IOWA CHILD DEATH REVIEW TEAM

ANNUAL REPORT 2015

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INTRODUCTION FROM THE CHAIRPERSON

Protecting Iowa's children, by identifying sources of harm and striving for prevention, is the mission of Iowa's Child Death Review team (ICDRT). The team is comprised of dedicated professionals from a variety of backgrounds: representatives from state agencies, local law enforcement, health care, mental health, behavioral and substance abuse providers and medical examiners. The work of the team centers on detailed case reviews examining as much information as possible regarding circumstances of death. Cases are discussed with a critical lens focused on how systems and individuals affected the outcome. With careful consideration, the team tracks opportunities for intervention. In many instances, recommendations are carried back by team members, resulting in positive change. Others advocate for programs, resources, policy changes or systemic supports to address known contributors to dangerous situations involving children.

Supervision, whether by a parent or caregiver, is often critical to preventing child death. Parents and caregivers are the decision-makers for infants and influencers for adolescents and teens. In too many situations, a single moment-in-time decision results in tragedy: falling asleep with a baby on the couch; failing to buckle a toddler in a car seat; losing sight of a child near a body of water; or trusting a teen won't access a firearm. The most essential protections of children are too often overlooked, despite messages to the contrary.

In an effort to revive attention around child mortality, this report contains a new section parsed by age and primary means of prevention. Safe sleep environments dominate infancy; drowning and accident safety are the focus in preschool and school-age years; and motor vehicle safety and suicide prevention are predominate in averting adolescent and teen death.

Every annual report is a compilation of data pulled from the Child Death Reporting System, which is a national registry accessed by state medical examiners and directors. Each child death results in a report form entered in the national system, and later extracted for trending and analysis. Advanced statistical skills are required to complete the annual report. Feedback is solicited from all members, particularly leadership within key supporting state agencies such as the Iowa Department of Public Health and the Iowa Department of Health and Human Services.

It must be noted that at present, this team receives no funding of any kind. Travel, time, and even lunch during each day-long meeting five times each year are paid out of the pockets of the participants or by using minor allocations of time from existing positions. In order to have greater impact and appropriately sustain the ICDRT, the team must be appropriately resourced. This work is too important.

Lastly, we, as a team, ask you to consider this report in its entirety. You may not be able to implement state policy change or secure funding for the team, but you may start making your child wear a helmet when he or she rides an ATV, you might make sure your grandchild takes swimming lessons, or you may have a conversation with a new mom about safe infant sleep. Every micro and macro effort has the potential to save a life.

Respectfully submitted,

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Chairperson, Iowa Child Death Review Team

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RECOMMENDATIONS BY AGE

INFANTS THROUGH ONE (0-1 YEAR)

Babies are the most vulnerable age group among all children. Completely dependent on adults for every need, the most minor decisions have great impact. Deaths in infants through age 1 are most often attributed to unsafe sleep environments including location, surroundings and positioning.

The following are the recommendations for infant safety:

- ***Safe Infant Sleep Environments***—*The American Academy of Pediatrics Safe Sleep Expanded Recommendations (October 2016) should be distributed by healthcare professionals and discussed with all new parents before discharge from an Iowa hospital.*
    - *Evidence shows healthcare professionals who demonstrate safe sleep practice have a significant impact on parental behavior.*
    - *In regard to **childcare providers** and all other people watching children of infants less than 1 year of age, the ICDRT recommends that mandatory safe sleep training is completed within the first three months of employment.*
    - *Avoid placing a child in a swing, car seat, couch or soft surface to sleep for any duration. It is still dangerous to place an older infant in a car seat to sleep, as partially connected restraints can cause suffocation.*
- ***Never Shake a Baby***—*The Period of Purple Crying campaign highlights the importance of recognizing the stress of newborn parenting and of educating parents about techniques to manage stress.*
    - *Non-parental caregivers, particularly the paramour of a parent, are at increased risk for harming an infant.*

TODDLER THROUGH SCHOOL AGE (1-6 YEARS)

Children aged toddler through school entry are ready to explore their environment. Their curiosity takes them to situations warranting close supervision, especially places not typically of danger to children. The following are recommendations to protect young children:

- ***Safety Around Bodies of Water***
    - *Active supervision around bodies of water, particularly covered swimming pools outside of summer, is critical to preventing drowning. Even unsuspecting bodies of water such as culverts and temporarily flooded areas pose significant risk for drowning. Young children are susceptible to incurring rapid permanent injury or death in minutes after being submerged in water.*
    - *Frequent drowning in aboveground pools could be avoided if ladders are removed when the pool is not in use.*
    - *The Review Team strongly encourages the use of **age-appropriate personal floatation devices**.*
    - *The Review Team strongly encourages all young children take **swimming lessons** throughout childhood.*
- ***Vigilance Outside of the Home***
    - *Child deaths occur outside the home equally often in day care settings as the homes of relatives. Grandparents and caregivers should be as vigilant as parents in the supervision of curious young children.*
    - *Parents should always research day care providers prior to committing to sending his/her child. State registration, while not required, is recommended. The Review Team recommends parents review the state childcare ratios ad guidelines before enrolling a child in a day care center.*
        - *Resources include:*

        - *https://ccmis.dhs.state.ia.us/providerportal/ChildCareRequirements.aspx*
        - *http://dhs.iowa.gov/licensure-and-registration*
    - *Parents and caregivers should exercise more prudent oversight of children outside the home, including situations involving animals and unfamiliar settings.*
    - *Consider car seat placement appropriate for a young child's size and height. Consult with a pediatrician for recommendations and guidance.*
    - *Parents and caregivers must recognize the importance of NOT driving while distracted. Unsafe conditions require the driver's full attention.*
    - ***NEVER leave a child in a car seat in a car unattended.***
- ***Fire Safety***
    - *The Review Team encourages parents and caregivers to keep lighters and matches away from young children. Candles and space heaters should be used only while parents and caregivers are awake and alert and for limited periods of time.*
    - *If the home space of a child is rented, parents and caregivers must be sure to check for* ***working smoke detectors and carbon monoxide detectors*** *and appropriate wiring of appliances such as ovens and stoves.*

SCHOOL AGE (7-11 YEARS)

School age children are often seeking and gaining autonomy. Parents and caregivers often allow more exploration with less supervision to school age children, though continued close monitoring in many situations is warranted. The following are recommendations to protect school age children:

