 2019, the Board:

- Held 12 board meetings
- Reviewed the deaths of 396 children
- Made 15 public policy recommendations
- Attended/participated in 67 public meetings/training seminars
- Submitted an annual report

Since 1994, the Board has reviewed 11,252 child deaths. In 2017, Kansas had 396 child fatalities. The manners of death are classified into one of the following six categories:

- **Natural-Except Sudden Infant Death Syndrome** – death brought about by natural causes such as prematurity, congenital conditions, cancer, and disease. Natural death remains the category with the most deaths: 239 in total. Of those cases, 44% were due to prematurity, 34% were due to congenital anomalies, and 8% were due to cancer.
- **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 19 SIDS cases in 2017, 17 of those cases were classified as SIDS II, indicating the presence of one or more elements of unsafe sleep.

In addition, there were 10 Unclassified Sudden Infant Deaths (USID) for which manner of death was categorized as Undetermined.

- **Unintentional Injury** – death caused by incidents such as motor vehicle crashes, drowning or fire, which were not the result of an intentional act. In 2017, there were 73 total unintentional

injury deaths with the leading cause of death being motor vehicle crashes (MVC). Thirty-eight children died because of a MVC. Of all the age groups, the 15-17 year old group accounted for the majority of the MVC deaths. Only 36% of the children in the 15-17 year old age group were using a safety restraint at the time of the crash. That, coupled with inattentive driving, excessive speed, and driver inexperience leaves this age group at the greatest risk of death or injury in MVCs.

The second most prevalent unintentional injury death was asphyxia. In 2017, 15 infants/children died due to unintentional asphyxia, 13 of which were sleep-related with 12 of the 13 under the age of one. All 13 sleep-related asphyxia/suffocation deaths included the presence of unsafe sleep factors. In five of the 15 unintentional asphyxia deaths, the caregiver was using alcohol or drugs while supervising the decedent. In four of the 13 sleep-related asphyxia deaths, the mother fell asleep while breastfeeding the infant.

- **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 20 child homicides in 2017; eight were the result of child abuse and three were due to gang violence.

In four of the 20 homicides (20 percent), the Board found sufficient evidence, after thorough review, to classify the deaths as homicides even though they were not originally classified in that manner on the death certificate.

- **Suicide** – death due to the intentional taking of one’s own life. In 2017, there were 32 suicide deaths, seven of which were age 14 or younger. The Kansas youth suicide rate continues to climb, despite a decline in the overall child death rate. Of the 32 youths who died by suicide, 66% had previously received or were receiving mental health services at the time of their death. In 28% of the deaths, the youth had a history of substance abuse.

Undetermined – cases in which the manner of death could not be identified from the evidence collected. In 2017, 13 cases were classified as Undetermined and 10 of those were listed as Unclassified Sudden Infant Death (USID). Of the deaths listed as undetermined, 77% 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. In 2017, there were six cases that were lacking a comprehensive law enforcement investigation and one case that had an inadequate autopsy.

The Board strongly encourages the members of the State Legislature to consider each of the Public Policy recommendations beginning on page 58 during the 2020 legislative session. The Board has prioritized the improvement of statutory authority of the SCDRB as necessary for accurate collection of child fatality review findings, data reporting, and providing meaningful recommendations to prevent future deaths of Kansas children.

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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.

More information regarding the Citizen Review Panels in Kansas can be found at:

<http://www.dcf.ks.gov/services/PPS/Pages/CitizenReviewPanel.aspx>

Board Members

Attorney General appointee

Melissa G. Johnson, J.D., Chairperson
Assistant Attorney General, Topeka

Director of Kansas Bureau of Investigation appointee

Tony Weingartner, Assistant Director
Kansas Bureau of Investigation, Topeka

Secretary for Children and Families appointee

Susan Gile, Deputy Secretary, Dept. For Children and Families August 2015- February 2019

Pamela Hahn, Deputy Director of Prevention, Dept. For Children and Families
February-August 2019

Ann Goodall, CAPTA/CJA Program Administrator, Dept. For Children and Families
August 2019-Present

Secretary of Health and Environment appointee

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

Commissioner of Education appointee

Aarion Gray, Ed.D. November 2017-October 2018
Randolph Elementary School, Topeka

Kim Jones, RN, BSN, School Nurse December 2018-Present
Kansas Department of Education, Topeka

State Board of Healing Arts appointees

Scott Coates M.D. (Coroner Member) December 2018-September 2019
District Coroner, Chanute

Jamie Oeberst M.D. (Pathologist member),
District Deputy Coroner, Wichita

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

CJ Rieg, J.D. Douglas County District Attorney's Office, Lawrence

Staff

Executive Director

Sara Hortenstine

Staff

Administrative Specialist

Susan Croucher

General Counsel

Assistant Attorney General

Craig Paschang

2017 Overview

The State Child Death Review Board reviewed the deaths of 396 children, ages 0-17, who died in Kansas, or were Kansas residents who died outside of the state during the year 2017. The death rate calculated per 100,000 Kansas children has remained relatively stable for the last 4 years and was 55.6 for calendar year 2017 (Figure 1).

Figure 1

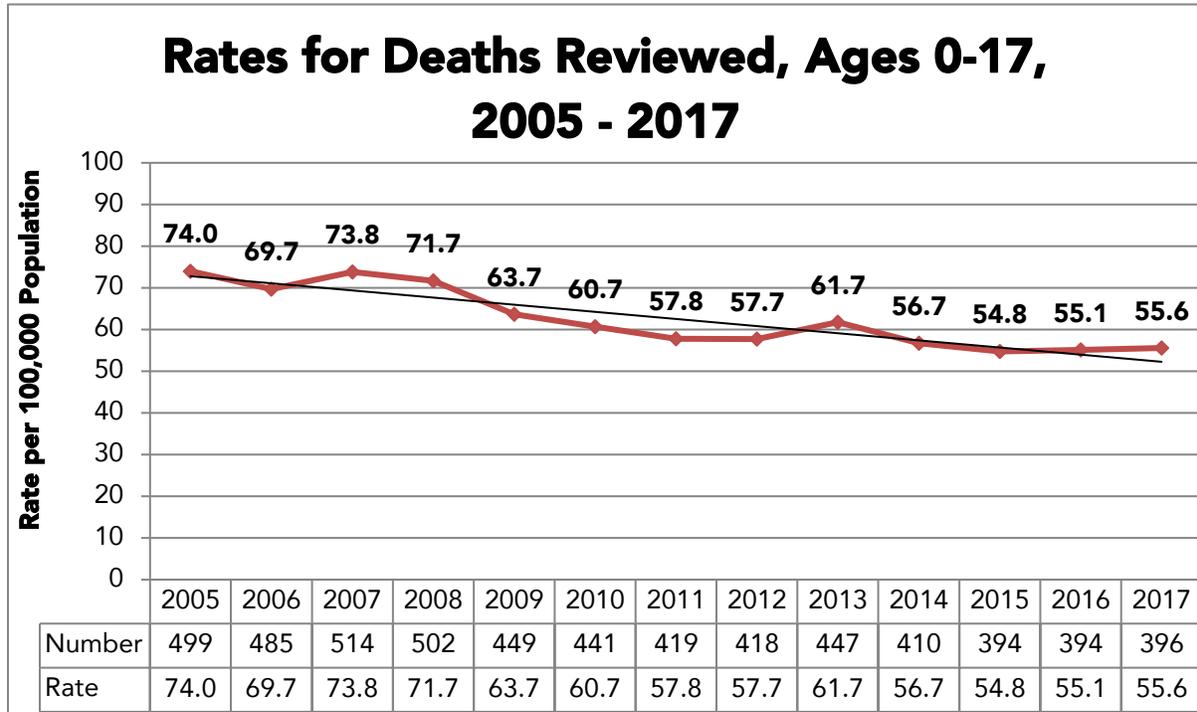


Figure 2

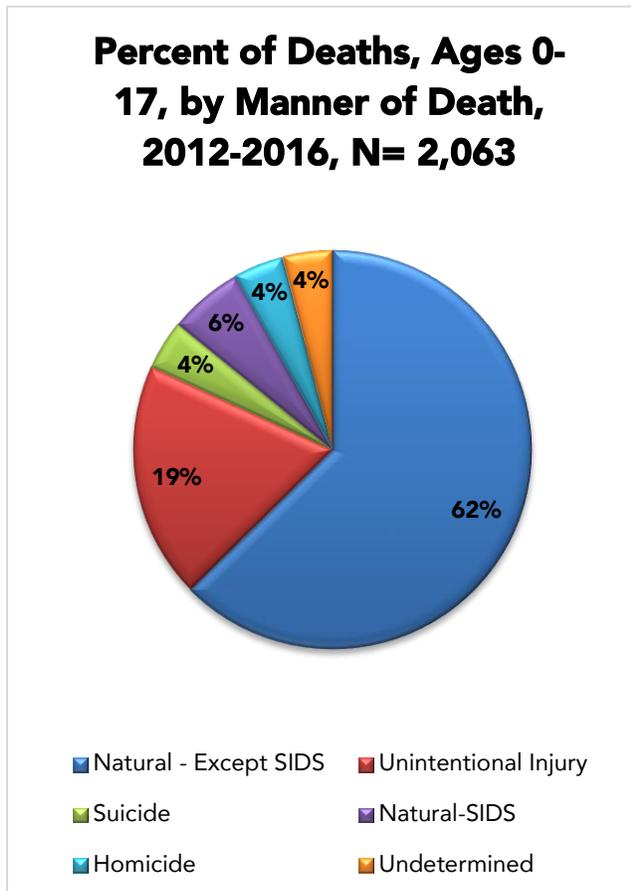


Figure 3

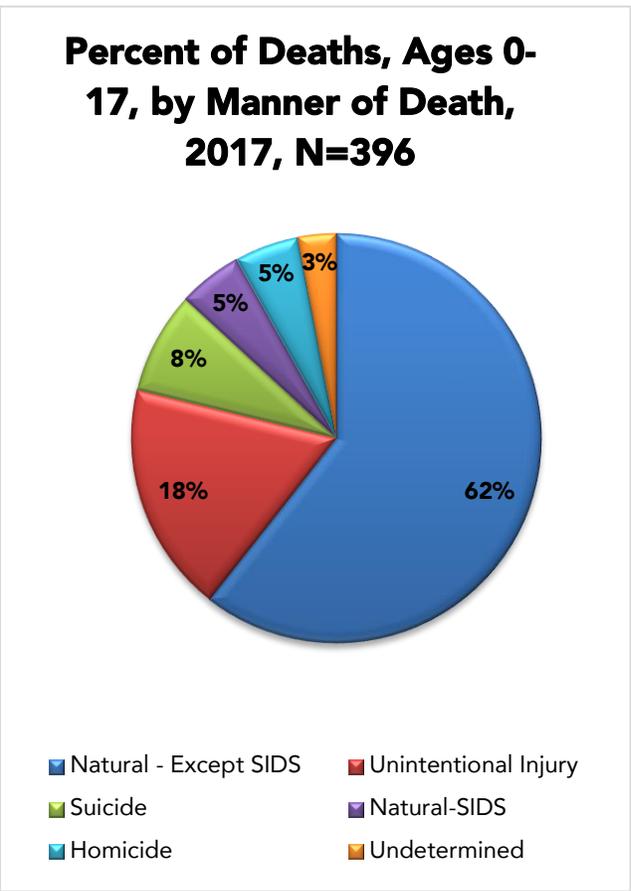


Figure 4

Manner Of Death-2017	Number	Male	Female
Natural - except SIDS	239	127	112
Unintentional Injury - MVC	38	26	12
Unintentional Injury	35	22	13
Suicide	32	18	14
Homicide	20	16	4
Natural-SIDS	19	13	6
Undetermined	13	9	4
Total	396	231	165

As shown in Figures 2 and 3, death by natural manner, excluding SIDS, has accounted for the largest percentage of deaths for the previous five years as well as the current year. In 2017, death by natural manner, excluding SIDS, claimed the lives of 239 Kansas children (Figures 3 and 4). Children who were less than 29 days of age accounted for 66% of natural deaths, excluding SIDS, and 9% were ages 30 days to one year. Prematurity and congenital anomalies accounted for 78% of the natural deaths, excluding SIDS. Cancer claimed the lives of 19 children and was the third-leading natural cause of death, excluding SIDS (Figure 6).

Of the total deaths in 2017, 18% were due to unintentional injuries, 8% were due to suicide, and 5% were due each to Sudden Infant Death Syndrome (SIDS) and homicide. The relative percentages of manners of death are all comparable to the previous 5 reporting years except for Suicides, which doubled this year in comparison to the previous 5 years. Males accounted for more deaths in most age groups and comprised 58% of all child deaths in 2017 (Figures 4 and 5).

Figure 5

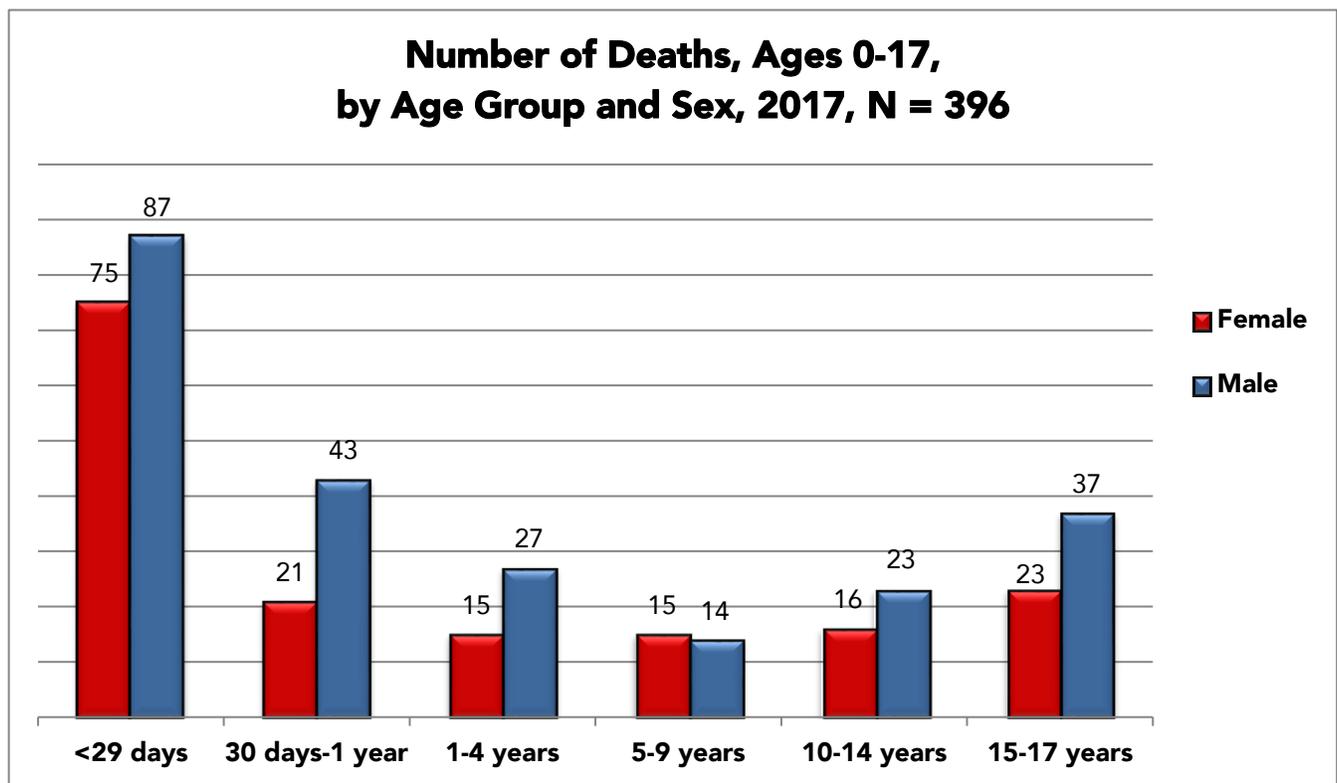
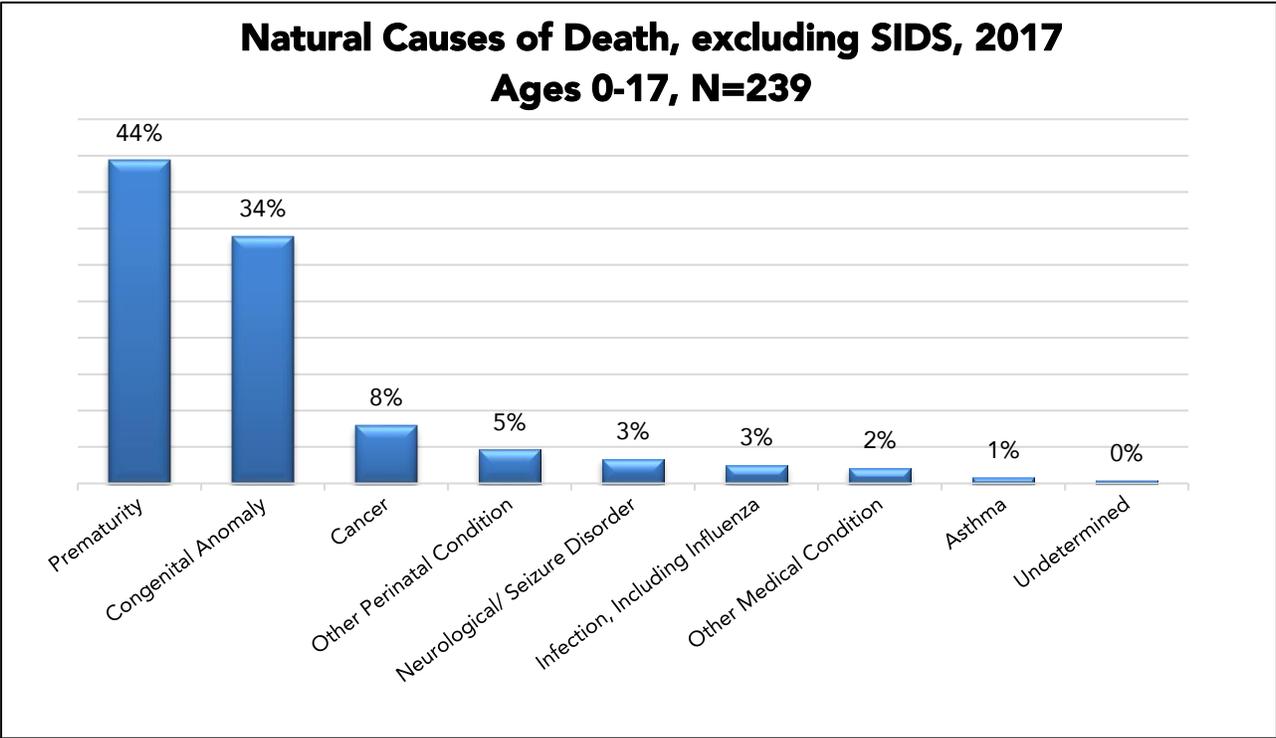


Figure 6



Mortality Affecting Infants

(Age Less Than 1 Year)

In Kansas, special emphasis has been placed on infant mortality (age less than 1 year) as an area in need of improvement. There were 226 infants who died in 2017. The rate of infant deaths per 1,000 live births was 6.2 as noted in Figure 7.

