2016 Child Fatality Prevention System

Annual Legislative Report

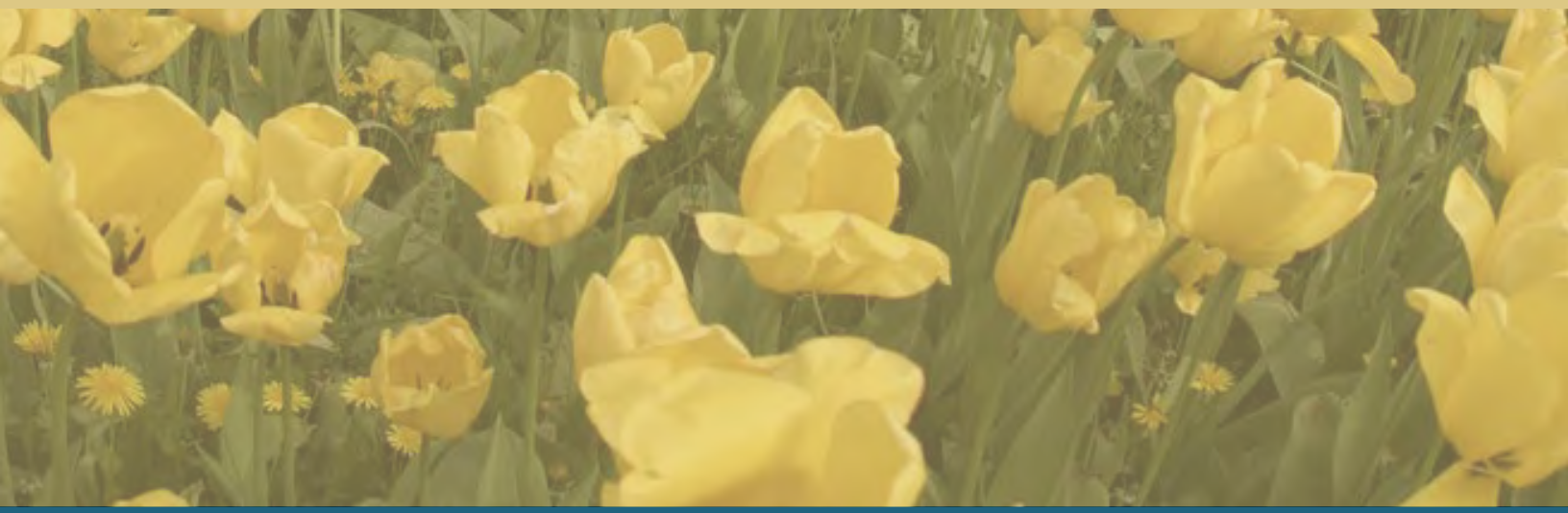
Title: 2016 Colorado Child Fatality Prevention System Annual Legislative Report

Submitted By: The members of the Colorado Child Fatality Prevention System State Review Team

Subject: A description of the activities of the Colorado Child Fatality Prevention System, Child Fatality Prevention System State Review Team and local child fatality review teams that occurred in Fiscal Year 2016, as well as recommendations to policymakers as required in statute.

Statute: Child Fatality Prevention Act; Article 20.5 Sections 401-409 of Title 25 of the Colorado Revised Statutes

Date: July 1, 2016



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Executive Summary

Overview of Child Fatality Prevention System

The Child Fatality Prevention Act (Article 20.5 of Title 25, Colorado Revised Statutes) established the Child Fatality Prevention System (CFPS), a statewide, multidisciplinary, multi-agency effort to prevent child deaths. Although not codified in Colorado Revised Statutes (C.R.S.) until 2005, the CFPS State Review Team has been conducting retrospective reviews of child deaths in Colorado since 1989. The CFPS applies a public health approach to prevent child deaths by aggregating data from individual child deaths, describing trends and patterns of the deaths and recommending prevention strategies. The identified strategies are implemented and evaluated at the state and local levels with the goal of preventing similar deaths from occurring in the future. As mandated in statute, this report identifies specific policy recommendations to reduce child deaths in Colorado and provides an overview of programmatic accomplishments for state Fiscal Year 2016.

The Colorado CFPS is housed at the Colorado Department of Public Health and Environment (CDPHE) in the Prevention Services Division's Violence and Injury Prevention - Mental Health Promotion (VIP-MHP) Branch. As of January 1, 2015, the child fatality review process transitioned from the state-level to the local-level. Local child fatality review and prevention teams (local teams) became responsible for conducting individual, case-specific reviews of fatalities of children from 0-17 years of age occurring in the coroner jurisdiction of the local team. County or district public health agencies coordinate 48 multidisciplinary, local teams representing every county in Colorado. Local teams review child deaths assigned to them by the CFPS Support Team at CDPHE. The CFPS State Review Team (State Review Team) reviews the aggregated data and recommendations submitted by all of the local teams to identify recommendations to prevent child deaths in Colorado, including policy recommendations. The variety of disciplines involved and the depth of expertise provided by the State Review Team and local teams results in a comprehensive review process, allowing for a broad analysis of both contributory and preventive factors of child deaths and the development and implementation of evidence-based prevention strategies.

Summary of 2010-2014 Child Fatality Review Findings

The CFPS uses death certificates provided by the Vital Statistics Program at CDPHE to identify deaths of children less than 18 years of age that occur in Colorado. The Colorado death certificate has five manners of death categories: natural, accident, homicide, suicide and undetermined. Manner of death is a classification of death, as determined by a coroner, based on the circumstances surrounding a cause of death. Cause of death is the specific disease or injury that killed the deceased person (i.e., drowning, poisoning, etc.). To prepare the recommendations contained in this report, the State Review Team and local teams analyzed case information on children ages 0-17 years who died in Colorado (inclusive of both residents and non-residents) between 2010 and 2014.

Pursuant to C.R.S. 25-20.5-407, the CFPS conducts comprehensive reviews of child fatalities that occur in the state of Colorado certified on death certificates as accidental, homicidal, suicidal or undetermined manner and related to one or more of the following causes: undetermined,

unintentional injury, violence, motor vehicle incidents, child abuse/neglect, sudden unexpected infant death (SUIDs) and suicide. All natural manner deaths of children 0-17 years of age receive an initial review by State Review Team members in order to identify any deaths that may have been preventable. If the State Review Team determines that a natural manner death may be preventable, the local teams request hospital records and other relevant reports and conduct a thorough case review.

Of the 3,016 deaths that occurred in Colorado from 2010 through 2014, 981 met the statutory mandate for CFPS child fatality review and received a thorough case review during the 2010 through 2015 calendar years. Among the 981 fatalities the CFPS reviewed for this period, Colorado coroners classified the *manner of death* (i.e., who or what initiated the events leading to death and with what intention) as accidental for 459 fatalities (46.8 percent), suicide for 168 fatalities (17.1 percent), undetermined manner for 164 fatalities (16.7 percent), homicide for 107 fatalities (10.9 percent) and natural manner for 83 fatalities (8.5 percent) were of natural manner.

Among the 981 fatalities reviewed by CFPS, the leading *cause of death* (i.e., what is the reason the individual died) reviewed from 2010 through 2014 was SUIDs (n=244). SUIDs, also referred to as sleep-related infant deaths, include fatalities of infants under one year of age that occur suddenly and unexpectedly in sleep environments. The next most frequent causes of death were motor vehicle-related fatalities (n=221), suicide (n=168), unintentional drowning (n=55) and unintentional poisoning (n=34). The CFPS determined that 209 of the 981 child fatalities in this time period were due to child maltreatment. Of the 981 child fatalities, 110 were firearms-related. It is important to note that SUIDs, child maltreatment fatalities and firearms-related deaths are not mutually exclusive. For example, a suicide could also be considered a firearms-related death and a child maltreatment fatality, depending upon the circumstances of the case and the interpretation of those details by the reviewing team. Additional data for each of these causes of child death is available in Appendices A-G of this report.

During each review meeting, team members studied the information summarized in the case files for each of these deaths. Circumstantial data about the deaths were collected and documented using a web-based data collection system developed by the National Center for Fatality Review and Prevention. Team members also discussed and recorded community, system and policy-level recommendations to prevent child deaths.

2016 Recommendations to Prevent Child Fatalities and Improve Child Fatality Data Quality

Based on 2010-2014 child fatality data, the CFPS team members recommend the following strategies be implemented to reduce child fatalities in Colorado:

1.	Establish a statutory requirement that allows for primary enforcement of Colorado's adult seat belt law, making it possible to stop a driver and issue a citation if anyone (the driver and all passengers, regardless of seating position) in the vehicle is not properly restrained.
2.	Enhance the Graduated Drivers Licensing (GDL) law to increase the minimum age for a learner's permit to 16 years and expand restricted driving hours to 10:00pm-5:00am.
3.	Mandate that all healthcare settings develop and implement policies to provide education and information about infant safe sleep promotion.
4.	Mandate all schools in Colorado implement a full spectrum of suicide prevention programming, including programs that promote resilience and positive youth development as protective factors for suicide.
5.	Support policies that ensure the long-term financial stability of free full-day preschool and free full-day kindergarten.
6.	Support policies that ensure paid parental leave for families.

In addition, the following recommendations were made to strengthen child fatality data quality inclusive of ideas to improve how child fatalities are examined by investigative agencies, as well as ideas to improve systems to track and analyze data:

- Mandate law enforcement agencies and coroner offices use the Sudden Unexplained Infant Death Investigation Reporting Form (SUIDIRF) during infant death scene investigations.
- Mandate the use of a suicide investigation form for law enforcement and coroners when investigating suicide deaths.
- Improve Colorado's Traffic Accident Report to include more specific information about motor vehicle crashes.
- Strengthen practices related to sharing child maltreatment data across local agencies in Colorado.

More information about each of these recommendations is available in the *Child Fatality Prevention System Recommendations* section of this report starting on page 19.

Prevention Activities and Accomplishments of the Child Fatality Prevention System

During Fiscal Year 2016, the CFPS and its partners completed several key accomplishments, which contribute to preventing child fatalities in Colorado. As part of the 2014 and 2015 CFPS Annual Reports, prevention recommendations were made to prevent child fatalities in Colorado. State agencies and other partners made significant progress towards accomplishing several of the recommendations.

- In Fiscal Year 2015, Colorado Department of Human Services (CDHS) Office of Early Childhood amended rules that regulate licensed child care centers and homes to incorporate best practices for infant safe sleep environments. In Fiscal Year 2016, the CFPS contracted with Qualistar to develop a web-based infant safe sleep training for licensed child care providers.
- During the 2016 legislative session, the Office of Suicide Prevention (OSP) received an additional appropriation of $100,000 beginning in Fiscal Year 2017 to develop a Suicide Prevention State Plan which includes the Zero Suicide Framework. The Zero Suicide Framework (http://zerosuicide.sprc.org/about) is a system level approach that improves the quality of care in primary care and behavioral health system to prevent suicide.
- In Fiscal Year 2016, CDPHE was successful in obtaining approximately $3.2 million dollars in grant funding from the Centers for Disease Control and Prevention (CDC) to prevent prescription drug overdoses. As part of this work, CDPHE will continue to partner with the Colorado Consortium for Prescription Drug Abuse Prevention to promote provider uptake of opioid prescribing guidelines.
- During the 2016 legislative session, Colorado legislators introduced several state bills that supported Essentials for Childhood priorities (http://www.coessentials.org/). The following bills passed: House Bill 16-1438 (Employer Accommodations Related to Pregnancy), House Bill 16-1289 (Incentives to Complete Career Development Courses), Senate Bill 16-022 (Child Care Assistance Cliff Effect Pilot Program) and Senate Bill 16-212 (12-month Eligibility Child Care Assistance Program).
- The CFPS Data Quality and Investigative Subcommittee of the State Review Team prioritized the development and facilitation of training for law enforcement agencies and county coroner offices to improve skills and knowledge of the SUIDIRF to be used during infant death scene investigations. In December 2015, coroners were trained about the importance of infant death scene investigation, SUIDIRF and doll reenactments as part of a Sudden Unexpected Infant Death Training.

In addition, the support and resources of the CFPS allowed for the following child fatality prevention efforts to be implemented in Colorado:

- The Office of Suicide Prevention (OSP) continued to implement and evaluate *Emergency Department-Counseling on Access to Lethal Means (ED-CALM)*, which provides training about means restriction to ED staff (http://www.sprc.org/library_resources/items/calm-counseling-access-lethal-means). In spring 2016, Colorado received a grant from the American Foundation for Suicide Prevention to expand the implementation and evaluation of ED-CALM to six additional hospitals throughout Colorado.
- The CFPS partnered with the OSP and the Sexual Violence Prevention Program at CDPHE to fund training for certified *Sources of Strength* trainers and two years of implementation of *Sources of Strength* (an evidence-based suicide prevention program) at seven high schools in Colorado.

- In Fiscal Year 2016, the OSP expanded the Gun Shop Project (https://www.hsph.harvard.edu/means-matter/gun-shop-project/) to Logan, Morgan, Gunnison and San Miguel Counties with plans to expand to additional communities in Colorado during Fiscal Year 2017. This project provides educational information and suicide resources to gun shop owners to display within retail stores.
- In June 2016, CDPHE's Essentials for Childhood program and Executives Partnering to Invest in Children (EPIC) hosted two family-friendly employer forums to educate business owners and employers about family-friendly employer practices and policies to implement at their places of employment. In addition, an employer handbook was created with these same practices and policies for distribution across the state.
- Essentials for Childhood and the Early Childhood Colorado Partnership (ECCP) developed and disseminated messages about reducing toxic stress for families and promoting resilience and support for families and communities. These messages can be used by early childhood partner organizations across Colorado: http://www.earlychildhoodcoloradopartnership.org/wp-content/uploads/2015/08/ECCP_MessagingPlatform_v13-2-4-16.pdf.
- The CFPS continued to partner with state agencies to implement and evaluate youth programs that promote protective factors from child fatalities statewide. In Fiscal Year 2016, the Maternal and Child Health (MCH) program at CDPHE selected the prevention of youth suicide and bullying as one of its state-level priorities. As part of this priority, state and local MCH programs will implement programs such as *Sources of Strength* and LifeSkills in schools to promote the protective factors of school connectedness and resilience.
- Local teams engaged in various activities to prevent child fatalities during Fiscal Year 2016 by leveraging existing and new partnerships and funding from multiple sources. For example, Bent County leveraged multiple funding sources, including CFPS and Retail Marijuana Education funding, to support youth suicide prevention through implementation of the LifeSkills Curriculum in schools; the City and County of Broomfield focused on prescription drug overdose prevention including efforts to purchase and disseminate medication lockboxes, active participation in the Colorado Consortium for Prescription Drug Abuse Prevention and working with partners in other counties (Grand County) to update the Take Meds Seriously website regarding medication storage; the City and County of Denver developed a letter of infant safe sleep recommendations to send to local hospitals to encourage better safe sleep environment modeling and patient education in the hospital setting based on CFPS data on safe sleep and SUIDs and recommendations for infant safe sleep; and El Paso County hired a public health-trained youth suicide prevention specialist using funds from the State Innovation Model (SIM) initiative, which is designed to integrate behavioral health into primary care.

By continuing to build partnerships and support prevention efforts at the state and local levels, the CFPS has the potential to reduce the incidence of child fatality, injury and violence in Colorado.

Introduction

Overview of Child Fatality Prevention System

The Child Fatality Prevention Act (Article 20.5 of Title 25, Colorado Revised Statutes) established the Child Fatality Prevention System (CFPS), a statewide, multidisciplinary, multi-agency effort to prevent child deaths. Although not codified in Colorado Revised Statutes (C.R.S.) until 2005, the CFPS State Review Team has been conducting retrospective reviews of child deaths in Colorado since 1989. The CFPS applies a public health approach to prevent child deaths by aggregating data from individual child deaths, describing trends and patterns of the deaths and recommending prevention strategies. The identified strategies are implemented and evaluated at the state and local levels with the goal of preventing similar deaths from occurring in the future. As mandated in statute, this report identifies specific policy recommendations to reduce child deaths in Colorado and provides an overview of programmatic accomplishments for state Fiscal Year 2016. Additionally, in order to describe the trends and patterns of child deaths in Colorado, this report presents aggregated case review findings from 981 child fatalities that occurred from 2010 through 2014.

The Colorado CFPS is housed at the Colorado Department of Public Health and Environment (CDPHE) in the Prevention Services Division's Violence and Injury Prevention - Mental Health Promotion (VIP-MHP) Branch. As of January 1, 2015, the child fatality review process transitioned from the state-level to the local-level and local child fatality review and prevention teams (local teams) became responsible for conducting individual, case-specific reviews of fatalities of children 0-17 years of age occurring in the coroner jurisdiction of the local team. County or district public health agencies coordinate 48 multidisciplinary, local teams representing every county in Colorado. Local teams review child deaths assigned to them by the CFPS Support Team at CDPHE. The CFPS State Review Team (State Review Team) reviews the aggregated data and recommendations submitted by all of the local teams to identify recommendations to prevent child deaths in Colorado, including policy recommendations. The variety of disciplines involved and the depth of expertise provided by the State Review Team and local teams results in a comprehensive review process, allowing for a broad analysis of both contributory and preventive factors of child deaths and the development and implementation of evidence-based prevention strategies. Full lists of the State Review Team members and local review team coordinators are provided in Appendix H and Appendix I, respectively.

Case Review Methodology

The CFPS comprehensive review process includes deaths of Colorado residents, deaths of out-of-state visitors who died in Colorado and deaths of non-Colorado residents who were transported to a Colorado hospital and died. These criteria are different than those used in other reports of child fatalities. As a result, the data presented in this report may not match other statistics in state or national reports.

During Fiscal Year 2016, the local teams completed the reviews of child fatalities that occurred in the 2014 calendar year. In preparation for the clinical review of each case, the CFPS Support Team

at CDPHE identified deaths of children 0-17 years of age and assigned them to local teams based on coroner jurisdiction. Local team coordinators developed a case file by requesting information from county coroner offices, law enforcement agencies, offices of county district attorneys, hospitals, the departments of human services, local health departments and newspapers. Local teams conducted case-specific, multidisciplinary reviews of child deaths. During each review meeting, team members studied the information summarized in the case files for each of these deaths. Circumstantial data about the deaths were collected and documented using a web-based data collection system developed by the National Center for Fatality Review and Prevention. Team members also discussed and recorded community, system and policy-level recommendations to prevent child deaths.

Limitations

Although the CFPS requested information from a variety of sources for each child death, data was occasionally missing from the case file because incident investigators did not collect the information during the initial investigation, agencies did not respond to CDPHE staff's requests for information or documentation lacked pertinent details. The circumstance data presented on the following pages is based on the information the CFPS received by January 1, 2016.

Additionally, case data from 2010 through 2014 have been aggregated in order to ensure that the numbers for any given manner of death are large enough to report data for a particular age, race or ethnicity, cause of death or circumstances.

Summary of 2010-2014 Child Fatality Review Findings

The CFPS uses death certificates, provided by the Vital Statistics Program within the Center for Health and Environmental Data at CDPHE, to identify deaths occurring among those under 18 years of age in Colorado. The Colorado death certificate has five manners of death categories: natural, accident, suicide, homicide and undetermined. Manner of death is a classification of death made by a coroner, typically following a review of circumstances surrounding the death and may involve a thorough investigation. Cause of death is a specific injury or disease that resulted in the expiration of the decedent (i.e., drowning, child abuse or a motor vehicle crash).

All 2010-2014 Colorado Child Death Occurrences

Table 1 describes the demographics of the 3,016 children who died in Colorado from 2010 through 2014. Of these fatalities, 258 (8.6 percent) occurred among residents of states other than Colorado. For all fatalities occurring among those 0-17 years of age from 2010 through 2014, 2,116 (70.2 percent) were of natural manner, 459 (15.2 percent) were of accidental manner, 168 (5.6 percent) were suicides, 166 (5.5 percent) were of undetermined manner and 107 were homicides (4.2 percent). More males (57.4 percent, n=1,730) died than females (42.5 percent, n=1,282). The majority of decedents were under 1 year of age (61.5 percent, n=1,855). Twelve percent (n=363) of the deaths occurred among those aged 15-17 years, 11.8 percent (n=356) among those aged 1-4 years, 8.5 percent (n=255) among those aged 10-14 years and 6.2 percent (n=187) among those aged 5-9 years. Approximately a third (32.3 percent, n=974) of decedents were of Hispanic origin. The majority of the decedents were white (84.6 percent, n=2,552), while 10.5 percent (n=318) were Black or African American, 1.7 percent (n=51) were American Indian or Alaska Native and 3.0 percent (n=91) were of other races, including Asian or Pacific Islander, decedents with multiple races indicated and other entries. Information on Hispanic origin was missing for 13 decedents and information on sex was unknown for four decedents.

Table 1: Demographics from 2010 - 2014 of Colorado Child Fatalities Occurrences by Manner of Death

	Natural (n = 2116)		Accident (n = 459)		Homicide (n = 107)		Suicide (n = 168)		Undetermined (n = 166)		Total (n = 3016)	
	n	Percent	n	Percent	n	Percent	n	Percent	n	Percent	n	Percent
Sex †												
Female	962	45.5	162	35.3	40	37.4	52	31.0	66	39.8	1282	42.5
Male	1150	54.4	297	64.7	67	62.6	116	69.1	100	60.2	1730	57.3
Age Group												
0 - 28 days	1318	62.3	19	4.1	*	*	0	0.0	20	12.1	1358	45.0
29 - 364 days	296	14.0	83	18.1	28	26.2	0	0.0	90	54.2	497	16.5
1 - 4 years	197	9.3	93	20.3	32	29.9	0	0.0	34	20.5	356	11.8
5 - 9 years	109	5.2	61	13.3	12	11.2	0	0.0	5	3.0	187	6.2
10 - 14 years	111	5.3	63	13.7	10	9.4	65	38.7	6	3.6	255	8.5
15 - 17 years	85	4.0	140	30.5	24	22.4	103	61.3	11	6.6	363	12.0
Race												
White	1783	84.3	399	86.9	79	73.8	158	94.1	133	80.1	2552	84.6
Black	224	10.6	39	8.5	21	19.6	7	4.2	27	16.3	318	10.5
American Indian §	32	1.5	11	2.4	5	1.9	*	*	*	*	51	1.7
Other ‖	74	3.5	9	2.0	*	*	*	*	4	2.4	91	3.0
Unknown	3	0.1	*	*	0	0.0	0	0.0	0	0.0	4	0.1
Hispanic ‡												
Yes	677	32.0	160	34.9	40	37.4	44	26.2	53	31.9	974	32.3
No	1430	67.6	298	64.9	67	62.6	124	73.8	110	66.3	2029	67.3
Colorado Residency												
Resident	1909	90.2	415	90.4	105	98.1	166	98.8	163	98.2	2758	91.5
Non-Resident	207	9.8	44	9.6	*	*	*	*	3	1.8	258	8.6

* Indicates fewer than three deaths in the category

† Four had unknown sex

‡ 13 had unknown ethnicity

§ Also includes Eskimo and Aleut

▫ Chinese, Japanese, Hawaiian or part Hawaiian, Filipino, Other Asian or Pacific Islander, Other Entries

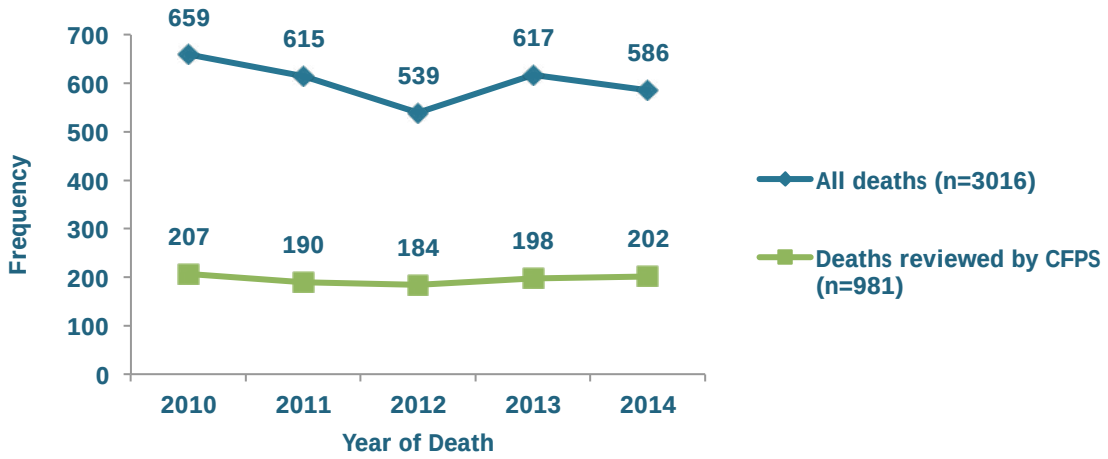
Data source: Vital Statistics Program, Colorado Department of Public Health and Environment. Prepared by the Child Fatality Prevention System.