- ***ATVs and Snowmobiles***
  - *The Review Team does not condone ATV or snowmobile use for this age group, even with helmets. Fatalities among young children who ride or drive these vehicles occur far too often and can cause severe injury or death from overturns or drowning when the vehicle pins a child. If ATV/snowmobile use occurs, the Review Team recommends **helmets** and assurance the vehicle is the appropriate size and power for the weight and height of the child.*
- ***Swimming Supervision***
  - *Continued swim instruction and supervision is warranted in this age group. Children swimming in open bodies of water are susceptible to panic and disorientation. Open water and swimming pool drowning are still prevalent among school age children.*
- ***Bicycles, Scooters, Skateboards and Similar Conveyances***
  - *Child deaths while mobile pedestrians often occur when the driver of a car does not see the child. Awareness, supervision and use of a **helmet** are encouraged anytime a child is mobile. The Review Team also suggests ensuring the child is fit per height and frame with the right size bicycle.*
- ***Watch for Early Warning Signs***
  - *Adolescents are in the beginning stages of exposure to peer pressure, bullying, and may be active on social media. Taking action to ensure cyber safety is important, as internet-based interactions will only increase with age.*
- ***Farm Safety***
  - *It is critical younger children in farm environments perform age-appropriate tasks, are supervised while near ponds and other bodies of water, and are limited in the distance and types of activities available to them.*

ADOLESCENT AND TEEN (12-17 YEARS)

Adolescents and teens experience a wide array of struggles and exposure to dangers they are not always equipped to manage. Parent and caregiver support and engagement is critical during this period, as is careful monitoring of emotional state and social media impact.

- ***Suicide***
    - *Teen suicides in Iowa have steadily increased in Iowa the past few years. Warning signs are often present and must be taken seriously. The Review Team has identified commonalities among cases in 2015 and recommends children meeting these circumstances be protected and supported.*
        - *An increasing number of **girls** are committing suicide and are using more lethal methods*
        - *Nearly half of decedents have a **criminal history***
        - *One quarter had a history of **substance abuse***
        - *Most had a history of learning difficulties including ADHD/ADD, depression or mental illness*
    - ***Most experienced conflict or exhibited signs of difficulty prior to suicide** – this is absolutely critical. Monitoring children immediately after arguments, events involving law enforcement or school failure may prevent suicide attempts. The following were common situations reported prior to suicides in 2015:*
        - *Arguments with significant other*
        - *Arguments with parents or caregivers*
        - *Drug/alcohol or problems with the law*
        - *School failure*
    - ***Bullying** was an identified factor in four cases, but is considered more pervasive than available for review.*

- ***Schools*** *are strongly encouraged to provide and require youth mental health training as professional development. Often the greatest opportunity for intervention outside the home is in school.*

- ***Weapon Use***
  - *Accidental firearm incidents kill, on average, more than 10 children in Iowa every year.* ***ALL FIREARMS SHOULD BE LOCKED AND KEPT AWAY FROM CHILDREN AND TEENS AT ALL TIMES. On average, more than 20 children die every year in Iowa from accidental shootings, homicides or suicides resulting from firearms.*** *Regardless of a parent or caregiver's level of comfort in the knowledge or familiarity a child has with a firearm, access should never be granted without the direct supervision of an adult trained in firearm safety.*
  - *Guns should never be used in combination with drugs or alcohol.*
- ***Drugs and Alcohol***
  - *The use of drugs and alcohol contribute to motor vehicle crashes, result in poisonings, and can contribute to or amplify contemplation of attempting suicide. Any use of drugs or alcohol in teens should be considered serious and requiring intervention.*
  - *Be sure potentially addictive or dangerous* ***prescription medications*** *are locked and inaccessible to teens.*
- ***Risk-Taking Behavior***
  - *It should be noted that adolescents and teens often have a reduced perception of actual risk. Speeding, not observing traffic signals, experimenting with medications or drugs and alcohol all place children at risk for being involved in a catastrophic incident.*
- ***Motor Vehicle Safety***
  - *The Review Team, with support from data, believe it is time to start the conversation on strengthening the graduated license requirements, including restrictions and increased penalty for* ***distracted driving****.*

ANNUAL SUMMARY

In 2015, there were 305 child deaths involving children 17 years of age or younger at time of death. This was a slight decrease from the previous year, but the age distribution of children shifted due to an increase in teen suicides.

	Date of death - Year						Total
	2010	2011	2012	2013	2014	**2015**	
Under age 1	179	178	199	155	178	**166**	1055
Ages 1 - 4	27	46	35	33	47	**38**	226
Ages 5 - 9	16	28	16	24	19	**25**	128
Ages 10-14	26	31	31	31	29	**29**	177
Ages 15 - 18	53	59	37	45	39	**47**	280
TOTAL	301	342	318	288	312	**305**	1866

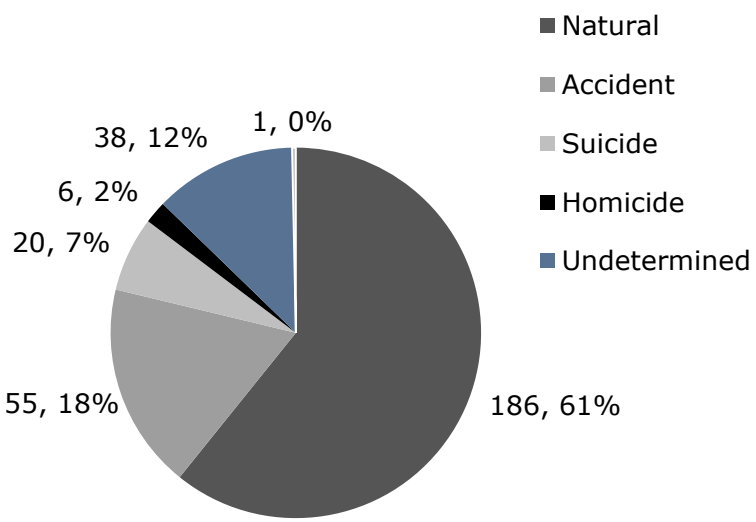
The frequency or occurrence of deaths parsed by racial or ethnic group shows more African American children disproportionately affected. By comparison, African Americans make up 3.7 percent of Iowa's general population and 10 percent of child deaths[1]. Race data are slightly skewed, as nearly half of cases do not have race identified. The percent of Hispanic or Latino children impacted is similar to that of the general population of Iowa.