Figure 7

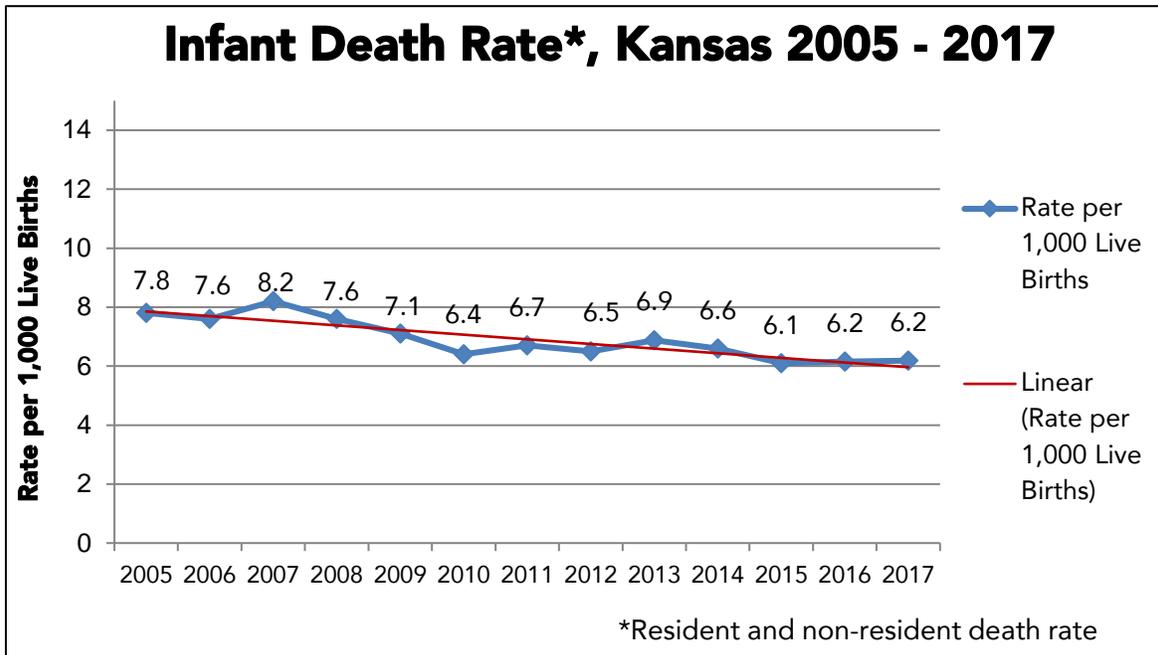


Figure 8

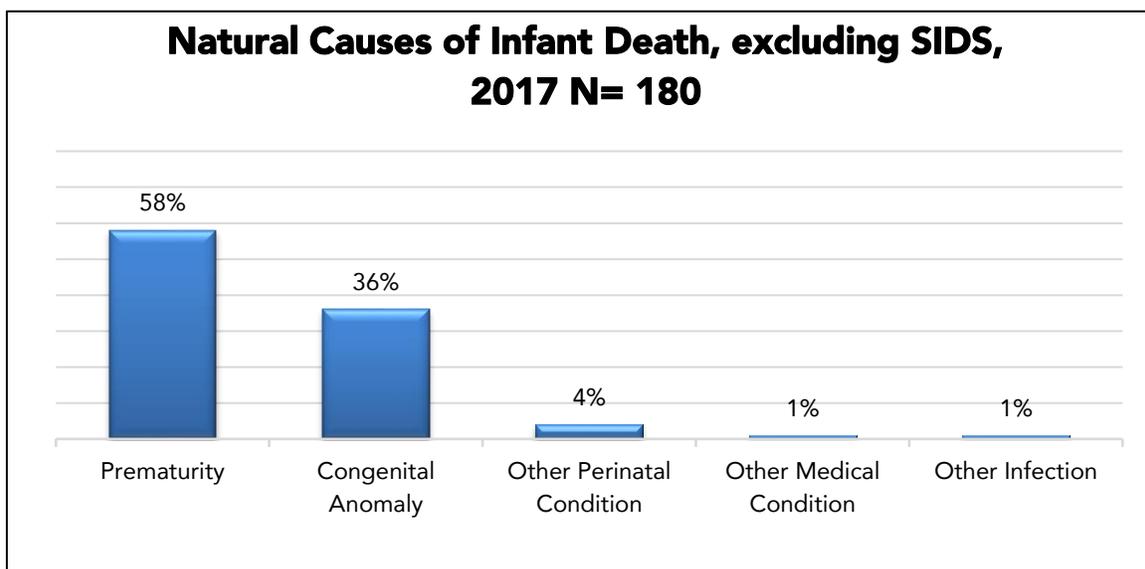
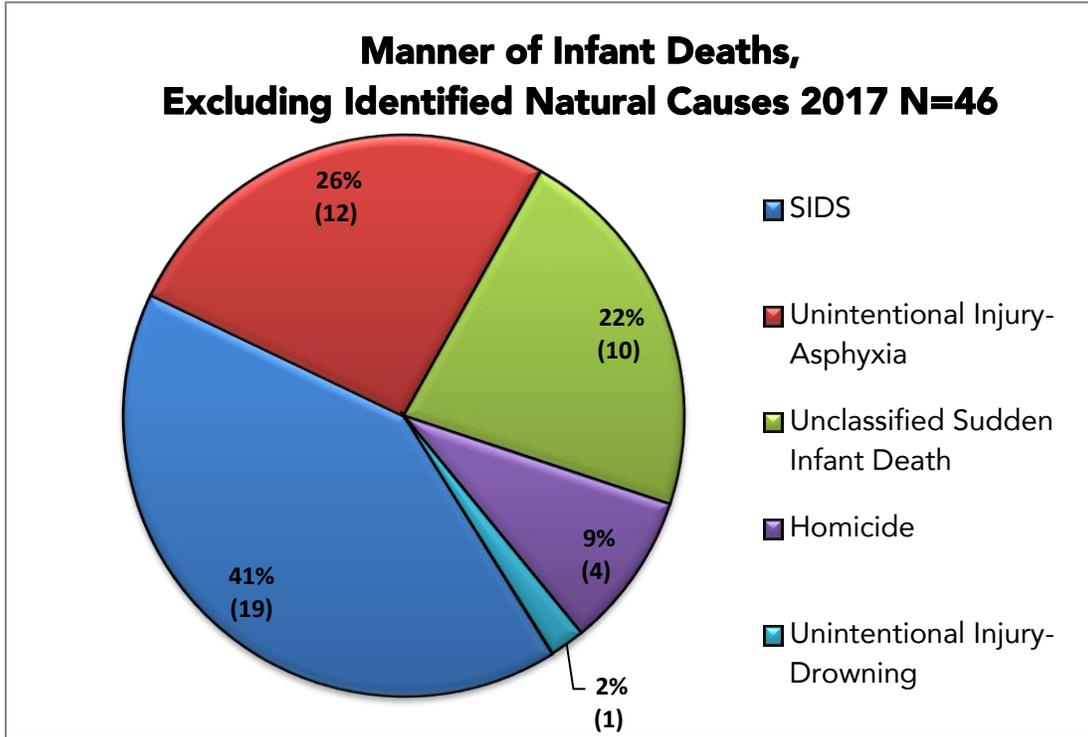


Figure 9



Of the 226 infant deaths in 2017, 80% (180) were due to natural causes such as prematurity and congenital anomalies (Figure 8). The remaining 20% (46) were due to reasons other than identified natural causes. Sudden Infant Death Syndrome accounted for 41% (19) of those infant deaths while another 26% (12) were due to Unintentional Injury by Asphyxia. Unclassified Sudden Infant Death was listed in 22% (10) of the cases. The remaining non-natural infant deaths were the result of Homicides and Unintentional Drowning (Figure 9).

It is important to note that SIDS is considered a natural manner of death when entered on a Kansas death certificate. The SCDRB classifies SIDS deaths separately due not only to the lack of a known cause, but also because of the unique and potentially preventable risk factors associated with those deaths. In other states, these deaths are often classified as undetermined because of the inability to determine a definitive cause of death. By convention, they have remained in the Natural Manner category in Kansas.

Figure 10

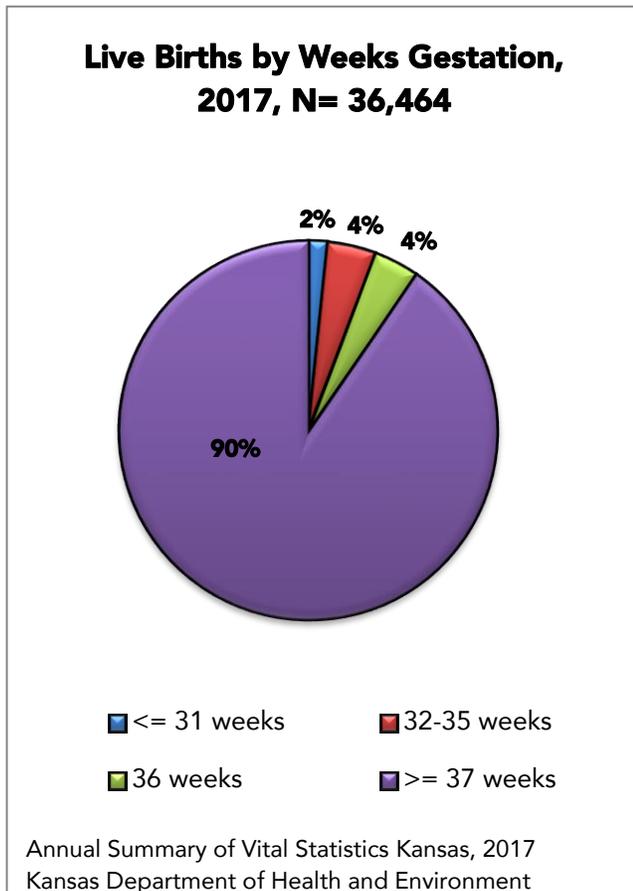
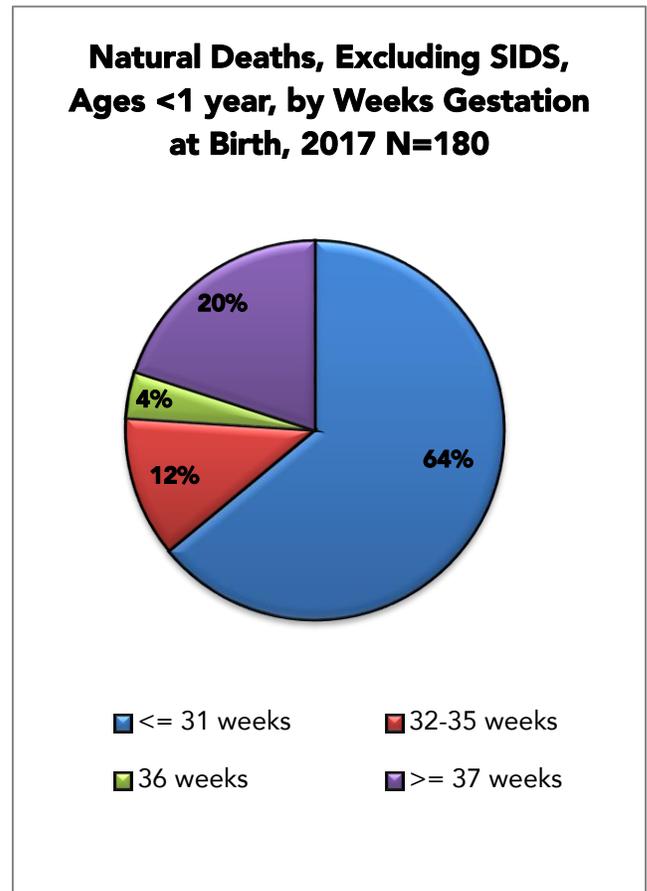


Figure 11



As shown in Figures 10 and 11, 64% of the children who died from natural causes other than SIDS were born at 31 weeks gestation or earlier. Although the majority (90%) 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

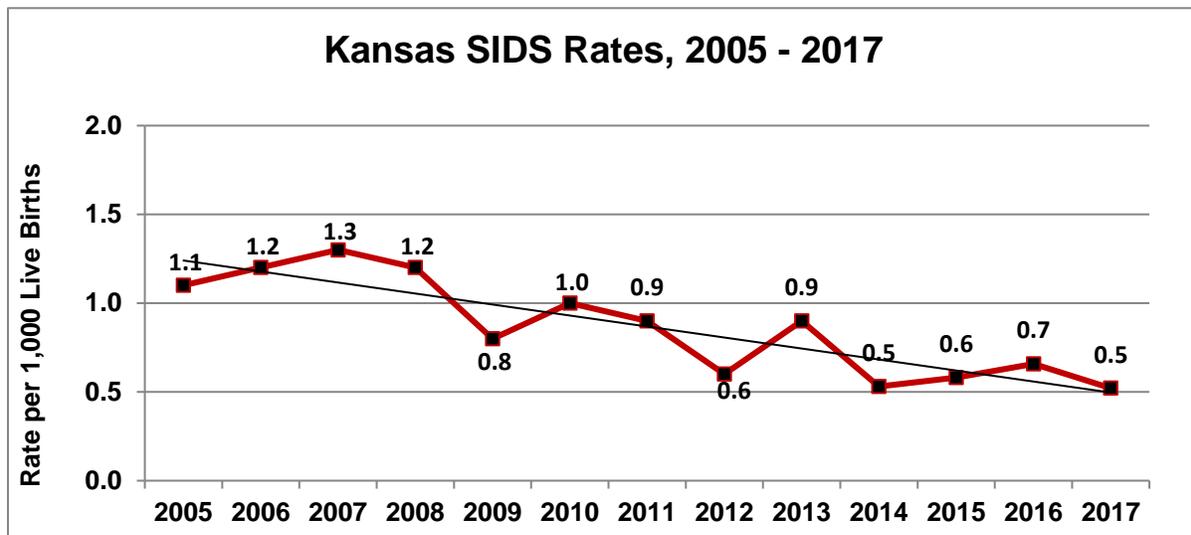
- **Prenatal Care** – Medical care during a pregnancy can identify risk factors and health problems, allowing for early treatment and minimizing poor outcomes. Proper nutrition is vital to a pregnancy. Iron and folic acid supplements, along with other physician prescribed regimens can help ensure a healthy pregnancy and newborn.
- **Avoid Drugs, Alcohol, and Nicotine** – The use of illicit substances, alcohol, and nicotine must 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 19 SIDS deaths in Kansas in 2017. There were another 10 deaths, which were Unclassified Sudden Infant Deaths (USID), and were listed as an undetermined manner of death.

As shown in Figure 12, the rate of SIDS per 1,000 live births in Kansas for 2017 has remained relatively low.

Figure 12



Characteristics of the 19 SIDS Deaths, 2017

- 89% had one or more elements of unsafe sleep.
- 68% were not sleeping in a crib/bassinet.
 - 69% of whom had a crib or bassinet in the home.
- 74% occurred at the decedent's residence, 11% at a relative's home, 11% occurred in an unlicensed child care home and 5% occurred in a licensed foster care home.
- 58% were 4 months old or younger.
- 53% were sleeping in an adult bed.
 - 70% of whom were co-bedding.
- 37% were documented as not being placed supine (on the back) to sleep (recommended position).
- 37% had current or past DCF child protective services involvement with the family.
- 37% had parental alcohol or substance abuse concerns prior to or at the time of death.

Sudden Infant Death Syndrome (SIDS), continued

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 Fatality Review and Preventions, Case Reporting System (CRS) between 2004 and 2012, showed that 69% of the infants were co-bedding 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 bed-sharing continues to be a significant risk factor for SIDS. Data for this study was obtained from the CRS, a database comprising reports of individual child deaths reviewed by state child death review teams. As of early 2019, 45 states were participating in the database. Kansas is one of the few states not participating in the CRS.

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.

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.

Sudden Infant Death Syndrome (SIDS), continued

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 classifies the manner of death for these cases as Undetermined.

After thorough review, the Board categorized the following child deaths due to SIDS and Unclassified Sudden Infant Death (USID) between 2013 and 2017:

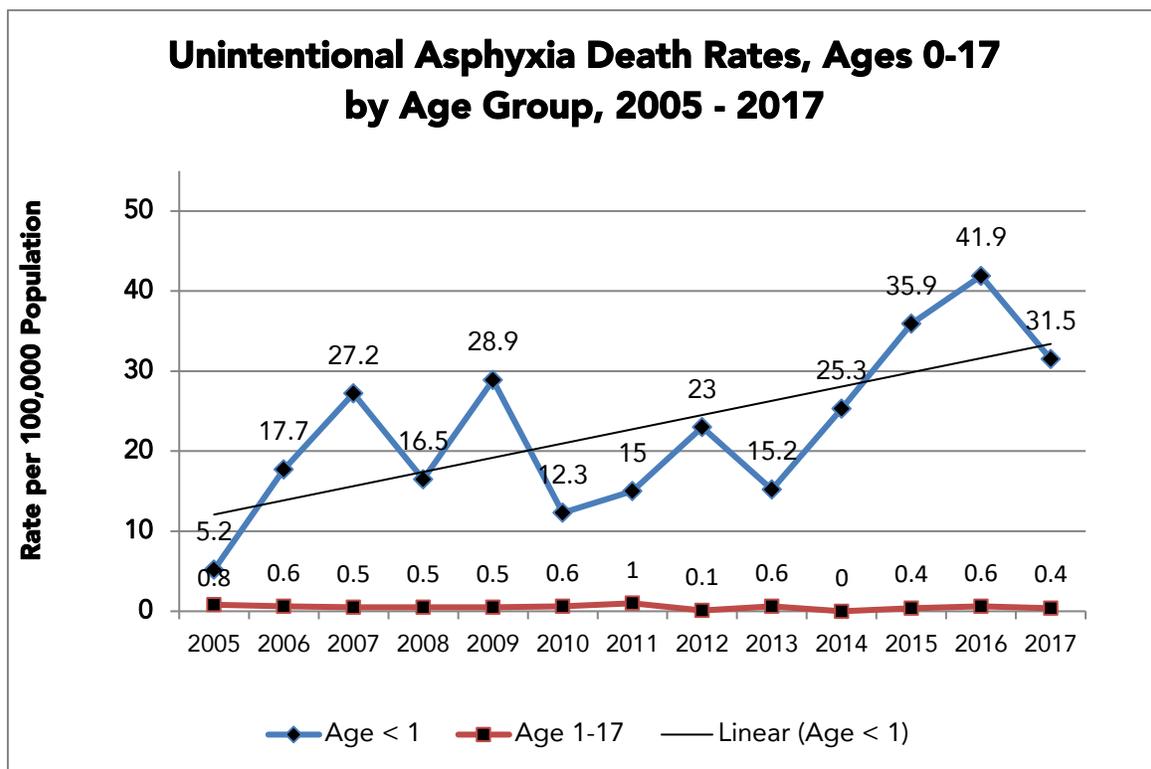
Category	2013	2014	2015	2016	2017	Description of 2017 Cases in Respective Categories
SIDS 1A	1	2	0	0	1	This infant was found in a safe sleep environment with no evidence of any other cause of death.
SIDS 1B	1	1	0	1	1	This death scene investigation was incomplete.
SIDS II	34	15	23	24	17	In all of these cases, an overlay or positional asphyxia could not be ruled out and each case had one or more elements that contributed to an unsafe sleep environment.
USID	9	3	4	7	10	All had elements of an unsafe sleep environment and were sleeping either on a couch or adult bed. Current or past DCF child protective services involvement was noted in 70% of cases. There were significant social factors regarding the parents or caregivers in several cases, raising concern that some deaths may have been the result of neglect, or intentional injuries or actions. Two of the autopsies demonstrated evidence of abuse and/or neglect prior to or at the time of death. Six cases had incomplete law enforcement investigations and one case was classified as a USID due to an incomplete autopsy. Information on autopsy guidelines can be found at http://ag.ks.gov/docs/default-source/forms/autopsy-guidelines.pdf .

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 classified as SIDS based on Category II criteria, 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 would likely have been preventable had the child been in a safe sleeping environment.

Unintentional Injury – Asphyxia Deaths

Fifteen children between the ages of 0-17 died in 2017 due to unintentional asphyxia such as suffocation, strangulation, or choking. Of the 15 children who died due to unintentional asphyxia, 12 (80 percent) were under the age of 1 and all 12 were sleep-related deaths. As shown in Figure 13, the rate of death by unintentional asphyxia in children less than 1 year of age increased in the previous three reporting years, peaking at a rate of 41.9 deaths per 100,000 population in 2016. In 2017, Kansas experienced a decrease to a rate of 31.5 deaths per 100,000 population. Despite the decrease in this reporting year, the linear rate for unintentional asphyxia in infants continues to trend upwards.

Figure 13



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 these deaths. These include sleeping somewhere other than a crib or bassinet, sleeping in a cluttered area, being placed on a soft surface such as an air mattress, pillow or quilt, and bed-sharing with parents or siblings. Of the 15 unintentional asphyxia deaths, 13 were sleep-related. One of those 13 deaths occurred to a child over 1 year of age. All of the sleep-related, unintentional asphyxia deaths included one or more of the above-described factors as a cause of the suffocation/asphyxia.

Some cribs, bassinets, playpens, and child beds have been recalled because of known or suspected risk of strangulation. Before caregivers purchase furniture for children, 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 the 15 Unintentional Asphyxia Deaths in 2017

- 87% (13) of the deaths were sleep-related.
 - All 13 had elements of unsafe sleep.
 - 12 of the 13 occurred when the infant or child was not sleeping in a crib or bassinet.
 - 9 of those 12 homes had a crib or bassinette available.
 - 69% (9) were sharing a sleep surface with another person (co-bedding).
- 80% (12) of all unintentional asphyxia deaths occurred in children under the age of 1.
- 33% had parental/caregiver alcohol or substance abuse concerns prior to or at the time of death.
- 13% (2) deaths were not sleep-related and were a result of unintentional strangulation.
- 47% had current or past DCF child protective services involvement with the family.

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 playing areas should be routinely inspected for dangers such as chests/coolers, hanging cords or plastic bags, which may not be threats to adults, 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 in the crib so the child cannot be trapped between the mattress and side of the crib. No other items, including blankets, bumper pads, pillows, stuffed animals or infant supplies should be in the crib with the baby, as they create a risk for suffocation.