Colorado Child Death Occurrences Reviewed by the Child Fatality Prevention System

Pursuant to C.R.S. 25-20.5-407, CFPS teams, including both the State Review Team and the local teams, conduct comprehensive reviews of child fatalities (children aged 0- 17 years) that occur in the state of Colorado that are certified on death certificates as accidental, homicidal, suicidal or undetermined manner and related to one or more of the following causes: undetermined causes, unintentional injury, violence, motor vehicle crashes, child abuse/neglect, sudden unexpected infant death (SUIDs) and suicide. All natural manner deaths of children ages 0-17 years receive an initial review by State Review Team members in order to identify any deaths that may have been preventable. If the State Review Team determines that a natural manner death may be preventable, the local teams requests hospital records and other relevant reports and conducts a thorough case review.

Of the 3,016 deaths occurring in Colorado from 2010 through 2014, 981 met the statutory mandate for CFPS child fatality review and received a thorough case review during the 2010 through 2015 calendar years. Figure 1 demonstrates the number of deaths per year in Colorado among those aged 0-17 years from 2010 through 2014. Deaths for this cohort ranged from 539 in 2012 to 659 in 2010 and averaged 603.2 deaths per year. Deaths meeting CFPS criteria and receiving a full review ranged from 184 in 2012 to 207 in 2010 and averaged 196.2 per year.

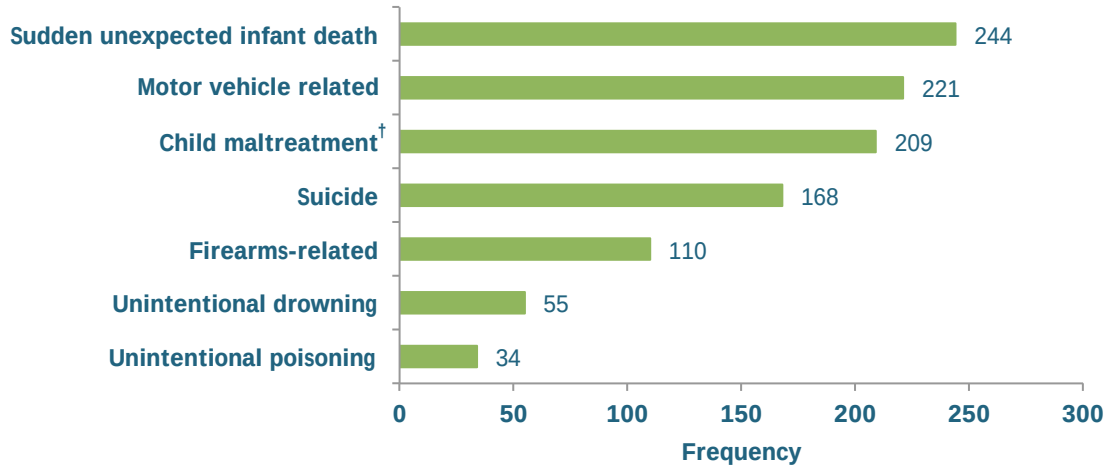
Figure 1. Total number of child fatalities and child fatalities reviewed by Colorado Fatality Prevention System in Colorado by year, 2010-2014



Among the 981 fatalities the CFPS reviewed for this period, Colorado coroners classified the *manner of death* (i.e., who or what initiated the events leading to death and with what intention) as accidental for 459 fatalities (46.8 percent), suicide for 168 fatalities (17.1 percent), undetermined manner for 164 fatalities (16.7 percent), homicide for 107 fatalities (10.9 percent) and natural manner for 83 fatalities (8.5 percent) were of natural manner.

Figure 2 displays the leading *cause of death* (i.e., what is the reason the individual died) for fatalities among those 0-17 years of age reviewed as part of the CFPS. The leading cause of reviewed deaths from 2010 through 2014 was SUIDs (n=244). SUIDs, also referred to as sleep-related infant deaths, include fatalities of infants under one year of age that occur suddenly and unexpectedly in sleep environments. The next most frequent causes of death were motor vehicle-related fatalities (n=221), suicide (n=168), unintentional drowning (n=55) and unintentional poisoning (n=34). The CFPS determined that 209 of the 981 child fatalities in this time period were due to child maltreatment. Of the 981 child fatalities, 110 were firearms-related. It is important to note that SUIDs, child maltreatment fatalities and firearms-related deaths are not mutually exclusive. For example, a suicide could also be considered a firearms-related death and a child maltreatment fatality, depending upon the circumstances of the case and the interpretation of those details by the reviewing team.

Figure 2. Leading causes of death for child fatalities reviewed by the Colorado Child Fatality Prevention System 2010-2014 (n=981)*

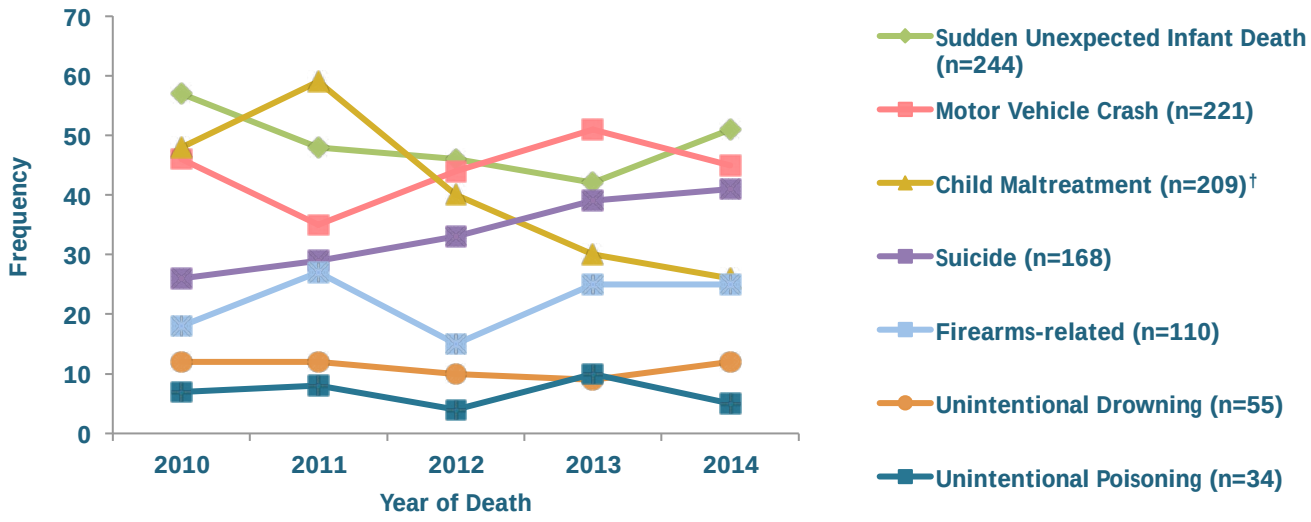


*Cause of death categories are not mutually exclusive.

† Child maltreatment fatalities meeting the Child Fatality Prevention System definition.

Figure 3 displays the leading causes of death by year in Colorado for fatalities reviewed by CFPS. Suicide deaths experienced a small, yet steady, increase each year throughout the period, while child maltreatment deaths were highest for the period in 2011 and have decreased in frequency each year thereafter. Other causes of death, while demonstrating year-to-year fluctuations in the numbers of those deaths reported, appeared to remain steady overall for the period. All cause of death categories merit continued observation for trends, but particularly for suicide and child maltreatment fatalities.

Figure 3. Leading causes of death for child fatalities reviewed by Child Fatality Prevention System in Colorado by year, 2010-2014 (n=981)*



*Cause of death categories are not mutually exclusive.
† Child maltreatment fatalities meeting the Child Fatality Prevention System definition.

Table 2 displays the leading causes of death for cases reviewed by CFPS by age group. As can be observed, SUIDs are the leading cause of death among those under 1 year of age (78.0 percent, n=244), followed by child maltreatment (24.3 percent, n=76). Among 1-4 year olds, child maltreatment (47.2 percent, n=77), motor vehicle-related (20.9 percent, n=34) and unintentional drowning (15.3 percent, n=25) were the leading causes of death. Children ages 5-9 years represented the age category with the fewest deaths. The leading causes of death for this age group were motor vehicle-related (50.0 percent, n=41) and child maltreatment (31.7 percent, n=26). Among 10-14 year olds, suicide (44.8 percent, n=65) was the leading cause of death, followed by motor vehicle-related (29.0 percent, n=42), and child maltreatment (11.7 percent, n=11) fatalities.

Table 2: Leading Causes of Death for Fatalities Reviewed by the Child Fatality Prevention System Among Those Under 18 Years of Age Occurring in Colorado, 2010-2014*

	n	Percent		n	Percent
All (n = 981)			**Ages 5 - 9 (n = 82)**		
Sudden Unexpected Infant Death	244	24.9	Motor Vehicle/Other Transport	41	50.0
Motor Vehicle/Other Transport	221	22.5	Child Maltreatment	26	31.7
Suicide	209	21.3	Unintentional Fall/Crush	7	8.5
Age < 1 (n = 313)			**Ages 10 - 14 (n = 145)**		
Sudden Unexpected Infant Death	244	78.0	Suicide	65	44.8
Child Maltreatment	76	24.3	Motor Vehicle/Other Transport	42	29.0
Unintentional Drowning	8	2.6	Child Maltreatment	17	11.7
Ages 1 - 4 (n = 163)			**Ages 15 - 17 (n= 278)**		
Child Maltreatment	77	47.2	Suicide	103	37.1
Motor Vehicle/Other Transport	34	20.9	Motor Vehicle/Other Transport	100	36.0
Unintentional Drowning	25	15.3	Unintentional Poisoning	25	9.0

*Cause of death categories are not mutually exclusive.

Data source: Child Fatality Prevention System, Colorado Department of Public Health and Environment.

Suicide was also the leading cause of death among those 15-17 years of age, accounting for 37.1 percent (n=103) of deaths in this group, followed by motor vehicle-related deaths (36.0, n=100) and unintentional poisoning deaths (9.0 percent, n=25). Additional details on these causes of death can be found in Appendices A-G of this report.

Child Fatality Prevention System Recommendations to Prevent Child Fatalities

The recommendations for prevention from the State Review Team and local team discussions, as well as trends and patterns of child deaths, are compiled at the end of each data year and discussed by the full State Review Team. The CFPS uses the following prioritization criteria to determine prevention recommendations: momentum to support and implement the recommendation, political will, fiscal feasibility, partner priority, evidence-based and impact on multiple types of death. A full list of the prevention strategies discussed and considered for prioritization by the State Review Team and local teams is available in Appendix J of this report. On an annual basis, the CFPS prioritizes policy recommendations to submit to the governor and the Colorado General Assembly. The decision to endorse the following prioritized prevention recommendations was based on the review of aggregated circumstance data from child deaths occurring between 2010 and 2014, as well as multidisciplinary expertise about the best strategies to protect the health and well-being of children. Each of the prevention strategies is consistent with evidence-based practice. The recommendations contained in this report include policy changes that could be implemented at the organizational level or at the state policy level. It is not within the CFPS's purview to determine whether a particular strategy would be implemented better through organizational or legislative policy

1. Establish a statutory requirement that allows for primary enforcement of Colorado's adult seat belt law, making it possible to stop a driver and issue a citation if anyone (the driver and all passengers, regardless of seating position) in the vehicle is not properly restrained.

Between 2010 and 2014, a total of 144 children who were motor vehicle occupants (driver or passenger) died in motor vehicle crashes. Of the 144 children who died in a passenger vehicle crash, there was data on restraint use for 124 (86.1 percent). Forty-eight percent (n=69) of those 124 children were unrestrained. An additional 7.6 percent (n=11) of these decedents were improperly restrained. See Appendix B for more information about child and youth motor vehicle and other transport fatalities.

Increasing safety belt use is the single most effective way to save lives and reduce injuries due to crashes on Colorado roadways. Studies have affirmed that seat belts reduce serious injuries and deaths in crashes by about 50 percent.[1] States with primary seat belt laws, which allow law enforcement officers to issue citations to drivers solely for not buckling up, have seat belt use rates that are 13 to 16 percent higher than states with secondary laws, which require officers to first stop a motorist for another violation before issuing a seat belt citation.[2] According to a systematic review of 13 published studies on restraint laws, primary safety belt laws are incrementally more effective in decreasing fatal injuries and increasing safety belt use than secondary safety belt laws.[3] Colorado has fallen behind other states and is now one of only 15 states that have not passed a primary seat belt law.[4] Most recently, the state of Utah passed a primary seat belt law, effective May 2015, to allow law enforcement officers to ticket a driver or passenger for not wearing a seat belt without any other traffic offense. Motor vehicle stakeholders throughout Colorado prioritized supporting policies and activities that promote seat belt use, such as primary seat belt laws, in the *Colorado 2015-2019 Strategic Highway Safety Plan*.[5]

Increasing adult seat belt use has a significant impact on child passenger safety because drivers who wear seat belts are more likely to restrain their child passengers. Adult behavior affects children; properly belted adults are positive role models for children and young adults. A national study of fatal crashes found that when adult drivers used a seat belt, children riding with them were also restrained 94 percent of the time. If the adult driver was not using a seat belt, child restraint use decreased to 30 percent.[6]

In 2014, 488 motor vehicle occupants (drivers and passengers of all ages combined) died in passenger vehicle crashes in Colorado and 33.6 percent (n=164) were unrestrained at the time of the crash.[7] In addition to pain and suffering to families, research from the Centers for Disease Control and Prevention indicates motor vehicle crashes cost Colorado more than $623 million each year in medical expenses and work loss costs.[8] In 2013, Colorado's seat belt use rate was 82.1 percent,[9] five percent less than the national average and nine percent less than states that have a primary law.[10] The National Highway Safety Traffic Administration estimates that if Colorado increased its seat belt use rate to 90 percent, an additional 32 lives would be saved each year and the state would save $111 million per year.[11] Approximately $1.2 million of this savings would come from a reduction in Medicaid expenditures in the first implementation year of a primary seat belt law.[12]

Currently, Colorado has primary restraint laws for children ages 0-15 years as well as for teen drivers under age 18 years, but the restraint law for adults remains secondary enforcement. In addition, the Colorado child passenger restraint laws only cover children through age 15 years and the safety belt components of the Graduated Drivers Licensing (GDL) law only apply when a vehicle is driven by a teen driver. Children ages 16 and 17 years who ride in a vehicle driven by an adult driver are subject to secondary enforcement. The fact that there are different types of enforcement for different age groups makes it difficult for law enforcement to properly enforce the laws, particularly for teen drivers who may appear to be older than they are. Making all safety restraint laws primary enforcement would close the gap in Colorado's law, increase enforcement and increase adult and child use of seat belts.

2. Enhance the Graduated Drivers Licensing (GDL) law to increase the minimum age for a learner's permit to 16 years and expand restricted driving hours to 10:00pm-5:00am.

Colorado's Graduated Drivers Licensing (GDL) law was enacted in 1999 to increase the amount of behind-the-wheel training necessary for beginning drivers. In 2005, the Colorado General Assembly passed additional components to the GDL law restricting the number of passengers that a minor driver can transport and prohibiting any minor driver who has held a license for less than one year from driving between midnight and 5:00am. These passenger and curfew restrictions went into effect on July 1, 2005. This law helped contribute to a large reduction in teen motor vehicle fatalities. In 2004, the teen motor vehicle fatality rate was 30.9 per 100,000 teens ages 15-17. In 2014, the rate dropped to 9.2 per 100,000, a 70.2 percent decrease in the death rate for this age group.[13]

Although Colorado's current GDL law is better than laws in many other states, motor vehicle crashes remain on the list of the leading causes of death for teens. Colorado's law has room for improvement in order to be in line with best practice. According to the Insurance Institute for Highway Safety, increasing the minimum age for a learner's permit from 15 years to 16 years would reduce fatal crashes by 13 percent.[14] Expanding the restricted driving hours from 12:00am-5:00am to 10:00pm-5:00am would reduce fatal crashes by five percent.[15] Making these changes to the GDL law has the ability to further decrease the number of fatalities as a result of inexperienced driving.

3. Mandate that all healthcare settings develop and implement policies to provide education and information about infant safe sleep promotion.

In order to reduce the risk of infant death from modifiable sleep-related factors, health care settings, including hospitals, pediatric offices and obstetrics and gynecologic practices, should be required to develop and implement policies to provide education and information about infant safe sleep to parents and caregivers.

Currently, nine states require hospitals and healthcare providers to give parents and caregivers educational materials and information on infant safe sleep practices within health care settings, during a hospital stay or at discharge.[16] For example, Ohio's Infant Safe Sleep Law, which was passed in 2015, mandates the Ohio Department of Health (ODH) develop a tool for hospitals to screen their patients for risk of an unsafe sleep environment before discharge.[17] The "Patient Access to Safe Sleep Environment Screening" tool includes a brief explanation of the model safe sleep environment and asks parents or caregivers to answer: "Do you have a safe crib, bassinet, or play yard with a firm mattress for your infant to sleep in after you are discharged from the hospital?" and then sign, date and print their name below.[18] Staff are also asked to confirm that the caregiver answered the question, and in the event that the caregiver indicated that they do not have a safe sleep environment (crib, bassinet, or play yard), mark how a safe sleep environment was provided for the caregiver (i.e., provision of a safe crib, referral to options to obtain a safe crib, etc.).

In Colorado, the Children's Hospital Colorado (CHCO) has adopted hospital policies to promote safe sleep while the infant is in the hospital. In addition, CHCO is developing a webinar to train physicians and nurses about infant safe sleep, which will be offered with a post-test and a training certificate that can be applied towards continuing education credits. There is the potential to expand Children's Hospital Colorado's infant safe sleep model, policies and training to other hospitals and healthcare settings throughout Colorado.

Since 54.9 percent (n=134) of the 244 SUIDs identified and reviewed by the CFPS between 2010 and 2014 had Medicaid at the time of death, there is an opportunity for infant safe sleep education during pediatric well child visits to be covered by Medicaid if the infant is enrolled in Medicaid's Early and Periodic Screening, Diagnosis and Treatment (EPSDT) program. EPSDT is a federally mandated benefit of every state's Medicaid program for children and youth through age 20. The program provides "age-appropriate screening, preventive services and treatment services that are medically necessary to correct or ameliorate identified conditions."[19] Safe sleep education and risk screening for SUIDs are not currently included in Colorado's EPSDT benefit. Screening for risk of an unsafe sleep environment can identify potential dangers in the environment that can adversely affect the health and wellbeing of infants. The CFPS recommends that the Colorado Department of Health Care Policy and Financing's (HCPF) encourage health care providers to use the EPSDT benefit to provide safe sleep education to caregivers of children enrolled in Medicaid as a covered service under the EPSDT program. Using this benefit to cover safe sleep education and screening in Colorado has the potential to enhance safe sleep education efforts within healthcare settings, thus promoting safe sleep in multiple settings and preventing sleep-related infant deaths.

Mandating that healthcare settings implement infant safe sleep policies as well as infant safe sleep training for healthcare personnel would further support hospital-based infant safe sleep programs throughout the state and potentially reduce sleep-related infant deaths in Colorado. See Appendix A for more information about SUIDs in Colorado.

4. Mandate all schools in Colorado implement a full spectrum of suicide prevention programming, including programs that promote resilience and positive youth development as protective factors for suicide.

In Colorado, suicide is the leading cause of death for youth ages 10-17. Since children and teens spend a significant amount of time at school, there is a need for a comprehensive approach to suicide prevention that includes the entire school community: teachers, counselors, school psychologists, school social workers, administrators, support staff, students and parents. In order to implement comprehensive suicide prevention programs within schools, the systems and policies must be in place within the school environment to address prevention, intervention and postvention.

A key component of a comprehensive approach to addressing suicide is ensuring a primary prevention focus through the implementation of programs that promote protective factors for young people. Specifically, Colorado should expand implementation and evaluation of school-based suicide prevention programs, like *Sources of Strength*, that promote resilience and connectedness as protective factors from suicide. Annual costs for these programs range from $500 to $5000 per school. *Sources of Strength* is an evidence-based program grounded in a positive youth development model. *Sources of Strength* is an approach to suicide prevention that builds protective factors among participating students in the school community. Research shows that *Sources of Strength* increases participating students' school connectedness and connectedness to caring adults, both of which are protective factors for suicide, as well as other violence-related issues such as: bullying, teen dating violence and youth violence.[20] Additionally, primary prevention efforts aimed at increasing protective factors should be adopted within elementary schools, like the Good Behavior Game which focuses on social/emotional learning.