	Date of death - Year						%	Total
	2010	2011	2012	2013	2014	2015	2015	
White	253	216	200	161	111	143	47%	1084
African American	34	18	28	26	14	30	10%	150
Pacific Island	1	0	0	0	0	0	0%	1
Asian	5	7	8	5	1	1	0%	27
American Indian	1	0	1	0	1	0	0%	3
Missing	7	101	81	97	185	132	43%	603
	301	342	318	289	312	306		1868

Child deaths are consistently more likely to occur in male children at a ratio of 60:40. Factors that affect sex in child death include a higher propensity of Sudden Unexplained Infant Death in males, and also motor vehicle crashes and suicides.

[1] U.S. Census Bureau, 2017. https://www.census.gov/quickfacts/fact/table/IA#viewtop.

DEATHS BY CAUSE AND MANNER



Child deaths are categorized by cause and manner (see sidebar). The most common category cause of death is "natural." Natural deaths are often attributed to medical cause, such as prematurity or birth defects. The second most common category is accidental involving motor vehicle crashes, drownings, fire, etc. Other important categories are suicide, homicide and undetermined. Undetermined cause of death is usually attributed to cases where the cause cannot be determined with information known at time of death. Cases of Sudden Unexplained Infant Death fall into this category.

Injury or trauma fatalities were higher than in 2014 compared to the previous year. More detailed information on deaths involving trauma or injury is in the "Accidental Deaths" section of this report.

	2010	2011	2012	2013	2014	2015
Under age 1	179	178	199	155	178	141
Ages 1 - 4	27	46	35	33	47	33
Ages 5 - 9	16	28	16	24	19	20
Ages 10-14	26	31	31	31	29	19
Ages 15 - 18	53	58	37	46	39	26

DETERMINING MANNER OF DEATH

In Iowa, the attending physician or medical examiner certifies the cause and manner of death. The cause of death is defined as an event or action which ultimately caused the decedent's death. The manner of death is how the death occurred based on the circumstances surrounding the death. Iowa's death certificate allows the certifier to choose from five different manners of death: natural, accident, suicide, homicide or undetermined.

The five manners of death are defined as follows:

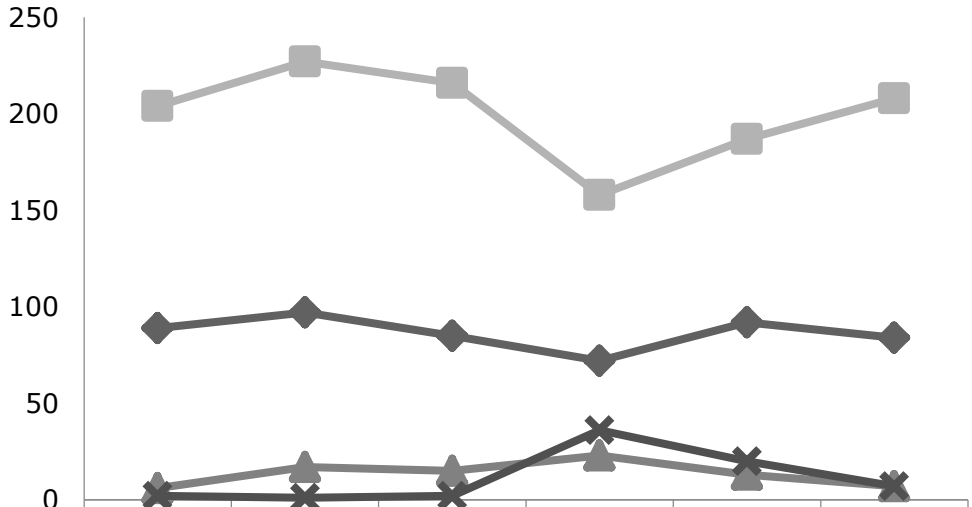
Natural: Death resulted from a natural process such as disease, prematurity or a congenital defect. Most deaths of this manner are considered by the CDRT to be non-preventable.

Accident: Death resulted from an unintentional act or an uncontrolled external environmental influence.

Suicide: Death resulted from one's own intentional actions. Evidence to support this manner can be both explicit and implicit.

Homicide: Death resulted from the actions of another individual with or without the intent to kill.

Undetermined: Investigation of circumstances and autopsy did not clearly identify the manner of death or evidence gathered supported equally two or more other manners of death.

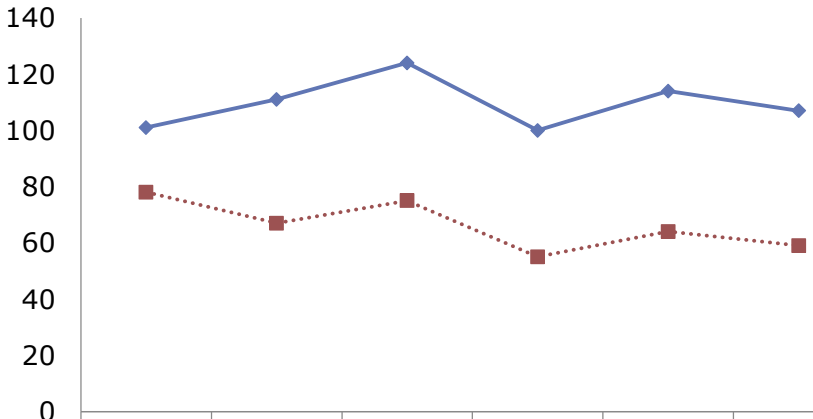


	2010	2011	2012	2013	2014	2015
Injury/Trauma	89	97	85	72	92	84
Medical condition	204	227	216	158	187	208
Undetermined	6	17	15	23	13	7
Unknown	2	1	2	36	20	7

INFANT MORTALITY

Infant mortality is the most common cause of death among all children ages 0-17 years. In an effort to better understand mortality at different stages of infancy, the statistics in this section of the report were divided into age categories of "neonatal" and "post-neonatal." The neonatal period is defined as the period from birth through 27 days of life. The post-neonatal period is defined as the period from 28 days of life to 364. A third age category of "child" is included for comparison to the infant age categories and includes children ages 1-17 years.

Deaths in neonates have fluctuated slightly over the past six years with a spike in 2012. Mortality in postneonates has declined gradually. Males continue account for almost 60 percent of deaths among neonates and post-neonates.



