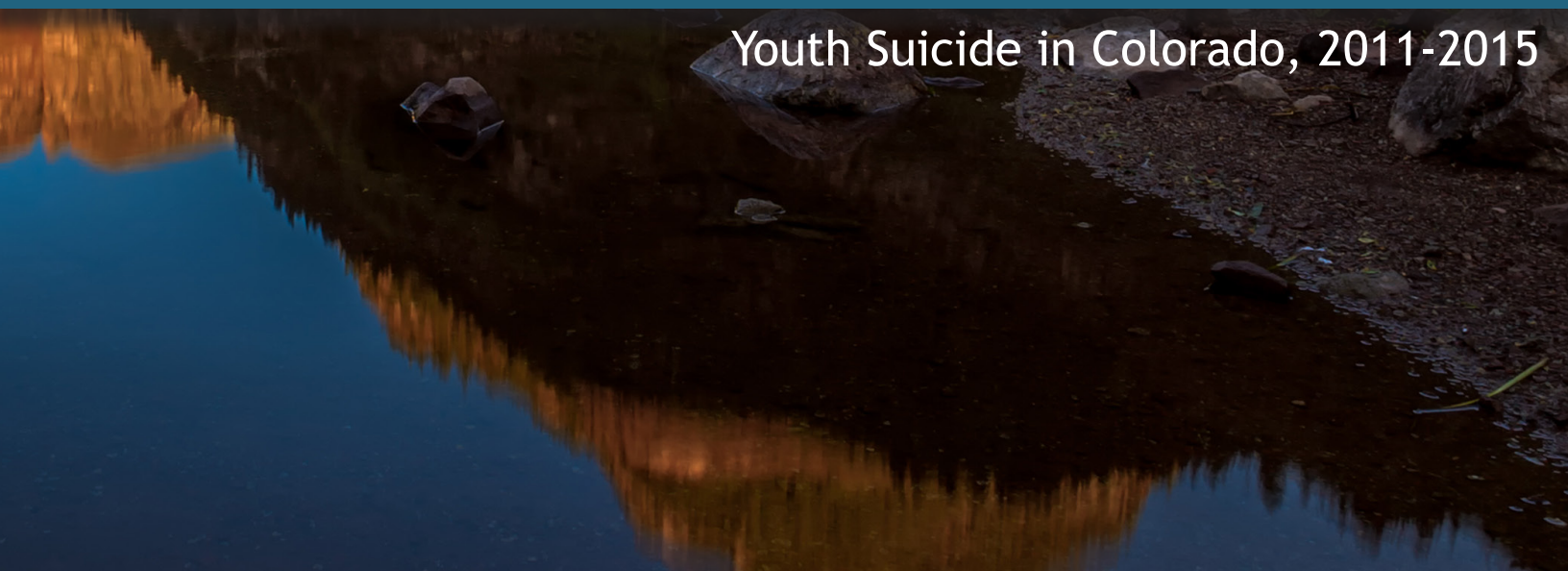
COLORADO

Child Fatality Prevention System



Youth Suicide in Colorado, 2011-2015

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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 (C.R.S.) 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. The identified strategies are implemented and evaluated 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 2011 and 2015. Local child fatality prevention review teams are responsible for conducting individual, case-specific reviews of fatalities 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/other transport-related, child maltreatment, sudden unexpected infant death (SUID) and suicide. During Fiscal Year 2017, local teams completed reviews of deaths that occurred in 2015.

The CFPS review process includes deaths of Colorado residents occurring in Colorado, as well as deaths of out-of-state visitors who died in Colorado, and non-residents who were transported to a Colorado hospital and died. These criteria are different than those used in other reports of child fatality data and in many other Colorado government data sources. As a result, the data presented in this data summary may not match other statistics reported at both the state and national levels. This data brief provides an overview of deaths by suicide occurring in Colorado among those under 18 years of age between 2011 and 2015. For more information on CFPS data, access additional cause-specific data briefs here: http://www.cochildfatalityprevention.com/p/reports.html.

Overview of Youth Suicide in Colorado

Suicide is the leading cause of death reviewed by CFPS among all youth ages 10 through 17 years in Colorado. In total, 191 youth died by suicide in Colorado between 2011 and 2015. The number of deaths by suicide increased from 29 in 2011 to 49 in 2015, a change of 68.9 percent for the period (Figure 1). As can be observed from Figure 2, this increase did not represent a statistically significant change in the rate of suicide among Colorado residents (n=189), which ranged from 5.4 deaths per 100,000 population to 8.4 per 100,000 population in 2011 and 2015, respectively. For the period, the five-year incidence of death by suicide was 6.8 per 100,000 population.