All school staff should receive training specific to suicide prevention.[21] It is critical to provide training to all school personnel so they have the skills to recognize and intervene if a student is at risk for suicide. Gatekeeper trainings for suicide prevention teach gatekeepers (i.e., school personnel, parents, etc.) to recognize the warning signs of a suicide crisis and refer the person to appropriate resources. Available gatekeeper trainings can vary in cost and time ranging from 60 minutes to two full days. The Colorado School Safety Resource Center has devoted resources and staff to be trained as trainers in the evidence-based two-day *Applied Suicide Intervention Skills Training (ASIST)*. Additionally, trainers are available statewide for the evidence-based *QPR (Question, Persuade, and Refer) Gatekeeper Training for Suicide Prevention*, *Signs of Suicide (SOS)* and *SafeTALK*. In addition to these in-person trainings, there are also evidence-based online interactive gatekeeper trainings such as *Kognito At-Risk for High School Educators*.[22,23]

Though implementation of gatekeeper training comes with a cost, several organizations in Colorado currently have grants to provide the trainings at little to no cost. In order to support suicide prevention training, schools should leverage House Bill 06-1098, which allows teachers and other designated staff to take suicide prevention training to fulfill continuing education requirements.

Finally, in the unfortunate event that a student or teacher completes suicide, schools need to be prepared to respond. Postvention protocols should be in place at schools. Crisis teams should be prepared to implement a coordinated crisis response to assist staff, students and families who are impacted by the death and to help the school environment return to focus on education. The American Foundation for Suicide Prevention and the Suicide Prevention Resource Center collaborated to produce *After a Suicide: A Toolkit for Schools*, which is a comprehensive toolkit to assist schools in the aftermath of a suicide in the school community.[24] There is also statewide support from the School Safety Resource Center to assist schools in developing and implementing protocols related to intervening with a suicidal individual and handling the aftermath of a suicide death or attempt.

No single intervention or prevention program can prevent all suicides. Suicide is most effectively prevented by a comprehensive approach through the implementation of programs across the prevention spectrum. By mandating comprehensive suicide prevention in Colorado schools and providing the resources necessary to implement prevention, intervention and postvention programming, there is the potential to reduce youth suicide across the state.

5. Support policies that ensure the long-term financial stability of free full-day preschool and full-day kindergarten.

Free full-day preschool and full-day kindergarten can reduce several risk factors for child abuse and neglect: poverty, parental stress and depression, social isolation and poor parent-child relationships.[25] Preschool and kindergarten programs provide safe, stimulating environments for children, allowing parents to work or attend school. These opportunities support the family's current and future economic security which allows parents to provide for the child's essential needs such as food, shelter and medical care and reduces the incidence of parental stress and depression.[26]

Enrolling children in preschool and kindergarten also provides parents with regular access to a network of support for positive parenting. Teachers in quality preschools and kindergartens are experts in child development who can model positive interactions with children and answer questions. Formal education opportunities or informal interactions educate parents about child development and enhance their positive parenting skills.[27] In addition, schools provide a forum for parents to meet and develop relationships with others whose children attend the school, connecting them with a larger social network in the community to provide emotional and practical support.[28]

Children benefit directly from spending time in a safe, stable and nurturing environment during the school day. In particular, children who are experiencing or are at risk of child abuse and neglect may find the safety, structure and nurturing relationships with caregivers in a high quality early childhood program to be therapeutic. Studies have shown that quality child care can mitigate the effects of poverty and maternal depression.[29] Additionally, by supporting children's cognitive and socio-emotional development, quality early childhood education enables children of all income levels to start school ready to learn. Full-day kindergarten offers twice the instructional time, leading to greater increases in children's academic abilities. Children who attend full-day kindergarten are also held back less frequently in later grades.[30] Higher

academic achievement decreases the likelihood of challenging or aggressive behavior in school and at home,[31] which can both improve parent-child relationships and reduce parental stress and conflict.

The Colorado Preschool Program (CPP) is the state-funded preschool program for children with known risk factors for academic failure. CPP provides 2.5 hours of preschool, four days per week, for children who are 3 to 4 years old and children aged 5 years who are not yet in kindergarten. Of Colorado's 179 school districts, 174 participated in CPP in 2014-2015.[32] However, with its limited funding, CPP cannot serve all children who qualify, leaving an estimated 11,400 qualified four-year-olds unable to be enrolled in 2014-2015.[32] A national report on state-funded preschool programs ranked Colorado's preschool spending 35th out of 41 states.[34]

In addition, Colorado funds only half-day kindergarten throughout the state. Districts can offer full-day kindergarten, but must obtain additional funds through a bond or mill levy. Otherwise, parents are responsible for paying tuition to enroll their children in full-day kindergarten, creating a potential economic barrier.[35] While the percentage of Colorado children attending full-day kindergarten has increased over the last decade, 24 percent of students are still not in full-day programs.[36]

By supporting policies that ensure universal access to free full-day preschool and full-day kindergarten in Colorado, families will have improved access to quality early childhood education. As a result, there is the potential to prevent child maltreatment in Colorado by reducing poverty, parental stress and depression, social isolation and poor parent-child relationships, which are all known risk factors for child abuse and neglect.[437]

6. Support policies that ensure paid parental leave for families.

Benefits of paid parental leave include a reduction in infant mortality and a reduction of parental stress, maternal depression and financial instability, which are known risk factors for child fatality due to child abuse and neglect.

While federal law gives some employees the ability to take unpaid leave, many employees are not covered and those who are may be unable to take unpaid leave. The Family and Medical Leave Act of 1993 (FMLA) requires organizations with more than 50 employees to offer eligible employees a period of job-protected, unpaid leave to care for themselves or family members. Parents can take up to 12 weeks of unpaid leave to care for and bond with a newborn or newly adopted child. However, recently hired employees and employees who work for smaller organizations are not covered under FMLA. About 40 percent of the US workforce is not eligible for FMLA leave.[38] Further, employees who are eligible for FMLA leave may not be able to afford to take unpaid time off. Data from 2012 indicate that the most common reason cited by employees who did not take the leave they needed was that they could not afford to take it.[39] An analysis of 2012 Department of Labor survey data found that nearly one in four women who took leave to have a baby was back at work within two weeks. Nearly half of those took only a week or less.[40]

In 2015, only 13 percent of US private sector workers had access to paid family leave through their employers[41] and fewer than 40 percent had access to the partial pay benefits for pregnancy and childbirth offered by employer-provided short-term disability insurance.[42] Workers in the lowest paid jobs are least likely to have parental leave, meaning those least likely to be able to afford to take unpaid leave have no other option. In 2015, only four percent of low-wage workers had access to paid parental leave, compared to 24 percent of high-wage workers.[43] Parents who are financially able to take longer parental leave choose to do so and are more likely to receive the full health benefits of this leave for their children.[44]

For all parents, including birth mothers, fathers, same-sex parents and adoptive parents, the ability to take parental leave allows closer bonding with the new child. The establishment of a safe, stable and nurturing relationship is a protective factor against child maltreatment. Paid family leave has been shown to have a significant association with reductions in hospitalizations for abusive head trauma.[45] Additionally, birth mothers have sufficient time to recover from childbirth before returning to work, which reduces parental stress. Women who delay their return to work after giving birth are less likely to suffer symptoms of depression.[46] Both parental stress and maternal depression are risk factors for child maltreatment.

Mothers who take longer leaves are more likely to breastfeed and to breastfeed longer, which has significant health benefits for both mothers and babies. When California instituted an insurance program that partially replaces income for new parents, median weeks of breastfeeding doubled for new mothers who used paid family leave.[47] Both breastfeeding and the ability to take longer leave are associated with lower rates of child abuse and neglect.[48] Breastfeeding is also protective against SUIDs.[49]

Additionally, parents with partially or fully paid leave are more financially stable, which reduces poverty and parental stress, both risk factors for child maltreatment. When a new mother is financially able to take a longer leave, she is less likely to require public assistance and her family's income is less likely to drop below the poverty level.[50] She is also more likely to return to work after leave, strengthening the family's long-term financial stability. New mothers who take paid leave are more likely than mothers who take no leave to be employed nine to 12 months after childbirth.[51]

In January 2016, county commissioners in Boulder County expanded paid family leave benefit for new parents on the county's payroll. Local and state level policymakers, and employers across Colorado are encouraged to support policies that promote paid parental leave to enable parents to take adequate time to care for and bond with their children in order to reduce child abuse and neglect and impact other positive outcomes.

Child Fatality Prevention System Recommendations to Improve Data Quality

Pursuant to C.R.S. 25-20.5-407 (1)(g), the CFPS is required to report on system strengths and weaknesses identified during the child fatality review process. For the purpose of the report, "system" is defined as state and local agencies or Colorado laws that potentially impact the health and well-being of children and "systematic child-related issues" means any issues involving one or more agencies. System strengths are embedded in the Prevention Activities of the Child Fatality Prevention System section of this report (see page 37). The weaknesses identified by the CFPS are primarily related to how data is collected, shared, analyzed and used by different systems. For example, the CFPS State Team discussed the need to explore the following options for improving data systems that contribute to the CFPS:

- Link the Office of Behavioral Health (OBH) data system with the CFPS data system to better understand the impact of mental health and substance use on child fatalities where the perpetrator or decedent was accessing community-based, publically-funded mental health or substance abuse treatment.
- Improve quality of data related to secondhand smoke exposure during SUIDs through improved data collection and consistent entry.
- Improve quality of data related to how substances are stored and what types of substances are involved in the deaths through improved data collection and consistent entry.
- Improve quality of data related to substance use (i.e., use of heroin, history of prescriptions for opioids, emerging trends in edible marijuana products, and more) through improved data collection and sharing hospitalization data in addition to child fatality data.

The CFPS prioritized four recommendations to strengthen child fatality data quality for this report. These recommendations include ideas to improve how child fatalities are examined by investigative agencies, as well as ideas to improve systems to track and analyze data. Improving data quality has the potential to enhance the utility of the data to inform decisions about which prevention programs and policies to recommend and implement in Colorado.

Mandate law enforcement agencies and coroner offices use the Sudden Unexplained Infant Death Investigation Reporting Form (SUIDIRF) during infant death scene investigations.

Infant death scene investigations are critical to fully understand the circumstances and factors contributing to unexplained infant deaths. A full infant death scene investigation includes a thorough examination of the death scene, a review of clinical history and the performance of an autopsy. The CFPS has limited ability to determine the circumstances related to infant deaths when a full infant death scene investigation and the SUIDIRF are not completed. Having this information can help the CFPS identify risk factors associated with infant deaths and improve future prevention recommendations.

The Centers for Disease Control and Prevention designed the SUIDIRF to assist investigative agencies in understanding the circumstances and factors contributing to unexplained infant deaths, as well as to establish a standardized death scene investigation protocol for the investigation of all SUIDs.[56] The SUIDIRF improves classification of sleep-related infant deaths by standardizing data collection, guides investigators through the steps involved in an investigation and produces information that researchers can use to recognize new threats and risk factors for SUIDs. Although the SUIDIRF is a useful tool for death scene investigators, Colorado has among the lowest rates of all states for filling out the SUIDIRF. Currently, 12 states require special training about SUIDs for infant death scene investigators.[57] Mandating the SUIDIRF in Colorado has the potential to improve the information collected about unexplained infant deaths as well as enhance prevention recommendations for SUIDs to implement across the state.

Mandate the use of a suicide investigation form for law enforcement and coroners when investigating suicide deaths.

Data systems in Colorado, including the CFPS data system and the Colorado Violent Death Reporting System, often have missing and unknown data for several variables related to suicide circumstances. For example, there is often limited information about a decedent's mental health history and about the lethal means, especially regarding firearm storage and ownership. In order to improve the case review process and conduct quality case-specific reviews, the CFPS recommends that law enforcement agencies and coroner offices develop protocols and implement standardized use of a suicide death scene investigation form so that law enforcement agencies and coroners consistently collect circumstance data when investigating a suspected suicide death. The CFPS Data Quality and Investigative Subcommittee, in partnership with the Suicide Prevention Commission, began drafting a suicide death scene investigation form in Fiscal Year 2016. Over the next year, there will be the opportunity for agencies to pilot test and improve the form so that it is useful both during investigations and following investigations to better capture and collect data related to circumstances of suicide deaths.

Improve Colorado's Traffic Accident Report to include more specific information about motor vehicle crashes.

Colorado's Traffic Accident Report is used by law enforcement agencies to collect circumstance information on motor vehicle crashes. However, the form does not adequately capture information on distracted driving, Graduated Drivers Licensing (GDL) law violations, child passenger safety restraints or the distinction between alcohol impairment and drug impairment. The Traffic Accident Report is housed in the Fatality Analysis Reporting System (FARS), which is a dataset of fatal motor vehicle crashes, a subset of all motor vehicle crashes (fatal and non-fatal) reported on the state Traffic Accident Report. Linking the FARS and the CFPS data system would result in more accurate and higher quality data to be used by CFPS to develop prevention recommendations and impact motor vehicle-related fatalities.

Currently, there is support for this recommendation. State partners created the *Colorado Strategic Highway Safety Plan*, which includes goals, strategies and performance measures related to data. In addition, improving the Traffic Accident Report and corresponding data system is a priority for the State Traffic Records Advisory Committee (STRAC), whose principal agencies include the Colorado Department of Transportation, Colorado Department of Public Safety, Colorado Department of Revenue, CDPHE, Colorado Department of Human Services, Colorado State Judicial Department and the Governor's Office of Information Technology. Data linkage between the agencies that oversee traffic record and injury data will enhance the ability of all partners, including the CFPS, to develop data-driven prevention recommendations.

Strengthen practices related to sharing child maltreatment data across local agencies in Colorado.

One of the core components of the child welfare system is to make decisions based on the most accurate and current data possible. Sharing data electronically in real time can provide a more complete picture of family circumstances and have an immediate impact on improving child protection decision-making by state and local entities.[54] Although children and families often interact with multiple public agencies, such as local departments of human services, law enforcement agencies, hospitals and substance abuse treatment centers, these agencies do not always have access to data and information across agencies that would best serve children at risk for abuse or neglect fatalities.

Enhancing the ability of local agencies in Colorado to share data is a key component of preventing child abuse and neglect fatalities. Improving data sharing and analyses over time will strengthen prevention and intervention work by helping those who work with families (departments of human services, medical providers, law enforcement courts and others) and families themselves to make better decisions about child safety. One option to improve systems is to ensure access to the data in real-time and through electronic cross-notification among agencies. As a model for this work, Los Angeles County in California developed the Electronic Suspected Child Abuse Report System (E-SCARS). This system is designed to improve communication between law enforcement and child protective services agencies by sharing access to data across law enforcement agencies

and departments of human services.[55] A similar approach could be considered by Colorado agencies in order to overcome data-sharing challenges such as high costs, confidentiality concerns and lack of collaboration. In doing so, improved communication and data sharing between agencies will enhance systematic responses to potential incidents of child maltreatment. Most importantly, improved data will inform decisions regarding better policies and practices to prevent child maltreatment.

One way to strengthen practices related to sharing of child maltreatment data may be to create a data sharing profile as part of Colorado Trails modernization, which would require specific parameters to ensure confidentiality and minimize misuse. CDHS Division of Child Welfare is currently undergoing a modernization project and could consider this as part of its process.

Additionally, discussions during Child Fatality Review Team meetings consistently highlight the potential benefit of providing access for caseworkers to municipal court records and medical databases. For example, caseworkers currently do not have access to municipal court records, which is a barrier to accessing information that could highlight issues frequently co-occurring with child maltreatment such as access to a caregiver's domestic violence history during current or prior relationships.

Pursuant to C.R.S. 25-20.5-407 (1) (i), the CFPS State Review Team is required to collaborate with the Colorado Department of Human Services (CDHS) Child Fatality Review Team to make joint recommendations for the prevention of child fatalities due to child maltreatment. Both teams endorse the recommendation to strengthen policies related to sharing child maltreatment data across local agencies in Colorado.

Prevention Activities of the Child Fatality Prevention System

Updates on CFPS Prevention Activities and Recommendations from Previous CFPS Annual Reports

As part of the 2014 and 2015 CFPS Annual Reports, several recommendations were made to policymakers to prevent child fatalities in Colorado. State agencies and other partners made significant progress towards accomplishing several of the recommendations. An analysis and summary of the recommendations from previous years is described in Table 3.

Table 3. Analysis and Updates on Child Fatality Prevention System (CFPS) Prevention Recommendations

Recommendation Year	Legislative Recommendation	Progress towards Recommendation
2014	Modify child care licensing requirements and regulations regarding infant safe sleep to better align with American Academy of Pediatrics (AAP) safe sleep recommendations.	**Completed.** Effective April 1, 2015, Colorado Department of Human Services (CDHS) Office of Early Childhood amended rules that regulate licensed child care centers and homes to incorporate best practices for infant safe sleep environments. In summer 2016, CFPS contracted with Qualistar to develop a web-based infant safe sleep training for licensed child care providers.
2014, 2015	Establish a statutory requirement that allows for primary enforcement of Colorado's adult seat belt law, making it possible for a driver to be stopped and issued a citation if anyone (the driver and all passengers in all seating positions) in the vehicle is not properly restrained.	**Ongoing.** While primary seat belt legislation was not proposed during the 2015 and 2016 legislative sessions, state agencies and hundreds of motor vehicle safety partners from across the state collaborated to develop the *2015 Strategic Highway Safety Plan*, which includes a strategy to support policies and activities that promote seat belt use, such as primary seat belt laws. Due to the effectiveness and strong evidence-base of primary enforcement of the seat belt law, the CFPS has included this recommendation in its annual legislative report for over 10 years.
2014	Require newly licensed K-12 educators and special service providers (nurses, school psychologists, school counselors and social workers) to complete suicide prevention trainings.	**Ongoing.** In 2015, the Training and Development Workgroup of the Suicide Prevention Commission identified K-12 educators and special service providers as a target group for suicide prevention training. In addition, there is current legislation (C.R.S. 22-60.5-110) that allows educators to receive continuing education credits for specific training for suicide prevention, but it is not required for K-12 educators and special service providers at this time.
2014	Increase funding for the Colorado Department of Public Health and Environment to expand the Colorado Household Medication Take-Back Program at pharmacies across the state.	**Completed.** The Joint Budget Committee allocated $300,000 in general funds to the Colorado Household Medication Take-Back Program at Colorado Department of Public Health and Environment for medication take-back activities.
2014	Incorporate safe sleep education and how to address safety concerns related to infant safe sleep practices as part of the Colorado Department of Human Services Child Welfare Training System for child welfare professionals.	**Completed.** In 2015, a training curriculum was developed and incorporated into the Child Welfare Training System to improve child welfare professionals' knowledge and skills regarding infant safe sleep.

Recommendation Year	Legislative Recommendation	Progress towards Recommendation
2014, 2015	Increase funding for the Office of Suicide Prevention (OSP) to implement the following activities: 1) expand the Office of Suicide Prevention statewide community grant program to more counties and at higher funding levels; 2) expand the implementation and evaluation of means restriction education training (*Emergency Department-Counseling on Access to Lethal Means (ED-CALM)*) at hospitals statewide; 3) expand implementation and evaluation of school-based suicide prevention programs that promote resilience and positive youth development as protective factors from suicide; and 4) expand the Gun Shop Project to more counties in Colorado.	**Ongoing.** During the 2016 legislative session, the Office of Suicide Prevention (OSP) received an additional appropriation of $100,000 beginning in Fiscal Year 2017 to develop a Suicide Prevention State Plan which includes the Zero Suicide Framework. The Zero Suicide Framework (http://zerosuicide.sprc.org/about) is a system level approach that improves the quality of care in primary care and behavioral health system to prevent suicide. The OSP continues to implement and evaluate *Emergency Department-Counseling on Access to Lethal Means (ED-CALM)*, which provides training about means restriction to ED staff (http://www.sprc.org/library_resources/items/calm-counseling-access-lethal-means). In spring 2016, Colorado received a grant from the American Foundation for Suicide Prevention to expand the implementation and evaluation of *ED-CALM* to six additional hospitals throughout Colorado. The CFPS partnered with the OSP and the Sexual Violence Prevention Program at CDPHE to fund training for certified *Sources of Strength* trainers and two years of implementation of *Sources of Strength* (an evidence-based suicide prevention program) at seven high schools in Colorado. n Fiscal Year 2016, the OSP expanded the Gun Shop Project (https://www.hsph.harvard.edu/means-matter/gun-shop-project/) to Logan, Morgan, Gunnison and San Miguel Counties with plans to expand to additional communities in Colorado during Fiscal Year 2017. This project provides educational information and suicide resources to gun shop owners to display within retail stores Despite these suicide prevention initiatives, the burden of suicide in Colorado is disproportionate to the available resources. While the Office of Suicide Prevention works diligently to maximize current resources and leverage strong partnerships and additional funding, more resources are needed to move statewide suicide prevention efforts forward.

Recommendation Year	Legislative Recommendation	Progress towards Recommendation
2014	Continue to provide dedicated resources for the implementation of Colorado's Child Welfare Plan, "Keeping Kids Safe and Families Healthy 2.0," to make prevention programs for families with young children available in every county in Colorado.	**Ongoing.** The Colorado Department of Human Services continues to dedicate resources and efforts to implement Colorado's Child Welfare Plan, "Keeping Kids Safe and Families Healthy 2.0." In early 2015, CDHS launched a statewide hotline to facilitate reporting of suspected cases of child abuse and neglect, which was one of the components of the Child Welfare Plan. The hotline (1-844-CO-4-KIDS) operates out of a centralized location and is Colorado's first child-abuse hotline of its kind.
2015	Mandate the use of the Centers for Disease Control and Prevention's Sudden Unexplained Infant Death Investigation Reporting Form (SUIDIRF) for law enforcement agencies and coroner offices during infant death scene investigations.	**Ongoing.** The CFPS Data Quality and Investigative Subcommittee of the State Review Team prioritized the development and facilitation of training for law enforcement agencies and coroner offices to improve skills and knowledge of the SUIDIRF to be used during infant death scene investigations. In December 2015, coroners were trained about the importance of infant death scene investigation, SUIDIRF and doll reenactments as part of a Sudden Unexpected Infant Death (SUID) Training. In addition, this activity is a priority of the SUID Case Registry Grant, a CDC-funded project to improve surveillance (incidence, risk factors and trends) of SUIDs. Colorado saw an increase of the use of SUIDIRF by local agencies for SUIDs (23.8 percent in 2013; 31.4 percent in 2014).
2015	Mandate that hospitals develop and implement policies to provide education and information about infant safe sleep promotion and to require the practice and modeling of safe sleep behaviors in labor/delivery and neonatal intensive care unit (NICU) hospital settings.	**Ongoing.** At the end of 2015, the Colorado Infant Safe Sleep Partnership prioritized the implementation of safe sleep policies within hospitals inclusive of safe sleep training for health care providers. In Fiscal Year 2017, the Infant Safe Sleep Partnership will develop an action plan and implement activities to contact hospital and healthcare settings and provide them with model safe sleep policies and provider training opportunities to improve skills and knowledge of infant safe sleep.
2015	Modify Colorado Department of Human Services' rules regulating family foster care homes to better align with the American Academy of Pediatrics (AAP) infant safe sleep recommendations, including training for foster families regarding infant safe sleep.	**Ongoing.** The CFPS reviewed the current rules regulating family foster care homes to assess alignment with the Academy of Pediatrics (AAP) infant safe sleep recommendations. It is anticipated that the AAP will disseminate updated recommendations in fall 2016. The CFPS will re-assess the rules at this time and prepare to send a letter to Colorado Department of Human Services with recommended modifications. This work is ongoing and will continue during Fiscal Year 2017.