	2010	2011	2012	2013	2014	2015
Neonate	101	111	124	100	114	107
Postneonate	78	67	75	55	64	59

In the neonatal period, the manner of death is typically natural, including deaths attributed to birth defects, prematurity, SIDS, infection and other causes. The proportion of accidental deaths is higher in post-neonates compared to neonates, and is highest among children. A detailed breakdown of natural cause categories is available in the "Natural Causes" section of this report.

	2010	2011	2012	2013	2014	2015	5-Yr Avg	% Chg	Total
Neonate	101	111	124	100	114	107	110	-3%	657
Postneonate	78	67	75	55	64	59	68	-15%	398
Child	122	164	119	134	134	140	135	4%	813
TOTAL	301	342	318	289	312	306	312	-2%	1868

During the neonatal and post-neonatal periods, medical conditions were the leading cause of death. After the infantile period, this cause falls second to injury/trauma. The next leading causes of death for infants in 2015 were injury/trauma and undetermined, though both categories are significantly lower than deaths due to a medical condition.

		2010	2011	2012	2013	2014	2015	Total
Neonate	Not Specified	0	0	0	21	9	1	31
	Injury	2	1	3	1	1	2	10
	Medical Condition	98	109	120	71	102	104	604
	Undetermined	0	1	1	5	2	0	9
	Unknown	1	0	0	2	0	0	3
	Total	**101**	**111**	**124**	**100**	**114**	**107**	**657**
Postneonate	Not Specified	0	1	1	5	6	1	14
	Injury	10	6	11	12	10	6	55
	Medical Condition	64	46	51	29	38	42	270
	Undetermined	3	14	12	8	9	6	52
	Unknown	1	0	0	1	1	4	7
	Total	**78**	**67**	**75**	**55**	**64**	**59**	**398**
Child	Not Specified	0	0	0	7	3	0	10
	Injury	77	90	71	59	81	76	454
	Medical Condition	42	72	45	58	47	62	326
	Undetermined	3	2	2	10	2	1	20
	Unknown	0	0	1	0	1	1	3
	Total	**122**	**164**	**119**	**134**	**134**	**140**	**813**
Total	Not Specified	0	1	1	33	18	2	55
	Injury	89	97	85	72	92	84	519
	Medical Condition	204	227	216	158	187	208	1200
	Undetermined	6	17	15	23	13	7	81
	Unknown	2	0	1	3	2	5	13
	Total	**301**	**342**	**318**	**289**	**312**	**306**	**1868**

A review of location of the infant at time of death showed only a handful of infants were at the home of a friend or relative at time of death. Of note, more deaths among children and post-neonates occurred at a location other than the child's home. Deaths occurred at the home of a relative nearly as often as a licensed or unlicensed day care provider. Fatalities in child care settings continue to be identified highlighting the importance of safe infant care education and awareness among day care providers.

		2010	2011	2012	2013	2014	2015	Total
Neonate	No places indicated	96	109	117	72	112	10	516
	Childs home	3	1	4	4	2	8	22
	Relatives home	0	0	3	0	0	1	4
	Friends home	1	0	0	0	0	0	1
	Other/Unk	1	1	0	24	0	88	114
	Total	**101**	**111**	**124**	**100**	**114**	**107**	**657**
Postneonate	No places indicated	30	23	34	14	27	3	131
	Childs home	39	30	23	28	31	32	183
	Relatives home	2	2	5	0	2	2	13
	Licensed day care center	0	0	1	0	0	0	1
	Licensed day care home	2	5	3	4	1	2	17
	Unlicensed day care home	2	3	3	3	0	1	12
	Other/Unk	3	4	6	6	3	19	41
	Total	**78**	**67**	**75**	**55**	**64**	**59**	**398**
Child	No places indicated	38	71	43	19	48	10	229
	Childs home	36	40	36	57	39	55	263
	Relatives home	2	3	1	0	7	2	15
	Friends home	3	1	2	3	1	1	11
	Licensed foster care home	0	0	0	1	0	0	1
	Licensed group home	1	0	0	0	0	0	1
	Licensed day care home	0	0	0	0	1	3	4
	Unlicensed day care home	0	1	1	0	0	1	3
	Other/Unk	42	48	36	54	38	68	286
	Total	**122**	**164**	**119**	**134**	**134**	**140**	**813**
Total	No places indicated	164	203	194	105	187	23	876
	Childs home	78	71	63	89	72	95	468
	Relatives home	4	5	9	0	9	5	32
	Friends home	4	1	2	3	1	1	12
	Licensed foster care home	0	0	0	1	0	0	1
	Licensed group home	1	0	0	0	0	0	1
	Licensed day care center	0	0	1	0	0	0	1
	Licensed day care home	2	5	3	4	2	5	21
	Unlicensed day care home	2	4	4	3	0	2	15
	Other/Unk	46	53	42	84	41	175	441
	Total	**301**	**342**	**318**	**289**	**312**	**306**	**1868**