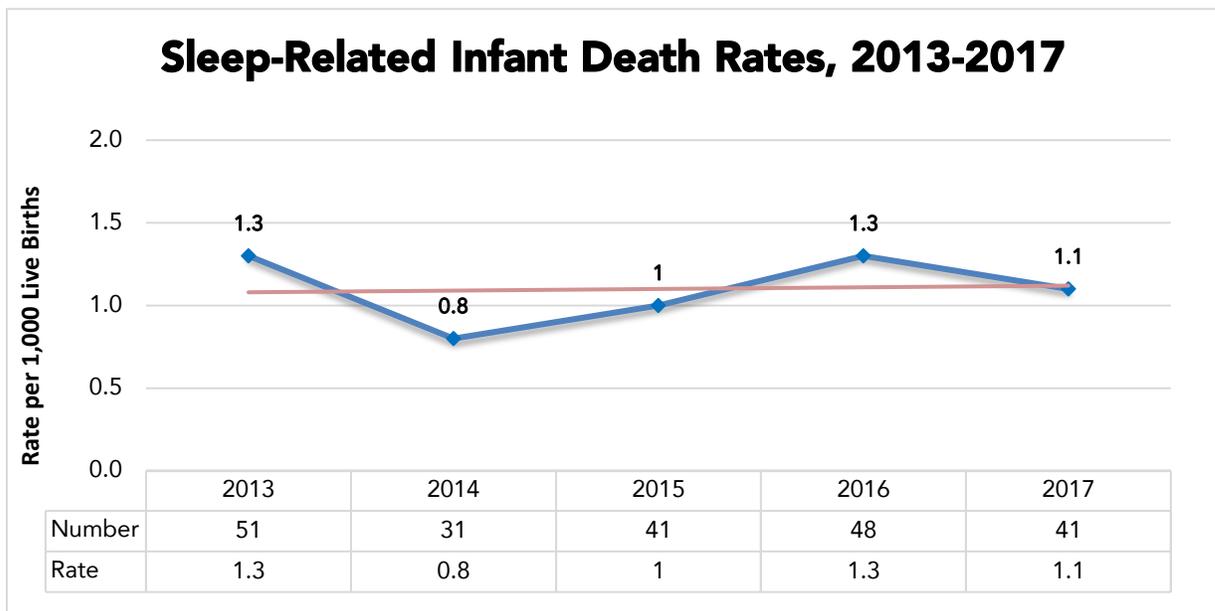
Sleep-Related Infant Deaths

Sleep-related deaths of infants (less than 1 year of age) may be classified in one of three manners depending on the circumstances and the cause of death:

1. SIDS deaths, as described previously, are categorized as Natural Manner of death by convention.
2. Unintentional Injury Manner if the cause of death is the result of suffocation or strangulation.
3. Undetermined Manner, or USID sleep-related deaths, as described in the previous section.

There were 41 sleep-related deaths in 2017. Of those, 19 were classified in a SIDS category, 12 as USID, and 10 as an unintentional suffocation or strangulation.

Figure 14



As shown in Figure 14, sleep-related infant death rates over the last five years have remained relatively unchanged. In 2017, the rate of infant deaths from sudden unexpected causes such as SIDS, USID, and Unintentional Injury was 1.1 infant deaths per 1,000 live births. This rate exceeds the target set by Healthy People 2020 which aims to lower the infant death rate from these causes to less than 0.84 by 2020.

In 2017, there were 41 sleep-related infant deaths reviewed by the Board. In eight of the 41 cases, the mother/caregiver reportedly fell asleep while breast (7) or bottle (1) feeding the infant. In those eight deaths, one was classified as a SIDS, two were classified as a USID, and five were classified as an Unintentional Injury. As noted in the prevention points on page 20, mothers should be encouraged and supported to breastfeed. However, education about how to safely breastfeed in bed and counseling about risk factors and prevention is critical. Mothers should be reminded that if infants are brought to an adult bed for nursing, they should be returned to a separate safe surface (i.e. crib or bassinet) when the mother is ready to return to sleep.

Also of concern, the Board reviewed 16 sleep-related infant deaths in which the caregiver had consumed alcohol or drugs at the time of the incident (including 5 who had consumed drugs or alcohol and were breastfeeding at the time of the incident) or had previous concerns regarding substance use. In 20 of the 41 cases there was current or past history with child welfare agencies (DCF). In 6 of those cases either the decedent or sibling(s) had been removed from parental custody at some time prior to the incident leading to the child’s death.

Although the only deaths known to be preventable are those in the Unintentional Injury category, the risk factors for SIDS and USID overlap those for ASSB (accidental suffocation and strangulation in bed) deaths. Therefore, the Board is including this section to demonstrate the characteristics of sleep location and bed-sharing of all 2016 and 2017 sleep-related infant deaths (Figure 15).

Figure 15

All Sleep-Related Infant Deaths by Cause , Sleep Location, and Bed-sharing 2016 and 2017								
Total 2016	USID	SIDS	ASSB	Sleep Location	ASSB	SIDS	USID	Total 2017
27	4	15	8	Adult Bed Total	8	10	9	27
4	0	4	0	Infant Alone	0	3	2	5
23	4	11	8	Infant Bed-Sharing	8	7	6	21
0	0	0	0	Unknown	0	0	1	1
3	0	1	2	Couch Total	2	1	1	4
0	0	0	0	Infant Alone	1	0	0	1
3	0	1	2	Infant Bed-Sharing	1	1	1	3
12	3	6	3	Crib or Bassinette*	1	6	0	7
1	0	0	1	Chair	0	0	0	0
1	0	1	0	Floor	0	0	0	0
4	0	2	2	Other +	1	2	0	3
0	0	0	0	Unknown	0	0	0	0
48	7	25	16	Total	12	19	10	41

*Recommended Sleep Location

+ Other includes- infant swings, Boppy® pillows, air mattresses, trundle beds, etc.

Sleep-Related Infant Deaths, continued

The American Academy of Pediatrics (AAP), recommends infants be placed on a firm, sleep surface (e.g., a mattress in a safety-approved crib) covered by a fitted sheet with no other bedding or soft objects in the crib. It is also recommended that infants sleep in close proximity to their parents (room sharing) without bed-sharing. Bed-sharing refers to an infant sleeping on the same surface (bed, couch, chair, etc.) with another person.

Our data reflect some concerning findings regarding sleep-related deaths. When combining data from 2016 and 2017 (Figure 15), only 21% of the sleep-related deaths occurred when the infant was in a crib or bassinet as recommended. When looking exclusively at 2017 sleep-related deaths, 33 of 41 families (80%) were known to have a crib or bassinet in the home. It is essential that each family ensure that in addition to having a crib or bassinet in the home for their infant, they also insist their infant sleep in it during every sleep, including naps.

When examining location of the incidents for 2017, 76% occurred in the child's home followed by 12% in a relative's home. The remaining 12% occurred in other locations such as unlicensed child care centers, licensed foster care homes, hotels, or in unknown locations.

Bed-sharing was also examined in Figure 15. Of the 54 deaths that occurred while sleeping on an adult bed or couch, 82% were sharing the sleeping surface with another person(s) at the time of the incident. Placing infants to sleep on couches or armchairs puts them at greater risk of death from SIDS or suffocation. Not only can infants become wedged in the furniture, but the potential for overlay is increased when infants share a small space with another person.

The Board stresses the importance of thorough investigations by law enforcement and medical personnel, along with properly conducted, complete autopsies. In 17 of the 41 sleep-related death investigations in 2017, the Board believed additional investigative information would have been helpful in more clearly determining the manner of death and or the circumstances surrounding the death. The recommendations from these cases includes using scene recreations and re-enactments with dolls, additional witness interviews, improving the quality of scene photographs, and documenting room temperature, availability of a crib, and size of the bed. Use of the Center for Disease Control's Sudden Unexpected Infant Death Investigation Form should be the accepted standard in all investigations and would aid in obtaining critical information at the scene and from interviews: <https://www.cdc.gov/sids/pdf/suidi-form2-1-2010.pdf>.

Please refer to Appendix B for county specific information related to sleeping-related infant deaths.

Characteristics of the 41 Sleep-Related Infant Deaths in 2017

- 76% occurred at the child’s home, 12% in the home of a relative, and 12% in other locations.
- 49% had current or past DCF child protective services involvement with the family.
 - In 30% of these families (7 cases), either the decedent or sibling(s) were placed into state custody at some time prior to the death.
 - One of the 7 decedents was in out of home placement at the time of the death.
 - The other 6 cases involved siblings having been in out of home placement at some time prior to the death of the infant.
- 41% of the investigations lacked information that would normally be expected in a child death investigation.
- 39% had parental/caregiver alcohol or substance abuse concerns prior to or at the time of death.

PREVENTION POINTS

- Infants should be placed to sleep in a supine position. Side sleeping is not as safe as supine sleeping and is not advised.
- A separate, but proximate sleeping environment is recommended. Bed-sharing with adults or other siblings should be avoided. Infants should 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 significantly increased risk of sudden death.
- A firm sleep surface should be used. Soft materials such as pillows, quilts, comforters, or sheepskins should not be placed in the crib with the infant.
- Sleep clothing, such as wearable blankets designed to keep the infant warm, should be used instead of blankets and quilts that could overheat the infant or cover the baby's head. Avoid overheating the infant's room.
- Smoking during pregnancy and in the infant's environment are risk factors and should be avoided.
- Mothers should be encouraged and supported to breastfeed, not only for the known nutritional value but as a protective factor against SIDS. Infants brought to the adult bed for nursing, should be returned to a separate safe surface (i.e. crib or bassinet) when the parent is ready to return to sleep.
- 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 products such as sleep positioners or wedges.
- For more information on safe sleep, visit these websites: SCDRB at <http://ag.ks.gov/scdrb>, the AAP at <http://www.aap.org/>, or Kansas Infant Death and SIDS Network at www.kidsks.org.

Deaths in Non-Relative Child Care Homes and Centers

Since many infants and children spend a significant portion of their time in day care or other child care 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 child care providers.

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

In the last eight years (2010-2017), there have been 30 child care deaths in Kansas with four of those occurring in 2017. Children under the age of 1 have accounted for 26 of these deaths. Of those 26 deaths, 22 were sleep-related and all but one had unsafe sleep factors. The other four deaths that occurred to children under the age of 1 and were not sleep-related, included two child abuse homicides and two deaths by natural causes.

Beginning in 2015, the Board recognized the need to track deaths of children that take place at the residence of the child when that residence is being used as a licensed or unlicensed child care home for other children. Since 2015, there has been one death that met these criteria.

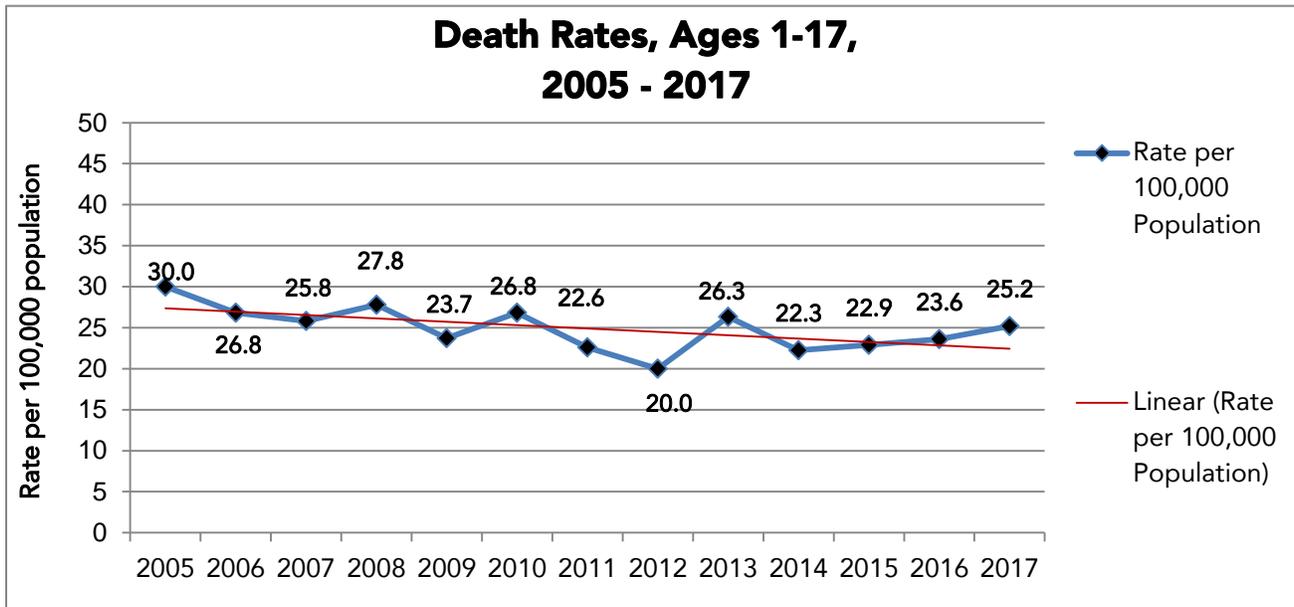
PREVENTION POINTS FOR PARENTS WHEN SELECTING CHILD CARE HOMES AND CENTERS

- Child care homes and centers must be licensed by KDHE. Parents should ask to see the license or certificate – it documents the license type and maximum number of children allowed to be enrolled in that home or center.
- The compliance history of a child care 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/>.
- Child care providers should develop a safe sleep policy that is discussed with parents.
- Child care providers and parents should communicate frequently to assure they understand safe sleep and that these practices are followed at home and in child care. Safe sleep recommendations are listed with the Sleep-Related Deaths prevention points on page 20.

Mortality Affecting Children Ages 1-17

The mortality rate for children ages 1-17 shows an upward trend over the last four years. However, the linear rate per 100,000 population over the past 13 years has continued to decline (Figure 16). There were 170 deaths in this age group in 2017.

Figure 16



Figures 17 and 18 show relative percentages of death by non-natural causes in this age group for the three previous reporting years as compared to 2017. Unintentional Injury-MVC represents the largest percentage of non-natural deaths for both the previous 3 years as well as 2017, although MVCs for 2017 represent a relatively smaller percentage of the deaths for 2017 compared to the combined timeframe of 2014-2016. Strikingly, the number of suicides for 2017 represents 29% of deaths compared to 19% over the previous three year reporting period.

Figure 17

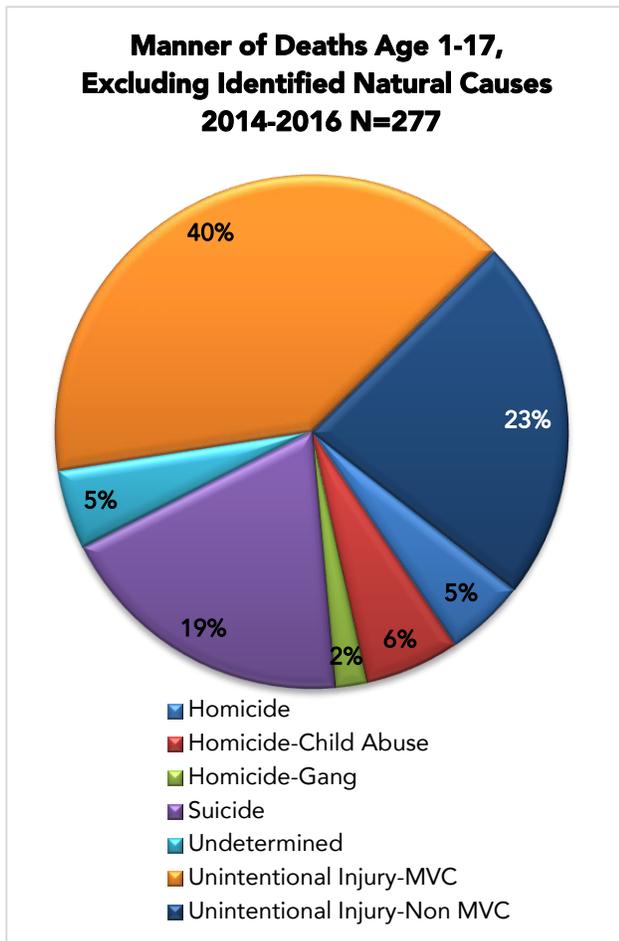
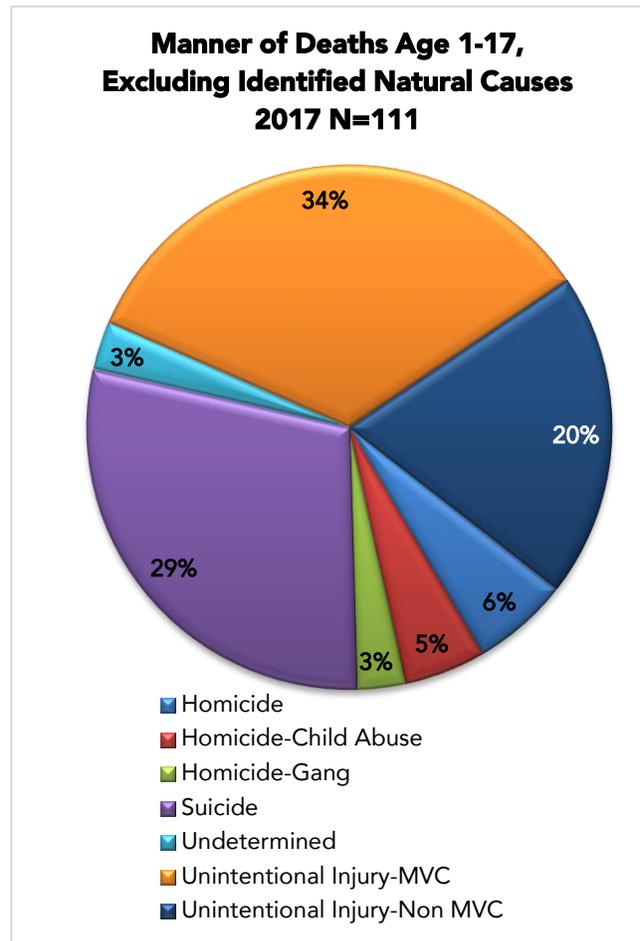


Figure 18



Mortality Affecting Children Ages 1-17, continued

Figure 19

Unintentional Injury By Cause and Age Classification					
Age 0-17, 2015-2017 N=232					
	Age <1	Age 1-4	Age 5-9	Age 10-14	Age 15-17
MVC and Other Transport	4	14	26	26	47
Asphyxia	42	8	1	1	0
Drowning	1	10	3	7	5
Fire, Burn, Electrocutation	0	7	3	1	1
Weapon, Including Body Part	0	4	2	1	2
Poisoning, Overdose or Acute Intoxication	0	0	0	0	6
Undetermined	0	0	0	0	1
Fall or Crush	1	1	0	0	0
Animal Bite or Attack	0	1	0	0	0
Exposure	0	1	0	0	0
Other Causes	2	0	0	1	2

Figure 19 shows the number of unintentional injuries by age classification for the most recent 3-year timeframe. When looking at the 1-17 age group, motor vehicle crashes (MVC) and other transport-related deaths claimed the lives of 113 children and teens and was the primary cause of Unintentional Injury deaths in all age groups except infants. The second leading cause of Unintentional Injury deaths for the 1-17 age group was drowning, with 25 deaths for this timeframe. Of the 12 Unintentional Injury deaths due to Fire, Burn, and Electrocutation for this period, one death was due to electrocution and the other 11 the result of fires/burns.

Unintentional Injury deaths due to weapon use accounted for nine deaths between 2015 and 2017. Weapons can be guns, knives, or other objects, including body parts. Households should store guns unloaded in a locked location that is out of reach and sight to children. Leaving guns where they are accessible to children, such as in or on dressers or nightstands, can lead to injury or death.

It should not go unnoticed that the second leading cause of unintentional injury death for teens aged 15-17 was poisoning, overdose, or acute intoxication. A youth's environment can influence whether he or she will try drugs or other substances. Whether at home, school or in the community, caregivers, and school educators should address the dangers of drugs and alcohol and the risk of lethality from

misuse or abuse. The Centers for Disease Control and Prevention measures the prevalence of risk behaviors for students in grades 9-12 through the national Youth Risk Behavior Surveillance System (YRBSS). YRBSS monitors six categories of priority health-risk behaviors among youth and young adults. One of those categories is Alcohol and Other Drug Use. In 2017, 14.5% of the youth in Kansas reported having taken “prescription pain medicine without a doctor’s prescription or differently than how a doctor told them to use it.” More information regarding this data can be found at <https://www.cdc.gov/healthyyouth/data/yrbs/index.htm>.

