STATE OF IOWA DEPARTMENT OF
Health AND Human
SERVICES

IOWA CHILD DEATH REVIEW TEAM
2022-2023 ANNUAL REPORT
of Deaths that Occurred in 2019

December 2023

Overview and Purpose

The Iowa child death review team (CDRT) is a multidisciplinary team established by Iowa Code section 135.43. The team is part of the Iowa Office of the State Medical Examiner that provides staffing and administrative support to the team. The team has members with the following credentials:

- State Medical Examiner
- certified professional with knowledge concerning sudden infant death syndrome
- pediatrician
- family practice physician
- mental health professional
- social worker
- professional with knowledge concerning domestic violence
- substance abuse professional
- law enforcement official
- county attorney
- emergency room nurse
- perinatal expert
- representative of the health insurance industry
- at large appointee

Other team members, such as a representative of the State Attorney General's Office, are appointed by the State Medical Examiner.

In the 2022-2023 period, the CDRT had a total of eighteen active team members. During this period three members resigned and two new members joined the team. There was a total of two part time staff, one hired in 2022, the other in 2023, at the Iowa Office of the State Medical Examiner to work solely on the CDRT. This work included entering data into the National Center for Fatality Review and Prevention data base, acquiring case records, drafting meeting agendas, recording meeting minutes, and collating meeting discussion points and death prevention recommendations.

The team is tasked with analyzing factual information obtained in review of the records of child deaths and make recommendations regarding prevention of child deaths. The confidentiality of patient records and identity is required throughout the review process and in the release of any reports or recommendations.

The purpose of the team is to aid in the reduction of preventable deaths of children under the age of 18 years through the identification of unsafe consumer products; identification of unsafe environments; identification of factors that play a role in accidents, homicides and suicides which may be eliminated or counteracted; and promotion of communication, discussion, cooperation, and exchange of ideas and information among agencies investigating child deaths.

The CDRT is in a transition to re-focus its mission and objectives. Our aim is to better link the recommendations derived from our work with our community and state partners. This shift will ultimately yield a more significant impact on outcomes.

The observations and recommendations contained in this report and future reports are not necessarily reflective of the totality of the team's discussions, observations, and recommendations. Aside from generating formal recommendations for system improvement, there is great value in specific-case-driven multidisciplinary conversation among those with expertise in children's welfare, particularly when such conversations include policy makers, practice influencers, and those who otherwise can create system change in less obvious or public ways. As a result, and even prior to the publishing of our annual reports, we are confident that our work has already contributed to case specific influence, broader policy considerations, and real-time education and alterations to practice.

The team met a total of five times in order to review the case records of deaths that occurred in 2019. Meetings occurred on:

- March 9, 2022;
- June 8, 2022;
- September 13, 2022;
- December 13, 2022; and
- March 22, 2023.

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Terminology

Cause of death, as defined by the World Health Organization, is "the disease or injury that initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury." A majority of the causes of deaths in cases reviewed by the CDRT were certified by medical examiners who follow the World Health Organization definition.

Manner of death is a part of the death certificate and is utilized for vital statistics. The CDRT also utilizes manner of death as one method to categorize and organize deaths in the review process. The CDRT reviews deaths of children who are 17 years old or younger and the deaths occur outside of a medical care setting or is categorized as a manner other than Natural.

The National Association of Medical Examiners makes the following distinctions in considering the category of manner of death.

> **Natural:** *"due solely or nearly totally to disease."*
>
> **Accident:** *"there is little or no evidence that injury or poisoning occurred with intent to harm or cause death."*
>
> **Undetermined:** *"used when the information pointing to one manner of death is no more compelling than one or more other competing manners of death when all available information is considered."*
>
> **Suicide:** *"results from an injury or poisoning as a result of an intentional, self-inflicted act committed to do self-harm or cause the death of oneself."*
>
> **Homicide:** *"occurs when death results from an injury or poisoning or from a volitional act committed by another person to cause fear, harm, or death. Intent to cause death is a common element but is not required for classification as homicide."*

(Note: a high proportion of the infant deaths that involve circumstances surrounding sleep and sleep environment, are categorized with Undetermined manner, due to lack of sufficient evidence from scene investigation or physical findings on autopsy to unequivocally confirm the death was a result of an accidental or intentional asphyxia death.)