Figure 1. Youth deaths by suicide occurring in Colorado by year of death, 2011-2015 (n=191)

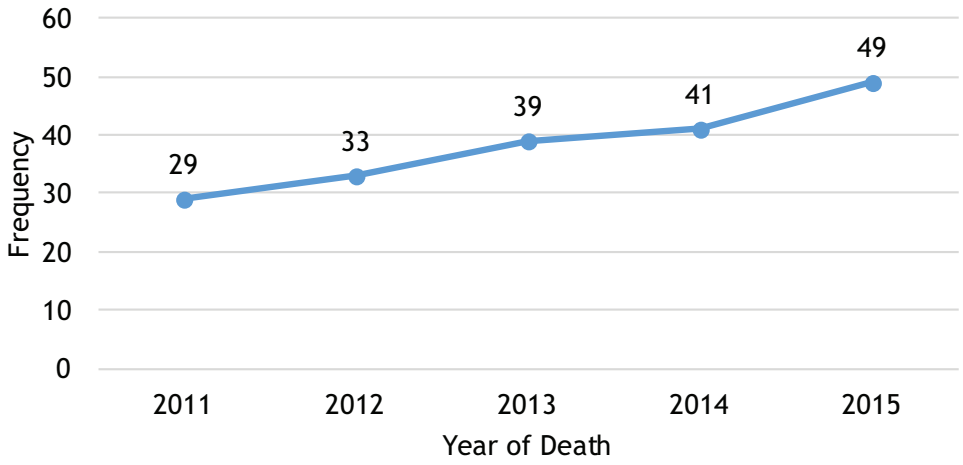


Figure 2. Crude rate of youth deaths by suicide occurring in Colorado among Colorado residents by year of death, 2011-2015 (n=189)

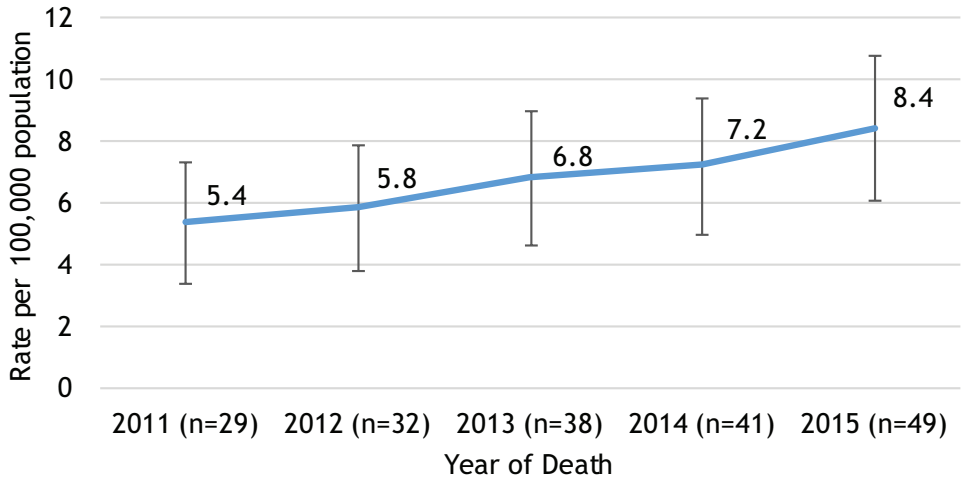
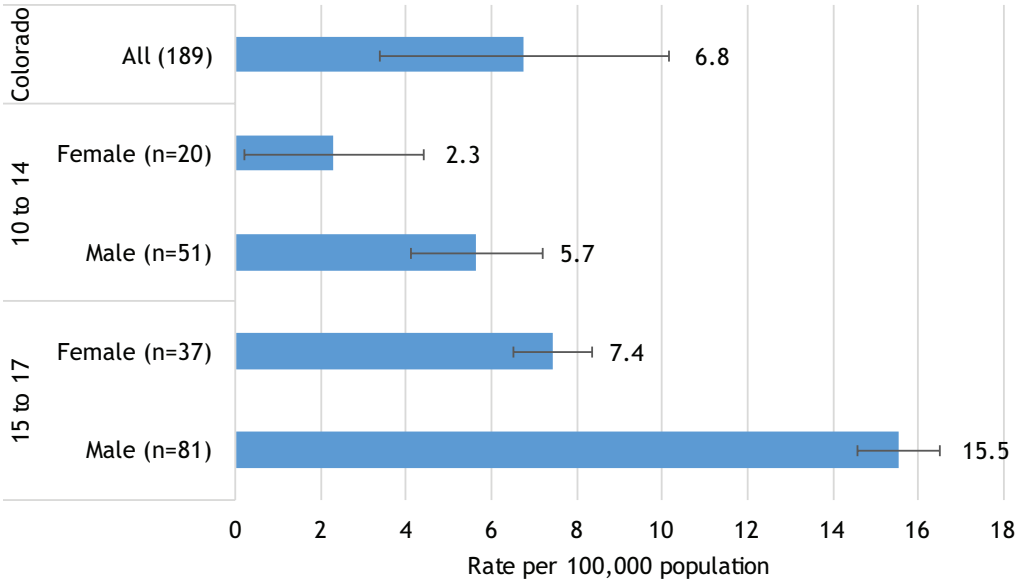