OVERDOSE PREVENTION POINTS

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

- **Discuss the dangers and rules of taking medications.** Medications are prescribed by physicians for specific patients and specific purposes. The fact that they are prescribed does not make them safe for others. Children and teens should be instructed to never take medications that are not prescribed for them, never share their medications with any other person, and 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 medications should not be accessible to children.** Quantities of medications should be tracked and all medications kept in a locked 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>

Unintentional Injury – Motor Vehicle Crash Deaths

In 2017, 38 children died in Kansas due to unintentional injuries sustained in Motor Vehicle Crashes (MVC). Figure 20 shows the MVC death rate has remained low over the last 7 years.

Figure 20

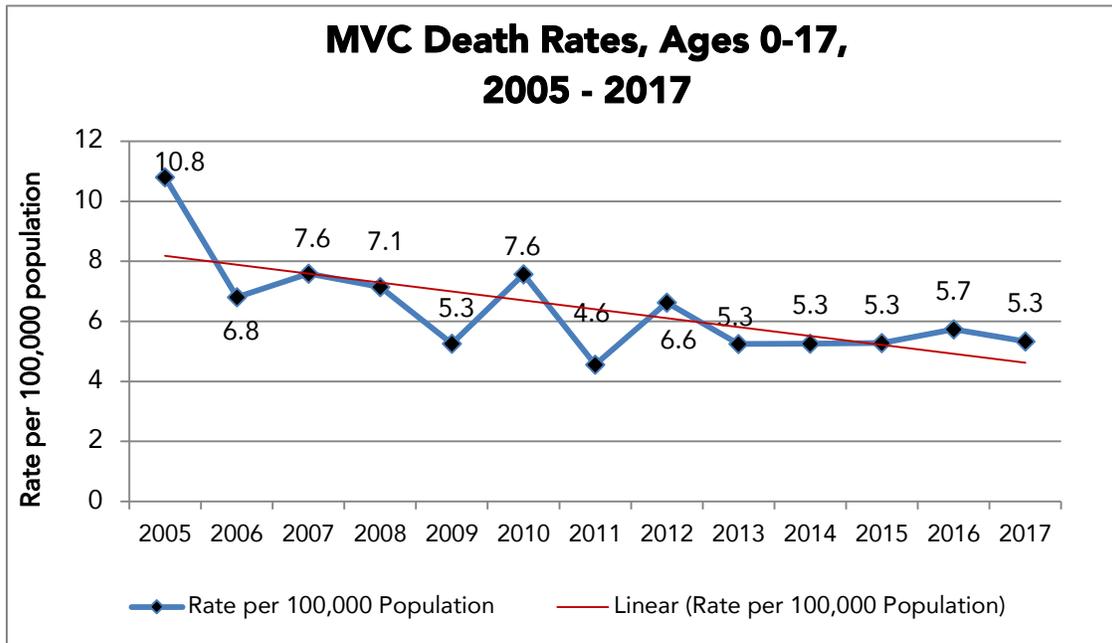


Figure 21

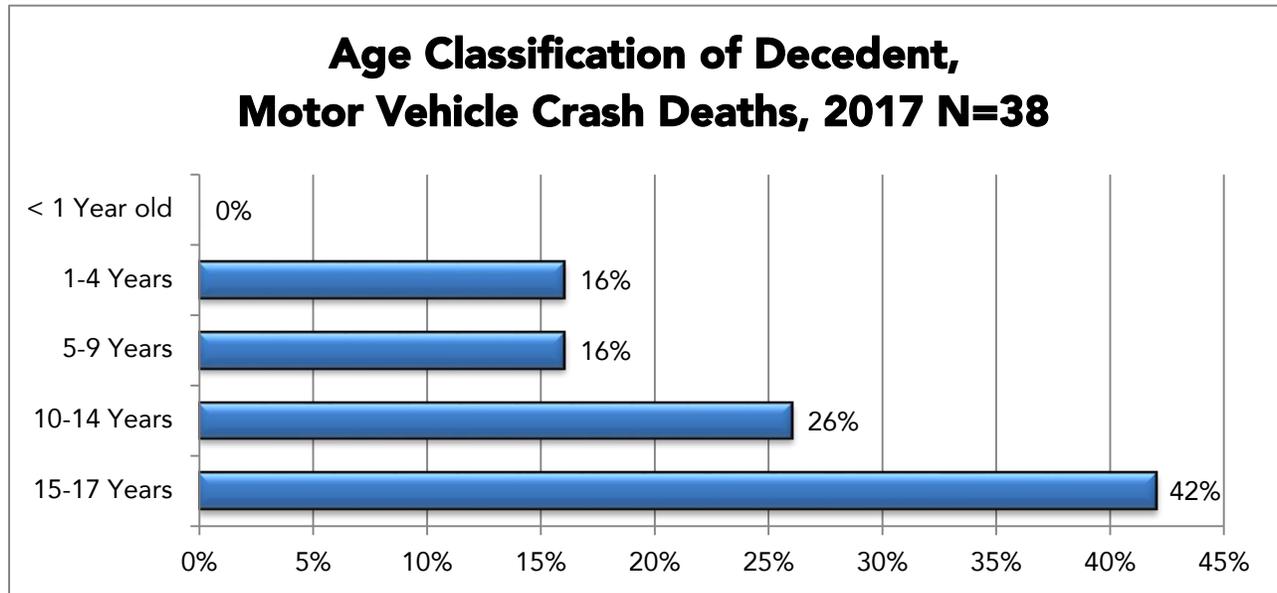
Motor Vehicle Death Rates per 100,000 Population, Ages 0-17, by Age Group, 2005-2017					
	< 1 Year	Age 1-4	Age 5-9	Age 10-14	Age 15-17
2005	2.0	4.0	8.3	6.4	34.5
2006	3.0	2.6	2.1	7.3	18.9
2007	3.0	5.1	1.1	6.9	23.2
2008	0.0	5.6	2.1	6.9	21.2
2009	4.0	4.3	1.0	1.6	18.9
2010	0.0	6.1	5.9	3.0	22.5
2011	2.5	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
2015	2.6	2.5	5.4	3.0	13.3
2016	7.9	2.6	4.5	5.0	12.5
2017	0.0	3.9	3.0	5.0	13.4
Average	2.7	3.9	3.7	4.9	17.8

Unintentional Injury – Motor Vehicle Crash Deaths, continued

As noted in Figures 21 and 22, the likelihood of a child dying due to a motor vehicle crash increases as the child becomes older. Teens aged 15-17 accounted for the highest percentage of MVC deaths. Only 36% of the children in the 15-17 year old age group were using a safety restraint at the time of the crash.

Of the 38 Motor Vehicle Deaths in 2017, 31 of the children were either the driver or a passenger of the vehicle. The remaining seven children were pedestrians.

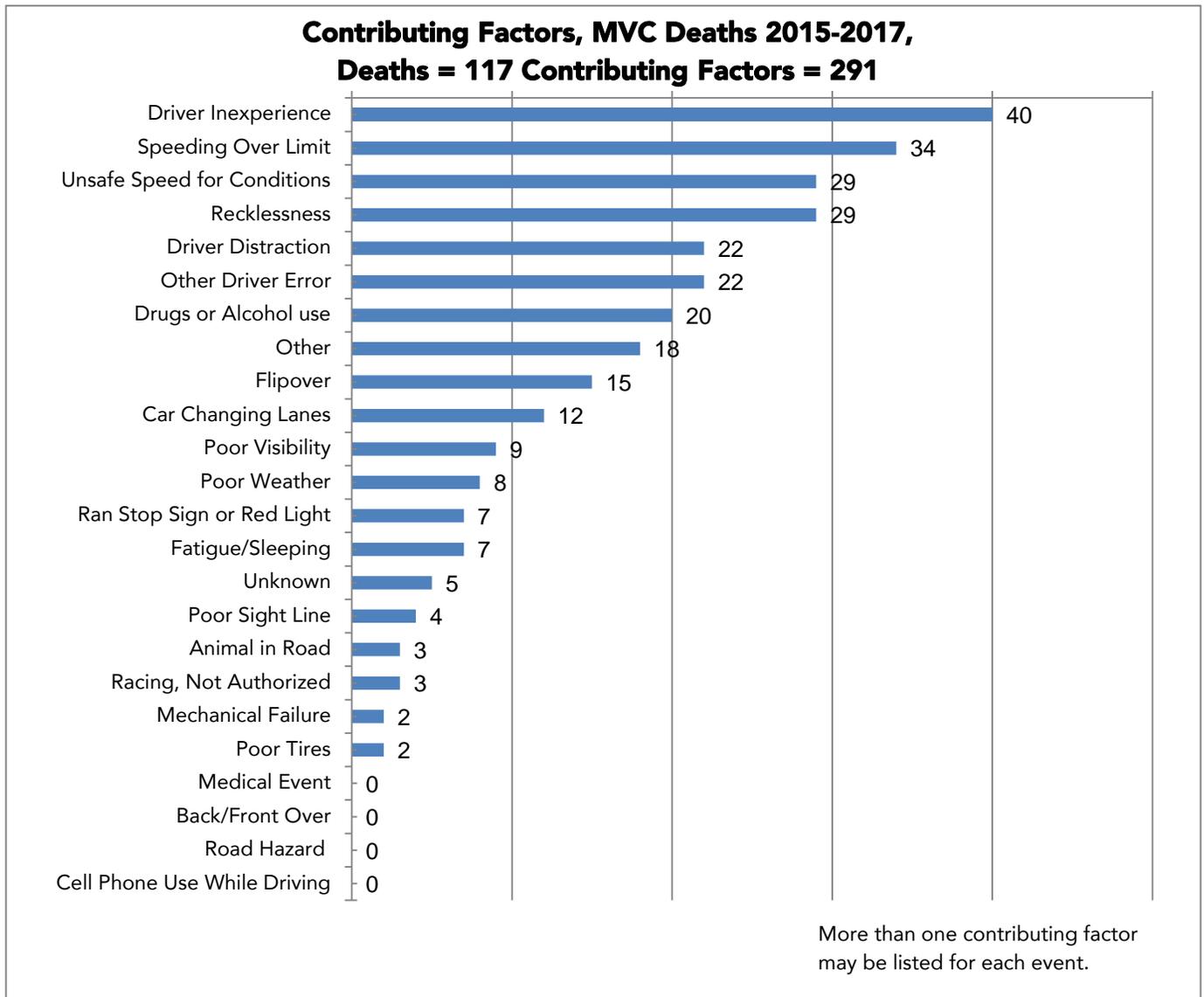
Figure 22



It is important to note that there are multiple factors that can lead to a MVC death. Combined data for 2015-2017 includes 117 MVC fatalities. Of those fatalities, there were 291 combined factors that were reported as having contributed to those deaths. A list of those factors can be found in Figure 23.

Speeding, whether over the limit or unsafe for the conditions, was a contributing factor in 54% of the combined MVC deaths in 2015-2017. Driver inexperience accounted for another 34% of the MVC deaths. Of note, while 17% of the MVC deaths during these three years had a contributing factor of alcohol or drug use, in only three of these was the decedent the one operating the vehicle while under the influence. Despite the low incidence of MVC deaths with contributing factors of teen drinking for this reporting period, the Board continues to have concerns regarding accessibility of alcohol to minors.

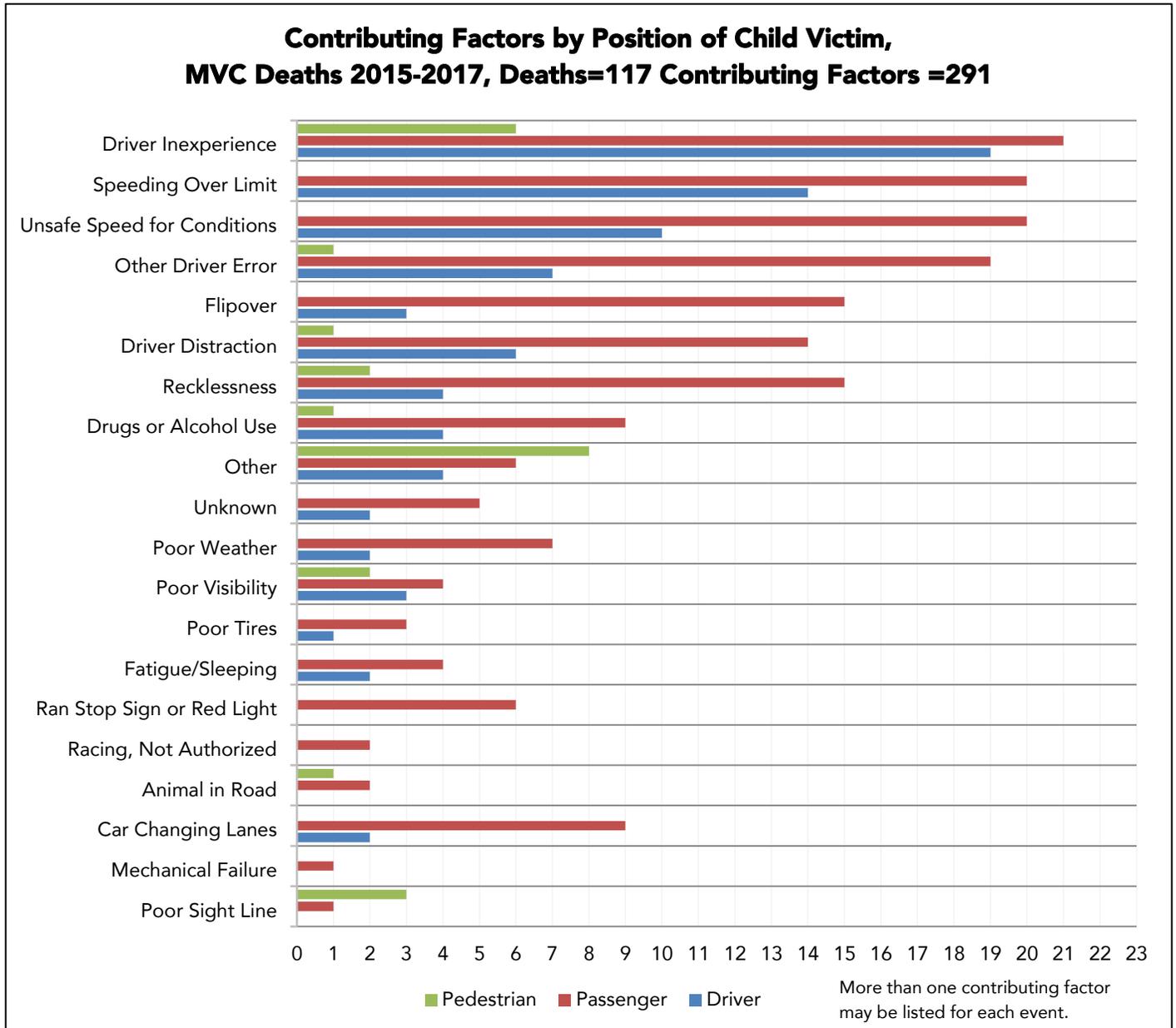
Figure 23



Unintentional Injury – Motor Vehicle Crash Deaths, continued

Figure 24 breaks down the contributing factors by whether the decedent was a pedestrian or where the decedent was in the car at the time of the crash. Driver inexperience was the lead contributing factor for both driver and passengers. No deaths during this period were attributed to having “cellphone use while driving.” The Board requires documentation of cell phone use in investigative reports before classifying this as a contributing factor. It is important for investigators to document contributing factors, such as cell phone use while investigating and reporting MVCs.

Figure 24



Unintentional Injury – Motor Vehicle Crash Deaths, continued

Figure 25 displays the type of safety restraint used based on the location of the victim in the vehicle. Between the years of 2015 and 2017 there were 101 deaths of children due to MVCs. Of those deaths, 33% (33) of the decedents were the driver of a motor vehicle at the time of their death with only 1/3 of those being properly restrained at the time of the crash. In total, when looking at safety restraint use, 54% of the decedents were either incorrectly restrained or unrestrained for all locations in the vehicle. Figure 25 does not include in the total the 16 pedestrian deaths.

Figure 25

Safety Restraint Use by Decedent, 2015-2017 N=101					
	Driver	Passenger Front Seat	Passenger Back Seat	Passenger Other	Total
Restrained	11	4	16	0	31
Restrained, Incorrectly	0	2	2	0	4
Unrestrained	17	15	16	2	50
Unknown if Restrained	4	5	1	3	13
Other	1	1	0	1	3
Total	33	27	35	6	101

Kansas experienced 11 child deaths from All Terrain Vehicle (ATV) crashes between 2015 and 2017. According to the 2017 Annual Report of ATV-Related Deaths and Injuries published by the U.S. Consumer Product Safety Commission, “In 2017, there were an estimated 93,800 ATV-related, emergency department-treated injuries in the United States. An estimated 26% of these involved children younger than 16 years of age.”

ATV use is popular in both recreation and work. This type of vehicle size, maneuverability and durability makes it extremely handy and fun to ride. Drivers of ATVs often use roadways not designed for ATV travel and often drive at unsafe speeds.

In Kansas, children ages 10-14 comprise the largest number of ATV related fatalities since the Board began reviewing child deaths in 1994. In 2017, three children died in ATV crashes, all under the age of 14 years. The three children were all unrestrained and were not wearing helmets. Young riders lack the size and strength to safely control an ATV. Operating or riding in an ATV carries a substantial risk of serious injury or death. Due to the risk associated with operating ATVs, laws requiring a minimum age of at least 16 should be considered as a way to prevent future ATV-related deaths in children. At minimum, all ATV users should wear a helmet, eye protection, and protective clothing when riding in or operating an ATV.

“Bucks for Buckles,” an initiative of Safe Kids Kansas, State Farm and the Kansas Department of Transportation is one example of how agencies in our state are collaborating to educate the public about the importance of seat belts. In late summer, volunteers in multiple cities statewide hand out one-dollar bills to drivers who have all occupants buckled up and secured in their vehicles. Certified technicians are available to show parents and drivers how to properly install child safety seats and boosters. Drivers with unrestrained passengers get educational materials about the effectiveness of seat belts and child safety seats. Safe Kids Kansas provides helpful information regarding child passenger safety on their website at: <http://ktsa.org> <http://www.safekidskansas.org/>.

Characteristics of the 38 Motor Vehicle Crash Deaths, 2017

- 26 decedents were male; 12 were female
- Only 9 of the decedents were driving a vehicle at the time of their demise
 - 7 male; 2 female
 - One of the drivers was operating an ATV, one was operating a motorcycle, and the remaining were operating a car, truck, van or SUV.
 - Only 3 of the 9 drivers were known to be properly restrained
- 7 decedents were pedestrians
 - 2 were on bicycles, the other 5 were on foot.
 - 3 of the 7 incident locations were listed as driveways
- 3 were ATV-related deaths

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 in the back seat. 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.
- **Stay Alert-** Pedestrians need to be visible to drivers at all times and stay in well-lit areas, especially when crossing the street. While distractions such as cell phones and headphones are a daily part of youth’s lives, they are dangerous to pedestrians who are looking down or unable to hear what is going on in their surroundings.

Unintentional Injury – Drowning Deaths

In 2017, 10 children died from unintentional 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 minutes and in only a few inches of water. Between 2005 and 2017, there were 121 unintentional drowning cases. Since 2005, the 1-4 year age group, on average, has accounted for the highest rate of deaths when compared to the other age groups. Figure 26 shows drowning death rates for ages 0-17. Figure 27 shows the rates listed by age group (both per 100,000 population for the last 13 years).

