



**COLORADO** Child  
Fatality  
Prevention  
System

Youth Suicide Data,  
2012 - 2016





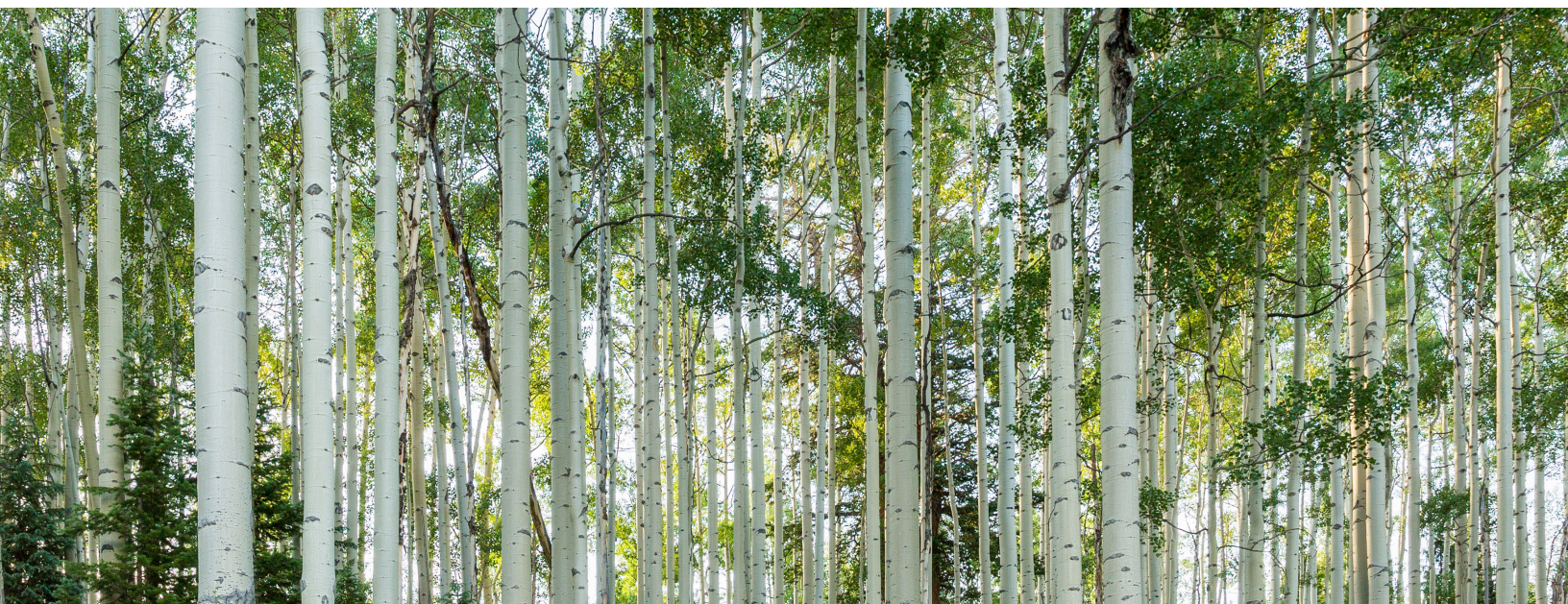
## Introduction

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 until 2005, CFPS has been conducting retrospective reviews of child deaths in Colorado since 1989. 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. Child fatality prevention review teams and their partners implement and evaluate the identified strategies at the state and local levels with the goal of preventing similar deaths in the future.

The data presented within this data summary come from comprehensive, statutorily-mandated reviews of deaths among those under 18 years of age occurring in Colorado between 2012 and 2016. Local child fatality prevention review teams are responsible for conducting individual, case-specific reviews of deaths of children meeting the statutory

criteria. Reviewable child deaths result from one or more of the following causes: undetermined causes, unintentional injury, violence, motor vehicle/transport-related, child maltreatment, sudden unexpected infant death (SUID) and suicide. During Fiscal Year 2018, local teams reviewed deaths that occurred in 2016.

The CFPS review process includes deaths of Colorado residents occurring in Colorado, as well as deaths of out-of-state residents who died in Colorado or were transported to a Colorado hospital and died. CFPS does not review deaths of Colorado residents that occur outside of the state. These criteria are different from other reports of child fatality data and in many other Colorado government data sources. As a result, the data presented in this topic-specific data brief may not match other statistics reported at both the state and national levels. This data brief provides an overview of youth suicide data from CFPS. For more details on CFPS data, access cause-specific data briefs and an interactive data dashboard here: [www.cochildfatalityprevention.com/p/reports.html](http://www.cochildfatalityprevention.com/p/reports.html).