Recommendation Year	Legislative Recommendation	Progress towards Recommendation
2015	Support policies that impact the priorities of the Colorado Essentials for Childhood project: 1) increase family-friendly business practices across Colorado; 2) increase access to child care and after school care; 3) increase access to preschool and full-day kindergarten; and 4) improve social and emotional health of mothers, fathers, caregivers and children.	**Ongoing.** Essentials for Childhood (http://www.coessentials.org/) is a child maltreatment prevention initiative that supports the creation of safe, stable and nurturing relationships and environments for children and families in Colorado. In June 2016, CDPHE's Essentials for Childhood program and Executives Partnering to Invest in Children (EPIC) hosted two family-friendly employer forums to educate business owners and employers about family-friendly employer practices and policies to implement at their places of employment. In addition, an employer handbook was created with these same practices and policies for distribution across the state. Essentials for Childhood and the Early Childhood Colorado Partnership (ECCP) developed and disseminated messages about reducing toxic stress for families and promoting resilience and support for families and communities. These messages can be used by early childhood partner organizations across Colorado: http://www.earlychildhoodcoloradopartnership.org/wp-content/uploads/2015/08/ECCP_MessagingPlatform_v13-2-4-16.pdf. Essentials for Childhood also partners with the Family, Friend, and Neighbor (FFN) Learning Community, which provides training, strategic and networking opportunities to FFN providers across the state. During the 2016 legislative session, Colorado legislators introduced several state bills that supported Essentials for Childhood priorities. The following bills passed: House Bill 16-1438 (Employer Accommodations Related to Pregnancy), House Bill 16-1289 (Incentives to Complete Career Development Courses), Senate Bill 16-022 (Child Care Assistance Cliff Effect Pilot Program) and Senate Bill 16-212 (12-month Eligibility Child Care Assistance Program). The following bills did not pass: House Bill 16-1001 (State Contract Certify Compliance with Equal Pay Laws), House Bill 16-1002 (Employee Leave to Attend Child's Academic Activities), House Bill 16-022 (Full-Day Kindergarten Funding), House Bill 16-1050 (Task Force to Address Child Care Needs of Low-Income Parents), House Bill 16-1167 (Colorado Family First Employer Act), Senate Bill 16-023 (Funding for Full-Day Kindergarten), Senate Bill 16-054 (Local Government Minimum Wage) and Senate Bill 16-114 (Employee-earned Paid Sick Leave).

Recommendation Year	Legislative Recommendation	Progress towards Recommendation
2015	Provide funding for the Colorado Consortium for Prescription Drug Abuse Prevention to promote uptake of the *Quad-Regulator Policy for Prescribing and Dispensing Opioids* through increased training and education of prescribers.	**Ongoing.** In Fiscal Year 2016, CDPHE was successful in obtaining approximately $3.2 million dollars in grant funding from the Centers for Disease Control and Prevention (CDC) to prevent prescription drug overdoses. As part of this work, CDPHE will continue to partner with the Colorado Consortium for Prescription Drug Abuse Prevention to promote provider uptake of opioid prescribing guidelines.
2015	Increase funding to Child Fatality Prevention System (CFPS) to support the implementation and evaluation of youth programs that promote pro-social activities, resilience and positive youth development as protective factors against child fatalities statewide.	**Ongoing.** CFPS continues to partner with state agencies to implement and evaluate youth programs that promote protective factors against child fatalities statewide. In Fiscal Year 2016, the Maternal and Child Health (MCH) program at CDPHE selected the prevention of youth suicide and bullying as one of its state-level priorities. As part of this priority, state and local MCH programs will implement programs such as *Sources of Strength* and LifeSkills in schools to promote the protective factors of school connectedness and resilience.

Local Team Highlights and Prevention Activities

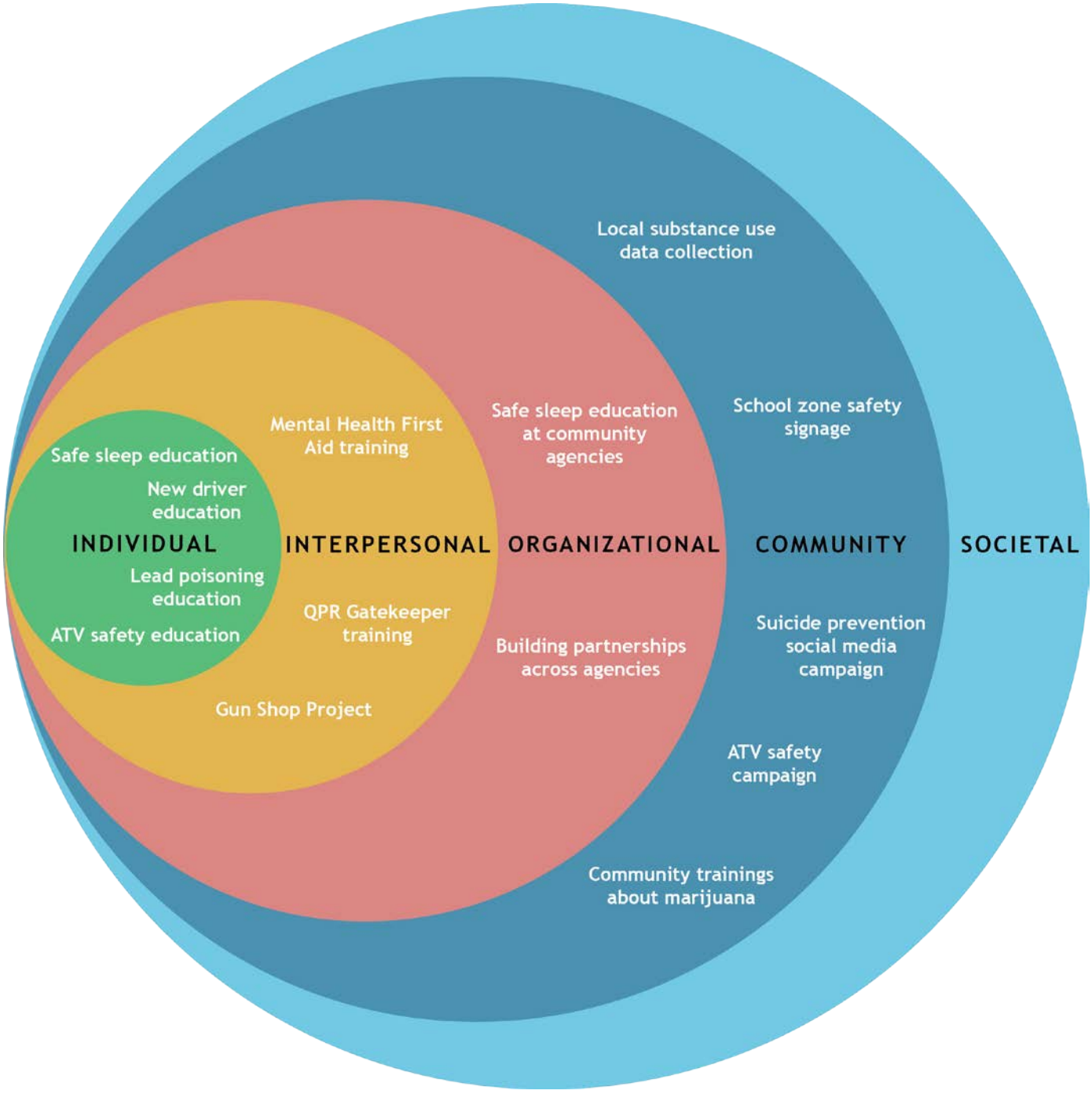
In Colorado, there are 48 single-county and regional child fatality review and prevention local teams coordinated by local public health agencies or agencies designated by local public health (i.e., child advocacy centers or coroner offices). A map of local teams can be found in Appendix K. During Fiscal Year 2016, the CFPS Support Team assigned child fatalities to local teams based on coroner jurisdiction. Local teams requested records, facilitated child fatality reviews, entered data into the National Center for Fatality Review and Prevention data collection system and implemented prevention strategies.

In order to support the local child fatality review teams to conduct individual, case-specific reviews of child fatalities and to implement local-level prevention initiatives, the CFPS allocated approximately $310,000 to local review teams in Fiscal Year 2016. The funding amount for each local review team was determined using a funding formula based on the maximum number of child fatalities the team will be expected to review.

Local teams engaged in various activities to prevent child fatalities during Fiscal Year 2016 across multiple levels of the socio-ecological model: individual, relationship/interpersonal, organizational, community and societal levels. Child fatality prevention strategies should include a continuum of activities that address the multiple levels of the socio-ecological model in order to impact a broader population. Figure 4 displays the prevention activities conducted by local teams.

In addition, several local child fatality review teams are engaging in prevention work across various child fatality topics by leveraging existing and new partnerships and funding from multiple sources. Some of these highlights are called out in this section, but the wider scope of child fatality prevention occurring across the state is expansive and continuing to develop.

Figure 4. Prevention activities conducted by local teams



Prevention Highlight: Bent County leveraged multiple funding sources, including CFPS and Retail Marijuana Education funding, to support youth suicide prevention through implementation of the LifeSkills Curriculum in schools. The county also selected youth suicide and bullying prevention as one of their Maternal and Child Health priority areas and will receive additional state funds to support this prevention work.

Prevention Highlight: the City and County of Broomfield focused on prescription drug overdose prevention. Efforts to reduce fatalities and overdoses included purchasing and disseminating medication lockboxes, active participation in the Colorado Consortium for Prescription Drug Abuse Prevention and working with partners in other counties (Grand County) to update the Take Meds Seriously website regarding medication storage (http://takemedsseriously.org/safe-storage/storage-ideas/).

Prevention Highlight: the City and County of Denver developed a letter of infant safe sleep recommendations to send to local hospitals to encourage better safe sleep environment modeling and patient education in the hospital setting based on CFPS data on safe sleep and SUIDs and recommendations for infant safe sleep.

Prevention Highlight: El Paso County hired a public health-trained youth suicide prevention specialist using state funds from the State Innovation Model (SIM) initiative, which is designed to integrate behavioral health into primary care. The county also selected youth suicide and bullying prevention as one of their Maternal and Child Health priority areas and will receive additional state funds to support this prevention work.

Child Fatality Prevention System Program Highlights

State Review Team Updates

In 2016, 43 of the 46 mandated State Review Team member positions were occupied. See Appendix H for the full list of CFPS State Review Team members. Over the last year, State Review Team members contributed approximately 410 volunteer hours. Members actively participated in quarterly full team and subcommittee meetings, responded to information requests, reviewed aggregate child fatality data and developed and prioritized prevention recommendations.

In Fiscal Year 2016, the structure of the State Review Team changed to reflect the transition of the multidisciplinary reviews from the state-level to local child fatality review teams. On an annual basis, the State Review Team reviews aggregate child fatality data provided by the local teams in order to develop policy and practice recommendations to prevent child fatalities. The State Review Team members also participate in prevention workgroups to provide guidance to implement prevention strategies related to infant safe sleep promotion, accident and injury prevention, child maltreatment prevention, violence prevention, suicide prevention and motor vehicle safety. These prevention workgroups collaborate with other state-level workgroups and teams to implement the prevention strategies including Colorado Teen Driving Alliance, Suicide Prevention Commission, Essentials for Childhood Collective Impact Team, Colorado Consortium for Prescription Drug Abuse Prevention and the Infant Safe Sleep Partnership. In addition, State Review Team members participate on the following subcommittees:

- **CFPS Investigative and Data Quality Subcommittee:** the purpose of this subcommittee is to improve child fatality data quality through the increased use of the Sudden Unexpected Infant Death Reporting Form (SUIDIRF) at investigative agencies; creation and dissemination of a standardized suicide death scene investigation form; and improved processes for child fatality data entry, analysis, and dissemination.
- **CFPS Advocacy and Legislative Subcommittee:** the purpose of this subcommittee is to share information and provide support for the recommendations that were made to policymakers to prevent child fatalities in previous CFPS Annual Reports. In January 2016, members of the subcommittee testified and provided updates to Colorado state legislators during the Joint Senate Health and Human Services, House Health Insurance and Environment and House Public Health Care and Human Services Committees meeting.
- **CFPS Child Maltreatment Prevention Subcommittee:** the purpose of this subcommittee is to explore opportunities to prevent child maltreatment and improve child maltreatment data sharing across systems and agencies to protect children.
- **CFPS Local Liaisons Subcommittee:** the purpose of this subcommittee is for State Review Team members to develop partnerships with local teams and serve as a resource to the local teams to ensure the teams adequately conduct individual, case-specific child fatality reviews and implement local-level prevention activities.

Technical Assistance Provided to Local Teams

The CFPS Support Team at CDPHE provides ongoing training and technical assistance to local teams through in-person site visits and remotely via phone and email. In Fiscal Year 2016, the CFPS Support Team, in collaboration with the Colorado School of Public Health Program for Injury Prevention, Education and Research (PIPER), conducted five regional trainings (in Fort Morgan, Pueblo, Gunnison, Pueblo and Edwards) for local team coordinators and team members. The focus of the trainings was on child fatality prevention. Local teams considered aggregated child fatality, hospitalization and Healthy Kids Colorado Survey data to select a prevention area of focus as well as develop and prioritize ideas for prevention strategies to implement at the local level. Approximately 100 local team coordinators and members representing 49 Colorado counties attended the trainings.

Child Fatality Prevention System Evaluation

The CFPS Support Team at CDPHE continues to evaluate the entire child fatality prevention system. Progress is measured by the accomplishment of the following evaluation goals:

- A process evaluation of how the CFPS is implemented in order to provide data for continuous quality improvement during implementation and maintenance of the system and evidence-based recommendations for implementing and running a statewide CFPS.
- An outcome evaluation of the CFPS with a particular focus on how successful CFPS is at producing actionable prevention recommendations and the actions taken as a result of these recommendations.

In Fiscal Year 2016, the CFPS Support Team completed the *CFPS Midpoint Evaluation Report* to share evaluation results halfway through the five-year evaluation timeline. The report includes an evaluation background, methodology, results, discussion and recommendations for improvements to the system. For example, recommendations to improve the CFPS include:

- Continue to define the member role of the State Review Team subcommittees to better accomplish and advocate for child fatality prevention.
- Improve communication across the system such as creating talking points for State Review Team members and local team coordinators to take back to their agencies and communities to inform partners of CFPS activities and developing one-pagers and activity briefs from State Review Team meetings to update others on programs implemented and progress on previous recommendations.
- Provide support and technical assistance across the system that is responsive to State Review Team and local team needs.

The final midpoint report is available on the CFPS website: http://www.cochildfatalityprevention.com/p/evaluation.html. As the system continues to evolve, the CFPS Support Team will continue to collect information to track progress towards goals through training evaluations, annual surveys, analysis of child fatality data and tracking of continued prevention efforts across the state.

Conclusion

The Child Fatality Prevention System (CFPS) is a statewide, multidisciplinary, multi-agency effort to prevent child deaths. Since 1989, the CFPS has been conducting retrospective reviews of child deaths in Colorado to describe trends and patterns of preventable child deaths and to identify prevention strategies.

The State Review Team and local teams bring significant medical, psychosocial, public health, legal and law enforcement expertise to the process of child fatality review. The recommendations outlined in this report represent a synthesis of prevention strategies gathered from the analysis of child fatalities in Colorado over the years and are based on best practices from around the world:

1.	Establish a statutory requirement that allows for primary enforcement of Colorado's adult seat belt law, making it possible to stop a driver and issue a citation if anyone (the driver and all passengers, regardless of seating position) in the vehicle is not properly restrained.
2.	Enhance the Graduated Drivers Licensing (GDL) law to increase the minimum age for a learner's permit to 16 years and expand restricted driving hours to 10:00pm-5:00am.
3.	Mandate that all healthcare settings develop and implement policies to provide education and information about infant safe sleep promotion.
4.	Mandate all schools in Colorado implement a full spectrum of suicide prevention programming, including programs that promote resilience and positive youth development as protective factors for suicide.
5.	Support policies that ensure the long-term financial stability of free full-day preschool and free full-day kindergarten.
6.	Support policies that ensure paid parental leave for families.

The CFPS is confident that child fatalities can be reduced if these recommendations are adopted by policymakers in Colorado. These deaths can be prevented, and research on evidenced-based strategies for preventing injury- and violence-related deaths shows that changes in policy and enforcement of existing laws are effective prevention strategies for a myriad of child deaths.

Finally, the transition of child fatality reviews to the local level brought together multidisciplinary partners across the community to improve the child fatality data collection process and the development of strong prevention recommendations for implementation at state and community levels. A connected Child Fatality Prevention System at both the state and local levels presents a significant opportunity in Colorado to drive child fatality prevention strategies and systems improvements with the ultimate goal of preventing future child deaths from occurring.

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Sudden Unexpected Infant Deaths in Colorado, 2010-2014

Sudden unexpected infant deaths (SUIDs), also referred to as sleep-related infant deaths, are fatalities of infants under 1 year of age that occur suddenly and unexpectedly in sleep environments. SUIDs include sudden infant death syndrome (SIDS), accidental suffocation, positional asphyxia and overlays, as well as deaths occurring in sleep environments that are due to undetermined causes.

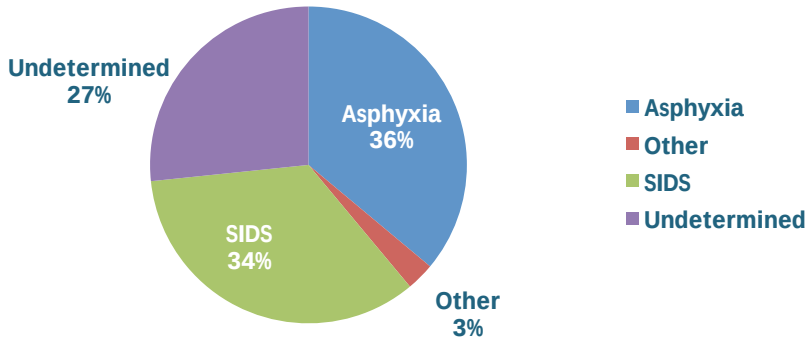
From 2010 through 2014, 244 SUIDs were identified and reviewed by CFPS teams, representing 12.9 percent of all infant deaths (under 1 year of age) in Colorado for the period. While Colorado has generally seen a decreasing trend in SUIDs over the period, there were nine more cases identified in 2014 than in 2013 (Figure A.1). This represents a 14.3 percent drop from the number of SUIDs identified in 2010 and a 21.4 percent increase from those identified in 2013, the highest and lowest frequency years in the period, respectively.

Figure A.1. Sudden unexpected infant deaths in Colorado, 2010-2014 (n=244)

Sudden Unexpected Infant Deaths

Figure A.2 displays information on causes of death for SUIDs in Colorado. Among the 244 SUIDs identified from 2010 through 2014, 36.1 percent (n=88) were determined to be due to asphyxia, followed by SIDS (34.4 percent, n=84), those of undetermined cause (26.6 percent, n=65) and other causes (2.9 percent, n=7). Typically, an infant death is ruled SIDS when a complete and thorough investigation has been conducted and no possible explanation can be found for the death. An infant death is classified as undetermined cause when records are incomplete or elements of a death investigation are missing.[A1] Application of these cause categories for SUIDs, however, varies by coroner jurisdiction in Colorado. Other causes of SUIDs typically reflect cases where other medical factors may have contributed to the death (i.e., infection or other illness). Table A.1 displays yearly rates of SUIDs in Colorado throughout the period. Table A.1 demonstrates that the rate of SUIDs decreased annually from 2010 through 2013 before increasing in 2014. From 2010 to 2013, the rate of SUIDs in Colorado decreased by 25.8 percent before increasing by 26.0 percent from 2013 to 2014. Continued observation will determine whether the rate of SUIDs will return to pre-2014 values for 2015.

Figure A.2. Categories of causes of death for sudden unexpected infant deaths in Colorado, 2010-2014 (n=244)



Sudden Unexpected Infant Deaths

Table A.1. Crude rate of sudden unexpected infant deaths among Colorado residents by year, 2010-2014.

Year of Death	n	Rate*	95% Confidence Interval	
			Lower Limit	Upper Limit
2010	55	82.9	61.0	104.8
2011	46	70.7	50.3	91.1
2012	44	67.5	47.6	87.4
2013	40	61.5	42.5	80.6
2014	51	77.5	56.2	98.7

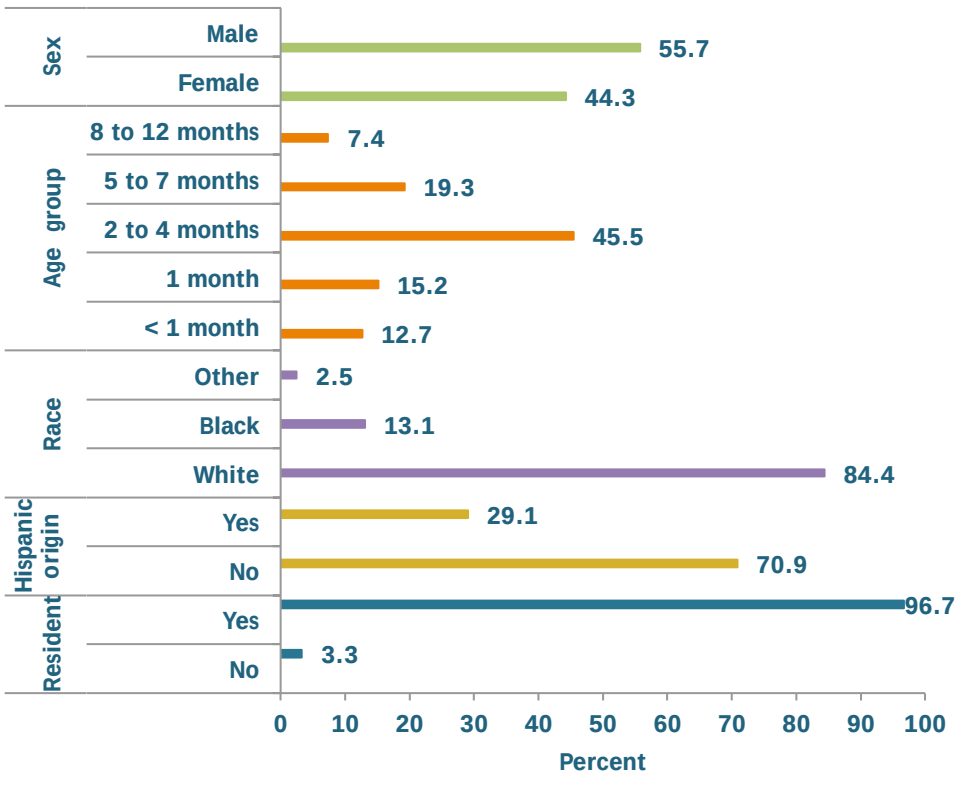
*Per 100,000 live births among residents in Colorado, 2010-2014.