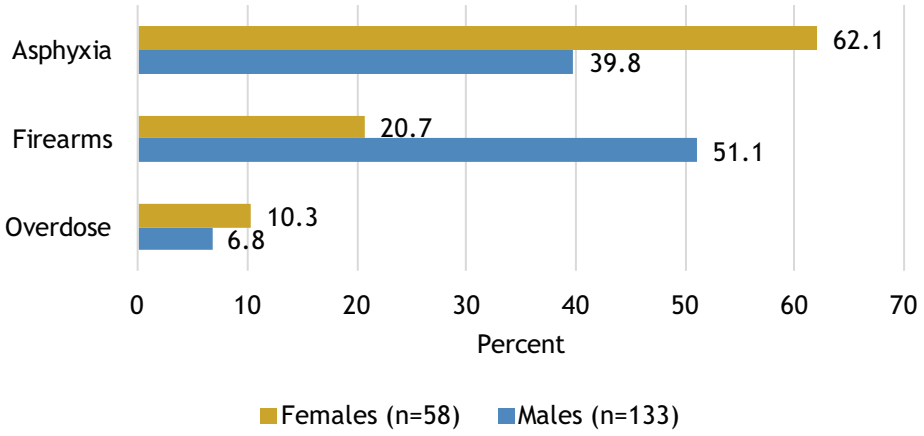
Figure 3. Age-specific rates of youth deaths by suicide occurring in Colorado among Colorado residents by age and gender, 2011-2015 (n=189)



Males account for the majority of suicides among those 10 through 17 years of age in Colorado, representing 69.6 percent (n=133) 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) compared to males who often use highly lethal means (i.e. firearms).[1] The risk of death by suicide increased with age. Figure 3 demonstrates that for both 10 to 14 year olds and 15 to 17 year olds, males are at greater risk of death by suicide, though this difference was statistically significant only among 15 to 17 year olds. Fifteen to 17 year old males experienced more than double the rate of death by suicide as their female peers and represented the highest incidence group. The majority of decedents were white (94.1 percent, n=158) and 26.2 percent (n=44) were of Hispanic origin.

Suicide Methods

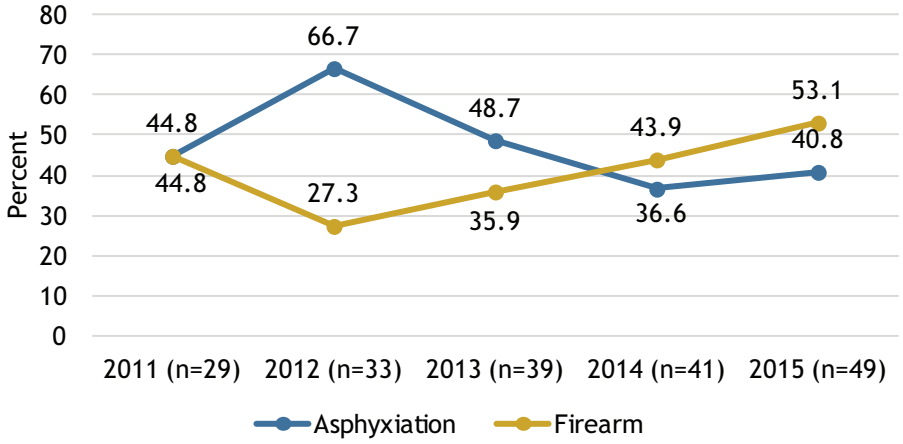
Figure 4. Proportion of youth deaths by suicide in Colorado by means and sex, 2011-2015 (n=191)