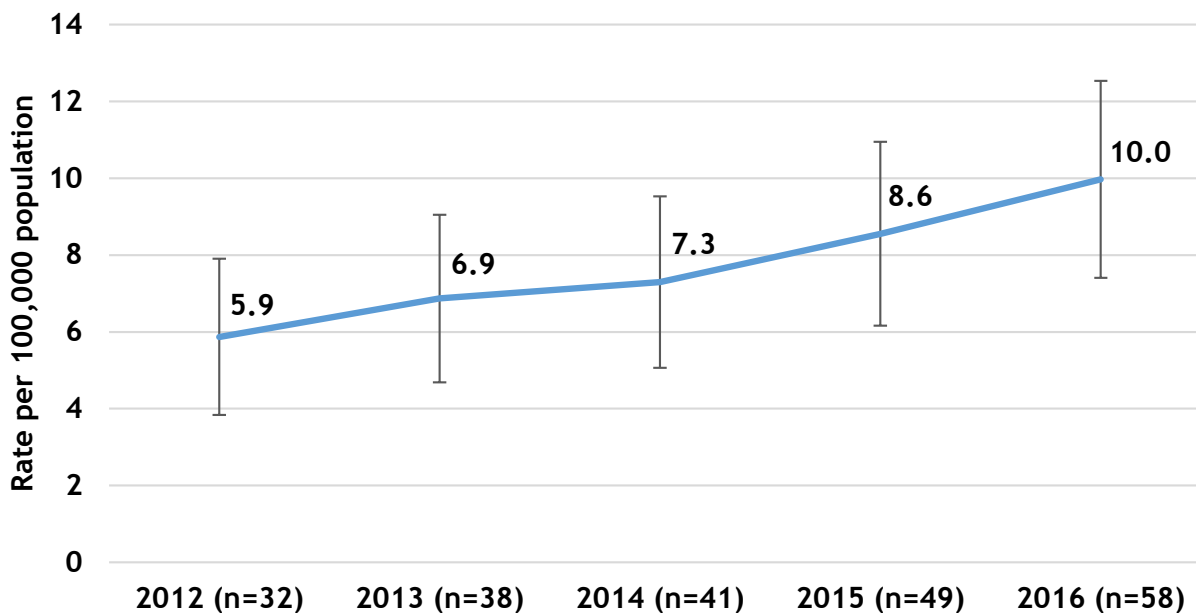


# Youth Suicide Data, 2012-2016

## Overview of Youth Suicide Deaths

Suicide is the leading cause of death among all youth ages 10-17 in Colorado. In total, 222 youth died by suicide in Colorado from 2012-2016. The number of youth suicide deaths increased steadily from 33 in 2012 to 60 in 2016, an 81.8 percent change for the period (data not shown). Figure 1 shows that the rate of youth suicides among Colorado residents also increased from 2012-2016, but this increase was not statistically significant. From 2012-2016, the crude rate of youth suicide among those 10-17 years of age was 7.7 per 100,000 population. Over the same time period, the national crude rate for 10-17 year olds was 4.0 per 100,000 population.<sup>1</sup>

Figure 1. Crude rates of death by suicide occurring in Colorado among Colorado residents 10-17 years of age by year, 2012-2016