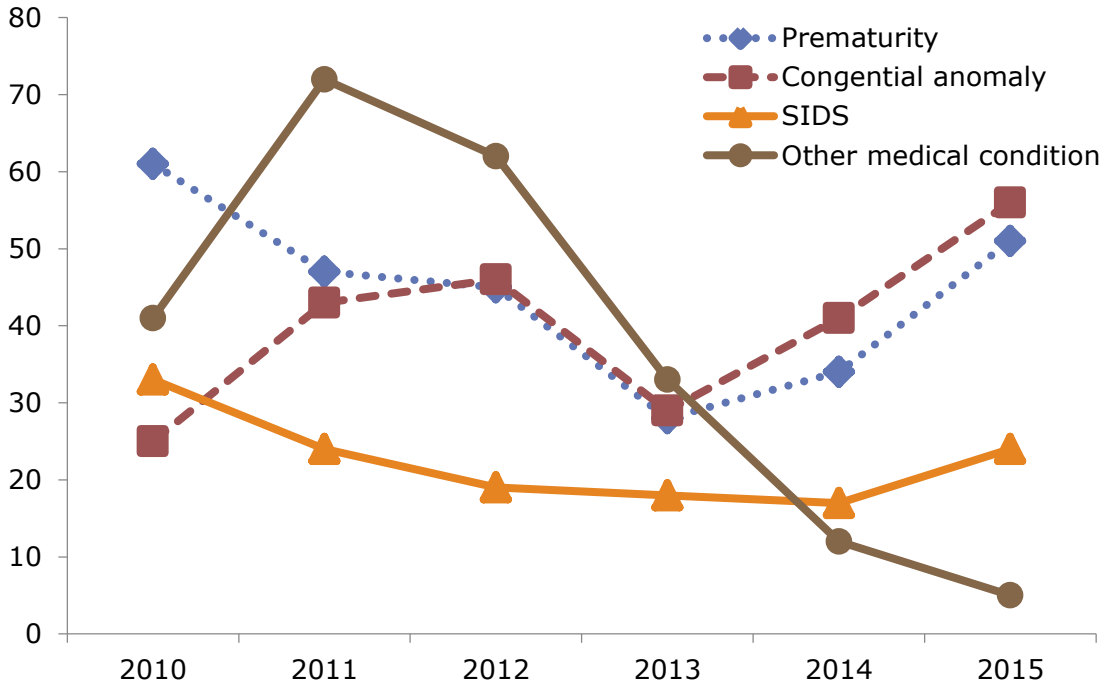
NATURAL DEATHS

A majority of child deaths in 2015 were the result of various medical conditions: prematurity, congenital anomalies and cardiovascular anomalies. These deaths were the result of natural factors affecting the mother, the developing fetus and child during pregnancy, childbirth and development. Such factors can include pneumonia, influenza, nuchal cord and other complications affecting pregnancy, delivery and development.

By definition, cases where the cause of death was certified as Sudden Infant Death Syndrome (SIDS), the investigation, autopsy, death scene and interview findings revealed no suspicions that any action or event was non-natural. SIDS and related deaths are typically classified as non-natural, as natural, medical cause cannot explain deaths; however, the classification assignment is at the discretion of the medical examiner or physician attesting a death certificate.

	2010	2011	2012	2013	2014	5-Yr Avg	2015	% Chg
N/A	97	115	102	152	173	128	107	-16%
Prematurity	61	47	45	28	34	43	51	19%
Congenital anomaly	25	43	46	29	41	37	56	52%
SIDS	33	24	19	18	17	22	24	8%
Other medical condition	41	72	62	33	12	44	5	-89%
Cancer	9	6	10	3	11	8	11	41%
Cardiovascular	9	13	18	3	3	9	26	183%
Other infection	7	2	3	0	2	3	1	NS
Pneumonia	6	4	7	7	4	6	14	150%
Other perinatal condition	2	2	0	3	0	1	0	NS
Neurological/seizure disorder	2	6	0	10	9	5	6	NS
Undetermined medical cause	2	1	0	2	2	1	1	NS
Asthma	1	2	2	1	3	2	3	NS
Malnutrition	0	3	0	0	1	1	0	NS
Influenza	1	0	0	0	0	0	1	400%
Total	296	340	314	289	312	310	306	-1%

Deaths due to prematurity reached the highest level in six years with a nearly 20 percent increase over the average of the past five years. The incidence of congenital anomalies and SIDS also increased, with a 50 percent spike in deaths attributed to congenital anomalies. A larger number of deaths due to pneumonia could be in response to a severe influenza season.


80
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2010
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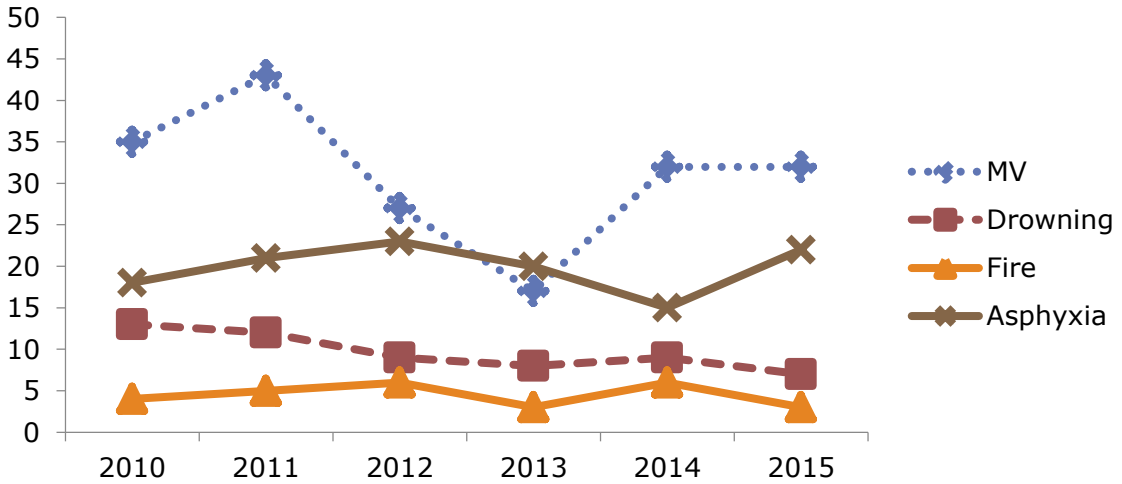
2012
2013
2014
2015
Prematurity
Congential anomaly
SIDS
Other medical condition

ACCIDENTAL DEATHS

There were 84 reported accidental deaths in 2015. A vast majority of these deaths were the result of motor vehicle collisions, followed by asphyxia, use of weapons (firearms), drowning, fire and falls.

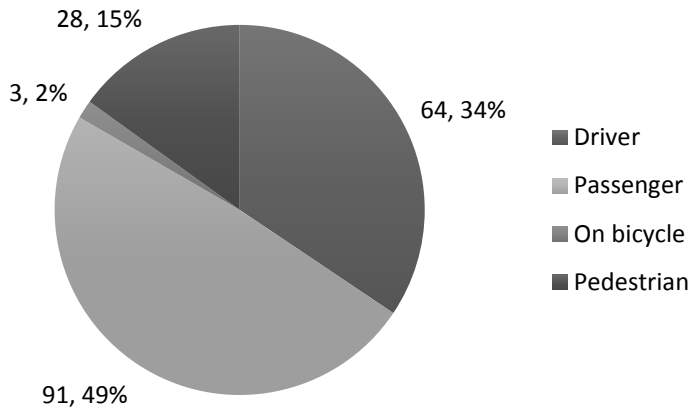
	2010	2011	2012	2013	2014	2015	5-Yr Avg	% Chg
MV	35	43	27	17	32	32	31	3.9%
Asphyxia	18	21	23	20	15	22	19	13.8%
Weapon	11	9	10	14	20	13	15	-11.4%
Drowning	13	12	9	8	9	7	10	-31.4%
Fire	4	5	6	3	6	3	5	-40.0%
Poisoning, overdose, or acute intoxication	7	3	4	6	5	3	5	-40.0%
Fall or crush	0	2	2	0	5	3	2	NS
Not Specified	1	1	3	2	0	0	2	NS
Animal bite or attack	0	1	0	1	0	1	0	NS
Exposure	0	0	1	1	0	0	1	NS
Total	89	97	85	72	92	84	83	1.2%

Three fatalities were the result of fire, burns or electrocutions. Fire-related fatalities often occur in homes lacking functional smoke detectors and are frequently rental properties. Accidental deaths resulting from inappropriate electrical wiring in rental properties has also resulted in child deaths in recent years. Oversight of rental property electrical and fire safety is a concern of the Child Death Review Team.