Figure 26

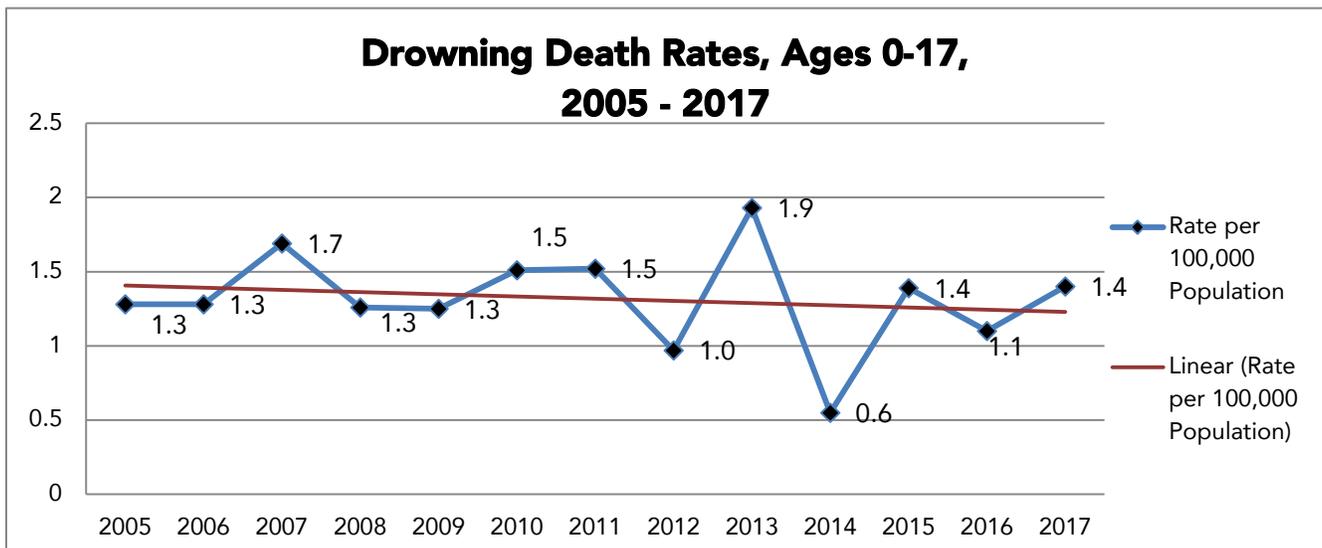


Figure 27

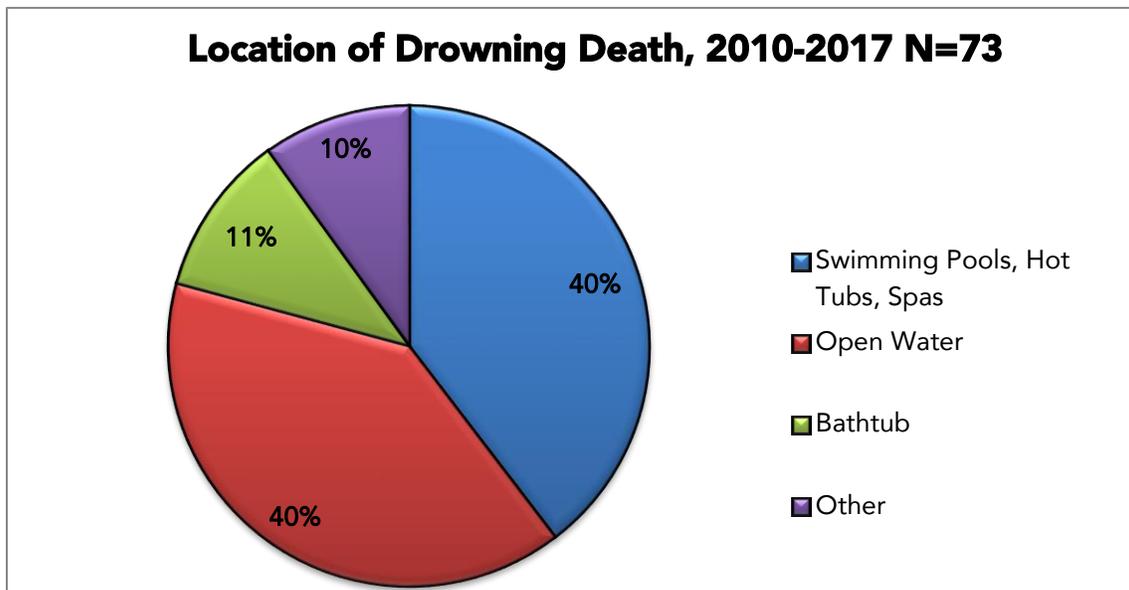
Drowning Death Rates per 100,000 population, Ages 0-17, by Age Group, 2005-2017					
	< 1 Year	Age 1-4	Age 5-9	Age 10-14	Age 15-17
2005	0.0	5.4	0.0	0.5	0.0
2006	1.0	2.6	0.5	0.0	2.0
2007	2.0	3.2	0.5	1.6	0.8
2008	0.0	4.4	0.5	0.0	0.8
2009	0.0	3.1	0.5	1.1	0.9
2010	0.0	3.6	1.5	1.0	0.0
2011	0.1	0.4	0.6	0.1	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
2015	0.0	3.2	0.5	1.5	0.8
2016	0.0	1.3	0	0.5	2.5
2017	2.6	1.9	1.0	1.5	0.8
Average	0.4	2.8	0.5	0.8	1.1

Unintentional Injury – Drowning Deaths, continued

As shown in Figure 28, swimming pools and open water have been the primary location of child drownings in the last eight years. Proper supervision and floatation devices for children of all ages are very important. Children are not only 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.

Many of the same prevention points can be applied to swimming in locations of open water. Open water, which includes rivers, lakes, and ponds, are popular areas for Kansas children to visit. Despite the ability to swim, swimming in open water is more challenging than in a pool. Children and youth can tire quickly and if they go under water, the murky water and currents can make it difficult for even the best swimmer to be seen and rescued.

Figure 28



The use of personal floatation devices is essential for children of any age despite their ability to swim. In 2017, none of the children who died due to unintentional drowning were wearing a floatation device. In eight of the 10 unintentional drowning deaths, poor or absent supervision was noted to be either the direct or contributing factor. Every minute counts in drowning situations. Proper supervision and appropriate personal floatation devices are critical prevention measures when children are near water.

PREVENTION POINTS

- **Proper Supervision** – An adult capable of responding to an emergency should always supervise children around water. The adult should actively watch and avoid distractions. Assigning swim “buddies” is recommended, especially if there are many swimmers. Supervision also applies to bathtubs, where children should never be left alone even for brief periods of time.
- **Pool Environment Safety** – Most cities/counties have ordinances 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 and 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. Parents and caregivers should educate children about the dangers of going out onto a frozen body of water for recreational purposes such as ice skating or fishing.

Unintentional Injury – Fire, Burn and Electrocution

In 2017, four Kansas children died in unintentional fire, burn and electrocution incidents. Nationwide, fires and burns are a common cause of unintentional injuries and deaths. In 2017, three of the four deaths in this category were fire-related. Figures 29 and 30 indicate death rates in this category for all children and rates listed by age group per 100,000 population for the past 13 years in Kansas.

Figure 29

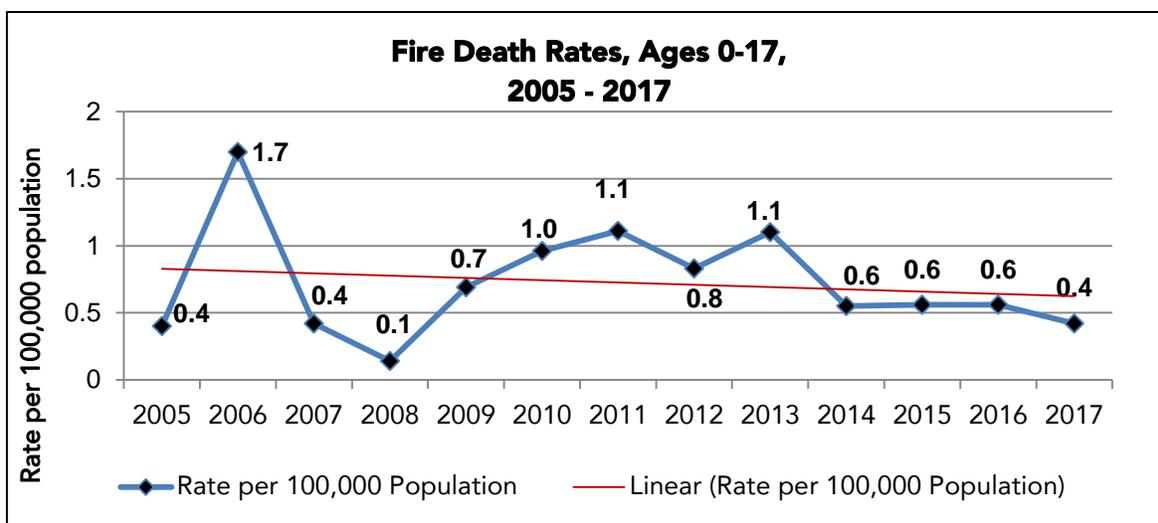


Figure 30

Fire Death Rates per 100,000 population, Ages 0-17, by Age Group, 2005-2017					
	< 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
2015	0.0	1.3	0.0	0.5	0.8
2016	0.0	1.3	1.0	0.0	0.0
2017	0.0	1.3	0.5	0.0	0.0
Average	0.6	1.5	0.8	0.4	0.3

Parents and caregivers must 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 should be tested once a month, have new batteries at least once a year, and be replaced every 10 years. Close supervision of children, safe storage of matches and lighters, and working smoke detectors in the home are critical.

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, Burn and Electrocution Deaths, 2017

- One death was specific to an electrocution death, the other three were fire-related.
- In all three of the fire-related deaths there was a smoke detector present.
 - One smoke detector was working correctly.
 - The other two were “unknown” if working correctly.
- In two of the three fire-related deaths, there were barriers preventing a safe exit.
 - Both barriers were documented as a childproof gate.
- The three fire-related deaths occurred in two unrelated house fires.

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 inside each bedroom, outside each sleeping area and on every level of the house, including the basement. Smoke detectors should be 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. Ensure that gates or unnecessary clutter do not block exits. Designate a central meeting location outside of the home and have regular fire drills.

Asthma

In the last eight years of SCDRB cases (2010-2017) there have been 18 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 are 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.

Figure 31

Numbers and Rates of Pediatric Asthma Hospitalizations* Kansas, 2010 - 2017		
Year	Number	Rate
2010	732	113.3
2011	700	108.5
2012	886	138.2
2013	600	93.5
2014	726	112.6
FFY 2015 †	554	86.2
2016 §	482	75.5
2017	440	69.2

* Admissions with a principal diagnosis of asthma per 100,000 population, ages 2 through 17 years. Excludes cases with a diagnosis code for cystic fibrosis and anomalies of the respiratory system, obstetric admissions, and transfers from other institutions

† Calendar year rate cannot be calculated due to presence of ICD9CM and ICD10CM diagnoses. Federal fiscal year used.

§ Rate calculated using ICD10CM diagnoses. Due to the difference in the coding methods, 2016 rate cannot be compared to prior years.

Residence Data

Source data: Kansas Hospital Association

Calculated using Agency for Healthcare Research and Quality Pediatric Quality Indicator software.

Prepared by:

Kansas Department of Health and Environment

Bureau of Epidemiology and Public Health Informatics

Created: July 31, 2018

Contact: KDHE.HealthStatistics@ks.gov

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 controlled 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 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, provide ongoing education and monitoring, and work with families, child care facilities and schools to improve the lives of children with asthma and prevent asthma related deaths. Child care 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>

Homicide

The Board reviewed 20 child homicides in 2017. Figure 32 indicates rates per 100,000 population for the past 13 years.

Figure 32

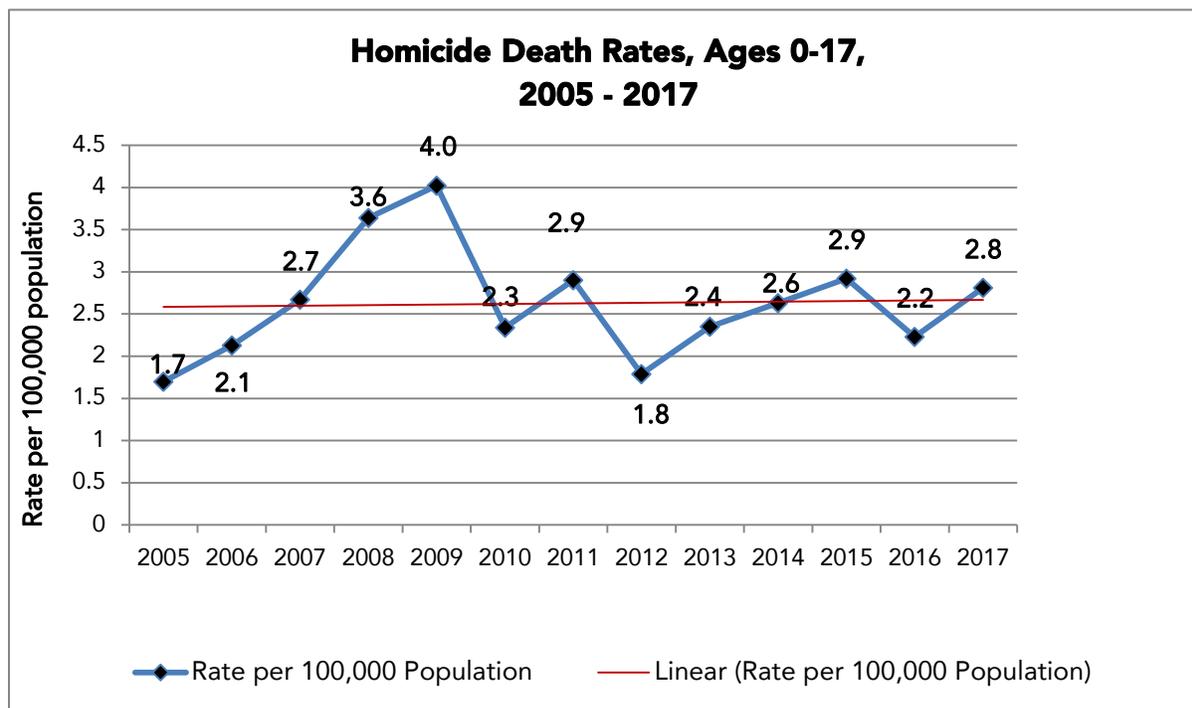


Figure 33 demonstrates homicide rates per 100,000 population by age group. When examining child homicides, the rate for infants is more than three times higher than other age groups. This difference is explained by the unique characteristics of the circumstances surrounding child abuse homicides, which 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 and behavior can be frustrating to caregivers. This is discussed in more detail in the [Homicide – Child Abuse](#) section on page 43.

Figure 33

Homicide Death Rates per 100,000 population, Ages 0-17, by Age Group, 2005-2017					
	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	1.5	2.5
2012	7.5	1.8	1.0	0.0	4.2
2013	12.6	2.4	1.5	1.0	1.7
2014	15.0	3.1	1.0	2.0	1.7
2015	23.1	3.2	1.0	0.0	4.2
2016	13.1	2.6	1.0	0.5	3.3
2017	10.5	5.2	0.0	0.0	6.7
Average	13.3	3.2	0.7	0.9	4.1

Each child homicide was categorized into the following groups (Figure 35 and 36). By categorizing homicides in this way, the Board is able to look in depth at specific issues pertaining to each category.

Of the total homicides in all categories for 2017 (Figure 35), 40% (8) were due to child abuse and 15% (3) were due to gang violence. The other 25% (9) were attributed to deaths that did not fall under child abuse or gang violence definitions.

Figure 34

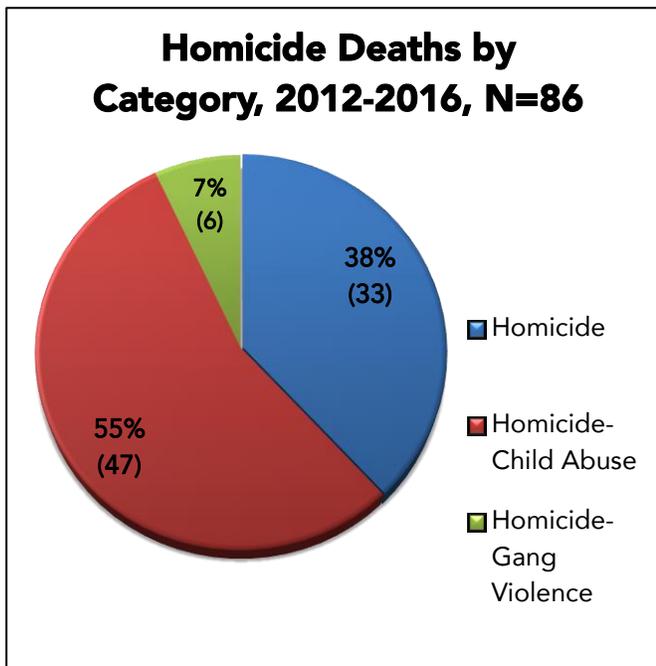
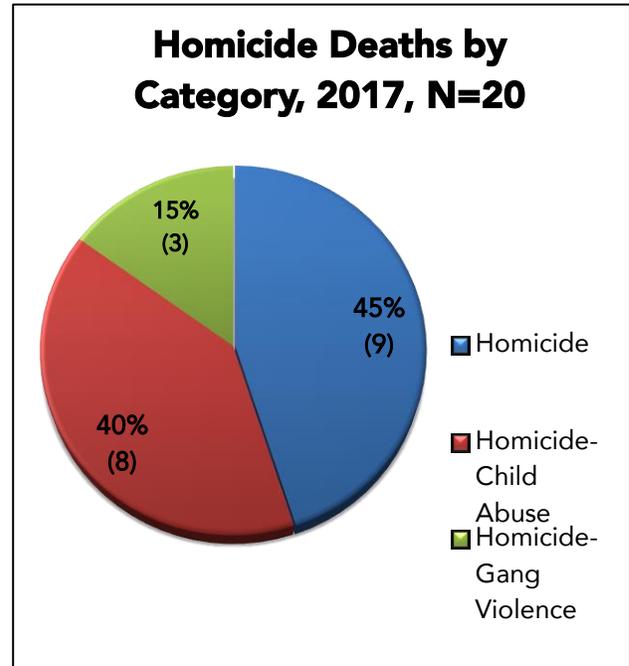


Figure 35



HOMICIDE – CHILD ABUSE

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 additional 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 without visible external evidence of trauma.

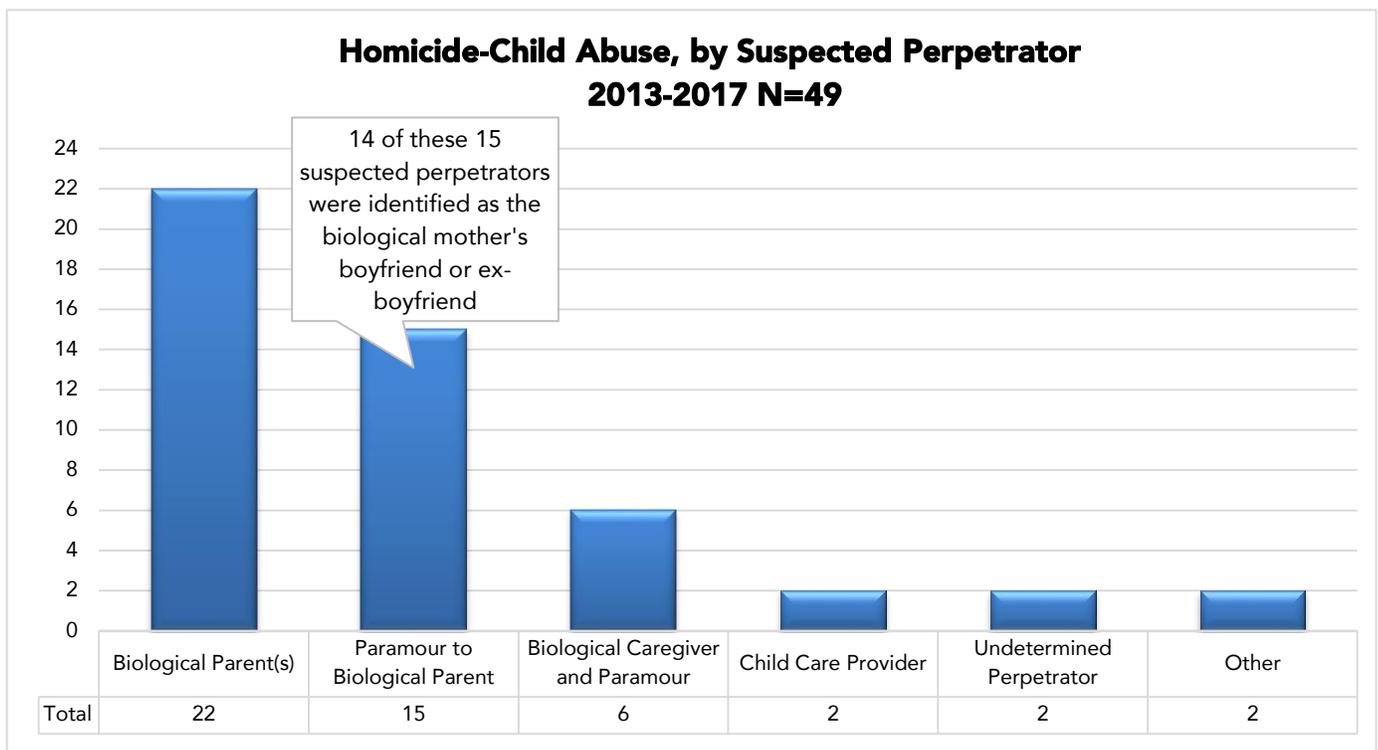
Caring for children can be overwhelming at times. Often parents and caregivers are facing multiple stressors and may have limited access to support. There are several risk factors associated with child

Homicide, continued

abuse homicide including maternal risk factors (young age, less than 12 years of education, and being a single parent) and household risk factors (non-biological caregiver in the 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.