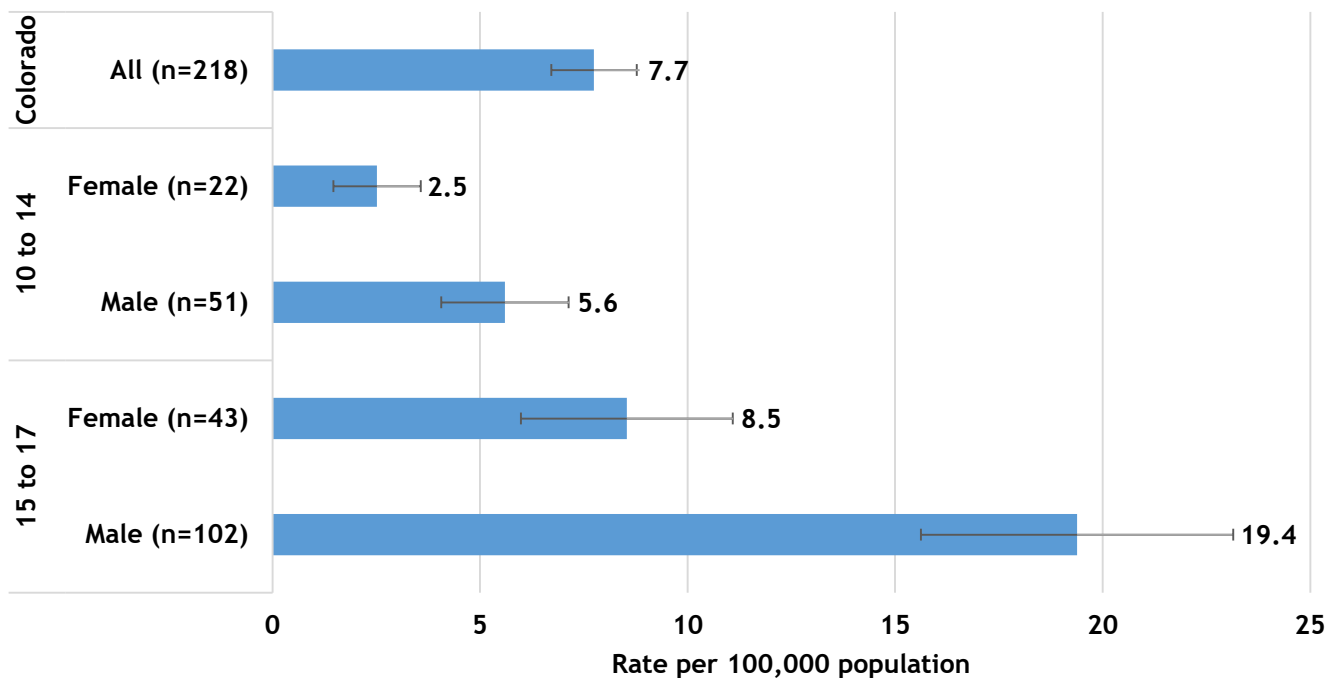
\*Error bars represent 95% confidence limits for rates.



# Youth Suicide Data, 2012-2016

Males account for the majority of suicides among youth ages 10-17 in Colorado, representing 69.8 percent (n=155) of all suicides. This may be explained in part by 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).<sup>2</sup> Moreover, the risk of death by suicide increases with age. Figure 2 demonstrates that for both those 10-14 and 15-17 years of age, males are at greater risk of death by suicide, and this difference was statistically significant across both age groups. Males ages 15-17 experienced more than double the rate of death by suicide as their same-aged female peers and represented the category with the highest rate. The majority of decedents were non-Hispanic white (73.9 percent, n=164) and 20.3 percent (n=45) were of Hispanic origin (data not shown).

**Figure 2. Age-specific rates of death by suicide occurring in Colorado among Colorado residents 10-17 years of age by age and sex, 2012-2016**



\*Error bars represent 95% confidence limits for rates.