A majority of the manner of deaths of cases reviewed by the CDRT were certified by medical examiners who follow the National Association of Medical Examiners recommendations.

Manner of Death

In 2022 through the first quarter of 2023, the CDRT reviewed a total of 188 cases from deaths that occurred in 2019. The number of cases reviewed in each of the five manner of death categories included the following:

- **Natural** - 65 child decedents had manner certified as Natural. Causes included asthma/ respiratory disorder, cancer, cardiovascular disease, congenital anomaly, neurological/seizure disorder, pneumonia, prematurity, or infection.
- **Accident** - 53 child decedents had manner certified as Accident. Causes included blunt force injuries from motor vehicle collision, fire/burn/ electrocution, drowning, asphyxia, fall or crush, poisoning or overdose, or other injury.
- **Undetermined** - 35 child decedents had manner certified as Undetermined. Many of the cases were sleep environment related.
- **Suicide** - 24 child decedents had manner certified as Suicide. Causes included asphyxia, firearm, or overdose.
- **Homicide** - 8 child decedents had manner certified as Homicide. Causes included gunshot wounds, injuries from other weapons, and two high profile child homicide cases that had been reviewed by the Iowa State Ombudsman and the Iowa Department of Human Services.

In the review process, team members focused on at-risk identifiers and challenges, response of agencies and people involved in the case and formulation of recommendations to prevent child deaths with similar circumstances. The team's review and discussion of multiple cases within categories identified recurring similar at-risk circumstances. Two categories of deaths were identified in the cases from 2019 to have recurrent identifiable risk factors that lend to clear generalized recommendations that empirically could have a positive effect in reducing the number of child deaths. These two broad categories of deaths included suicides and infant unsafe sleep practices and environments. The identified recurrent risk factors and recommendations are listed below. These recommendations inform gaps and deficiencies that were identified from the available data.