Figure 36 categorizes the suspected perpetrators in each of the child abuse homicides over the last five years. In 45% (22) of these deaths, the suspected perpetrator was a biological parent of the child. Mother’s paramour was the suspected perpetrator in 29% (14) of the child abuse homicides. In 12% (6) a biological caregiver and his or her paramour were both responsible for the death. The two child abuse homicides in which the perpetrator was listed as “undetermined” involved cases where the perpetrator could not be positively identified or determined.

Figure 36



SCDRB data reflect what is found in studies of characteristics of child abuse homicides from other states. Child abuse homicide is proportionately greater and has findings that are different from those of other child 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. 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 involve guns or knives, the majority of infant and young child homicides are the result of beatings, shakings and chokings by someone entrusted with caring for the child.

Child abuse 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 and frustrating behaviors are necessary.

HOMICIDE – GANG VIOLENCE

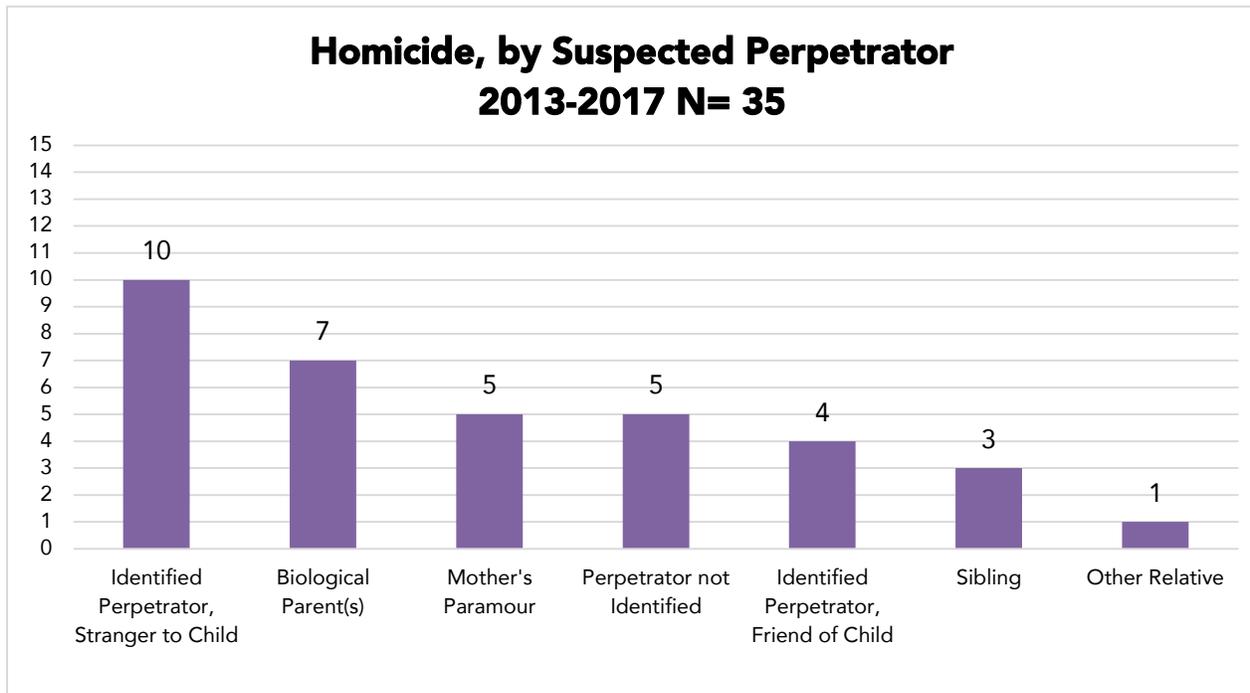
The Board will categorize a homicide as the result of gang violence when there is evidence to support the child died from direct or indirect actions carried out by known or suspected gang members. In many of the cases reviewed, children are at the “wrong place at the wrong time” and unintentionally are caught in the gang violence. This can occur while the child is outside playing or even in the safety of his or her own home. A child living in a location with gang activity or in a home that has other household members with gang associations is at significant risk for injury or death. In other circumstances, the children killed are members of a gang and die during disputes related to gang activity.

Between the years of 2013 and 2017 there have been nine homicides due to gang violence; in only five of the deaths was a suspect identified/charged with the murder. Gun violence was the cause of death in all nine of these homicides.

HOMICIDE

Any death not categorized as Homicide-Child Abuse or Homicide-Gang Violence is categorized as Homicide. In many of these deaths, the act of violence against the child is more random in nature and a clear indication for the murder may not be evident. In other situations, there are clear indications why the child was killed, however the circumstances had nothing to do with child abuse or gang related violence. Figure 37 indicates that of the 35 deaths in this category over the last five years, in 57% the child victim knew the perpetrator. Of the deaths in which the perpetrator was a stranger to the victim or was unidentified, 87% involved gun violence. This is in contrast to only 35% involving gun violence when the child victim knew the perpetrator.

Figure 37



Characteristics of the 20 Child Homicides, 2017

- Eight children died from child abuse, two were under 1 year of age; four were between 1 and 2 years.
 - Five of the eight child abuse homicides had current or past DCF child protective service involvement prior to the fatal incident.
- 14 of the 20 families of homicide victims had current or past DCF child protective service involvement initiated prior to the fatal incident.
 - Nine were cases in which the caregivers had current or prior alcohol and/or substance abuse concerns.
- 12 of the deaths occurred at the child's home, including all eight of the child abuse deaths.
- In nine of the 12 homicides other than child abuse homicides, a firearm was used.
- In four of the 20 homicides, the Board found sufficient evidence, after thorough review, to classify the deaths as homicides even though they were not originally classified in that manner. The death certificates in these four cases all noted an undetermined manner of death.

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 visits 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 misuse and alcohol abuse) 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 most 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. 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 must be considered. Bruises in these areas, human bite marks, round burns the size of a cigarette, or larger poorly explained burns seldom come from everyday activities. Young children who are not crawling or walking rarely sustain bruises – “if you don’t cruise, you don’t bruise.” Any bruises noted on a child less than 9 months of age, especially if recurrent, patterned, or in unusual locations on the body should be evaluated for the possibility of abuse. 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 if the child is in imminent danger.

Suicide

In 2017, 32 children in Kansas between the ages of 10-17 died by suicide; 18 were male and 14 were female. According to the Centers for Disease Control and Prevention, in 2017 suicide was the second-leading cause of death among U.S. children 10-14 and young people 15-24 years of age. Similar to national studies, in Kansas, 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. Figures 38 and 39 show suicide rates per 100,000 population for children ages 0-17, and by age group for the last 13 years. Figure 39 shows that the rate of suicide deaths in the 15-17 age category more than doubled between 2016 and 2017.

Figure 38

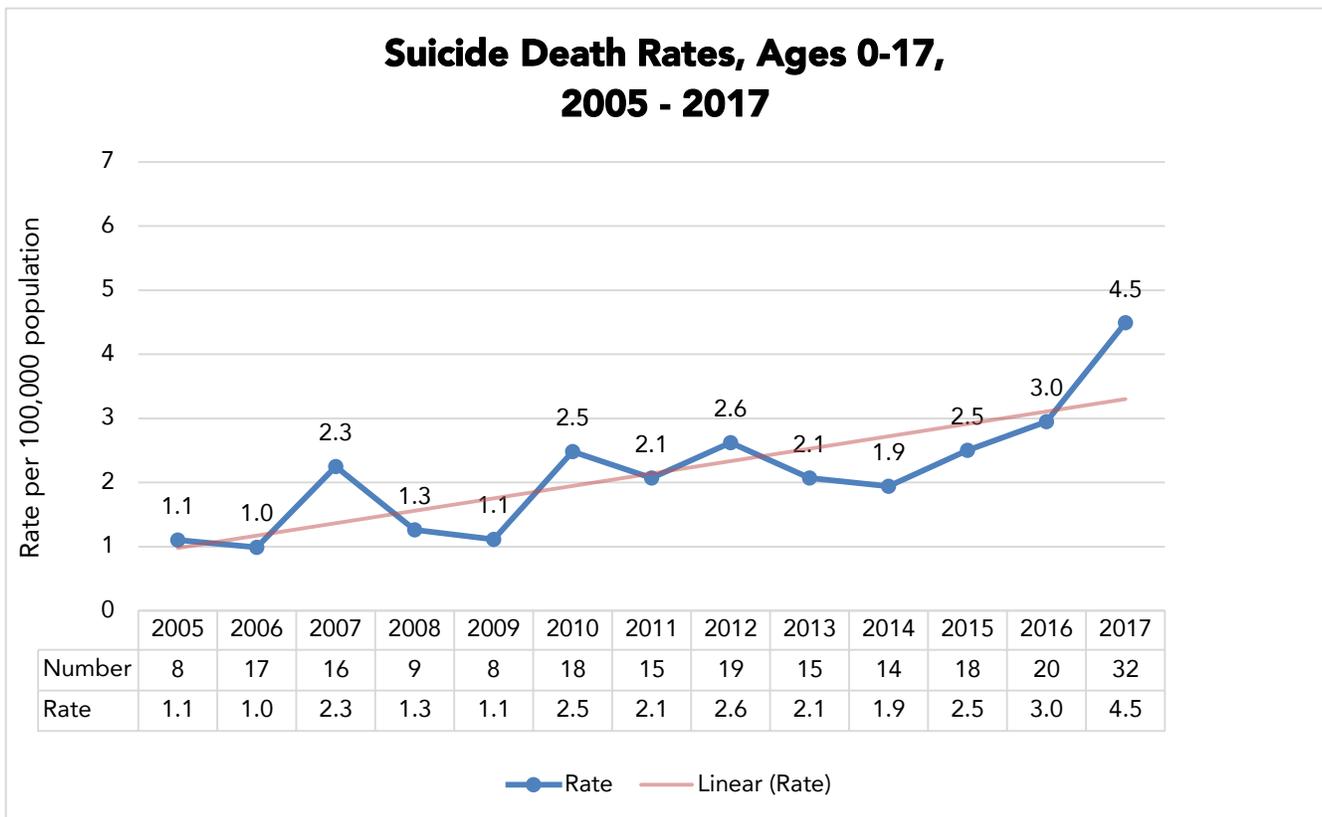


Figure 39

Suicide Death Rates per 100,000 age-related population, Ages 10-17, by Age Group, 2005-2017		
	Age 10-14	Age 15-17
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
2015	3.0	10.0
2016	3.5	10.8
2017	3.5	21.0
Average	2.2	9.9

Various methods are used when children and adolescents die by suicide. The most common method for males is the use of a firearm; 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. Many suicide attempts, as well as suicides reviewed by the Board, occur when the child is in short-term crisis. It is important for parents and caregivers to prevent access to lethal means during periods of increased risk of suicide or self-harm. Figure 40 indicates the methods used by gender of the child over the last eight years.

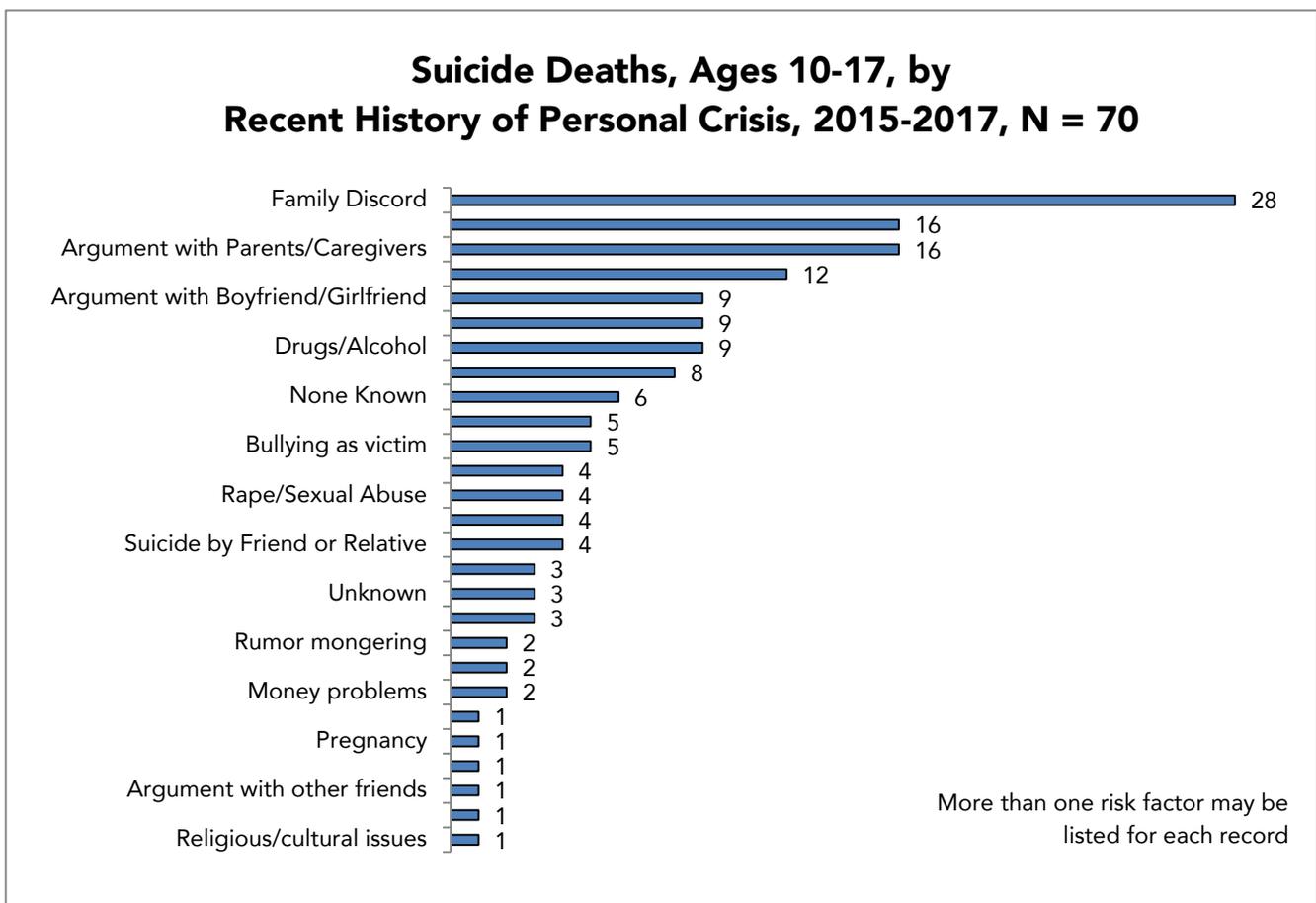
Figure 40

Suicides by Method and Gender, 2010-2017				
Ranking of Method (1 highest)	Method	Male	Female	Total
1	Firearm	58	11	69
2	Asphyxia	43	25	68
3	Poisoning, Overdose or Acute Intoxication	3	8	11
4	Other Transport*	1	1	2
5	Fall	0	1	1
*Train, Motor Vehicle Crash				

Risk factors for adolescent suicide are categorized as predisposing and precipitating factors. Predisposing factors include mental health problems and psychiatric disorders, previous suicide attempts, family history of suicide, history of physical or sexual abuse, and exposure to violence. 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. Well-identified examples of social stress include parental divorce or separation, gender identity and sexual orientation, 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. An increased risk for males correlates with the loss of a relationship.

Figure 41 lists the recent personal crises associated with the suicides between 2015 and 2017. Of note, in many cases, the family felt the suicide was completely unexpected as the child did not have a history of mental illness, suicidal ideation, or other risk factors associated with suicide. This is important to understand, as suicide is described as a “silent epidemic.” Causes of suicide can be complex and challenging to identify, however some suicides can be prevented. Parents, caregivers, friends, school personnel, and others need to be aware of warning signs to identify those who may be considering harming themselves. There are many protective factors that can buffer individuals from suicidal thoughts and behaviors, including clinical care for mental health and substance abuse, family and community support, and promoting skills in problem solving and conflict resolution.

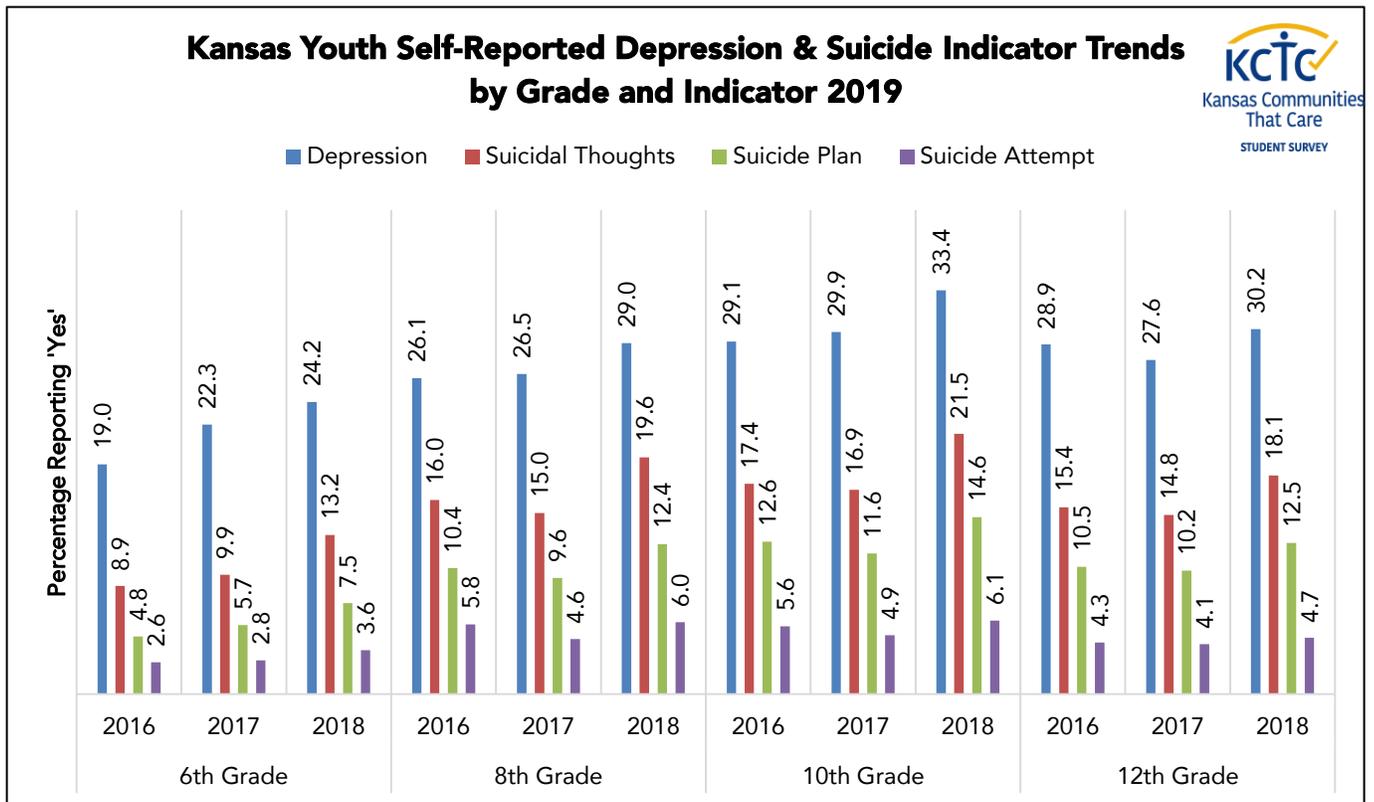
Figure 41



Suicide, continued

The findings of the Board are consistent with The Kansas Communities That Care (KCTC) Student Survey. The survey is administered annually, free of charge to all public and private schools in Kansas. Figure 42 represents a recent enhancement to the survey which measures youth depression and suicide thoughts, plans and attempts. Youth as young as sixth grade are reporting thoughts, plans and attempts of suicide. Each grade surveyed has shown an increase in suicide ideation between 2016 and 2018. These self-reported indicators parallel the preliminary data of the Board which show that the rate of Kansas children who died by suicide is not only increasing, but includes children as young as elementary and middle school. Prevention efforts aimed at reducing youth suicide should be offered to children as early as elementary school.

Figure 42



Due to ongoing concern about adolescent suicides, the Kansas Legislature passed SB323 in 2016. This legislation requires suicide prevention training for school district personnel and a building crisis plan be developed for each school that includes steps for recognizing suicide ideation, appropriate methods of intervention, and a crisis recovery plan. This law is modeled after the Jason Flatt Act, making Kansas the 19th state to pass similar legislation since 2007. More information regarding the Jason Flatt Act can be found at <http://jasonfoundation.com/>.

As further response to the increased rate of youth suicide, in June 2018, Kansas Attorney General Derek Schmidt and the Tower Mental Health Foundation formed the Youth Suicide Prevention Task Force to survey efforts which were currently underway in Kansas to reduce the incidence of youth suicide. In 2019, the Kansas Legislature adopted several of the task force recommendations by passing the conference committee report on HB 2290 which created a Youth Suicide Prevention Coordinator.