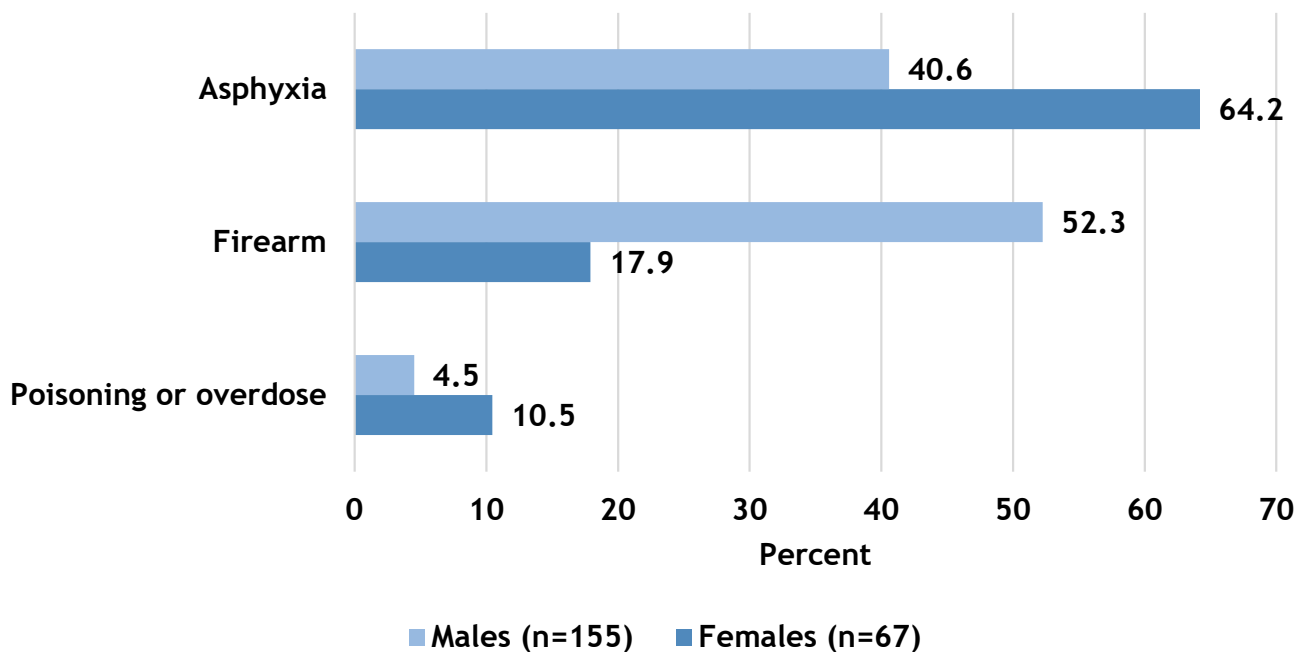
# Youth Suicide Data, 2012-2016

## Suicide Means

Among youth ages 10-17 who died by suicide in Colorado, asphyxia (hanging) remained the most common cause of death, followed by firearm injuries and drug overdoses. From 2012-2016, CFPS identified 107 asphyxia suicides (48.2 percent), 93 firearm suicides (41.9 percent) and 14 drug overdose or poisoning suicides (6.3 percent). Among males, firearm suicides (52.3 percent, n=81) were most common, followed by asphyxia (40.6 percent, n=63) and drug overdose or poisoning suicides (4.5 percent, n=7) (Figure 3). Among females, suicide by asphyxia was the most common means (64.2 percent, n=43), followed by firearm (17.9 percent, n=12) and drug overdose or poisoning suicides (10.5 percent, n=7).

While asphyxia was the most common means of suicide among youth in Colorado, firearm suicide deaths have been increasing. In 2012, 27.3 percent (n=9) of youth suicide deaths involved firearms compared to 53.1 percent (n=26) in 2015. The proportion of youth suicides involving a firearm decreased slightly to 43.3 (n=26) percent in 2016 (Figure 4).

**Figure 3. Proportion of deaths by suicide occurring in Colorado among those 10-17 years of age by sex and means, 2012-2016 (n=222)**