Data sources: Child Fatality Prevention System and Vital Statistics Program, Colorado Department of Public Health and Environment.

Demographics

Figure A.3 displays demographic information for SUIDs in Colorado from 2010 through 2014. During this time period, 45.5 percent (n=111) of all SUIDs in Colorado occurred among infants 2-4 months of age. Additionally, 73.4 percent occurred among those under 5 months of age. Males accounted for 55.6 percent (n=136) of SUIDs and 29.1 percent (n=71) were of Hispanic origin. Nationally, American Indian or Alaska Native and Black or African American populations experienced the highest rates of SUIDs.[A2] In Colorado, Black/African American decedents represented 13.1 percent (n=32) of all SUIDs. Fewer than three SUIDs were identified among American Indian/Alaska Natives in Colorado and cannot be reported for confidentiality purposes.

Figure A.3. Demographics of sudden unexpected infant deaths in Colorado, 2010-2014 (n=244)



Sudden Unexpected Infant Deaths

Infant and Sleep Environment American Academy of Pediatrics (AAP) Recommendations

The American Academy of Pediatrics (AAP) developed recommendations to help reduce the risk of SUIDs.[A3] The Level A recommendations are as follows:

- Back to sleep for every sleep.
- Use a firm sleep surface.
- Room-sharing without bed-sharing is recommended.
- Keep soft objects and loose bedding out of the crib.
- Pregnant women should receive regular prenatal care.
- Avoid smoke exposure during pregnancy and after birth.
- Avoid alcohol and illicit drug use during pregnancy and after birth.
- Breastfeeding is recommended.
- Consider offering a pacifier at nap time and bedtime.
- Avoid overheating.
- Do not use home cardiorespiratory monitors as a strategy for reducing the risk of SIDS.
- Expand the national campaign to reduce the risks of SIDS to include a major focus on the safe sleep environment and ways to reduce the risks of all sleep-related infant deaths, including SIDS, suffocation, and other accidental deaths. Pediatricians, family physicians, and other primary care providers should actively participate in this campaign.

None of the 244 infants who died between 2010 and 2014, and had known sleep environment circumstances, met all of the AAP's Level A recommendations (Table A.2).

Sudden Unexpected Infant Deaths

Caregiver American Academy of Pediatrics (AAP) Recommendations

According to the AAP, mothers who do not breastfeed, do not receive regular prenatal care and smoke during or after pregnancy put their infant at increased risk for SUIDs. Of the 244 SUIDs occurring from 2010 through 2014, 16.0 percent (n=39) of mothers did not breastfeed, 36.5 percent (n=89) did not receive regular prenatal care (defined as at least nine prenatal visits) and 42.2 percent (n=103) smoked either during pregnancy or exposed their infant to secondhand smoke (Table A.2). Additionally, investigation reports indicated that 17.2 percent (n=42) of the caregivers/supervisors used alcohol or drugs during pregnancy or after birth (Table A.2). Although data on caregiver impairment is difficult to obtain, 6.6 percent (n=16) of the caregivers/supervisors were known to be drug impaired and 8.2 percent (n=20) were known to be alcohol impaired at the time of the incident.

Sudden Unexpected Infant Deaths

Table A.2. Adherence to American Academy of Pediatrics (AAP) 2011 safe infant sleeping environment recommendations for sudden unexpected infant deaths in Colorado, 2010-2014†

American Academy of Pediatrics 2011 Recommendation	Satisfied recommendation		Did not satisfy recommendation		Missing or unknown	
	n	Percent	n	Percent	n	Percent
All AAP recommendations satisfied	0	100.0	244	100.0	0	100.0
Infant and sleep environment recommendations						
Back to sleep for every sleep	133	54.5	59	24.2	52	21.3
Use a firm sleep surface	64	26.2	178	73.0	*	0.8
Room-sharing without bed-sharing is recommended	27	11.1	207	84.8	10	4.1
Keep soft objects and loose bedding out of the sleep environment	85	34.8	152	62.3	7	2.9
Consider offering a pacifier at nap time and bedtime	17	7.0	172	70.5	55	22.5
Caregiver-related recommendations						
Pregnant women should receive regular prenatal care (nine or more visits)	118	48.4	89	36.5	37	15.2
Breastfeeding the infant	167	68.4	39	16.0	38	15.6
Avoid alcohol or illicit drug use during pregnancy and after birth	202	82.8	42	17.2	0	0.0
Avoid smoke exposure during pregnancy and after birth	64	26.2	103	42.2	77	31.6

*Data points with fewer than 3 observations are supp are suppressed.

†Task force on Sudden Infant Death Syndrome. (2011). SIDS and other sleep-related infant deaths: Expansion of recommendations for a safe infant sleep environment, Pediatrics, 128(5), e1341-e1367. doi: 10.1542/peds.2011-2285

Data source: Child Fatality Prevention System, Colorado Department of Public Health and Environment.

Sudden Unexpected Infant Deaths

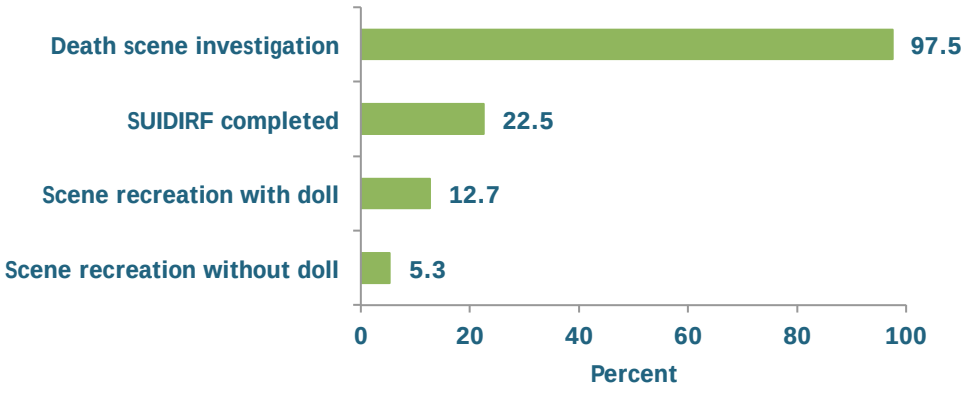


Figure A.4. Proportion of sudden unexpected infant deaths by investigation methods utilized in Colorado, 2010-2014 (n=244)

Investigation Circumstances

In 1996, the Centers for Disease Control and Prevention (CDC) developed the Sudden Unexplained Infant Death Investigation Reporting Form (SUIDIRF).[A4] This tool was developed to aid in the investigation and understanding of SUIDs. When the form is completed in a thorough and detailed manner, it can help investigators develop a better understanding of such fatalities. Use of the form is considered best practice. As Figure A.4 demonstrates, 97.5 percent (n=238) of all SUIDs were followed by a death scene investigation, 22.5 percent (n=55) of investigations used the SUIDIRF, 12.7 percent (n=31) of investigations included a scene recreation with a doll and 5.3 percent (n=13) included a scene recreation without a doll.

[A1] Centers for Disease Control and Prevention. (2016). *About SUID and SIDS*. Retrieved from http://www.cdc.gov/sids/aboutsuidandsids.htm

[A2] Centers for Disease Control and Prevention. (2016). *Data and Statistics*. Retrieved from http://www.cdc.gov/sids/data.htm

[A3] Task Force on Sudden Infant Death Syndrome, (2011). SIDS and other sleep-related infant deaths: Expansion of recommendations for a safe infant sleep environment. *Pediatrics*, 128(5), e1341-e1367. doi: 10.1542/peds.2011-2285

[A4] Centers for Disease Control and Prevention. (2016). *SUIDI Reporting Form.* Retrieved from http://www.cdc.gov/sids/suidrf.htm

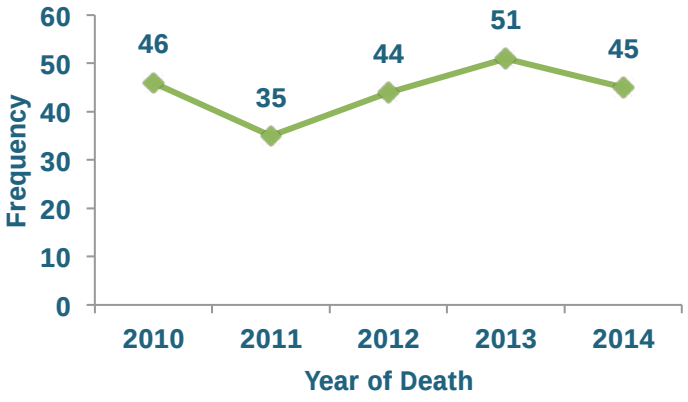
Appendix B

Child and Youth Motor Vehicle Fatalities in Colorado, 2010-2014

From 2010 through 2014, 221 motor vehicle/other transport-related fatalities occurred among children from 0-17 years of age in Colorado. Motor vehicle-related fatalities include fatalities to drivers and passengers of motor vehicles, bicyclists struck by a motor vehicle and pedestrians struck by a motor vehicle. A motor vehicle can be a passenger vehicle (car, van, sport utility vehicle or truck), airplane, train, farming equipment or recreational vehicle, such as an all-terrain vehicle (ATV) or snowmobile.

Figure B.1 demonstrates the number of motor vehicle-related fatalities occurring from 2010 through 2014. Throughout the period, 221 motor vehicle-related fatalities occurred. Deaths per year ranged from 35 in 2011 to 51 in 2013, and averaged 44.2 per year. Figure B.2 demonstrates that 65.2 percent (n=144) of motor vehicle-related fatalities were occupants of passenger vehicles, 19.5 percent (n=43) were pedestrians and 5.9 percent (n=13) were involved in ATV crashes.

Figure B.1. Child and youth motor vehicle-related fatalities in Colorado, 2010-2014 (n=221)

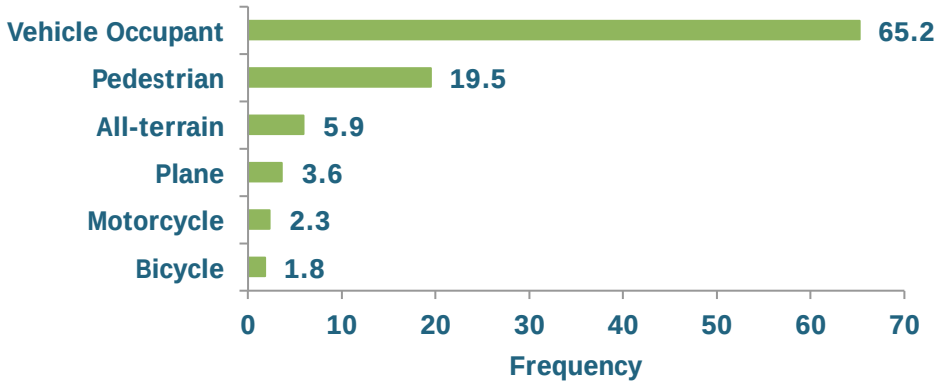


Motor Vehicle Fatalities

Demographics

Youth ages 8-17 years represented 73.8 percent (n=163) of all motor vehicle-related fatalities and the majority of decedents were male (63.4 percent, n=140) (Figure B.3). Thirty-nine percent (n=87) were of Hispanic origin, while 89.6 percent (n=198) were white, 5.9 percent (n=13) were Black or African American and 4.5 percent (n=4) were American Indian or Alaska Native. Colorado residents accounted for 86.9 percent (n=192) of the motor vehicle fatalities occurring in Colorado. Among Colorado residents, youth 15-17 years of age had the highest age-specific motor vehicle fatality rate at 9.1 fatalities per 100,000 population (n=92), followed by children 1-3 years of age (2.4 per 100,000 population, n=24) and children 8-14 years of age (2.0 per 100,000 population, n=50) (Table B.1.).

Figure B.2. Child and youth motor vehicle-related fatalities in Colorado by type, 2010-2014 (n=221)



Motor Vehicle Fatalities

Figure B.3. Demographics of child and youth motor vehicle-related fatalities in Colorado, 2010-2015 (n=221)

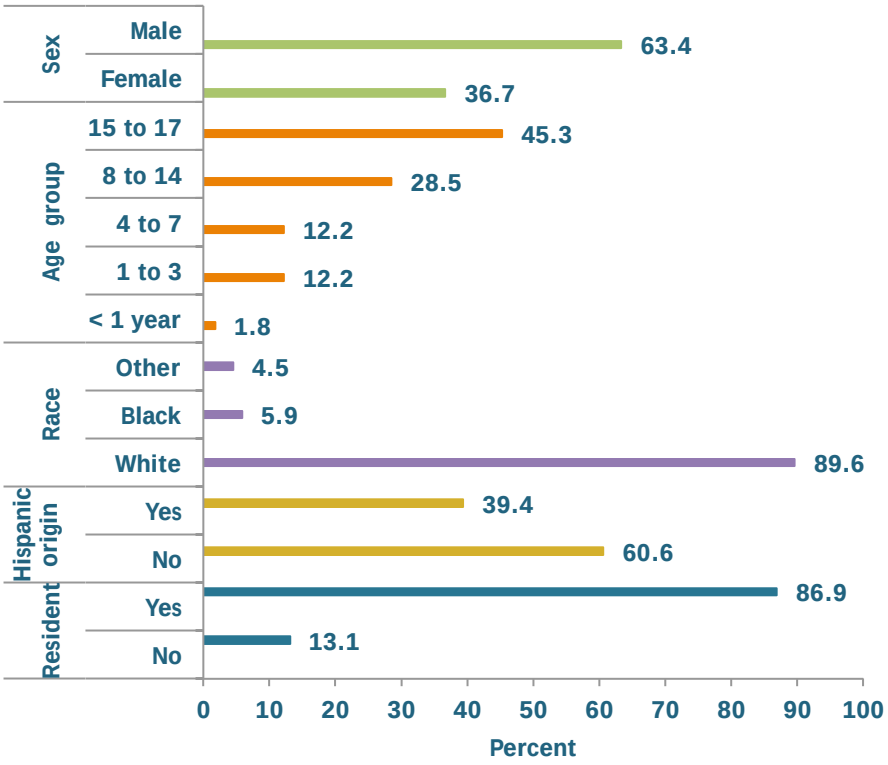


Table B.1. Age-specific rate of child and youth motor vehicle-related fatalities among Colorado residents, 2010-2014.

Age Group (in years)	n	Rate*	95% Confidence Interval	
			Lower Limit	Upper Limit
1-3	24	2.4	1.4	3.3
4-7	23	1.6	1.0	2.3
8-14	50	2.0	1.5	2.6
15-17	92	9.1	7.3	11.0

* Per 100,000 Colorado residents from birth through 17 years of age.

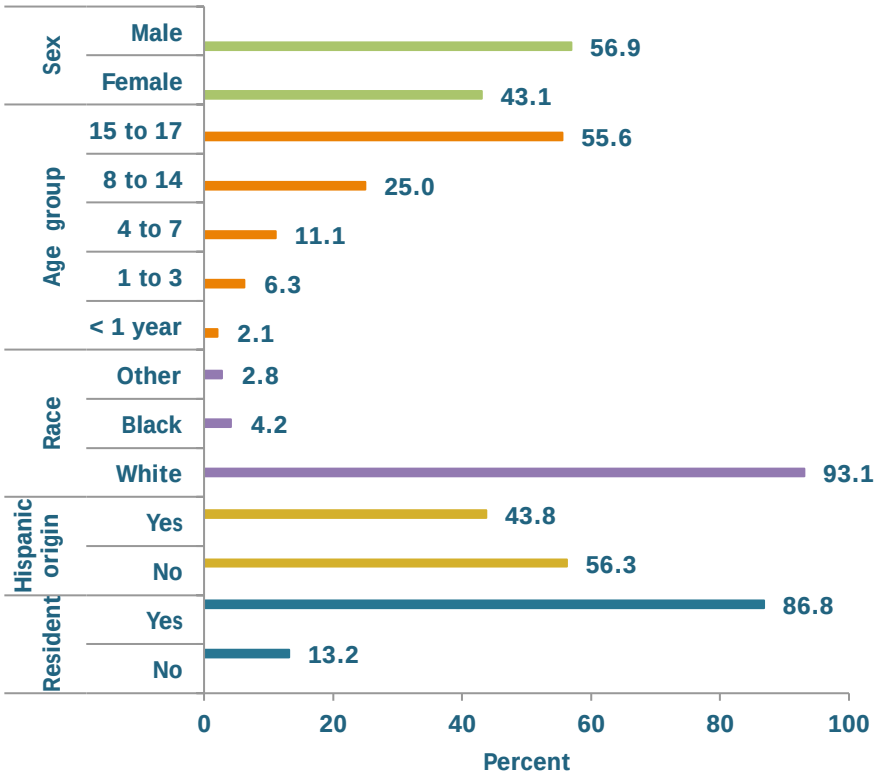
Data sources: Child Fatality Prevention System, Colorado Department of Public Health and Environment; State Demography Office, Colorado Department of Local Affairs.

Motor Vehicle Fatalities

Passenger Vehicle Fatalities

From 2010 through 2014, 144 children and youth died in passenger vehicles (car, van, sport utility vehicle or truck). The majority of these decedents were male (56.9 percent, n=82) (Figure B.4). Youth ages 15-17 years accounted for highest proportion of passenger vehicle fatalities (55.6 percent n=80). The proportion of passenger vehicle fatalities decreased among each younger age category. Ninety-three percent (n=134) were white, 43.8 percent were of Hispanic origin and 86.8 percent were Colorado residents.

Figure B.4. Demographics of child and youth passenger vehicle fatalities in Colorado, 2010-2014 (n=144)



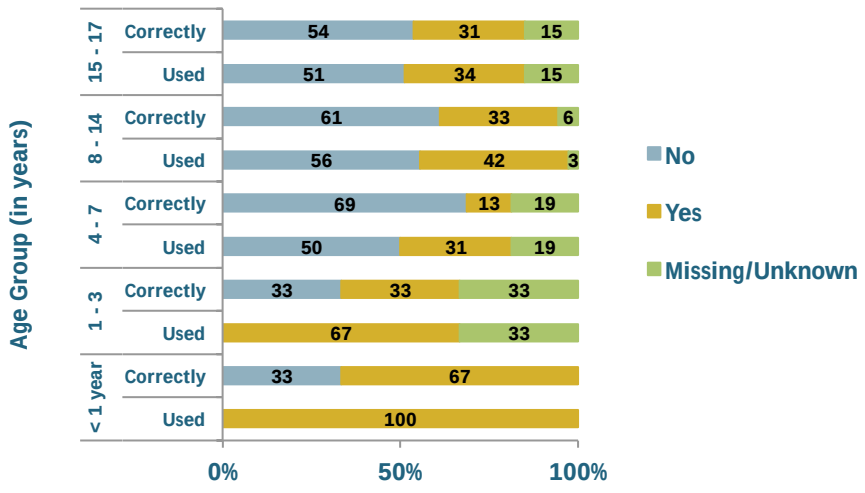
Motor Vehicle Fatalities

Restraint Use

Increasing safety belt use is the single most effective way to save lives and reduce injuries due to crashes on Colorado roadways. Studies demonstrated that seat belts reduce serious injuries and deaths in crashes by about 50 percent.[B1] Colorado's child passenger safety law requires:

- Children to be in a rear-facing car seat until 1 year of age;
- Children ages 1-3 years to be secured in a rear or forward-facing car seat, according to the height and weight limits in the manufacturer's instructions;
- Children ages 4-7 years to be correctly secured in a forward-facing car seat or booster seat, according to the height and weight limits in the manufacturer's instructions;
- Children ages 8-17 years to correctly use a lap and shoulder seat belt.

Figure B.5. Restraint use among child and youth passenger vehicle fatalities in Colorado, 2010-2014 (n=144)



Of the 144 decedents ages 0-17 years who died in a passenger vehicle crash, 124 (86.1 percent) had known data on restraint use. Forty-eight percent (n=69) of those 144 children were unrestrained. An additional 7.6 percent (n=11) of these decedents were improperly restrained. Figure B.5 shows that the percent of unrestrained or improperly restrained fatalities increases with age.

Motor Vehicle Fatalities

Teen Drivers

From 2010 through 2014, there were 74 teen drivers involved in fatal passenger vehicle crashes in Colorado. The decedents in these fatal crashes were either the teen driver themselves (50.0 percent, n=37), a passenger of a teen driver (41.9 percent, n=31) or a passenger in a vehicle involved in a crash with another vehicle driven by a teen (8.1 percent, n=6). Teen drivers involved in fatal passenger vehicle crashes were responsible for 85.1 percent (n=63) of those crashes. Teen drivers involved in fatal passenger vehicle crashes were impaired by drugs or alcohol at the time of the crash 16.2 percent (n=12) of the time. Nearly 95 percent (n=70) of teen drivers involved in fatal passenger vehicle crashes were 16 through 18 years of age. Speeding over the limit (62.0 percent, n=44), inexperience (46.5 percent n=33) and recklessness (45.1 percent, n=32) were the leading circumstances involved in fatal passenger vehicle fatalities in Colorado involving teen drivers.

Pedestrian Fatalities

There were 43 pedestrian fatalities among those 0-17 years of age in Colorado from 2010 through 2014. 41.9 percent (n=18) of these fatalities occurred among children 1-4 years of age, followed by those 15-17 years (25.6 percent, n=11) and those 5-9 years of age (20.9 percent, n=9). Poor sight line was indicated as the leading cause of pedestrian fatalities in Colorado for the period (25.6 percent, n=11).

Motor Vehicle Fatalities

All-Terrain Vehicle (ATV) Fatalities

Thirteen all-terrain vehicle (ATV) fatalities were reported among those from birth through 17 years of age between 2010 and 2014. Eighty-five percent (n=11) of these fatalities occurred among those 4 through 14 years of age. Inexperience (46.2 percent, n=6) and vehicle rollover (38.5 percent, n=5) were indicated as the leading causes of fatal ATV crashes for the period. Additionally, 53.9 percent (n=7) of decedents were not wearing a helmet at the time of the fatal crash. Sixty-nine percent (n=9) of the children who died had supervision at the time of the crash.

[B1] Centers for Disease Control and Prevention National Center for Injury Prevention and Control. (2011, January 4). *CDC vital signs: Adult seat belt use*. Retrieved from http://www.cdc.gov/vitalsigns/SeatBeltUse/

Appendix C

Child Maltreatment Fatalities in Colorado, 2010-2014

When conducting case-specific, multidisciplinary reviews of child fatalities that occur in Colorado, the Child Fatality Prevention System (CFPS) review teams discuss whether any acts of omission or commission caused or contributed to the death. The team members collectively decide, using available information, if they believe that any human action or inaction caused (i.e., directly) and/or substantially contributed (i.e., indirectly) to the death of the child. The direct cause of death refers to an act that was the primary event leading directly to the death. The contributing cause of death refers to an act that plays a role, but not the primary role, in the child's death. This discussion is especially important because it provides information about any human behaviors that may be involved in the child's death. In addition, this information may be critical to the prevention of both intentional and unintentional deaths because the CFPS makes this determination for every child fatality that is reviewed.