More information regarding the Youth Suicide Prevention Task Force and their report can be found at <http://ag.ks.gov/ysptf>.

In addition to continued state policy support regarding youth suicide prevention, the Board notes prevention efforts around the state have been created by families and friends who have experienced a loss to youth suicide. In one particular effort, family and friends were able to raise around \$240,000 which they used to start an organization called “Keep the Spark Alive.” This particular nonprofit organization uses the monies raised to prevent future teen suicide by funding innovative programs and initiatives in Kansas. More information regarding this organization can be found at <http://ktsa.org>.

It is the Board’s hope that there will be continued state, local, and individual responses to the alarming youth suicide epidemic. It is through these actions that we can continue to address, reduce and potentially eliminate youth suicide in Kansas.

Characteristics of the 32 Suicide Deaths, 2017

- In 78% of the cases the decedent had previously talked about suicide.
- 66% were currently receiving or previously had received mental health services.
- 66% had a significant argument or family conflict just prior to the suicide.
- 56% of the suicide deaths were male.
- 47% of the suicides were completed with a firearm.
- 44% of the decedents left a suicide note.
- 31% had a recent breakup with boyfriend/girlfriend.

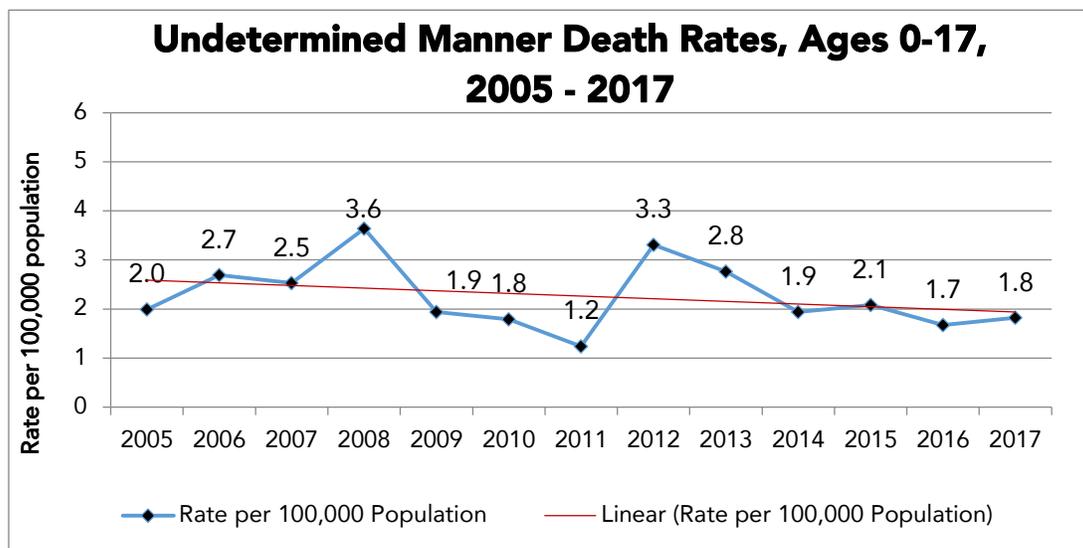
PREVENTION POINTS

- **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** – Changes in a young person’s psychological state (increase in rage, anxiety, depression or hopelessness), withdrawal, reckless behavior or substance use indicate a need for intervention.
- **Evaluation of Suicide Threats or Ideation** – **Do not ignore statements about suicide, even if they seem casual or fake.** The months following a suicide attempt or severe depression are 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 time they have to rethink their intentions, or to allow 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.
- **Monitor Difficult Situations** – A child’s response to parental separation, a relationship breakup, or a peer suicide may include signs or symptoms of depression or hopelessness. Counseling and support to address depression or situational difficulties is imperative.

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 371 deaths as undetermined manner since the Board began reviewing cases in 1994. Figure 43 shows Undetermined Manner death rates for the last 13 years of case reviews.

Figure 43



In 2017, there were 13 such deaths. Of those 13 cases, 10 were Unclassified Sudden Infant Death (USID), all of which were sleep-related. As noted in the SIDS section of this report, USID includes deaths that do not meet criteria for SIDS I or II and for which alternative diagnoses of natural or unnatural conditions are unclear. The 10 USID cases in 2017 were listed as such due to incomplete autopsies (one), or concern the death may have been the result of neglect, or intentional injuries or actions. Incomplete scene investigations were noted in six of the 10 USID deaths.

Of the 13 deaths classified as undetermined by the Board, only one did not have an adequate autopsy completed or should have had additional studies performed based on the findings. 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 a life-threatening event of unknown etiology that is likely to be fatal.

Historically, 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.

Autopsy Examinations – All Manners of Death

In total, for all manners of death, there were 14 child deaths in 2017 for which the Kansas coroner or pathologist did not order or complete an autopsy when the Board felt one was warranted by the circumstances, or did not meet the minimum expectations for the autopsy components. An additional child who died from non-natural causes in an out of state event or facility did not have an autopsy.

The minimum expectations for autopsies on children ages birth to 17 years with unexplained death suggest that in addition to a thorough investigation, an autopsy should include at a minimum, the following as appropriate for the age and circumstances of the child at death:

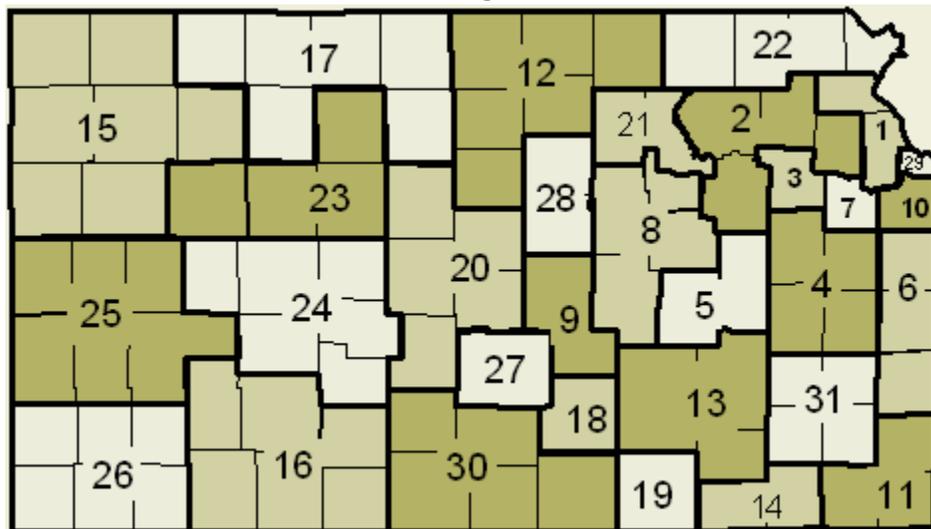
- Photographs of the child and of all external and pertinent internal injuries or findings.
- Examination of all clothing and items accompanying the body, preserving all materials for later examination by a crime lab.
- Evidence of therapy and resuscitation.
- Radiographs for a complete survey of the skeletal structures, especially in children less than 2 years of age; films should be reviewed by a radiologist or physician experienced in child trauma whenever possible.
- Blood, urine and vitreous should be collected for use as an adjunct to toxicology or if metabolic or hydration status is an issue.
- Toxicological studies should include ethanol and common drugs of abuse, including cold medications, if being used; prescription drugs should be tested for based on history and scene investigation.
- The external examination should give consideration to and document the general appearance, cleanliness, nutrition (heights and weights compared to standard growth charts), dehydration, failure to thrive, congenital anomalies, evidence of abuse or neglect, evidence of sexual abuse; if not found, these should be recorded as essential negative findings.
- An autopsy should be performed on an unembalmed body and include in-situ examination of the brain, neck structures, thoraco-abdominal and pelvic organs with removal and dissection. Weights of organs should be documented. In suspected injury cases, lengthwise incisions through skin and subcutaneous tissues should document the depth of the hemorrhage. If there is no gross cause of death, microscopic examination should be conducted on the brain, heart, lungs, liver, kidneys and other organs as indicated. Stock tissue and paraffin blocks should be retained.
- DNA should be archived for genetic testing, if indicated.
- Metabolic screening results should be determined from the medical birth record. In cases where a metabolic condition is considered (e.g. preceding viral illness, period of starvation, nocturnal death, positive findings such as fatty liver), particularly in children under 2 years of age, further tissues should be preserved. A blood spot card should be prepared and retained in case autopsy findings suggest a metabolic disorder.

Autopsy Examinations – All Manners of Death, continued

Combined with thorough 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. Kansas is in need of improvements in the coroner system to include standards for medicolegal death investigation, procedures, and appropriate filing of causes of deaths. Reimbursement opportunities are available for child autopsies through the District Coroner’s fund managed by KDHE. More information is available at the SCDRB’s website: <http://ag.ks.gov/scdrb>

Of the 14 Kansas cases in 2017 where the Board determined that either an autopsy should have been considered, or was not properly conducted, five of those were performed by the same pathologist and nine did not have autopsies which the Board determined should have been performed. These 14 cases are organized by the judicial district that held jurisdiction of the death, Figure 44. As shown on pages 55 and 66, the Board has established protocols and guidelines for when an autopsy should be completed. Furthermore, as described within Board recommendations, when these standards of practice are not followed, the Board should have the ability to refer the case to the KS State Board of Healing Arts for additional review.

Kansas Counties by Judicial District



Autopsy Examinations – All Manners of Death, continued

Figure 44

District	Counties in District	# of child deaths not autopsied, despite guidelines		# of child deaths incompletely autopsied, despite guidelines	
		2015-2016	2017	2015-2016	2017
District 1	Atchison, Leavenworth	1	0	0	0
District 10	Johnson	1	0	1	0
District 12	Cloud, Jewell, Lincoln, Mitchell	2	0	0	0
District 15	Cheyenne, Logan, Rawlins, Sheridan, Sherman, Thomas, Wallace	1	0	3	0
District 16	Clark, Comanche, Ford, Gray, Kiowa, Meade	1	6	1	0
District 17	Decatur, Graham, Norton, Osborne, Phillips, Smith	0	0	0	1
District 18	Sedgwick	0	0	1	0
District 20	Barton, Ellsworth, Rice, Russell, Stafford	1	0	3	2
District 23	Ellis, Gove, Rooks, Trego	3	0	1	2
District 24	Edwards, Hodgeman, Lane, Ness, Pawnee, Rush	0	0	1	0
District 27	Reno	0	1	0	0
District 28	Ottawa, Salina	0	0	1	0
District 30	Barber, Harper, Kingman, Pratt, Sumner	0	2	0	0

SCDRB Public Policy Recommendations

The Board strongly encourages the members of the State Legislature to consider each of the following policy recommendations during the 2020 legislative session. The Board has prioritized the improvement of statutory authority of the SCDRB as an immediate necessity for the Board to continue to review child fatalities, report findings, and provide recommendations to prevent future deaths of Kansas children.

Recommendations to Improve the Statutory Authority of the SCDRB

The statutes governing the SCDRB should be changed to allow Kansas to participate in the National Child Death Review (CDR) Case Reporting System (CRS). The CRS is a standardized tool available to states as a mechanism to enter case data, and to complete data analysis to develop recommendations and reports specific to child deaths. The current Kansas statute has been interpreted in a way that is preventative for the Board to utilize the CRS despite it being an improvement (in comparison) to the current database utilized by the Board. The CRS is provided at no cost to the states using it. Since the inception of the Board, the information reviewed as well as the amount of data collected has increased. The ability to utilize an upgraded database would significantly enhance the Board's ability to collect and report data regarding child deaths in Kansas.

K.S.A. 22a-243(j) should be clarified to indicate that State Child Death Review Board information may be disclosed to professional licensing organization, if Board members are otherwise under a professional responsibility to disclose that information to comply with their professional licensure. The Kansas Legislature should be aware that in 2017 alone, there were 14 child fatalities in which either an autopsy was not performed, or was performed in a manner that did not meet the minimum expectation for autopsies of children. It is imperative that SCDRB members and staff have the ability to comply with their professional responsibility to report suspected medical misconduct or negligence.

K.S.A. 22a-243(j) should be clarified to allow the release of information to the county or district attorney in the jurisdiction where the death occurred if it appears that the information is necessary for the county or district attorney to prosecute the perpetrator, or the cause of the child's death was from abuse or neglect, or cases where there is known criminal activity. As mentioned within the homicide section of this report, the Board found sufficient evidence after thorough review to classify five deaths in 2016 and four deaths in 2017 as homicide even though they were not originally classified in that manner on the death certificate. It is imperative that the Board be able to communicate those findings to the county or district attorney.

K.S.A. 22a-243(a) should be modified to allow additional board members to be appointed as well as a suggested timeframe for the appointing agency to fill Board vacancies. It is imperative that the Board have full membership at all times due to the large number of child deaths that are reviewed each year, and the considerable amount of time and effort it takes to review data and offer effective recommendations to prevent future deaths of Kansas children.

Recommendations to Prevent Child Abuse and Neglect Deaths

Increase Access to Affordable, High-Quality Child Care

Homicides, particularly of children under the age of 3, continue to occur when children are left in the care of persons who are unprepared or unable to care for them.

KDHE and DCF should continue working towards ensuring families have access to high quality and affordable child care. 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 child care would help decrease future child deaths.

Policies that expand access to community-based home nurse visitation programs for all families with new infants, and ensure paid parental leave for families should receive state support.

Enhance Training and Access to Appropriate Information for Child Welfare Professionals

Kansas DCF should continue to develop and provide enhanced training for both their employees as well as employees of all contracted agencies. It is imperative that every employee of each agency charged with the investigation of abuse and neglect or assessing the continued risk of children under their supervision or custody have current, high quality training regarding child abuse and neglect as well as other topics related to safety assessment.

Through privatization of many parts of the state child welfare system, additional issues have developed regarding the flow of information to all necessary persons. In reviewing DCF files in situations where children and their families were receiving services, it is apparent that workers who had frequent interaction with the families were unaware of information DCF had regarding a particular family. Each report should not be looked at as an individual incident, but all available information should be reviewed in its entirety to look for repeated reports of similar behavior prior to developing case plans or making recommendations regarding a child.

Kansas DCF cannot address allegations and concerns of abuse or neglect without thorough historical and investigative information in a form that is comprehensive and easily accessible. Medical histories and law enforcement investigative information about the child is critical for DCF assessments regarding the safety and well-being of a child. Medical providers who report suspicions of abuse or neglect must provide medical information and records appropriate to the case investigation.

Recommendations to Prevent Youth Suicides

Increase state funding for Prevention of Youth Suicide

The Kansas Legislature should consider the recommendations made by the Youth Suicide Prevention Task Force including the funding of a full time Youth Suicide Prevention Coordinator. The Board is

encouraged with the creation of this position, and the requirements adopted in legislation requiring the coordinator to:

- Lead the development, implementation and marketing of a website, online application and mobile phone application to facilitate communication with youth for the purpose of preventing youth suicide and promoting youth safety and well-being.
- Develop and promote multidisciplinary and interagency strategies to help communities, schools, mental health professionals, medical professionals, law enforcement and others work together and coordinate efforts to prevent and address youth suicide.
- Organize events that bring together youth, educators and community members from across the state to share information and receive training to prevent and address youth suicide in their communities.
- Gather, disseminate and promote information focused on suicide reduction.

The Board is hopeful this position once fully funded will also begin to look at coordinated efforts that include bereavement support for individuals and families following a youth suicide.

Increase Accessibility to Crisis Services and Mental Health Services for Youth within Kansas Communities

Community Mental Health Centers should increase outreach to raise awareness regarding available mental health services for children and youth to ensure parents, caregivers, educators, and other community members are aware of the resources in their community and the state.

The Board has concerns regarding the availability of mental health services in all areas of the state. Community mental health centers and other agencies providing mental health services to children should reduce barriers to accessibility of these services, especially at the time of crisis. The Board is encouraged by recommendations made by the Youth Suicide Prevention Task Force to explore options for a state-wide reporting application available to youth for reporting at-risk behavior for themselves and others. However, the Board encourages community mental health centers, psychiatric treatment facilities, and other agencies providing mental health services to prepare for an increase in demand of their services following the application implementation. Without adequate preparation and increased state funding, the influx in referrals to mental health providers could overwhelm providers and result in children in crisis being delayed in receiving services.

Increase the Depth of Suicide Investigations

Law enforcement should increase the depth of suicide investigations to include social, mental health and medical histories of the child. Information regarding family stressors, past history of attempts, involvement in mental health services, and relevant social media information should be included. The Board recommends initiating a policy of standard training and the use of a protocol for suicide investigations, including the use of a suicide death scene investigation form to assist in collecting all pertinent information. By better understanding the contributing factors and precipitating events leading to youth suicide, Kansas will be better equipped to understand these deaths and how to prevent them.

Ensure Training of Education Professionals Regarding the Prevention, Assessment, and Intervention of Suicide

All public school personnel must comply with required annual training that provides practical guidance and best practices on the proactive development and implementation of programs to assess risk of suicide and intervene effectively. Educators and school personnel are in a position to best identify at-risk children as well as support other children if a peer has committed suicide. This is particularly crucial as deaths due to suicide are increasing and include more children of younger ages.

Recommendations to Prevent Motor Vehicle Deaths of Children and Youth

Strengthen All-Terrain Vehicle (ATV) Usage Laws

ATV use in Kansas continues to increase, as does the risk for serious injury and death when operated by young children. According to the 2017 Annual Report of ATV-Related Deaths and Injuries published by the U.S. Consumer Product Safety Commission, there have been 3,315 ATV-related fatalities between 1982 and 2017 of children under the age of 16, and of those, 10% were younger than 12 years of age. Kansas experienced 3 ATV-related child deaths in 2017, all of which occurred to children under the age of 14.

Citizens and lawmakers should support efforts to impose minimum age requirements to operate ATVs as well as requirements that both operators and passengers wear a helmet. Many states, such as Missouri, require that no person under the age of 16 shall operate an ATV unless he or she is accompanied by or under the direct supervision of a parent or guardian, or is accompanied by an adult who is authorized by the parent or guardian. (Note: in Missouri this does not apply on private property owned by the parent or guardian of such person operating the ATV.)

Strengthen Seat Belt Usage

Citizens and lawmakers should support efforts in Kansas that aim to increase the use of seatbelts and proper restraints by drivers and child passengers. Between 2015 and 2017, 53% of the children who died due to motor vehicle crashes were unrestrained or improperly restrained. In another 13% the restraint use of the victim was unknown. According to the State of Kansas Highway Safety Plan Federal Fiscal Year (FFY) 2017, “Children are much more likely to be buckled up if the driver is also belted. If the driver is belted, about 95% of the children are also belted. If the driver is not belted, only about 25% 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. In 2017, legislation passed in Kansas increased the fine for those who are unrestrained. The Board is hopeful this legislation will help decrease the number of Kansas children who are unrestrained.

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. According to the State of Kansas Highway Safety Plan Federal Fiscal Year (FFY) 2017, “Distracted driving is listed as a contributing

circumstance for about 25% of all reported crashes in the state.” Ordinances, promotional materials, advertising and enforcement of current laws can all be effective ways to encourage Kansas drivers to be less distracted while driving.

Improve Investigations and Strengthen Penalties for Providing Alcohol to Minors

Thorough investigations of social hosting as well as increased penalties for providing alcohol to children and teens will help deter adults from providing alcohol to children and decrease alcohol related motor vehicle crashes and deaths. The public should be aware of the dangers of teen drinking.

Increase Public Awareness Regarding Pedestrian Deaths in Kansas

In 2017, Kansas experienced seven pedestrian deaths, three of which took place in the driveway of the child’s home. According to KidsAndCars.org, at least 50 children are backed over every week in the United States because a driver did not see the child. Public campaigns to encourage drivers to “look before you leave” should be promoted and drivers should be encouraged to walk completely around their vehicle and ensure children are secured prior to backing up their vehicle.

Other efforts that could reduce the number of pedestrian deaths in Kansas would be to educate children of all ages about the dangers of walking while distracted. According to the Safe Kids Worldwide publication, *Alarming Dangers in School Zones*, published in October 2016, there are five teen pedestrian deaths every week in the United States. Walking while distracted by technology, such as cell phones and headphones, increases the risk of pedestrian injury and should be avoided.

Furthermore, reminders to children and youth to look both ways before crossing a road, and to avoid foot or bike travel at night are helpful reminders that could aid in preventing pedestrian deaths.

Recommendations to Prevent Sleep-Related Deaths

Increase Education on Safe Sleep for Parents and Caregivers

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 consistent messaging supporting the ABCs of safe sleep. Children should be placed **A**lone on their **B**acks in a **C**rib.