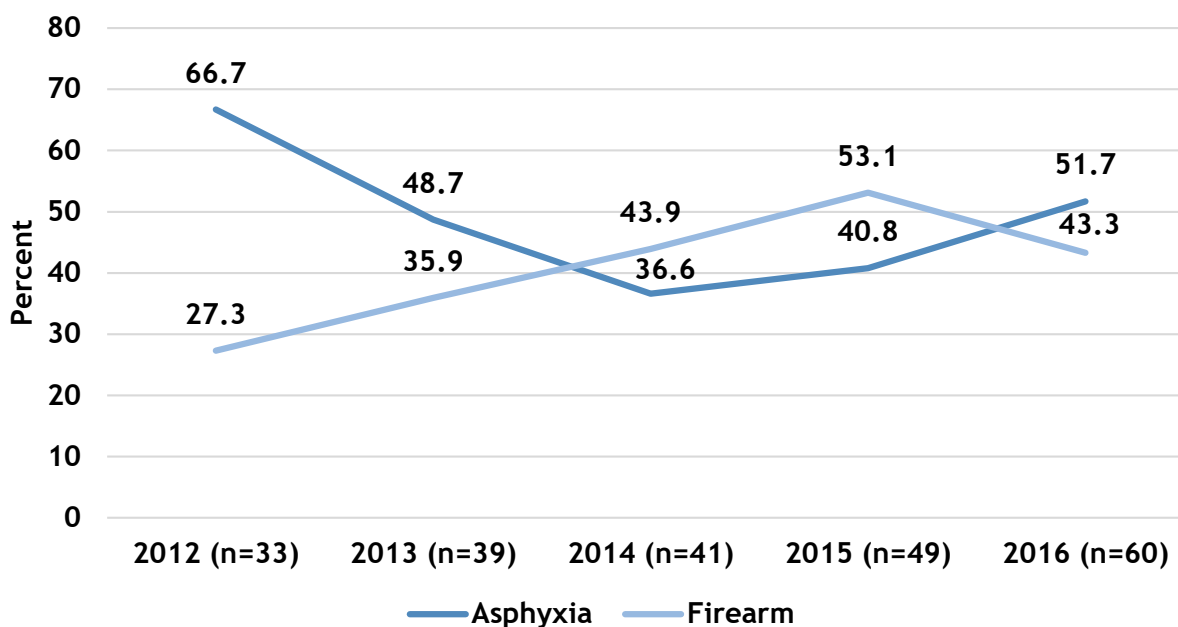
# Youth Suicide Data, 2012-2016

## Firearm Suicides

Between 2012-2016, 41.9 percent (n=93) of all suicide deaths occurring among youth in Colorado were the result of firearms. Among all firearm suicides, 87.1 percent (n=81) occurred among males and 50.5 percent (n=47) of firearms used in youth suicide deaths were owned by a biological parent (data not shown). For more information, view the CFPS firearms death data brief here: [www.cochilddfatalitiesprevention.com/p/reports.html](http://www.cochilddfatalitiesprevention.com/p/reports.html). Additionally, 64.5 percent (n=60) of owners of firearms used in youth suicide deaths in Colorado were male.

CFPS also collects information on the storage of these weapons, including whether the weapon was stored locked and unloaded. From 2012-2016, only 17.2 percent (n=16) of firearm suicide deaths among youth ages 10-17 were stored locked and only 20.4 percent (n=19) were stored unloaded. Information on weapon storage was missing in 44.1 percent (n=41) of cases concerning the locked storage of the firearm and for 51.6 percent (n=48) of cases concerning the loaded storage of the firearm.

Figure 4. Deaths by suicide occurring in Colorado among those 10-17 years of age by means and year, 2012-2016 (n=222)





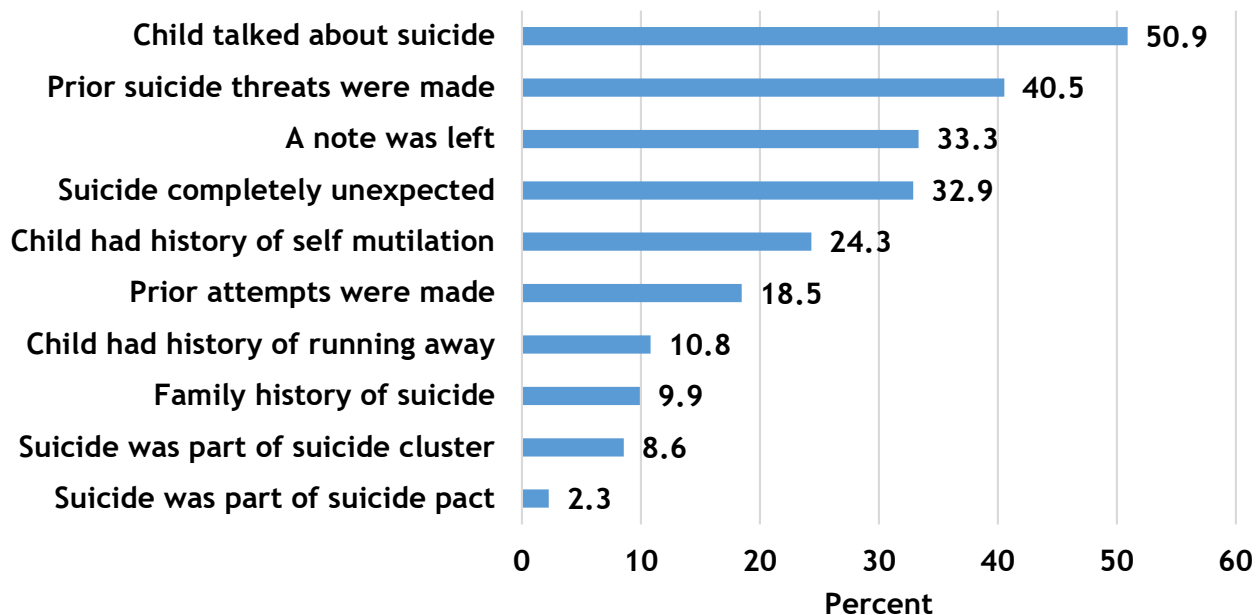
# Youth Suicide Data, 2012-2016

## Suicide Circumstances

Circumstance information, including details of youth history of suicide-related behavior and personal crises, is collected through the CFPS review process. From 2012-2016, the most common findings associated with deaths by suicide included the youth talking about suicide (50.9 percent, n=113), making prior threats (40.5 percent, n=90) or leaving a note (33.3 percent, n=74) (Figure 5). CFPS case reports indicated the suicide was completely unexpected in 32.9 percent (n=73) of cases; however, this question has recently undergone revision in Version 5 of the case reporting system to tighten the criteria under which this question can be indicated as true when other responses are conflicting.