Asphyxia is the leading known cause of accidental death for infants. Asphyxia deaths result from inadequate oxygenation due to airway obstruction or the individual's inability to breathe. Asphyxiation may result from positional, mechanical, chemical and oxygen-deficient atmospheres. These deaths include autoerotic activities, farm accidents (tractor roll-overs, grain/corn engulfment), drowning, infants co-sleeping with adults, and entrapment of children between bedding and walls/objects (wedging).

MOTOR VEHICLE ACCIDENTS



When children reach the age of 1, the leading known cause of death changes to motor vehicle accidents and continues through age 17. Motor vehicle-related deaths in children 6-17 were more often male victims than females. The deaths resulting from motor vehicle collisions can be attributed to not wearing seat belts, not observing traffic signals (e.g., stop signs), careless driving (contributing factors included inexperience, speeding and distracted driving) and impairment. Motor vehicles include any motorized vehicle used for land transportation.

The primary types of motor vehicles involved in fatal accidents were automobiles and ATVs. In 2015 for all automobile accidents, slightly more than half were passengers.

IOWA DRIVER'S LICENSE REGULATIONS

Driver's license data were obtained from the Iowa Department of Transportation to examine the level of driving gradation for adolescents involved in motor vehicle crashes when the adolescent was the driver. Drivers in Iowa under the age of 18 are on a graduated license system that is divided into the following levels:

Instruction Permit

Available at age 14 with consent of a parent/guardian. All driving must be supervised by a licensed driver that is an immediate family member age 21 or older, or a driver older than 25 with parental permission.

Intermediate License

Available at age 16 with consent of parent/guardian. Teens may drive without supervision between the hours of 5:00 a.m. to 12:30 a.m. Drivers must also be crash and violation free for 12 consecutive months before applying for their full license.

Full License

Available at age 17 after meeting all of the intermediate license conditions with parental consent. This license removes any previous driving restrictions giving drivers full privileges.

	2010	2011	2012	2013	2014	2015	Total
Male	21	27	18	9	21	20	116
Female	14	16	9	8	11	12	70
TOTAL	35	43	27	17	32	32	186

ATV and snowmobile-related deaths remain high after a spike of six in 2014. Deaths in 2015 totaled five; most were drivers not wearing helmets.

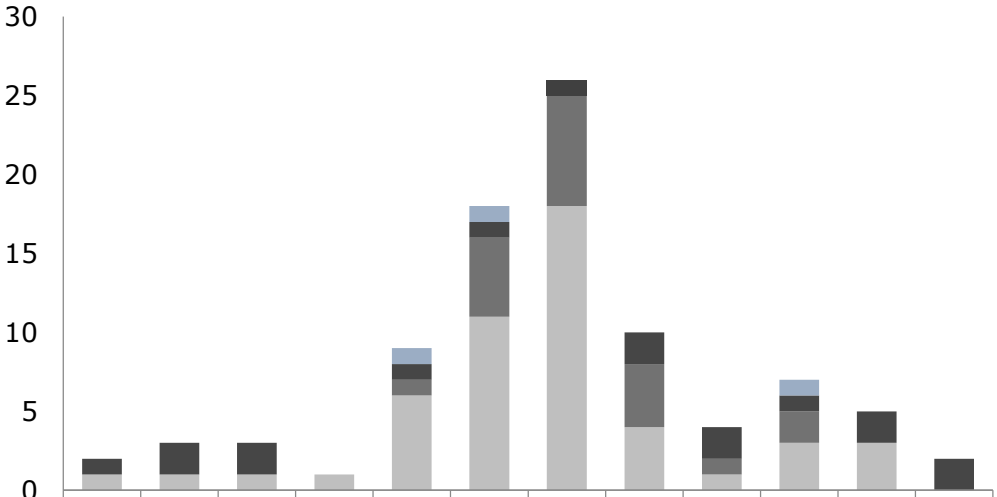
Of drivers who died in motor vehicle accidents, one had a full license, six had intermediate licenses, three had no license, and one driver had an out of state license. In 2015, 16 child passengers died in motor vehicle accidents. These data highlight the importance of enforcing driving limitations for adolescents, particularly restrictions on passengers.

	2012	2013	2014	2015
Not Specified	0	4	1	0
None	3	0	0	5
Car	5	7	12	10
Van	3	3	2	0
SUV	8	2	3	5
Truck	4	0	2	8
School bus	0	0	0	0
Motorcycle	0	0	2	0
Tractor	0	0	1	0
ATV	2	0	6	4
Snowmobile	0	0	1	0
Bicycle	1	0	0	0
Other	1	1	2	0
TOTAL	27	17	32	32