If a CFPS review team determines an act of omission or commission occurred, the team will then decide which act caused or contributed to the death. As part of this process, the team has the ability to select child abuse or child neglect as options. For the purpose of a public health-focused child fatality review process, child maltreatment (inclusive of both child abuse and child neglect) is defined as an act or failure to act on the part of a parent or caregiver. Child abuse includes physical abuse (any non-accidental act that results in physical injury or imminent risk of harm such as abusive head trauma, chronic battered child syndrome, beating/kicking, scalding/burning and Munchausen Syndrome by Proxy), emotional abuse (verbal assault, belittling, threats and blaming) or sexual abuse (a single or series of sexual assaults or sexual exploitation). Child neglect includes failure to protect from hazards, failure to provide necessities, failure to seek/follow treatment, emotional neglect or abandonment.[C1]

Although Colorado's Children's Code (C.R.S. 19-1-103 (1)) and legal definitions of child abuse

Child Maltreatment Fatalities

and child neglect serve as guidance for the CFPS, the final decision on whether to record an act of omission or commission is based on available information and professional judgments made by multidisciplinary CFPS review teams. These teams include representatives from departments of human services. The decision to document an act of omission or commission as child abuse or child neglect does not have legal ramifications. The determination is subjective opinion on the part of CFPS review teams and does not trigger any prosecution or action on the part of departments of human services. As such, fatalities classified as child maltreatment by CFPS review teams will not be reflective of official counts of child abuse or child neglect fatalities reported by the Colorado Department of Human Service (CDHS). Additionally, some of these fatalities do not meet the criteria for review by the CDHS Child Fatality Review Team. This is because deaths of children with no previous involvement with county departments of human services prior to the fatality or deaths of children where child maltreatment was not the direct cause of death do not meet the CDHS Child Fatality Review Team review criteria.

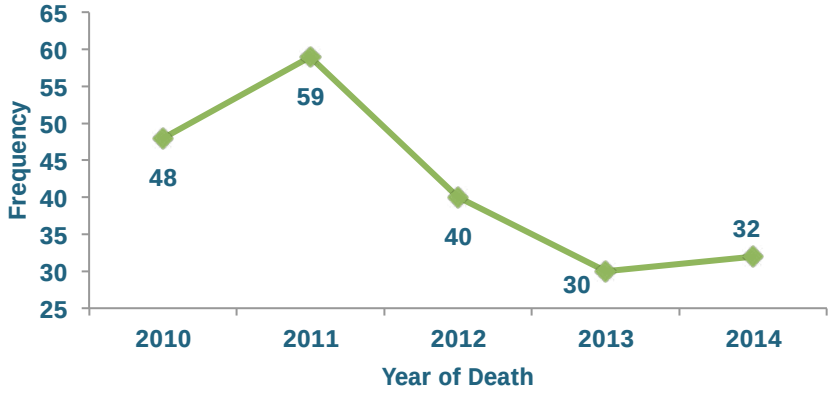
Regardless of whether the child fatality was substantiated as child maltreatment by human services, it is critical for the CFPS to identify and aggregate the circumstances, using a public health framework, involved in an array of child maltreatment deaths to develop child maltreatment prevention recommendations. In doing so, the CFPS applies the public health approach to achieve a better understanding of child maltreatment deaths and improve its ability to prevent these deaths.[C2] The purpose of the CFPS is to interpret trends and shared risk factors among all potential child maltreatment fatalities in order to develop strategies that will prevent the occurrence of abuse and neglect before it happens. This will impact a broad population of children in Colorado rather than targeting efforts only towards children who are at risk of experiencing maltreatment or mitigating the effects of serious maltreatment that has already occurred.

Child Maltreatment Fatalities

From 2010 through 2014, there were 209 fatalities where child maltreatment caused and/or contributed to death among those from birth through 17 years of age in Colorado. Figure C.1 displays the number of child maltreatment fatalities, as defined by the CFPS, occurring from 2010 through 2014 in Colorado. The frequency of child maltreatment fatalities in 2014 decreased by 33.3 percent compared to 2010 and by 45.8 percent compared to 2011, when the highest frequency of child maltreatment deaths for the period was reported.

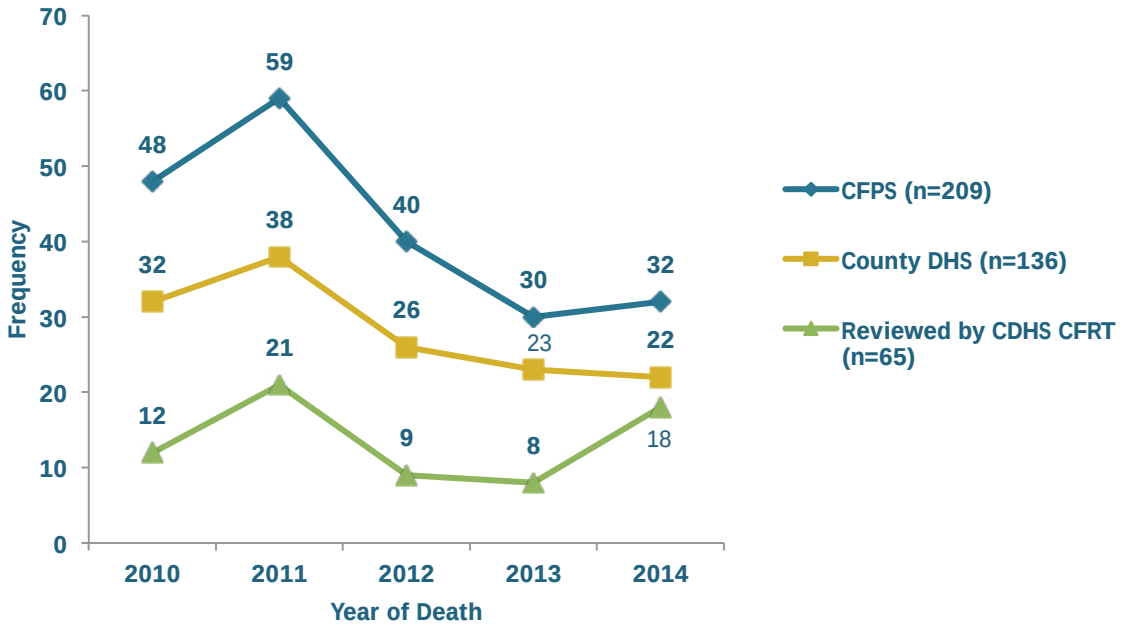
Although CFPS review teams and county departments of human services define child abuse and neglect fatalities differently, county departments of human services substantiated 136 (65.1 percent) of the 209 fatalities for maltreatment and 65 (47.8 percent) of the 136 met statutory criteria for CDHS Child Fatality Review Team review (Figure C.2). The remaining 73 (34.9 percent) of the 209 child maltreatment fatalities were identified as child maltreatment fatalities solely by CFPS review teams based on team consensus. These 73 fatalities were either not reported to county departments of human services or the incident did not meet the statutory definition for substantiated maltreatment.

Figure C.1. Child maltreatment fatalities identified by the Child Fatality Prevention System in Colorado by year, 2010-2014 (n=209)



Child Maltreatment Fatalities

Figure C.2. Child maltreatment cases identified by the Child Fatality Prevention System (CFPS), substantiated by county department of human services (DHS), and reviewed by CDHS Child Fatality Review Team (CFRT) by year, 2010-2014

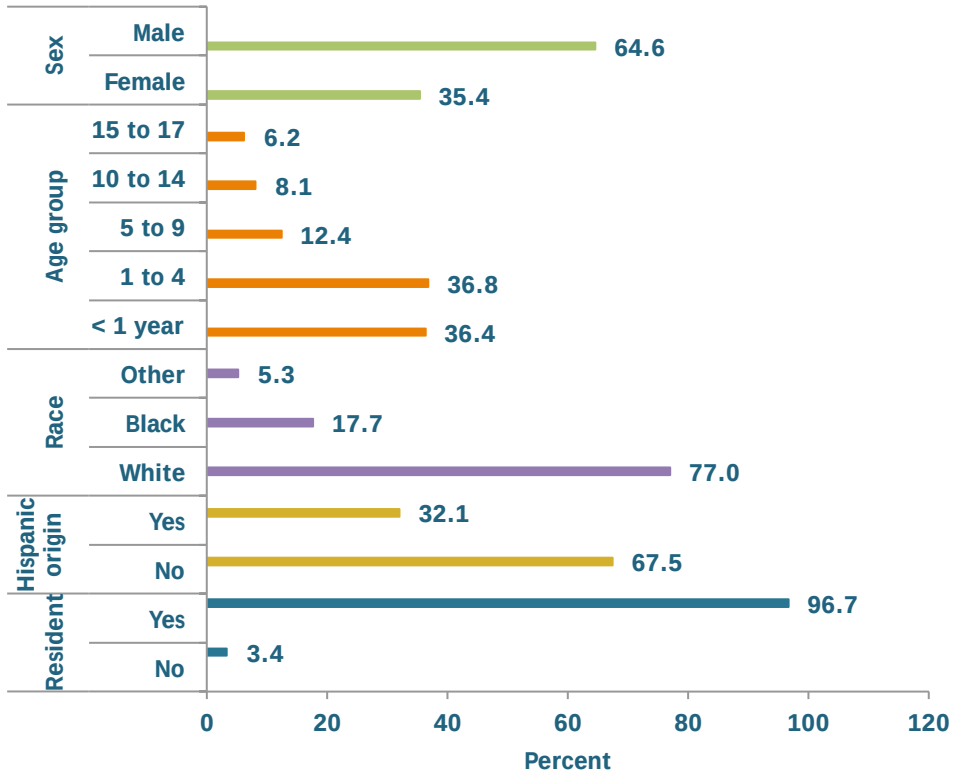


Child Maltreatment Fatalities

Demographics

Of the 209 child maltreatment fatalities the CFPS identified from 2010 through 2014, 64.6 percent (n=135) occurred among males (Figure C.3). Approximately 86 percent (n=179) occurred among those under 10 years of age, with 36.4 (n=76) percent among those under 1 year of age, 36.8 percent (n=77) among those 1-4 years of age and 12.4 percent (n=26) among those 5-9 years of age. Approximately 32 percent occurred among those of Hispanic origin, 77.0 percent (n=161) were white, 17.7 percent (n=37) were Black or African American and 3.8 percent (n=8) were American Indian or Alaska Native.

Figure C.3. Demographics of child maltreatment fatalities identified by the Child Fatality Prevention System in Colorado, 2010-2014 (n=209)



Child Maltreatment Fatalities

Table C.1 displays rates of child maltreatment among Colorado residents by age group. Children less than 1 year of age had the highest rate of child maltreatment fatalities at 22.1 deaths per 100,000 population followed by children aged 1-4 years of age at 5.6 deaths per 100,000 population. These age categories accounted for 73.7 percent (n=149) of all child maltreatment fatalities among Colorado residents.

Table C.1. Age-specific rate of child maltreatment fatalities among Colorado residents, 2010-2014.*

Age Group (in years)	n	Rate**	95% Confidence Interval	
			Lower Limit	Upper Limit
< 1 year	73	22.1	17.0	27.2
1-4	76	5.6	4.3	6.8
5-9	23	1.3	0.8	1.8
10-14†	17	1.0	0.5	1.4
15-17†	13	1.3	0.6	2.0

*As defined by the Colorado Child Fatality Prevention System.

** Per 100,000 Colorado residents from birth through 17 years of age.

†Rates with fewer than 20 observations may be unstable.

Data sources: Child Fatality Prevention System, Colorado Department of Public Health and Environment; State Demography Office, Colorado Department of Local Affairs.

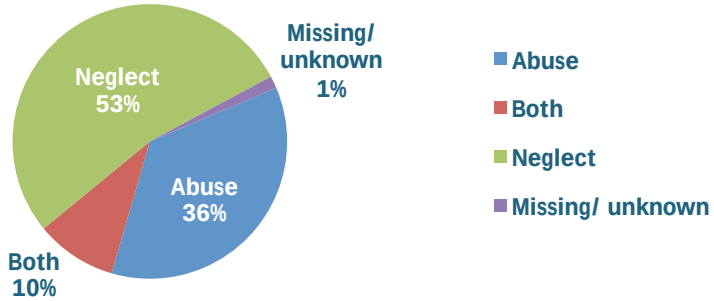
Child Maltreatment Fatalities

Child Maltreatment Types and Circumstances

Of the 209 child maltreatment fatalities occurring between 2010 and 2014, neglect caused or contributed to 53.8 percent (n=111), abuse caused or contributed to 36.4 percent (n=75), both abuse and neglect caused or contributed to 9.7 percent (n=20) and three cases did not have enough details, due to investigation or judicial action, for teams to determine whether abuse, neglect or abuse and neglect caused or contributed to the death (Figure C.4).

Among fatalities classified as involving abuse (those classified as abuse or abuse and neglect, n=95), all involved physical abuse, including 49.5 percent where abusive head trauma occurred and 46.3 percent where other abusive injuries occurred. Among fatalities classified as involving neglect (those classified as neglect or abuse and neglect, n=131), 84.0 percent (n=110) involved a failure to protect from hazards. Failure to protect from hazards may have been determined in these cases for numerous reasons, including a parent failing to secure a child in an age-appropriate child passenger safety restraint or because of absent or inadequate supervision.

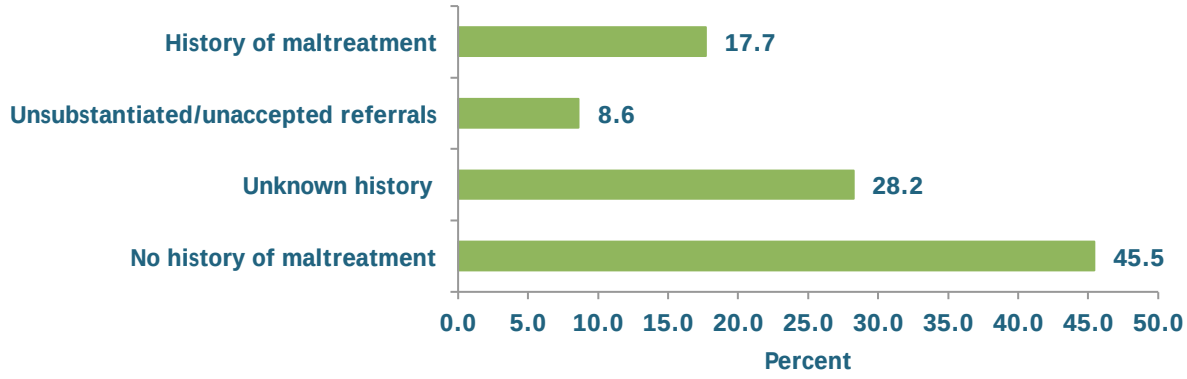
Figure C.4. Proportion of child maltreatment cases identified by the Child Fatality Prevention System in Colorado by type, 2010-2014 (n=209)



Child Maltreatment Fatalities

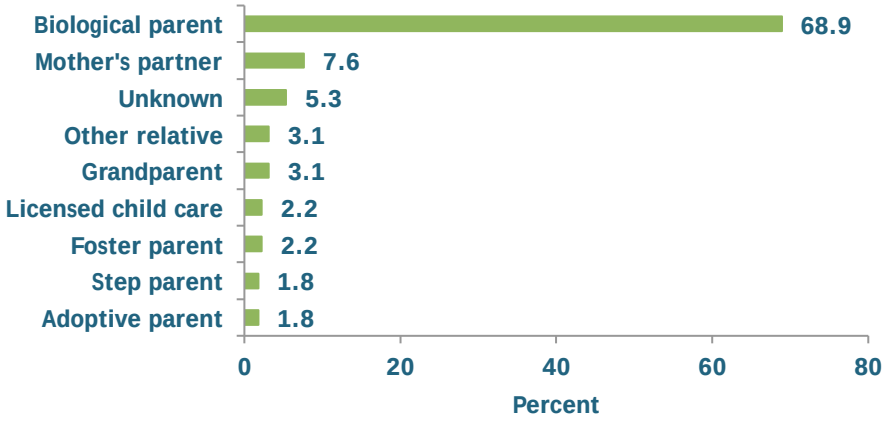
Figure C.5 displays the child's previous history of child maltreatment among decedents of child maltreatment fatalities. Approximately 18 percent (n=37) of the children who died had a known history (from law enforcement, autopsy reports or a substantiated assessment from a county department of human services) of child maltreatment, 8.6 percent (n=18) had an unsubstantiated or unaccepted referral(s) and 45.5 percent (n=95) had no known previous history of maltreatment. Information on history of child maltreatment was missing or unknown for 28.2 percent (n=59) of decedents.

Figure C.5. Child's previous history of maltreatment among child maltreatment fatalities identified by the Child Fatality Prevention System in Colorado, 2010-2014 (n=209)



Child Maltreatment Fatalities

Figure C.6. Perpetrators of child maltreatment fatalities identified by the Child Fatality Prevention System in Colorado by type, 2010-2014 (n=225)



Perpetrators

The CFPS review process allows for the identification of up to two perpetrators for each child maltreatment fatality (i.e., one perpetrator may have caused the fatality and another perpetrator may have substantially contributed to the fatality). From 2010 through 2014, 225 total perpetrators caused or contributed to 209 child maltreatment fatalities. As is shown in Figure C.6, biological parents were most often indicated to be the perpetrators of abuse (68.9 percent, n=155) followed by mother's partner (7.6 percent, n=17). When stratified by maltreatment type (abuse or neglect), the proportion of biological parents identified as perpetrators is higher for fatalities involving neglect cases (72.7 percent), n=109), while the proportion where the mother's partner is identified is higher for fatalities involving abuse (14.3 percent, n=16).

Among perpetrators of child maltreatment fatalities, 17.8 percent (n=40) had a known previous history of child maltreatment as a perpetrator, 13.3 percent (n=30) had an unsubstantiated or unaccepted referral(s) and 36.4 percent (n=82) had no known previous history of child maltreatment as a perpetrator. This information was missing or unknown for 32.4 percent (n=73) of the perpetrators. Additionally, 25.8 percent (n=58) of the perpetrators had a history of intimate partner violence, 15.1 percent (n=34) as a perpetrator and 10.7 percent (n=24) as a victim. Information on history of intimate partner violence was missing or unknown for 49.8 percent (n=112) of perpetrators.

[C1] National Center for Review and Prevention of Child Deaths. (2013). *Child death review case reporting system: Data dictionary.* Retrieved from http://www.childdeathreview.org/home.htm

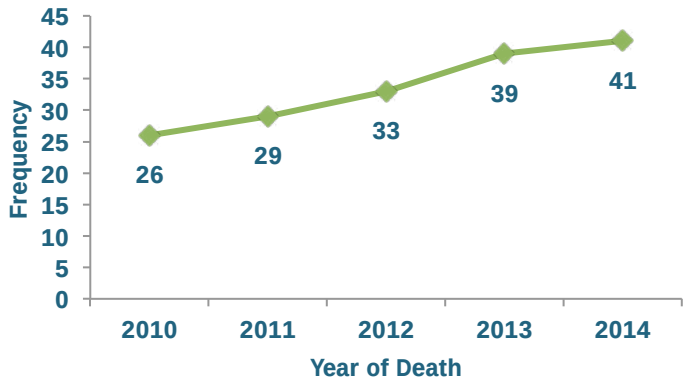
[C2] Covington, T. (2013). *The public health approach to understanding and preventing child maltreatment: A brief review of the literature and a call to action*. Child Welfare, 92(2), 21-39.

Appendix D

Youth Suicide Fatalities in Colorado, 2010-2014

Suicide is the leading cause of death among youth ages 10-17 years of age in Colorado. From 2010 through 2014, suicide fatalities among this population increased from 26 in 2010 to 41 in 2014, an increase of 57.7 percent (Figure D.1). In total, 168 suicides occurred among youth 10-17 years of age in Colorado during this time period.

Figure D.1. Youth suicides in Colorado by year, 2010-2014 (n=168)



Demographics

Males account for the majority of suicides among those 10-17 years of age in Colorado, representing 69.1 percent (116) of all suicides in this age group (Figure D.2). This is largely due to the fact that females are more likely to use less lethal means (i.e., poisoning) in a suicide attempt compared to males who often use highly lethal means (i.e., firearms).[D1] Most suicides occurred among youth 15-17 years of age (61.3 percent, n=103). Suicides among youth 10-14 years of age increased from 12 fatalities to 19 fatalities between 2013 and 2014. The majority of decedents were white (94.1 percent, n=158), and 26.2 percent (n=44) were of Hispanic origin. Table D.1 displays age-specific suicide rates among youth living in Colorado. Youth aged 15-17 years experienced the highest rate of suicide at 10.0 per 100,000 population. Youth aged 10-14 years had a lower rate at 3.7 deaths per 100,000 population.

Youth Suicide Fatalities

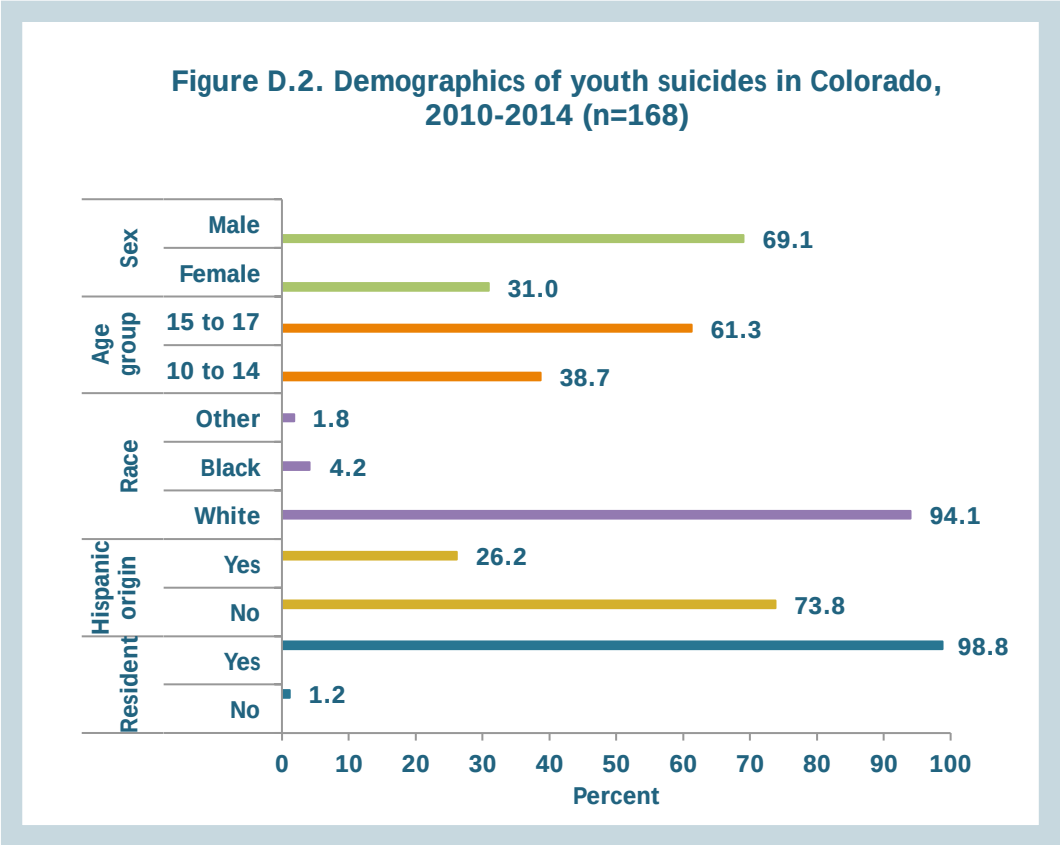


Table D.1. Age-specific rate of suicide among Colorado residents, 2010-2014.