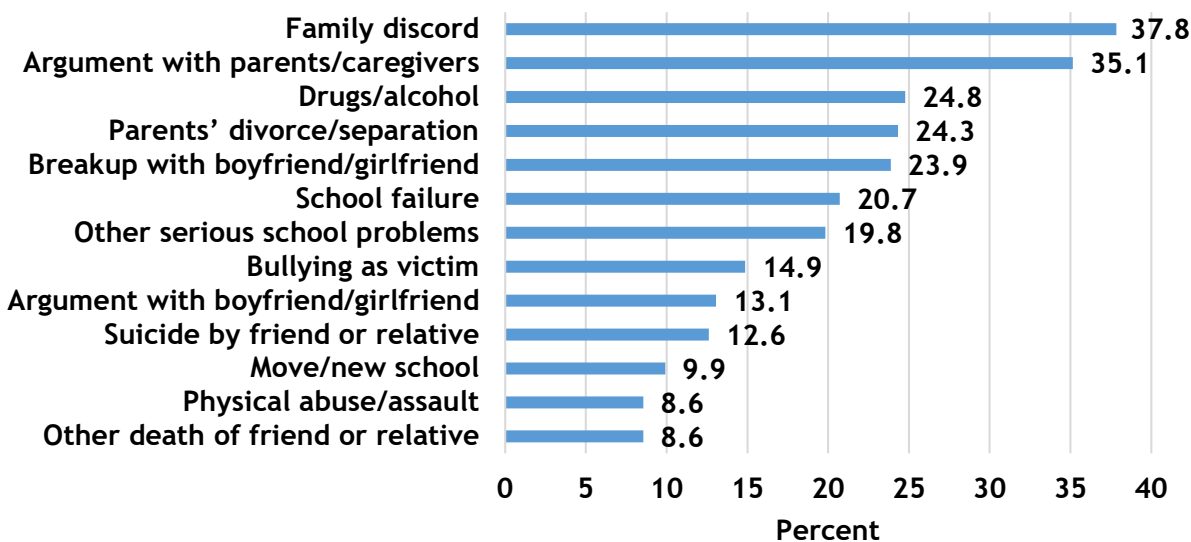
Information is also collected on acute or cumulative personal crises that may have contributed to these deaths. From 2012-2016, the most common personal crisis identified for youth suicide deaths was family discord (37.8 percent, n=84), followed by arguments with parents/caregivers (35.1 percent, n=78) or drug or alcohol use (24.8 percent, n=55) (Figure 6). Thirty-two percent (n=71) of youth ages 10-17 who died by suicide experienced child maltreatment as a victim. Among those for whom child maltreatment history was known, 22.2 percent (n=32) experienced emotional abuse, 18.1 percent (n=26) experienced physical abuse and 18.1 percent (n=26) experienced neglect. Information on history of child maltreatment was missing or unknown for 35.1 percent (n=78) of deaths by suicide among Colorado youth (data not shown). Moreover, among Colorado youth who died by suicide, 44.6 percent (n=99) had received prior mental health services, 25.2 percent (n=56) were receiving mental health services at the time of their death and 18.0 percent (n=40) were on medications for mental health concerns. Of the youth who died by suicide, 8.1 percent (n=18) had issues preventing them from receiving mental health services (data not shown).

**Figure 5. Selected circumstances for deaths by suicide occurring among those 10-17 years of age in Colorado, 2012-2016 (n=222)**



# Youth Suicide Data, 2012-2016

Figure 6. Selected acute or cumulative personal crises preceding death for deaths by suicide occurring among those 10-17 years of age in Colorado, 2012-2016 (n=222)



1. Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10.html> on Jun 21, 2018 2:07:11 PM
2. 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.

For more information about CFPS data, please contact the CFPS Support Team at the Colorado Department of Public Health and Environment: [support@cfps.freshdesk.com](mailto:support@cfps.freshdesk.com)