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. Parents and caregivers should always remember the ABCs of safe sleep. Kansas communities should enhance education for primary care physicians, child care providers and at-risk populations in the state, including low-income and adolescent parents, to provide consistent messages about safe sleep. Required training for DCF investigators and support workers regarding safe sleep should be considered since home visits are an additional educational opportunity for at risk parents.

Recommendations to Prevent Unintentional Injury Deaths

Strengthen Requirements for Personal Floatation Device use in Public Waters

Citizens and lawmakers should support efforts to establish requirements that any person under the age of 12 who is on board any watercraft in the waters of Kansas or who is wading or swimming in navigable public waters shall wear a personal floatation device which is approved by the United States Coast Guard. Between the years of 2010 and 2017, 40% of the drowning deaths of children in Kansas occurred in open water where personal floatation devices were not utilized. Ensuring that Kansas children are able to swim and are properly assisted with personal floatation devices will save lives.

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

Adopt and Consistently Follow a Best-Practices Approach in the Investigation of All Allegations of Abuse and Neglect

The Board was encouraged by House Sub. For SB 126 (2017) which directed the Secretary for Children and Families to establish a Child Welfare System Task Force to study the child welfare system in Kansas. The Child Welfare System Task Force proposed several recommendations in their report to the 2019 Kansas Legislature which align with recommendations proposed by the SCDRB over the last several reporting years. However, it appears that few, if any, of the recommendations of the Task Force or previous Board reports have been implemented. While the Board acknowledges the financial limitations faced by all agencies and branches of government, until appropriate resources are available to provide a thorough, consistent and adequate investigation of all allegations of abuse and neglect, nothing will change and Kansas children will continue to be at risk. Resources have been expended to research and analyze this ongoing issue but unless those efforts are acted upon, the problem will remain. While the deaths of several children in recent years have been widely reported in the media due to concerns about DCF actions or inactions, those deaths are not isolated examples.

It is a continuing concern of the Board that all investigations of abuse and neglect be thorough, be fact based and that any confidentiality restrictions placed on DCF that prevent them from investigating collateral sources be removed. The Board encourages legislators in the 2020 session to consider the recommendations proposed in their report for action in our state. Information regarding The Child Welfare System Task Force and their report can be found at <http://www.dcf.ks.gov/Agency/CWSTF/Pages/default.aspx>

DCF should review and adopt a best practice approach for the investigation of all allegations of abuse and neglect. Once adopted, training should be conducted with all employees to ensure they understand the scope and extent of investigation necessary in all allegations of abuse and neglect. Those standards for investigation should be carried out consistently among workers and among regions of the state. Caseloads should be limited to ensure DCF workers have adequate time to investigate and follow up on allegations of abuse and neglect. Additionally, funding for DCF should be adequate to allow for the

hiring of qualified, experienced workers to perform those investigations and supervise contractors appropriately.

Children referred to DCF for injuries must be evaluated medically by health professionals with experience and training in detecting and assessing potential child abuse injuries. It is not uncommon to find underlying injuries or evidence of neglect that were missed, or trauma for which the significance of the mechanism of injury is not recognized.

All investigative information obtained should be evaluated in an objective manner. An uncorroborated denial by a parent, in and of itself, should never be grounds for unsubstantiating a claim of abuse or neglect when there is other credible evidence to support such a finding. DCF should also consider any other information collected through law enforcement investigations and any prior or related judicial proceedings in evaluating whether an adult should be substantiated for purposes of the child abuse registry. Workers who consistently fail to conduct adequate investigations should receive additional training to correct those deficiencies or have disciplinary action taken if necessary.

Prior history and investigations should be reviewed before placement of any children. DCF and contracted providers should also develop a reliable system to ensure they have all relevant and necessary information for children in their custody in order that the child's health and well-being does not rely on the child or a relative to provide necessary information to the contractor or DCF. A child's safety should not be compromised because the case decision-maker did not have access to relevant information when making placement decisions.

Improve the Quality of Law Enforcement Investigations for Infant Deaths

Referrals made to law enforcement regarding child abuse and neglect should be investigated by a trained and experienced investigator. Law enforcement should increase investigators' knowledge of child fatality investigations through high quality training 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 Board 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.

The Board recommends that Kansas law enforcement adopt procedures based upon best practices regarding the investigation of child abuse or neglect and child death investigations. Once adopted, training should be conducted with all law enforcement officers to ensure they understand the scope and extent of the investigation necessary in all infant deaths. Those standards for investigation should be carried out consistently among officers in all jurisdictions.

Improve the Quality of Prosecutorial Decision Making Regarding Infant Deaths

All prosecutors tasked with reviewing infant death cases should have specialized knowledge or the ability to contact prosecutors with such specialized knowledge to assist in reviewing evidence in cases where criminal conduct is suspected. Particularly, child abuse homicide cases require a heightened

level of knowledge and experience in order to reach informed, well-reasoned decisions that are consistent throughout the state.

Prosecutors should also work with local law enforcement agencies to assure a coordinated effort toward using a best practices approach to the investigation of all allegations of abuse and neglect.

Improve Coordination and Communication Between DCF and Law Enforcement

Kansas 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 serious physical harm or sexual abuse and that action may be required to protect the child. Law Enforcement receiving a report of abuse or neglect should assure that a DCF intake is made.

DCF and health care providers, including hospitals, should report any unwitnessed, unexplained or suspicious death or near death of a child to law enforcement for investigation. The Board has reviewed many cases in which law enforcement was not contacted in a timely manner, which impeded the ability of 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.

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 SCDRB 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;
- Deaths occurring under unusual or suspicious circumstances;
- Deaths of children or youth in custody;
- Deaths known or suspected to involve diseases constituting a threat to public health; or
- 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;
- Death occurs in custody of a local, state, or federal institution;
- Death is unexpected and unexplained in an infant or child;
- 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;
- Body is unidentified and the autopsy may aid in identification; or
- Death is unexpected, including those that are sports related, suicides, possible cardiac related and motor vehicle crashes.

Pathologists who perform forensic autopsies of children should be required to obtain a significant number of CME hours specifically related to the best practices of child autopsies and investigations.

Coroners must review any law enforcement investigations of child deaths, and when appropriate, respond to the scene prior to declaring the official cause and manner of death.

Appendix A: Deaths by County of Residence, 2017

County	Population Age 0-17	Total Deaths	Natural Deaths Except SIDS	Unintentional Injury Motor Vehicle	Unintentional Injury	Natural SIDS	Homicide	Suicide	Undetermined
Allen	2,856	0							
Anderson	1,943	1	1						
Atchison	3,848	2	2						
Barber	1,058	3	2					1	
Barton	6,332	0							
Bourbon	3,816	4	2		2				
Brown	2,440	4	4						
Butler	17,240	7	6				1		
Chase	559	0							
Chautauqua	700	0							
Cherokee	4,685	0							
Cheyenne	577	0							
Clark	479	0							
Clay	1,837	0							
Cloud	2,073	3	2			1			
Coffey	1,780	1	1						
Comanche	445	0							
Cowley	8,455	10	6			1	3		
Crawford	8,474	4	4						
Decatur	566	2		2					
Dickinson	4,556	3	3						
Doniphan	1,646	1	1						
Douglas	22,660	13	6	1	3	3			
Edwards	671	0							
Elk	513	0							
Ellis	6,226	4	3						1
Ellsworth	1,181	1			1				

Appendix A: Deaths by County of Residence, 2017, continued

County	Population Age 0-17	Total Deaths	Natural Deaths Except SIDS	Unintentional Injury Motor Vehicle	Unintentional Injury	Natural SIDS	Homicide	Suicide	Undetermined
Finney	11,392	4	4						
Ford	10,369	9	1	5	1			2	
Franklin	6,310	2	2						
Geary	10,570	8	6	1	1				
Gove	631	0							
Graham	501	1							
Grant	2,352	2					1		1
Gray	1,715	0							
Greeley	313	0							
Greenwood	1,297	2	1	1					
Hamilton	782	2	1					1	
Harper	1,400	2	1	1					
Harvey	8,453	6	3			1	1	1	
Haskell	1,160	1	1						
Hodgeman	412	0							
Jackson	3,358	3	1	1	1				
Jefferson	4,360	2	2						
Jewell	534	0							
Johnson	145,917	48	26	2	6	4	1	8	1
Kearny	1,151	1		1					
Kingman	1,634	1				1			
Kiowa	553	1		1					
Labette	4,738	3	1		1			1	
Lane	341	0							
Leavenworth	19,311	11	5		3	2			1
Lincoln	687	0							
Linn	2,240	1						1	
Logan	669	0							
Lyon	7,456	3	3						
Marion	2,543	0							

Appendix A: Deaths by County of Residence, 2017, continued

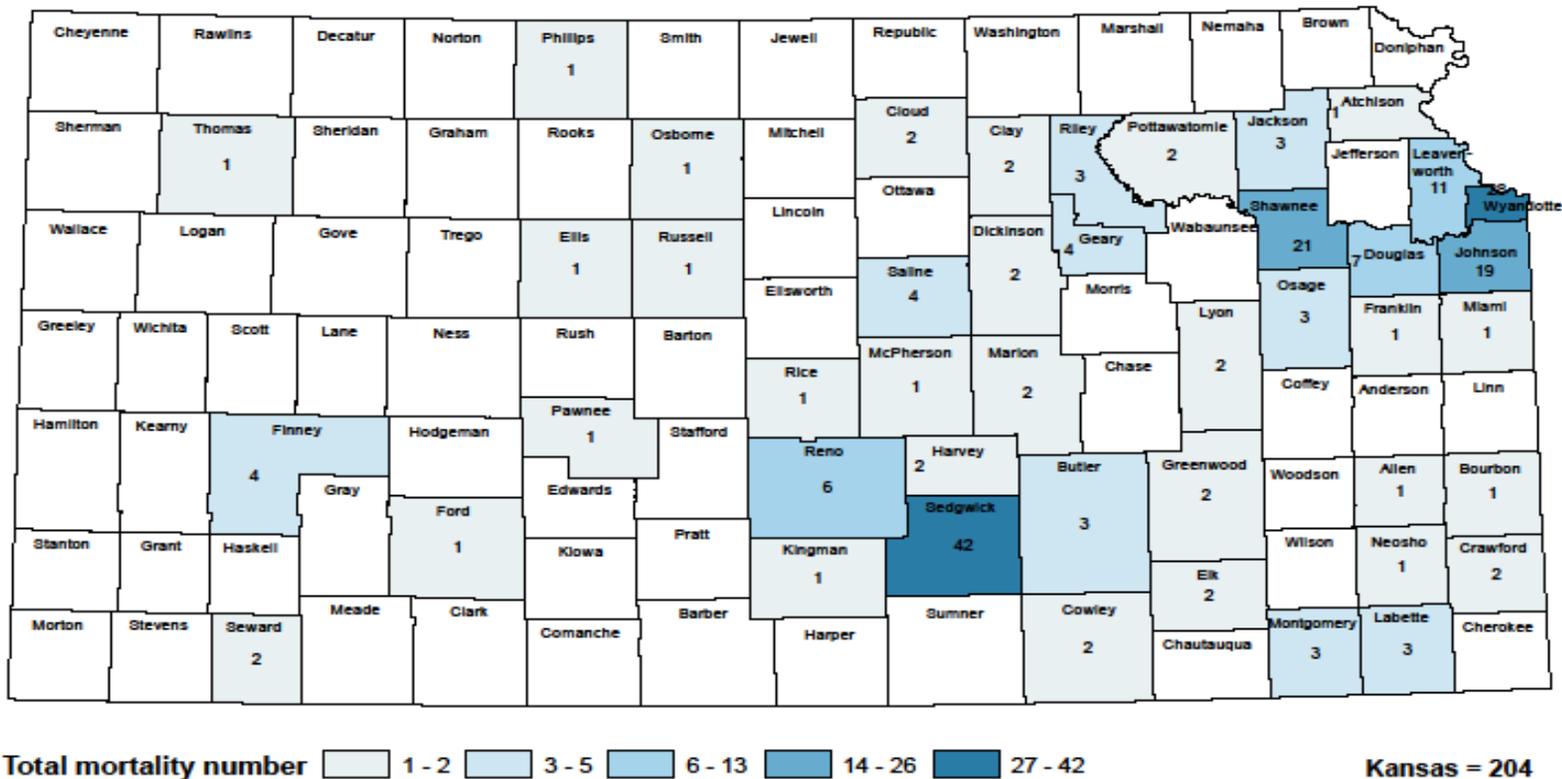
County	Population Age 0-17	Total Deaths	Natural Deaths Except SIDS	Unintentional Injury Motor Vehicle	Unintentional Injury	Natural SIDS	Homicide	Suicide	Undetermined
Marshall	2,318	1	1						
McPherson	6,690	3	2	1					
Meade	1,148	1		1					
Miami	8,294	2	1					1	
Mitchell	1,389	2	1	1					
Montgomery	7,704	5	3	1					1
Morris	1,078	1	1						
Morton	655	1	1						
Nemaha	2,670	1		1					
Neosho	3,897	1							
Ness	626	2	1					1	
Norton	1,021	0							
Osage	3,667	4	4						
Osborne	773	0							
Ottawa	1,330	0							
Pawnee	1,150	0							
Phillips	1,218	0							
Pottawatomie	6,914	4	3					1	
Pratt	2,329	0							
Rawlins	504	1		1					
Reno	14,107	11	6	1	2				2
Republic	959	0							
Rice	2,264	2	2						
Riley	12,301	3	2					1	
Rooks	1,128	0							
Rush	653	0							
Russell	1,487	1					1		
Saline	12,836	9	7				2		
Scott	1,320	0							
Sedgwick	132,966	74	50	5	7	1	3	5	3

Appendix A: Deaths by County of Residence, 2017, continued

County	Population Age 0-17	Total Deaths	Natural Deaths Except SIDS	Unintentional Injury Motor Vehicle	Unintentional Injury	Natural SIDS	Homicide	Suicide	Undetermined
Seward	6,932	2	1	1					
Shawnee	42,524	32	23		2	2	1	4	
Sheridan	621	0							
Sherman	1,420	0							
Smith	737	0							
Stafford	1,027	1						1	
Stanton	578	0							
Stevens	1,645	0							
Sumner	5,707	3	1	1	1				
Thomas	1,798	0							
Trego	566	0							
Wabaunsee	1,646	1						1	
Wallace	386	0							
Washington	1,235	1	1						
Wichita	560	0							
Wilson	2,078	3	1					2	
Woodson	649	0							
Wyandotte	46,268	31	15	4	2	3	5		2
Out of State		17	10	4	2		1		
Total	712,538	396	239	38	35	19	20	32	13

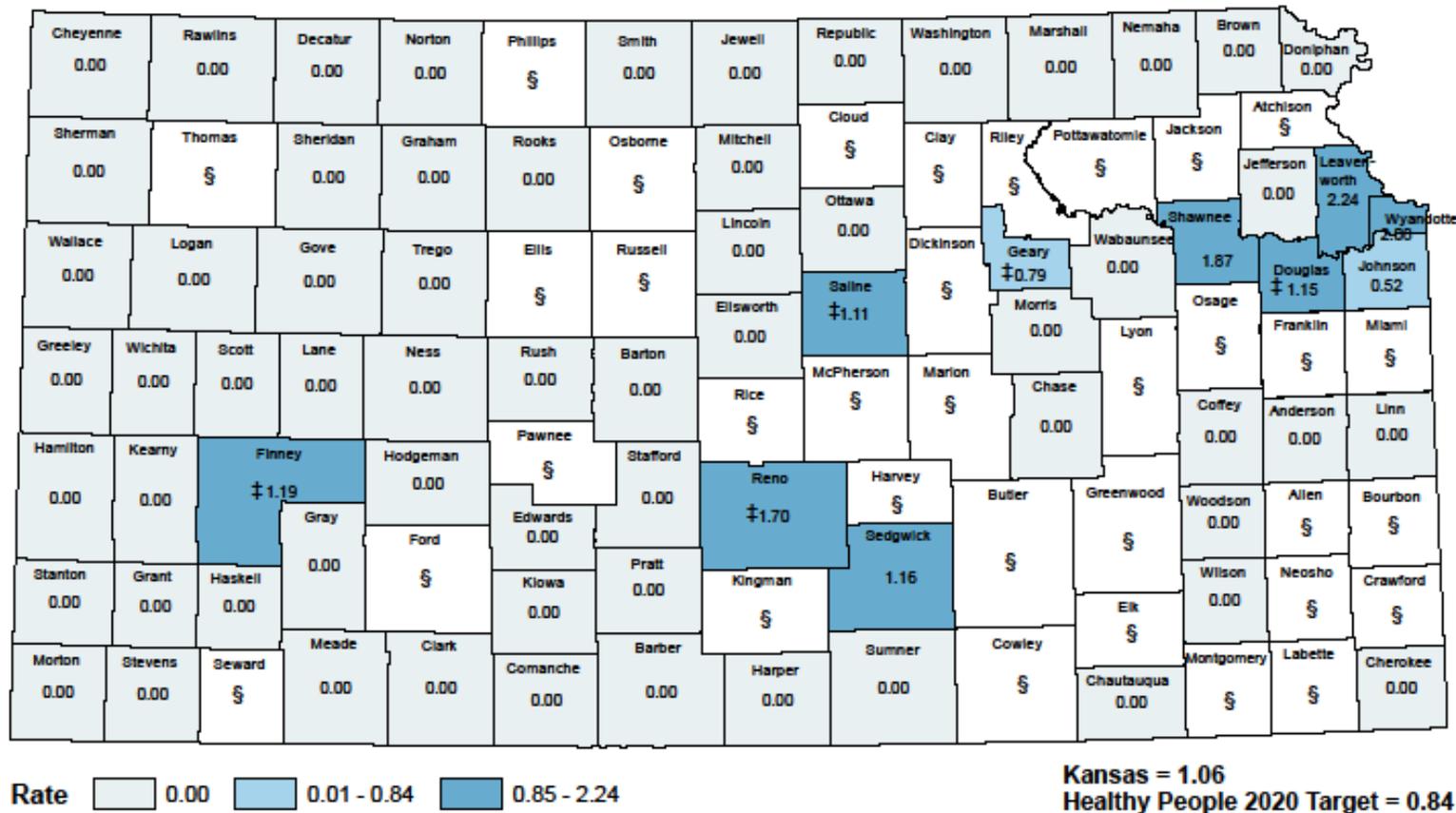
Appendix B: Sleep-Related Infant Deaths by County of Residence, 2013-2017

Kansas Sleep-Related Infant Deaths by County of Residence, 2013-2017



Sources:
 Numerator: Kansas State Child Death Review Board, 2013-2017
 Denominator: Kansas Department of Health and Environment, Bureau of Epidemiology and Public Health Informatics. Kansas live birth data (resident), 2013-2017

Kansas Sleep-Related Infant Deaths Rates per 1,000 Live Births by County of Residence, 2013-2017



RSE (Relative Standard Error): Defined as the estimate divided by its standard error, RSE is an indicator for statistical reliability.
 ‡ Estimates have a RSE greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standard of reliability or precision.
 § Estimates with a RSE of greater than 50% are replaced with a \$ and are suppressed.

Sources:
 Numerator: Kansas State Child Death Review Board, 2013-2017
 Denominator: Kansas Department of Health and Environment, Bureau of Epidemiology and Public Health Informatics. Kansas birth data (resident), 2013-2017

Methodology

Kansas State Child Death Review Board 2017 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 as well as Kansas specific Birth and Death records as available for deaths occurring in Kansas. For deaths occurring out of state, The Office of Vital Statistics works with the Missouri Vital Records office to provide birth and death records to the SCDRB for deaths occurring in Missouri. For all other out of state deaths, the SCDRB works directly with those state Vital Statistics Offices to obtain birth and death records as allowed. This ensures that all deaths to Kansas residents, whether occurring in Kansas or in another state is investigated and reviewed the same by the SCDRB.

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 for review and assessment. 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 information may support the Board's classification of the death as Sudden Infant Death Syndrome, Category II or Unintentional Injury due to asphyxia 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 page 41.

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 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 2017=

$$\left(\frac{226 \text{ (number of infant deaths that occurred in 2017, reviewed by the SCDRB)}}{36,464 \text{ (number of Kansas resident live births in 2017)}} \right) \times 1,000$$

= 6.20

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 KDHE BEPHI is the source for numbers of resident population data used as denominators in this report.

Example: Motor Vehicle Death Rate, age 15-17, Kansas 2017=

$$\frac{16 \text{ (number of MVC deaths age 15-17 that occurred in 2017, reviewed by the SCDRB)}}{119,310 \text{ (population of Kansas residents age 15-17 in 2017)}} \times 100,000$$

= 13.41

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; and
- 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 death.

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State Child Death Review Board

120 SW 10th Ave, 2nd Floor

Topeka, KS 66612-1597

(785) 368-7376

(785) 296-7796 (Fax)

www.ag.ks.gov