DROWNING

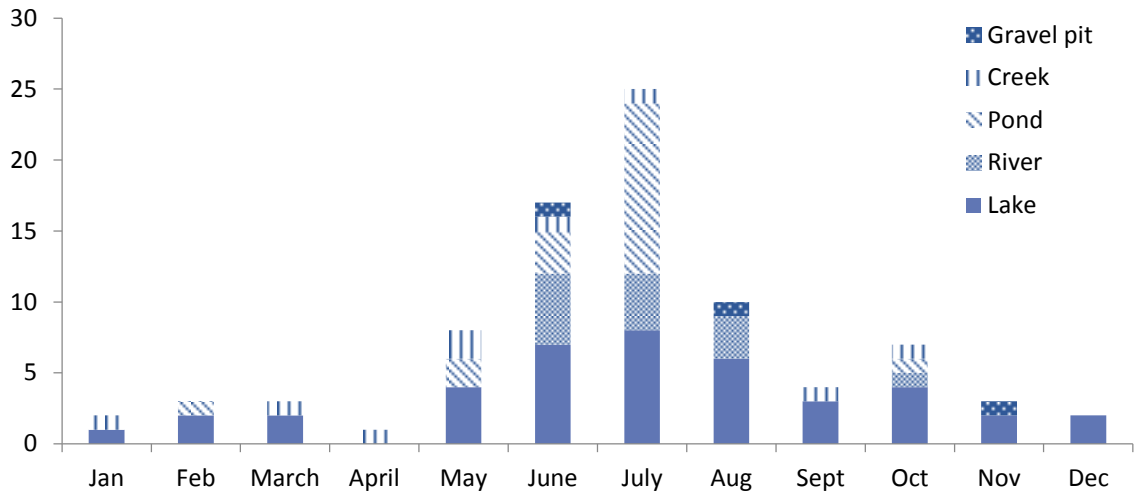
Many of these drowning incidents can be attributed to inadequate supervision, failure of inexperienced swimmers to know their true swimming abilities, or not using a personal flotation device (PFD). There were seven drowning-related deaths in 2015. When reviewing these deaths by location, they most often happen in open water or swimming pool in the month of July.

Swimming pools are the second most common location, comprising 23 percent of accidental drowning, followed by bathtub drowning at 17 percent.



	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Other	0	0	0	0	1	1	0	0	0	1	0	0
Bucket	0	0	0	0	0	0	1	0	0	0	0	0
Bathtub	1	2	2	0	1	1	0	2	2	1	2	2
Pool, hot tub, spa	0	0	0	0	1	5	7	4	1	2	0	0
Open water	1	1	1	1	6	11	18	4	1	3	3	0

Over the last six years, the highest number of accidental drowning deaths was among children ages 1-5 years, and happened in a pool, hot tub or spa. A small number of bathtub drowning accidents have involved infants. Across all age groups, drowning in open water is most common, but is not the leading location of drowning until children reach the age of six.



		2010	2011	2012	2013	2014	2015	Total
<1 Years	Bath tub	2	1		1	1		5
	Total	2	1		1	1		5
1-5 Years	Open water	2	1	0	2	0	2	7
	Pool, hot tub, spa	0	3	1	0	4	1	9
	Bath tub	1	1	1	0	0	0	3
	Other	0	0	0	0	1	0	1
	Total	3	5	2	2	5	3	20
6-9 Years	Open water		0	3	2	2	1	8
	Pool, hot tub, spa		1	0	1	0	0	2
	Other		0	1	0	0	0	1
	Total		1	4	3	2	1	11
10-14 Years	Open water	2	1	2	2		1	8
	Pool, hot tub, spa	2	0	0	0		0	2
	Total	4	1	2	2		1	10
15-17 Years	Open water	2	3	1		0	1	7
	Pool, hot tub, spa	1	0	0		0	0	1
	Bath tub	1	1	0		0	0	2
	Other	0	0	0		1	1	2
	Total	4	4	1		1	2	12

SUICIDE

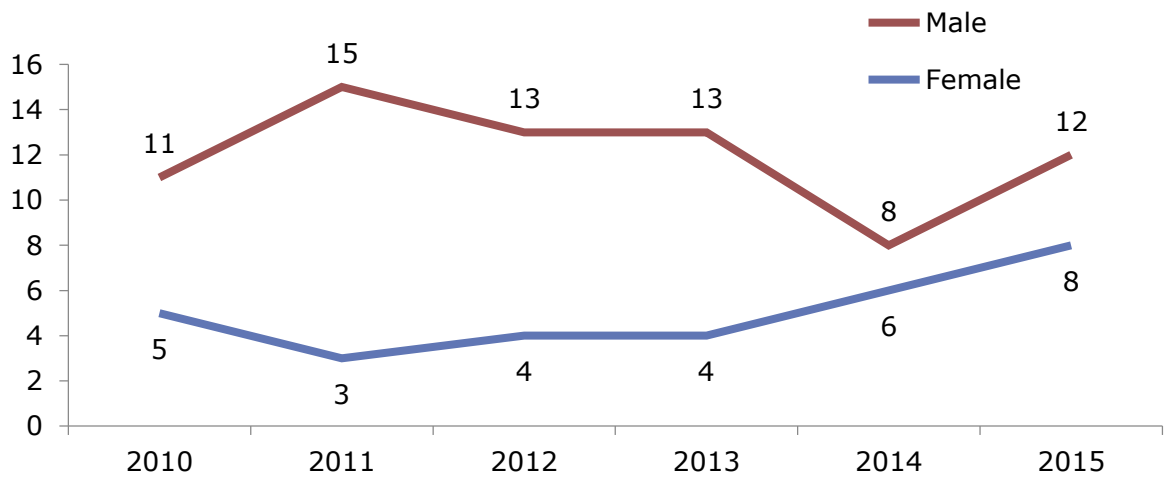
Sadly, 2015 was an alarming year for suicide. The count of adolescents and teens that inflicted self-harm exceeded any year on record. Weapons were selected most often as the mode of suicide, indicating access to any firearm is a significant risk factor for teens experiencing suicidal ideation.

The Child Death Review Team has emphasized year after year the importance of locking firearms and limiting access to children of all ages. Even experienced child hunters, who may seem familiar with weapons, are at risk for taking his or her life when guns are accessible in the home.

Firearms, while deadly, are not the only mode of suicide reported. Asphyxia, poisoning and in rare situations, use of a motor vehicle were used in suicides. It is impossible to identify all contributing factors in cases of suicide. However, in many instances evidence of abuse, bullying, instability in the home, or other traumatic factors drive a child to make the decision to end his or her life.