Summary: Number of Child Deaths by Demographics

	2010-2012		2013-2015		2016-2018		2019		TOTAL	
	Count	*Percent*	*Count*	*Percent*	*Count*	*Percent*	*Count*	*Percent*	*Count*	*Percent*
Age Group										
Under Age 1	561	*58%*	506	*55.2%*	434	*54.9%*	85	*44.3%*	**1586**	**55.3%**
Ages 1-5	126	*13%*	142	*15.5%*	107	*13.5%*	17	*8.9%*	**392**	**13.7%**
Ages 6-9	43	*4.4%*	46	*5%*	46	*5.8%*	14	*7.%*	**149**	**5.2%**
Ages 10-14	88	*9.1%*	90	*9.8%*	83	*10.5%*	35	*18.2%*	**296**	**10.3%**
Ages 15-17	150	*15.5%*	133	*14.5%*	120	*15.2%*	40	*20.8%*	**443**	**15.4%**
Missing	0	*0%*	0	*0%*	1	*.1%*	1	*.5%*	**2**	**.1%**
Infant Age Period										
Neonate (0-27)	335	*34.6%*	322	*35.1%*	234	*29.6%*	38	*19.8%*	**929**	**32.4%**
Postneonate (28-364)	226	*23.3%*	184	*20.1%*	201	*25.4%*	48	*25%*	**659**	**23%**
Child (1-17)	407	*42%*	411	*44.8%*	356	*45%*	106	*55.2%*	**1280**	**44.6%**
Gender										
Male	592	*61.2%*	496	*54.1%*	460	*58.2%*	130	*67.7%*	**1678**	**58.5%**
Female	369	*31.8%*	376	*41%*	311	*39.3%*	61	*31.8%*	**1117**	**38.9%**
Missing	7	*.7%*	45	*4.9%*	20	*2.5%*	1	*.5%*	**73**	**2.5%**
County of Residence										
Metropolitan	544	*56.2%*	367	*40%*	469	*59.3%*	114	*59.4%*	**1494**	**52.1%**
Micropolitan	175	*18.1%*	107	*11.7%*	104	*13.1%*	40	*20.8%*	**426**	**14.9%**
Rural	212	*21.9%*	144	*12.4%*	164	*20.7%*	27	*14.1%*	**517**	**18.0%**
Out of State	31	*3.2%*	21	*2.3%*	29	*3.7%*	8	*4.2%*	**89**	**3.1%**
Missing	6	*.6%*	308	*33.6%*	25	*3.2%*	3	*1.6%*	**342**	**11.9%**
Official Manner of Death										
Natural	561	*58%*	559	*61%*	392	*49.6%*	68	*59.4%*	**1580**	**55.1%**
Accident	189	*19.5%*	165	*18%*	174	*22%*	53	*20.8%*	**581**	**20.3%**
Suicide	52	*5.4%*	51	*5.6%*	49	*6.2%*	24	*14.1%*	**176**	**6.1%**
Homicide	29	*3%*	27	*2.9%*	32	*4%*	8	*4.2%*	**96**	**3.3%**
Undetermined	129	*13.3*	101	*11%*	129	*16.3%*	35	*18.2%*	**394**	**13.7%**
Unknown/Missing	8	*.8%*	14	*1.5%*	15	*1.9%*	4	*2.1%*	**41**	**1.4%**
Primary Cause of Death										
From external cause of injury	273	*28.2%*	248	*27%*	263	*33.2%*	97	*50.5%*	**881**	**30.7%**
From a medical cause	650	*67.1%*	557	*60.7%*	440	*55.6%*	79	*41.1%*	**1726**	**60.2%**
Undetermined	38	*3.9%*	43	*4.7%*	60	*7.6%*	6	*3.1%*	**147**	**5.1%**
Unknown/Missing	7	*.7%*	69	*7.5%*	28	*3.5%*	10	*5.2%*	**114**	**4.0%**

Recurrent Risk Factors Identified in Suicide Cases

Home Environment & Relationship

- Access to unsecured firearms
- Recent disagreement with parents/ siblings
- Family history of suicides
- Recent move
- Parents recently divorced/separated
- History of sexual abuse
- Recent motor vehicle accident
- Parent used illegal drugs (e.g. methamphetamine, heroin)
- Parent was a felon

Mental Health History

- History of depression and anxiety
- Prior suicidal ideations, suicide attempts
- History of nonsuicidal self-injury behavior

School Related

- Recent poor performance/grade
- Recently dropped out of school
- Recent loss of interest in favorite sport
- History of and recently bullied

Substance Use

- Recent consumption of alcohol
- Substance abuse (e.g. marijuana, cocaine, tobacco, dextroamphetamine/ amphetamine)

Criminal History

- Recent criminal involvement

Social History

- Recent break up with girlfriend/boyfriend
- Had few friends
- Recent disclosure of sexual orientation

Recommendations and Protective Factors to Reduce Suicides

- Promote safe storage and secure all firearms in the child's primary home and relatives' homes. Secure storage includes locking up firearms and storing ammunition separately.
- Provide counseling strategies for effectively managing parental separations.
- Healthcare providers and counselors should use valid, reliable screening tools to assess children for suicide risk.
- Provide effective counseling strategies on managing relationship conflicts and breakups.
- Emphasize the importance of discussing mental health, including depression and suicidal thoughts, as part of the dialogue between individuals and healthcare professionals.
- Provide grief support to family members of deceased.
- Provide outreach to children who are separated from the school system.
- Continue to expand substance abuse prevention programs to prevent child abuse and neglect.
- Increase awareness and participation among local health initiatives and suicide awareness activities.
- Inform parents about the warning signs of suicide and drug abuse.
- Increase mental health services and promoting openness about mental health, especially in families.
- Provide access to suicide prevention resources during hunter safety education courses.