Age Group (in years)	n	Rate*	95% Confidence Interval	
			Lower Limit	Upper Limit
10-14	65	3.7	2.8	4.6
15-17	101	10.0	8.1	12.0

* Per 100,000 Colorado residents 10 through 17 years of age.

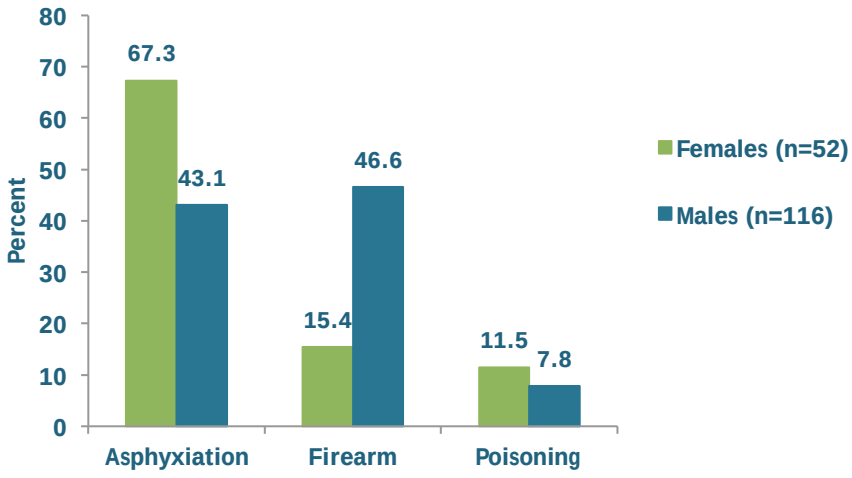
Data sources: Child Fatality Prevention System, Colorado Department of Public Health and Environment; State Demography Office, Colorado Department of Local Affairs.

Youth Suicide Fatalities

Suicide Methods

Among youth 10-17 years of age in Colorado, asphyxia (hanging) was the most common cause of death, followed by firearm and drug overdose suicides. From 2010 through 2014, 85 asphyxia suicides (50.6 percent), 62 firearm suicides (36.9 percent) and 15 drug overdose or poisoning suicides (8.9 percent) were reported. Among males, firearm suicides (46.6 percent, n=54) were most common, followed by asphyxiation (43.1 percent, n=50) and drug overdose or poisoning suicides (7.8 percent, n=9) (Figure D.3). Among females, asphyxiation suicides (67.3 percent, n=35) were most common, followed by firearm (15.4 percent, n=8) and drug overdose or poisoning suicides (11.5 percent, n=6).

Figure D.3. Proportion of youth suicides in Colorado by method and sex, 2010-2014 (n=168)



Youth Suicide Fatalities

Firearm Suicides

Thirty-seven percent (n=62) of all suicides in Colorado were the result of firearms. Among all firearm suicides, 87.1 percent (n=54) occurred among males. Over half (53.2 percent) of firearms used in suicide deaths among those 10-17 years of age in Colorado were owned by a biological parent (53.2 percent, n=33) and typically a male (64.5 percent, n=40).

The CFPS collects information on where the firearm used to complete the suicide was stored, including whether the weapon was stored locked and unloaded. From 2010 through 2014, 21.0 percent (n=13) of firearms used in suicide fatalities were stored locked and 25.8 percent (n=16) were stored unloaded. Information about whether the firearm was stored locked was missing in 35.5 percent (n=22) of cases and information about whether the firearm was stored loaded was missing for 54.8 percent (n=34) of cases.

Restricting access to lethal means is one of the most effective strategies to prevent youth suicides. It is critically important that parents, who are concerned that their child might be feeling suicidal, reduce easy access to lethal means, including firearms, medications and alcohol.[D2]

Youth Suicide Fatalities

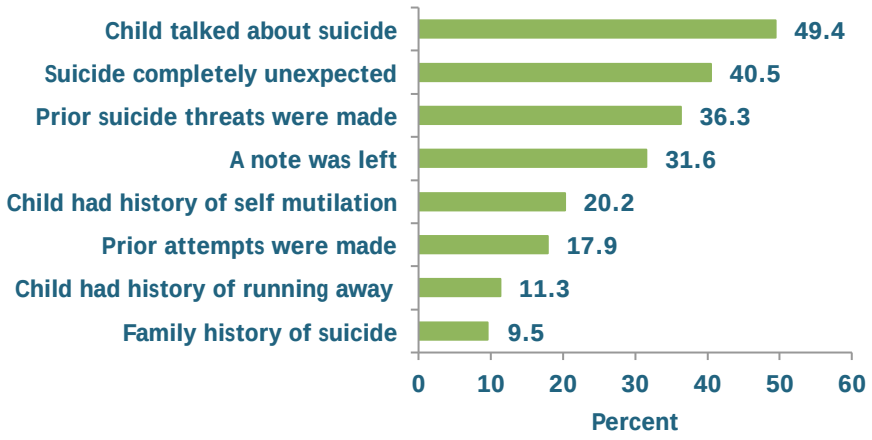
Poisoning and Overdose Suicides

From 2010 through 2014, 15 poisoning or overdose suicides were reviewed by CFPS. Poisoning or overdose decedents were largely male (60.0 percent, n=9) and the majority were 15-17 years of age (66.7 percent, n=10). Among these poisoning and overdose deaths, nine (60.0 percent) involved prescription drugs and six (40.0 percent) involved other substances, such as carbon monoxide (20.0 percent, n=3). Opioid analgesics were the most commonly involved prescription drugs (33.3 percent, n=5), followed by antidepressant medications (20.0 percent, n=3). Too few observations occurred among other categories to report for confidentiality purposes. CFPS data indicates that none of these substances, prescription or otherwise, were stored in locked locations.

Suicide Circumstances

The CFPS collects circumstance information, including details of the youth's history of prior suicide-related behavior and accumulating personal crises. From 2010 through 2014, the most common suicide-related behaviors included the decedent talking about suicide (49.4 percent, n=83) and previous suicide threats (36.3 percent, n=61). Approximately 32 percent (n=53) of the youth who died left a suicide note (Figure D.4). CFPS teams indicated that the suicide was completely unexpected in 40.5 percent of suicide fatalities (n=68); however, it is difficult for investigators to determine whether a child may have exhibited warning signs of suicide. Most people who die by suicide show some sort of warning sign.

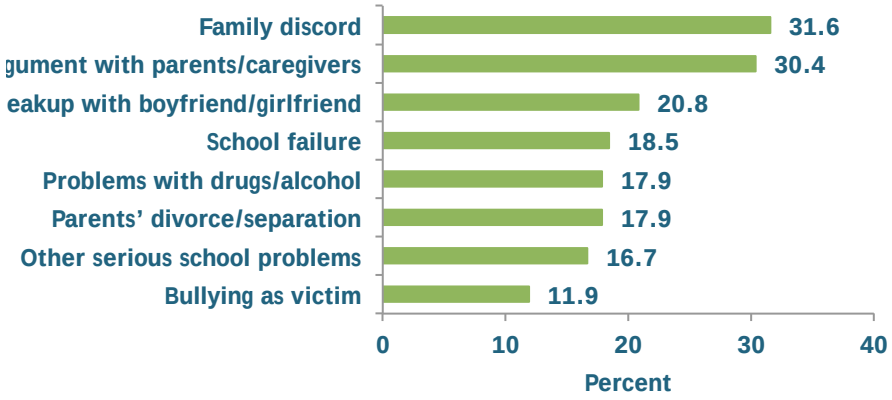
Figure D.4. Selected circumstances for youth suicides in Colorado, 2010-2014 (n=168)



Youth Suicide Fatalities

The CFPS also collects information about risk factors that may have contributed to a child's decision to take his or her life. From 2010 through 2014, the most common risk factor that may have contributed to the child's suicide was family discord (31.6 percent, n=53), followed by argument with parents/caregivers (30.4 percent, n=51) and breakup with boyfriend/girlfriend (20.8 percent, n=35) (Figure D.5). Twenty-nine percent (n=49) of youth 10-17 years of age who died by suicide had a history of child maltreatment as a victim (as documented by county departments of human services or law enforcement reports), including 14.9 percent (n=25) who experienced physical abuse and 14.3 percent (n=24) who experience emotional abuse. Information about the child's history of child maltreatment was missing or unknown in 37.5 percent (n=49) of suicide deaths.

Figure D.5. Selected acute or cumulative personal crises for youth suicides in Colorado, 2010-2014 (n=168)



Appendix D

Youth Suicide Fatalities

Mental health treatment can help prevent youth suicides. Of the 168 youth who completed suicide, 38.1 percent (n=64) had received prior mental health services, 19.6 percent (n=33) were receiving mental health services as the time of the fatal attempt and 17.3 percent (n=29) were on medications for mental illness. In addition, 6.6 percent (n=11) had issues preventing them from receiving mental health services.

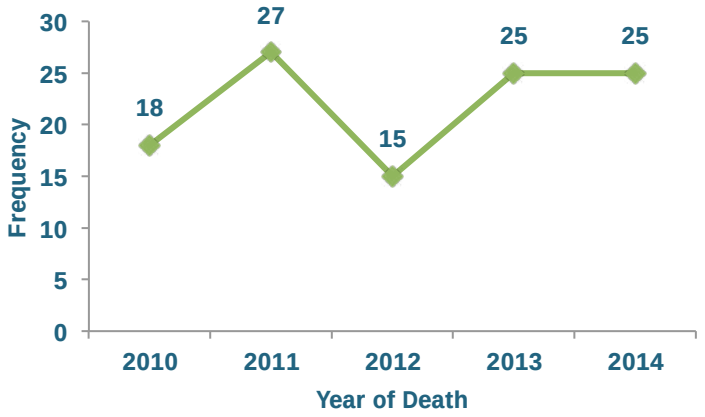
[D1] Rhodes, et al. (2014). Antecedents and sex/gender differences in youth suicidal behavior. *World Journal of Psychiatry*, 4(4), 120-132. doi: 10.5498/wjp.v4.i4.120.

[D2] Barber C. W., & Miller, M. J. (2014). Reducing a suicidal person's access to lethal means of suicide: A research agenda. *American Journal of Preventive Medicine*, 47(3 Suppl 2), S264-72. doi: 10.1016/j.amepre.2014.05.028.

Firearm Fatalities among Children and Youth in Colorado, 2010-2014

The Child Fatality Prevention System analyzes circumstance data on fatalities involving firearms in Colorado, regardless of manner. From 2010 through 2014, 110 fatalities among children from birth through 17 years of age resulted from firearm discharges. Figure E.1 shows that the number of yearly firearm fatalities for the period ranged from 15 in 2012 to 27 in 2011, averaging 22 fatalities per year. Among these fatalities, suicide was the leading manner of death (56.4 percent, n=62), followed by homicide (33.6 percent, n=37), accident (7.3 percent, n=8) and deaths of undetermined manner (2.7 percent, n=3).

Figure E.1. Firearm fatalities among children and youth in Colorado by year, 2010-2014 (n=110)

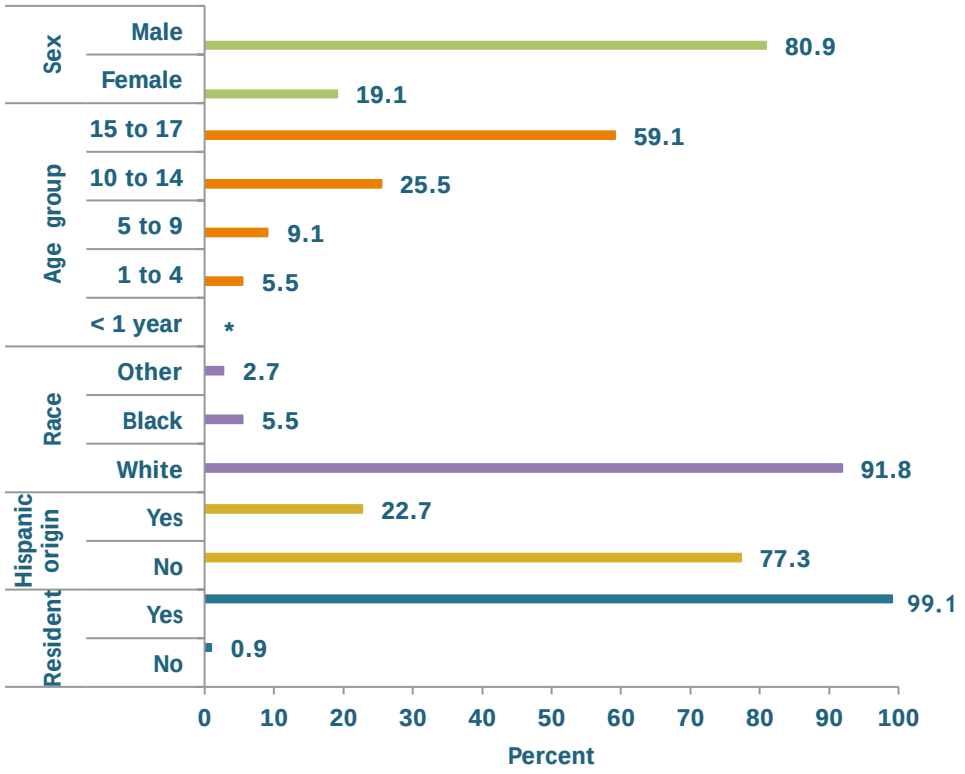


Demographics

Of the 110 firearm child fatalities occurring in Colorado from 2010 through 2014, 59.1 percent (n=65) occurred among youth 15-17 years of age and 25.5 percent (n=28) among youth 10-14 years of age, representing 84.6 percent of all firearms fatalities (Figure E.2). A majority (80.9 percent, n=89) of the decedents were male, 22.7 percent (n=25) were of Hispanic origin, and 91.8 percent (n=101) were white.

Firearm Fatalities

Figure E.2. Demographics for firearm fatalities among children and youth in Colorado, 2010-2014 (n=110)



Circumstances of Firearm Fatalities among Children and Youth

Figure E.3 demonstrates the types of firearms used in firearm fatalities among children and youth in Colorado. Most of these fatalities (60.0 percent, n=66) involved a handgun while 13.6 percent (n=15) involved a hunting rifle, 13.6 percent (n=15) involved a shotgun and 3.6 percent (n=4) involved an assault rifle. This information was missing or unknown for 7.3 percent (n=8) of firearm fatalities. Figure E.4 demonstrates the weapon storage status for firearms involved in fatalities in Colorado from 2010 through 2014.

Firearm Fatalities

Figure E.3. Firearms involved in firearm fatalities among children and youth in Colorado by type, 2010-2014 (n=110)

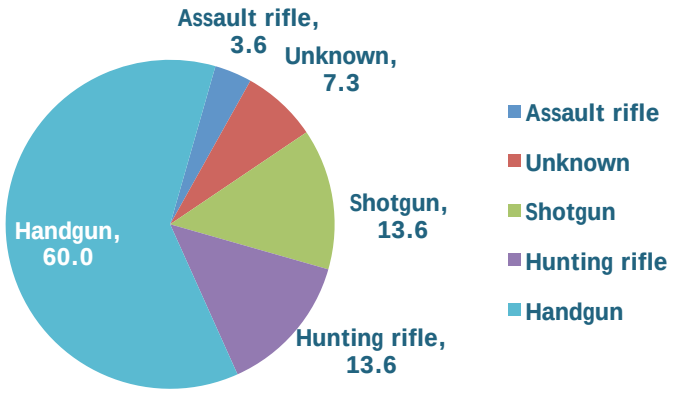
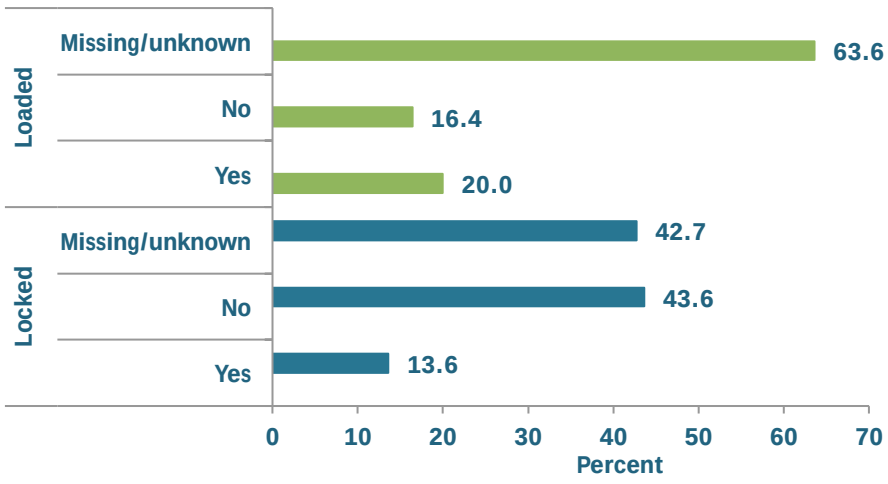


Figure E.4. Firearm storage status for firearm fatalities among children and youth in Colorado, 2010-2014 (n=110)



Firearm Fatalities

Figure E.5. Firearm ownership for firearm fatalities among children and youth in Colorado, 2010-2014 (n=110)

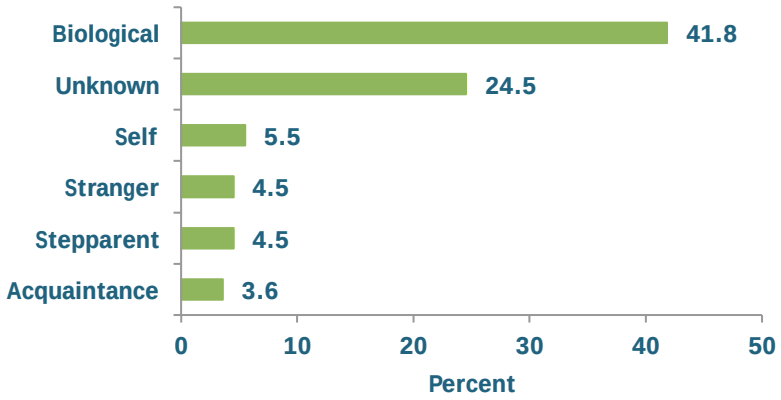
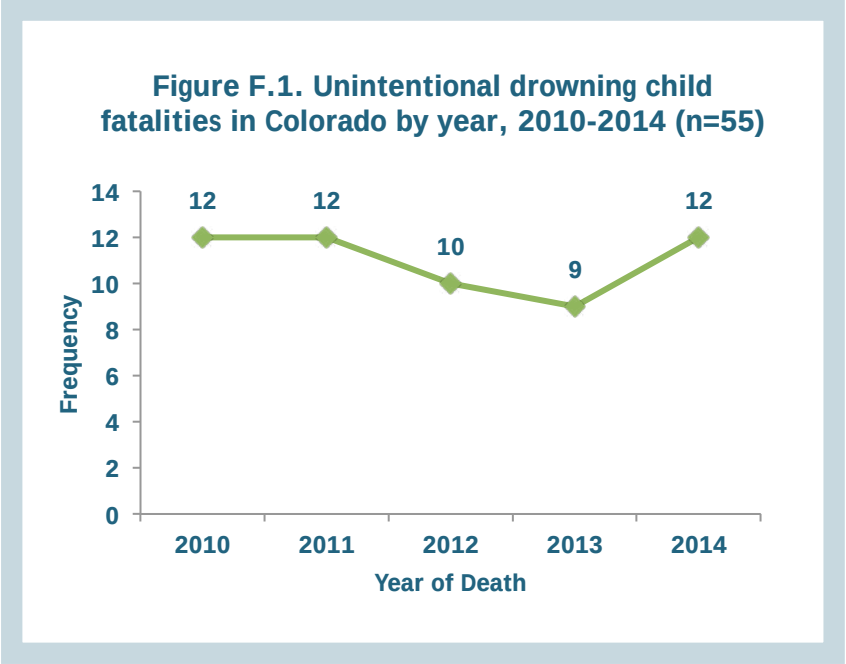


Figure E.5 demonstrates ownership of firearms involved in firearm child fatalities in Colorado by relationship to the decedent. The biological parents of the decedent owned the firearm involved in the death in 41.8 percent (n=46) of the cases.

Unintentional Drowning Child Fatalities in Colorado, 2010-2014

From 2010 through 2014, 55 unintentional drowning fatalities occurred among those 0-17 years of age in Colorado. Unintentional drowning deaths for the period ranged from 9 in 2013 to 12 occurring in 2010, 2011 and 2014 each, and averaged 11 per year (Figure F.1).



Demographics

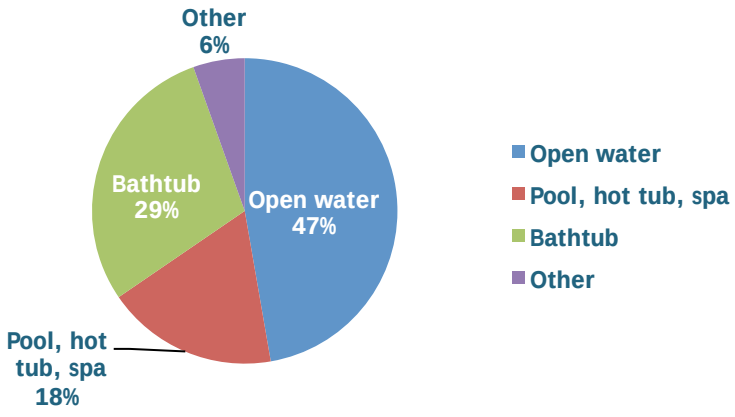
Among the children who died by unintentional drowning, 80.0 percent (n=44) occurred among males and 45.5 percent (n=25) occurred among children 1-4 years of age. Additionally, 21.8 percent (n=12) of decedents were 15-17 years of age, 14.6 percent (n=8) occurred among those 10-14 years of age and 14.6 percent (n=8) occurred among those under 1 year of age. Fewer than three unintentional drowning deaths occurred among those 5-9 years of age and cannot be reported for confidentiality purposes. Of the 55 drowning deaths, 81.8 percent (n=45) of decedents were white and 40.0 percent (n=22) were of Hispanic origin.