		2010	2011	2012	2013	2014	5-Yr Avg	2015	% Chg	Total
10-14	Asphyxia	2	2	5	1	4	3	4		18
	Weapon	0	3	2	3	1	2	0		9
	Poisoning, overdose, or acute intoxication	1	0	0	0	0	0	0		1
	Total	**3**	**5**	**7**	**4**	**5**	**5**	**4**	**-17%**	**28**
15-17	Motor vehicle or other transport	1	1	0	0	0	0	1		3
	Asphyxia	5	9	7	6	3	6	7		37
	Weapon	6	3	2	7	5	5	7		30
	Poisoning, overdose, or acute intoxication	1	0	1	0	1	1	1		4
	Total	**13**	**13**	**10**	**13**	**9**	**12**	**16**	**38%**	**74**
Total	Motor vehicle or other transport	1	1	0	0	0	0	1		3
	Asphyxia	7	11	12	7	7	9	11		55
	Weapon	6	6	4	10	6	6	7		39
	Poisoning, overdose, or acute intoxication	2	0	1	0	1	1	1		5
	Total	**16**	**18**	**17**	**17**	**14**	**16**	**20**	**22%**	**102**

Of these 20 deaths, four were between the ages of 10-14. The remainder were teens ages 15-17. Eleven children hanged themselves, seven used a firearm, one used poison, and one used a motor vehicle. Females are more likely to die by asphyxia.



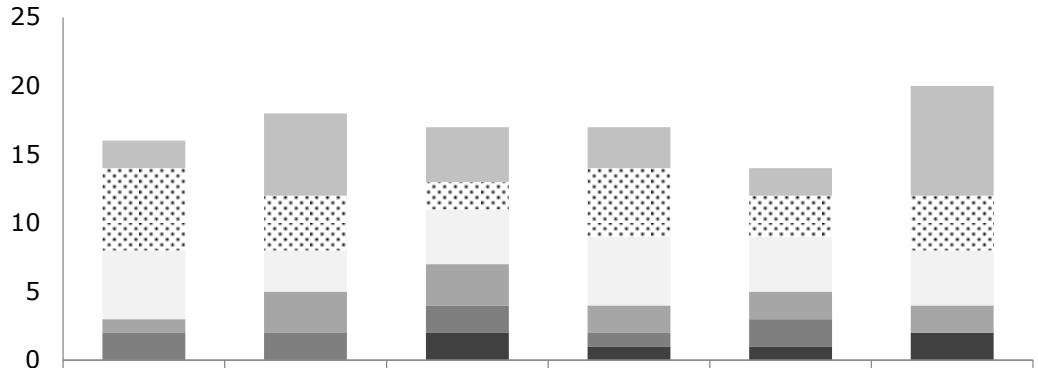
Suicides among females have increased significantly in the last three years from four in 2013 to eight in 2015.

SUICIDE CASE INVESTIGATIONS

Suicide case investigations often yield helpful guidance for future prevention. When evaluating the history and factors contributing to suicide for cases occurring in 2015, several findings were of interest:

- Nearly half of decedents had a criminal history
- One quarter had a history of substance abuse
- Most experienced conflict or exhibited signs of difficulty prior to suicide
    - Arguments with parents/paramours
    - Drug/alcohol or problems with the law
    - School failure
- Bullying was an identified factor in four cases, but is considered more pervasive than found on investigation

The CDRT strongly recommends full investigation, including autopsy, in the case of a death by suicide to aid in characterizing these tragic events.



	2010	2011	2012	2013	2014	2015
17	2	6	4	3	2	8
16	6	4	2	5	3	4
15	5	3	4	5	4	4
14	1	3	3	2	2	2
13	2	2	2	1	2	0
12	0	0	2	1	1	2

HOMICIDE

In 2015, Iowa experienced six homicides affecting children ages 17 and under. This was nearly double the number of homicides from the previous year. The increase was concentrated in children under the age of five.

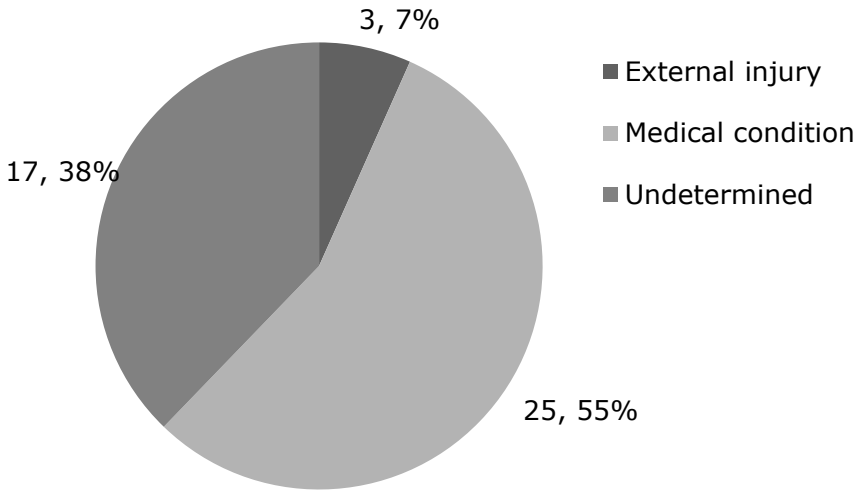
	2010	2011	2012	2013	2014	2015	Total
<1 Year	2	2	5	2	4	1	16
1-4 Years	3	1	6	2	5	1	18
6-9 Years	0	2	0	1	1	0	4
10-14 Years	0	1	1	0	0	0	2
15-17 Years	1	1	4	1	3	4	14
TOTAL	6	7	16	6	13	6	54

DECEDENT	PERPETRATOR	CHARGES	SENTENCE
16 year old	14 year old male friend	• Voluntary manslaughter • Reckless Use of Firearm-Serious Injury • Going Armed with Intent	Boys Training School Until Age 18
2 year old	20 year old father	• Murder 2nd degree • Child endangerment – multiple acts	50 years in prison 50 years in prison (consecutive)
16 year old	14 year old brother	Traffic of stolen weapons – 1st offense	None imposed

DECEDENT	PERPETRATOR	CHARGES	SENTENCE
17 year old	17 year old friend	• Murder – 2nd degree • Robbery – 1st degree	50 years in prison 25 years in prison
16 year old	49 year old father	Murder – 1st degree (two counts; murdered wife and daughter)	Life in prison
3 year old	25 year old father	• Murder-1st degree • Child endangerment-serious injury	Life in prison

UNDETERMINED

In 2015, the exact manner of death for 32 children could not be determined and occurred primarily in children less than 1 year of age. Many of such deaths are attributed to unsafe sleep environments.



	2010	2011	2012	2013	2014	2015	Total
Under age 1	39	39	36	25	29	27	347
Ages 1 - 4	3	4	3	3	5	4	32
Ages 5 - 9	0	1	0	0	0	0	3
Ages 10-14	1	1	1	0	1	1	8
Ages 15 - 18	1	0	0	0	1	0	6
	44	45	40	28	36	32	396