Recurrent Risk Factors Identified in Sleep-Related Practices and Environments

Sleep Environment

- Not placed in crib for sleep (e.g. sectional couch, adult bed, car seat, baby bouncers, baby rockers)
- Rock'n Play brand (recalled)
- Placed to sleep in non-supine position
- Bed-sharing with adult, siblings or other child
- Pillows, blankets, toys, diaper changing supplies in sleep environment
- Propped up bottle

Day Care Setting

- Prior death in daycare
- High ratio of children to daycare provider
- Propped up bottle
- Placed to sleep in room out of sight of daycare provider in non-crib

Recommendations and Protective Factors to Reduce Sleep-Related and Sudden Unexpected Infant Deaths

- The American Academy of Pediatrics (AAP) issued updated recommendations in 2022 for reducing infant deaths in the sleep environment, and ongoing public health messaging remains a critical component of prevention.
- Provide consistent, culturally appropriate and nonjudgmental communication of Safe Sleep practices to all parents and caregivers. Language interpreters should be used as needed.
- Provide safe sleep education to teenagers preparing for babysitting and parenthood.
- Keep older children out of crib.
- Provide additional information on safe sleep at the birthing center prior to discharge and providing education about safe sleep to the community, especially about safe cribs, and the danger of co- sleeping.
- Providers can model safe sleep environments in clinical, childcare and community-based settings. This includes setting up safe sleep displays in daycare facilities, clinic waiting rooms and workplaces.
- Screen new parents and caregivers prior to discharge to determine if the infant has a safe sleep environment at home.
- Teach new parents how to perform cardiopulmonary resuscitation.
- Inform parents that twin infants need separate sleeping surfaces.
- Distribute fire alarms and carbon monoxide detectors.
- Work with our local partners in implementing the Cribs for Kids program more widely.

Moving Data to Action

The Child Death Review Team reviews data on the leading causes of infant and child death and selects priorities for the year. Iowa Health and Human Services and various partner organizations use state Child Death Review recommendations to plan activities, programs, and interventions or to support policies that prevent deaths and improve health for Iowa families. The described trends and patterns that emerge from the aggregate data presented here have informed the recommendations. Iowa policymakers, organization heads, and partners from across the state can support our work by adopting and promoting the recommendations outlined in this report. While education is important, changes in policy and enforcement of laws are one of the most effective prevention strategies for many types of child deaths.

The Title V Healthy Pregnancy Program, through its partnership with The Iowa SIDS Foundation, strives to increase awareness around the importance of safe sleep to help decrease incidences of SIDs throughout the state. Education centers messaging around placing babies to sleep on their backs and on their own safe sleep surface that is free of soft objects or loose fabrics. This partnership provides culturally congruent training to Healthy Pregnancy Program staff, including nurses, social workers, and doulas. These providers then offer individualized education to pregnant and postpartum women on safe sleep practices, support families affected by SIDs by connecting them with peer support person, and facilitate a Safe Sleep Workgroup to promote following best practice guidelines. For more information and resources, visit: https://iowasids.org.

In 2024, the Title V Child and Adolescent Health Program will begin a pilot project to increase the capacity of primary care providers in Iowa to manage common adolescent mental health concerns through peer to peer consultation with experienced providers. In addition, the Child and Adolescent Health Program is building out the foundation for current Title V contractors to expand their capacity to provide mental health screenings and support services.

The Iowa Child Death Review Team applauds the many efforts by private and public entities who strive to provide education, programs, equipment, and oversight to prevent child deaths. Efforts include free gun safety locks given away by city police departments (example, Iowa City Police Department); free pack-n-plays given to families who cannot afford them so that their baby can have a safe sleep space (example, Iowa SIDS Foundation); creating mental illness resources youth that goes beyond a school having a therapist available (example, Please Pass the Love); and the opportunity to anonymously report a concern like a gun, threats, self-harm, or other forms of victimization in schools by using a phone app, phone call, or online form (example, Safe + Sound Iowa).

Efforts include free pack-n-plays given to families who cannot afford them so their baby has a safe sleep space.

Acknowledgments

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