Drowning Fatalities

Unintentional Drowning Circumstances

Open water environments, including lakes, rivers, ponds, creeks, quarries, gravel pits and canals, were the most common drowning locations (47.3 percent, n=26), followed by bathtubs (29.1 percent, n=16) and pools, hot tubs or spas (18.2 percent, n=10) (Figure F.2). For 80.1 percent (n=21) of open water and 100.0 percent (n=10) of pool, hot tub or spa drowning deaths, decedents were not wearing or using a personal flotation device, including Coast Guard approved jackets, cushions, or lifesaving rings, or those not approved by the Coast Guard, such as swim rings, inner tubes or air mattresses. Additionally, 87.5 percent (n=14) of all bathtub drowning fatalities occurred among those under 5 years of age and a bathing aid was not in use in 81.3 percent of these fatalities (n=15). Finally, 38.5 percent (n=10) of decedents in open water drowning fatalities were unable to swim and 60.0 percent (n=6) of pool, hot tub or spa drowning decedents were unable to swim.

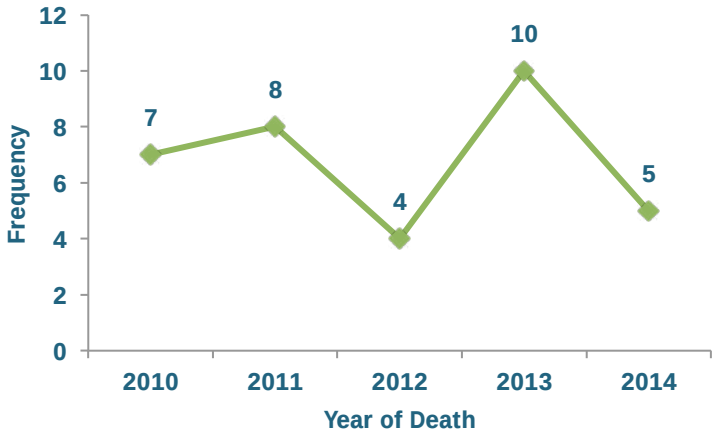
Figure F.2. Location of unintentional drowning child fatalities in Colorado, 2010-2014 (n=55)



Unintentional Poisoning Child Fatalities in Colorado, 2010-2014

From 2010 through 2014, there were 34 unintentional poisoning fatalities among children and youth in Colorado. Unintentional poisoning fatalities include those of accidental and undetermined manner of death, as indicated by the coroner, and can include deaths due to overdose on prescription, illicit, or over-the-counter drugs or may result from unintentional poisoning with other substances, such as household cleaners, carbon monoxide, plants or pesticides. Figure G.1 demonstrates the number of unintentional poisoning fatalities in Colorado by year from 2010 through 2014. Unintentional poisoning fatalities ranged from four in 2012 to 10 in 2013 and averaged 6.8 deaths per year for the period.

Figure G.1. Unintentional poisoning and overdose child fatalities in Colorado by year, 2010-2014 (n=34)



Demographics

Males accounted for 70.6 percent (n=24) of unintentional poisoning deaths among those 0-17 years of age in Colorado from 2010 through 2014. The majority of unintentional poisoning deaths occurred among those from 15-17 years of age (73.5 percent, n=25), followed by deaths occurring among those from 1-4 years of age (11.8 percent, n=4). Fewer than three deaths occurred among children in each of the other age groups and cannot be reported

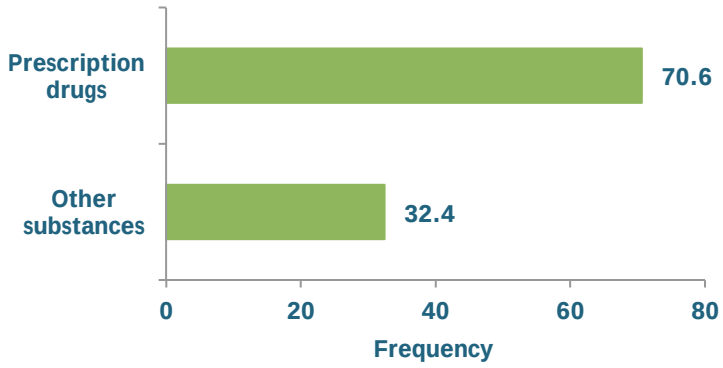
Poisoning Fatalities

for confidentiality purposes. Approximately a quarter (26.5 percent, n=9) of decedents were of Hispanic origin, 82.4 percent (n=28) were white and 14.7 percent (n=5) were Black or African American.

Circumstances of Unintentional Poisoning Deaths

Among the 34 unintentional poisoning deaths occurring from 2010 through 2014, 70.6 percent (n=24) involved prescription drugs and 32.4 percent (n=11) involved other substances, including alcohol and street drugs, such as heroin, cocaine, or methamphetamines (Figure G.2). These substance categories are not mutually exclusive as more than one substance from distinct categories could have been identified at the time of investigation as contributing to the death.

Figure G.2. Unintentional poisoning and overdose child fatalities in Colorado by substance category, 2010-2014 (n=34)

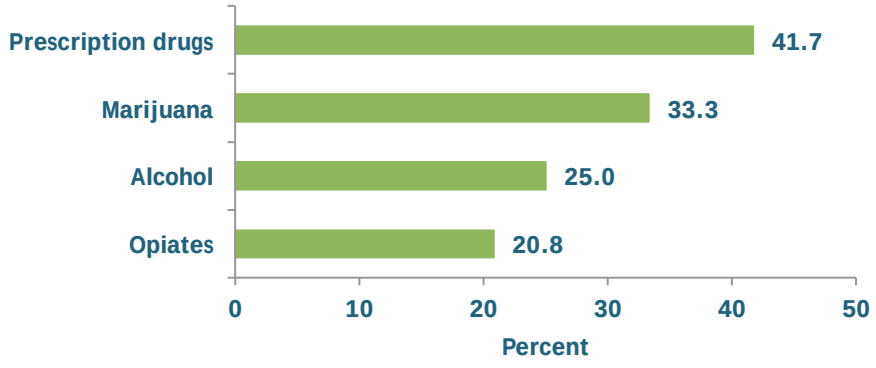


Among the 34 unintentional poisoning deaths occurring from 2010 through 2014, 70.6 percent (n=24) involved prescription drugs and 32.4 percent (n=11) involved other substances, including alcohol and street drugs such as heroin, cocaine, or methamphetamines (Figure G.2). These substance categories are not mutually exclusive as more than one substance from distinct categories could have been identified at the time of investigation as contributing to the death.

Poisoning Fatalities

The CFPS collected information on history of substance use for decedents of unintentional prescription drug overdose deaths. Figure G.3 displays the types of substances the 24 decedents of unintentional prescription drug overdose deaths were noted to have previously used or abused. 41.7 percent (n=10) were noted to have previously used or abused prescription drugs, 33.3 percent (n=8) had previously used or abused marijuana, 25.0 percent (n=6) had previously used or abused alcohol, and 20.8 percent (n=5) had previously used or abused opiates, a category which represents both prescription and illicit opiates (i.e., heroin and opium).

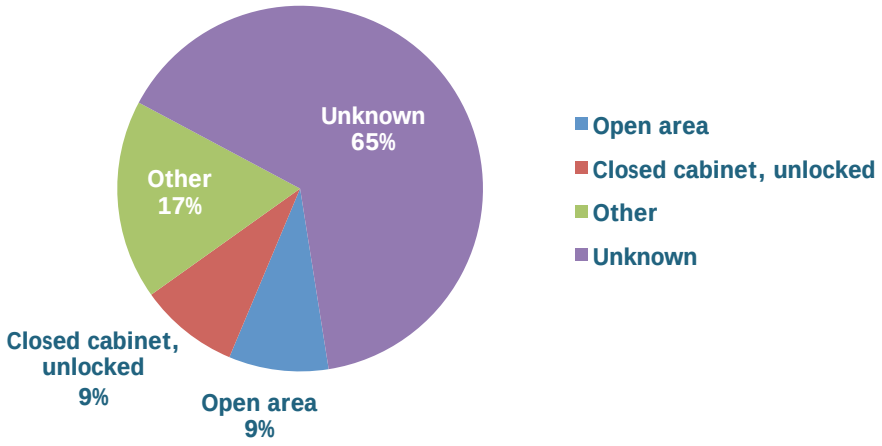
Figure G.3. Substance use history for unintentional prescription drug overdose child fatalities in Colorado by substance, 2010-2014 (n=24)



Poisoning Fatalities

The CFPS also collected information on storage of substances causing unintentional poisoning and overdose fatalities in Colorado. Figure G.4 demonstrates the types of storage areas indicated for the 34 unintentional poisoning or overdose fatalities collected through CFPS from 2010 through 2014. Of these substances, 8.8 percent (n=3) were known to be stored in an open area, 8.8 percent (n=3) in a closed, unlocked cabinet, 17.6 percent (n=6) in other unsecured locations and 64.7 percent (n=22) in an unknown location.

Figure G.4. Substance storage location for unintentional poisoning and overdose child fatalities in Colorado, 2010-2014 (n=34)



In addition to the 24 teens that died from unintentional prescription drug overdose, nine youth 10-17 years of age died from prescription drug overdose suicides between 2010 and 2014.

Appendix H

2016 Colorado Child Fatality Prevention System State Review Team Members

Member Name	Title	Agency	Member Role
Amber Urban	Detective	Office of the District Attorney, 18th Judicial District	Governor Appointed Member: Peace officer who specializes in crimes against children
Brian Steckler	Law Enforcement Supervisor	Colorado Springs Police Department	Governor Appointed Member: Peace officer who specializes in crimes against children
Curtis Rashaan Ford	Pediatrician	Castle Rock Pediatrics	Governor Appointed Member: Physician who specializes in traumatic injury or children's health
David Tennant	County Coroner	Logan County Coroner	Governor Appointed Member: County coroner
Fred Hosselkus	Sheriff	Mineral County Sheriff's Office	Governor Appointed Member: County sheriff from a rural area
Jennifer Kelloff	Physician	Kaiser Permanente-Pediatrician Group	Governor Appointed Member: Physician who specializes in traumatic injury or children's health
Katherine Snyder	Physician and Child Abuse Pediatrician	Denver Health Medical Center and Children's Hospital Colorado	Governor Appointed Member: Physician who specializes in traumatic injury or children's health
Katie Morris	Life Safety Educator	Littleton Fire Rescue	Governor Appointed Member: Local fire department
Laurie Andrews	Public Health Nurse	Tri County Health Department	Governor Appointed Member: Nurse who specializes in traumatic injury or children's health
Leon Kelly	Coroner	El Paso County Coroner Office	Governor Appointed Member: County Coroner
Leora Joseph	District Attorney	Office of the District Attorney, 18th Judicial District	Governor Appointed Member: District attorney
Mike Ensminger	County Sheriff	Teller County Sheriff's Office	Governor Appointed Member: County sheriff
Nancy Doty	County Commissioner	Arapahoe County Commissioner	Governor Appointed Member: County commissioner
Robert Case	Senior Deputy District Attorney	District Attorney's Office for the 10th Judicial District	Governor Appointed Member: District attorney from a rural area
Sabrina Byrnes	Associate Ombudsman	Office of Colorado's Child Protection Ombudsman	Governor Appointed Member: Representative from Ombudsman's Office

Appendix H

2016 State Review Team Members

Sam Wang	Physician	Rocky Mountain Drug & Poison Center/ Toxicology & Children's Hospital	Governor Appointed Member: Physician who specializes in traumatic injury or children's health
Scott Harpin	Assistant Professor	University of Colorado, College of Nursing	Governor Appointed Member: Nurse who specializes in traumatic injury or children's health
Shannon Meddings	Senior Assistant City Attorney	Denver City and County Attorney's Office Human Services Section, Child Protection	Governor Appointed Member: County attorney who practices in the area of dependency and neglect
Ashley Tunstall	Clinical Services Director	Colorado Department of Human Services; Behavioral Health and Medical Services	State Agency Appointed Member: Department of Human Services - Division of Youth Corrections
Betty Donovan	Director of County Human Services	Gilpin County Department of Human Services	State Agency Appointed Member: Director of a County Department of Human Services
Bill Bane	Manager	Colorado Department of Human Services; Office of Behavioral Health; Children, Youth and Family Mental Health Programs	State Agency Appointed Member: Department of Human Services - Mental Health Services
Christal Garcia	Family Leader	Colorado Department of Public Health and Environment; Violence and Injury Prevention-Mental Health Promotion Branch	State Agency Appointed Member: Department of Public Health & Environment
Ethan Jamison	Colorado Violent Death Reporting System (CoVDRS) Coordinator	Colorado Department of Public Health and Environment; Health Statistics Section	State Agency Appointed Member: Department of Public Health & Environment
Giorgianna Venetis	Essentials for Childhood Coordinator	Colorado Department of Public Health and Environment; Violence and Injury Prevention-Mental Health Promotion Branch	State Agency Appointed Member: Department of Public Health & Environment
Gretchen Russo	Judicial and Legislative Administrator	Colorado Department of Human Services; Office of Children, Youth and Families, Division of Child Welfare	State Agency Appointed Member: Department of Human Services - Child Welfare Division

2016 State Review Team Members

Jane Flournoy	Manager	Colorado Department of Human Services; Office of Behavioral Health, Culturally Informed and Inclusive Programs	State Agency Appointed Member: Department of Human Services - Behavioral Health Services (MH/SA)
Jarrod Hindman	Manager of Office of Suicide Prevention	Colorado Department of Public Health and Environment; Violence and Injury Prevention-Mental Health Promotion Branch	State Agency Appointed Member: Department of Public Health & Environment
Kathy Patrick	State School Nurse Consultant	Colorado Department of Education	State Agency Appointed Member: Department of Education
Lauren Bardin	Maternal Health Specialist	Colorado Department of Public Health and Environment; Children, Youth and Families Branch	State Agency Appointed Member: Department of Public Health & Environment
Lindsey Myers	Injury and Substance Abuse Prevention Section Manager	Colorado Department of Public Health and Environment; Violence and Injury Prevention-Mental Health Promotion Branch	State Agency Appointed Member: Department of Public Health & Environment
Lucinda Connelly	Child Protection Services Manager	Colorado Department of Human Services; Office of Children, Youth and Families, Division of Child Welfare, Child Protection Services	State Agency Appointed Member: Department of Human Services - Child Welfare Division
Marc Mackert	Director	Colorado Department of Human Services; Administrative Review Division, Office of Performance and Strategic Outcomes	State Agency Appointed Member: Department of Human Services – Appointed by Executive Director Reggie Bicha
Margaret Huffman	Public Health Nurse Supervisor	Jefferson County Public Health	State Agency Appointed Member: County Health Department
Mary Martin	Division Director	Colorado Department of Human Services; Office of Early Childhood, Division of Community and Family Support	State Agency Appointed Member: Department of Human Services – Appointed by Executive Director Reggie Bicha

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2016 State Review Team Members

Sarah Brummett	Suicide Prevention Commission Coordinator	Colorado Department of Public Health and Environment; Violence and Injury Prevention-Mental Health Promotion Branch	State Agency Appointed Member: Department of Public Health & Environment
Scott Hophan	Sergeant	District 2 Vehicular Crimes Unit	State Agency Appointed Member: Department of Public Safety
Amy Pohl	Communications and Membership Director	Colorado Coalition Against Domestic Violence	Team Selected Member: State Domestic Violence Coalition
Diana Goldberg	Executive Director	Children's Advocacy & Family Resources, Inc./ SungateKids	Team Selected Member: Child Advocacy Centers Network
Donald Rincon	Program Director	Kid's Crossing	Team Selected Member: Private Out-of-Home Placement Provider
Kathy Orr	President	Injury and Violence Prevention Specialists	Team Selected Member: Injury Violence Specialists
Pat Givens	Nurse	Colorado Organization of Nurse Leaders	Team Selected Member: Hospital Injury Prevention or Safety Specialists
Patty VanGilder	Administrative Assistant	Angel Eyes	Team Selected Member: Community member with experience in childhood death
Sheri Danz	Deputy Director	Office of the Child's Representative	Team Selected Member: Office of the Child's Representative
Theresa Rapstine	Nurse Consultant	Healthy Child Care Colorado – Qualistar	Team Selected Member: Hospital Injury Prevention or Safety Specialists
Wave Dreher	Director of Communications	AAA Colorado	Team Selected Member: Auto Safety/Driver Safety Organization
Vacant			Team Selected Member: Hospital Injury Prevention or Safety Specialists
Vacant			Team Selected Member: Hospital Injury Prevention or Safety Specialists
Vacant			Team Selected Member: Hospital Injury Prevention or Safety Specialists: Court-appointed Special Advocate Program Director

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2016 Colorado Child Fatality Prevention System Local Review Team Coordinators

Local Team (by county)	Coordinator	Agency
Adams	Laurie Andrews	Tri County Health Department
Alamosa	Beverly Strnad	Alamosa County Public Health Department
Arapahoe	Laurie Andrews	Tri County Health Department
Archuleta, La Plata, and San Juan (Regional Team)	Keri McCune	San Juan Basin Health Department
Baca	Jessami Caddick	Baca County Public Health Agency
Bent	Valerie Carnes	Bent County Public Health Agency
Boulder	Kimberly Seifert	Boulder County Coroner's Office
Broomfield	Gail Wright	Broomfield Health and Human Services Department
Chaffee	Andrea Calstrom	Chaffee County Public Health Department
Cheyenne	Linda Roth	Cheyenne County Public Health Agency
Clear Creek	Crystal Brandt	Clear Creek County Public and Environmental Health
Conejos	Connie Edgar	Conejos County Public Health and Nursing Service
Costilla	Maryanne Martinez	Costilla County Public Health Agency
Custer	Vivian Gallegos	Custer County Public Health Agency
Denver	Kellie Teter	Denver Health and Hospital Authority
Dolores and Montezuma (Regional Team)	Rose Jergens	Four Corners Child Advocacy Center
Douglas	Laurie Andrews	Tri County Health Department
Eagle	Jennifer Ludwig	Eagle County Public Health Agency
El Paso	Myrna Candreia	El Paso County Department of Health and Environment
Elbert	Alissa Marlatt	Elbert County Health and Environment
Fremont	Rick Miklich	Fremont County Public Health Agency
Garfield	Laurel Little	Garfield County Public Health Service
Grand	Brene Belew-LaDue	Grand County Public Health
Huerfano	Cathy Montera	Las Animas-Huerfano Counties District Health Department
Jefferson and Gilpin (Regional Team)	Sophia Yager	Jefferson County Public Health
Kiowa	Ryann Wollert	Kiowa County Public Health Agency
Kit Carson	Dawn James	Kit Carson County Health and Human Services
Lake	Colleen Nielsen	Lake County Public Health Department

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2016 Local Review Team Coordinators

Larimer and Jackson (Regional Team)	Kristen Dingwall	Voices Carry Child Advocacy Center
Las Animas	Cathy Montera	Las Animas-Huerfano Counties District Health Department
Lincoln	Sue Kelly	Lincoln County Department of Public Health
Mesa	Kristy Emerson	Mesa County Health Department
Moffat	Charity Neal	Moffat County Public Health Agency (Northwest Visiting Nurse Association)
Northeast Colorado: Logan, Morgan, Phillips, Sedgwick, Washington, and Yuma (Regional Team)	Trish McClain	Northeast Colorado Health Department
Otero and Crowley (Regional Team)	Rick Ritter	Otero-Crowley County Health Department
Park	Lynn Ramey	Park County Public Health Agency
Pitkin	Liz Stark	Pitkin County Public Health Agency (CHS, Inc)
Prowers	Tammie Clark	Prowers County Public Health
Pueblo	Lynn Procell	Pueblo City-County Health Department
Rio Blanco	Jennifer O'Hearon	Rio Blanco County Department of Public Health and Environment
Rio Grande	Dianne Koshak	Rio Grande County Public Health Agency
Routt	Beth Watson	Routt County Public Health Agency (Northwest Visiting Nurse Association)
Saguache	Ginger Stringer	Saguache County Public Health Agency
Summit	Amy Wineland	Summit Public Health Department
Teller	Martha Hubbard	Teller County Public Health Department
Weld	Melanie Cyphers	Weld County Department of Public Health and Environment
West Central Public Health Partnership: Delta, Gunnison, Hinsdale, Mineral, Montrose, Ouray, San Miguel (Regional Team)	Kristin Pulatie	Montrose County Department of Health and Human Services

2016 Full List of Child Fatality Prevention Strategies

Below is a full list of prevention strategies that were considered for prioritization by the Child Fatality Prevention System State Review Team member and local review team coordinators.

Establish statutory requirement for primary enforcement of seat belt law.
Enhance the booster seat law to required use through 8 years of age.
Enhance graduated drivers licensing (GDL) law to increase road time instruction to more than six hours.
Enhance the GDL law to increase the minimum age of 16 years for a learner's permit and expand restricted driving hours to 10:00pm-5:00am.
Enable Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit to be used for Sudden Unexpected Infant Death (SUID) risk screening and safe sleep education.
Mandate that all health care settings (hospitals, pediatric offices, OB/GYN offices, etc.) develop and implement policies to provide education and information about infant safe sleep promotion and require the practice and modeling of safe sleep behaviors.
Enable providers to bill for injury and violence prevention education for Medicaid-eligible patients (as part of integration of prevention into primary care and 'clinically integrated networks').
Mandate the use of the Sudden Unexplained Infant Death Investigation Reporting Form (SUIDIRF) for law enforcement agencies and coroner offices during infant death scene investigations.
Support policies that increase the minimum wage in Colorado.
Support policies that ensure paid parental leave for families.
Support policies that ensure the long-term financial stability of child care.
Support policies that ensure the long-term financial stability of free full-day preschool and kindergarten.
Require the creation of a state plan for family, friend, and neighbor (FFN) care (inclusive of education and training) that is endorsed by state agencies.
Require state agencies to create and implement family-friendly employment policies and practices to support families.
Diversify funding sources (i.e., include social impact bonds) to support the expansion of services that support families (i.e. community-based home visiting and family resource centers).
Mandate the use of a suicide investigation form for law enforcement and coroners when investigating suicide deaths.
Mandate comprehensive suicide prevention in schools including training all school staff in gatekeeper skills and making referrals and implementation of evidence-based programs to promote protective factors.
Enhance the Prescription Drug Monitoring Program (PDMP) and mandate that providers use the PDMP.
Develop methods to provide feedback to providers about their prescribing behaviors as compared to other providers in their specialties to benchmark their behaviors.
Improve tracking of medications (such as psychotropic drugs) prescribed to youth involved in different systems (i.e., corrections, foster care, etc.).

Appendix K

2016 Map of Child Fatality Prevention System Local Review Teams