Among youth 10 through 17 years of age in Colorado, asphyxia (hanging) remained the most common cause of death, followed by firearms-related suicides and drug overdose or poisoning suicides. Between 2011 and 2015, 89 asphyxia suicides (46.6 percent), 80 firearms-related suicides (41.9 percent) and 15 drug overdose or poisoning suicides (7.9 percent) were identified. Among males, firearms-related suicides and drug overdose or poisoning suicides. Between 2011 and 2015, 89 asphyxia suicides (46.6 percent), 80 firearms-related suicides (41.9 percent) and 15 drug overdose or poisoning suicides (7.9 percent) were identified. Among males, firearms-related suicides (51.3 percent, n=68) were most common, followed by asphyxiation (39.9 percent, n=53) and drug overdose or poisoning suicides (6.8 percent, n=9) (Figure 4). Among females, deaths by suicide where asphyxiation was the means (62.1 percent, n=36) were most common, followed by firearms-related (20.7 percent, n=12) and drug overdose or poisoning suicides (6.8 percent, n=6). While asphyxia was the most common means of death, the proportion of firearms suicide deaths has increased since 2012. As demonstrated in Figure 5, 27.3 percent (n=9) of youth suicides in Colorado in 2012 were firearms suicides. In 2015, however, youth firearms suicides represented 53.1 percent (n=26) of all deaths by suicide among Colorado youth in 2015. This finding merits continued observation.

Of 191 deaths by suicide occurring among youth in Colorado, 41.9 percent (n=80) were the result of firearms. Among all firearms-related suicides, 85.0 percent (n=68) occurred among males. Of the 80 firearms-related suicides, 53.8 percent (n=43) of firearms involved in the death were owned by a biological parent. Additionally, 63.8 percent (n=51) of owners of firearms involved in youth deaths by suicide in Colorado were male.

Figure 5. Youth deaths by suicide occurring in Colorado by means and year, 2011-2015 (n=191)

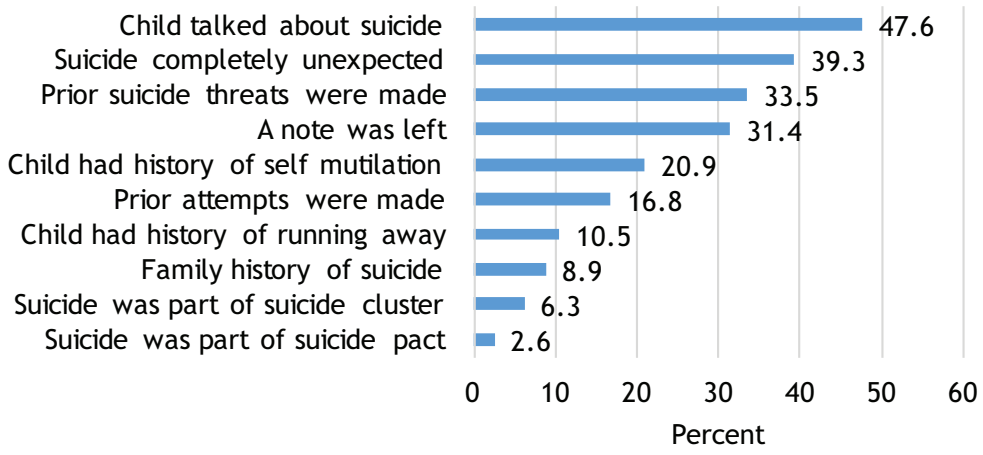


The system also collects information on the storage circumstances for these weapons, including whether the weapon was stored locked and unloaded. Between 2011 and 2015, only 18.8 percent (n=15) of firearms involved in deaths by suicide among youth were stored locked and only 21.3 percent (n=17) were stored unloaded. Information was missing in 48.8 percent (n=39) of cases concerning the locked storage of the firearm and for 56.3 percent (n=45) of cases concerning the loaded storage of the firearm. The Investigative and Data Quality subcommittee of CFPS is currently developing a suicide investigation form in partnership with the Colorado Office of Suicide Prevention, the Colorado Violent Death Reporting System, and numerous other partners which will aid law enforcement and medicolegal death investigators in capturing the most relevant prevention-related circumstance information possible for deaths by suicide in Colorado. Members of the subcommittee hope this form will improve the quality of data CFPS collects on weapon storage and a number of other important elements of these events.

Suicide Circumstances

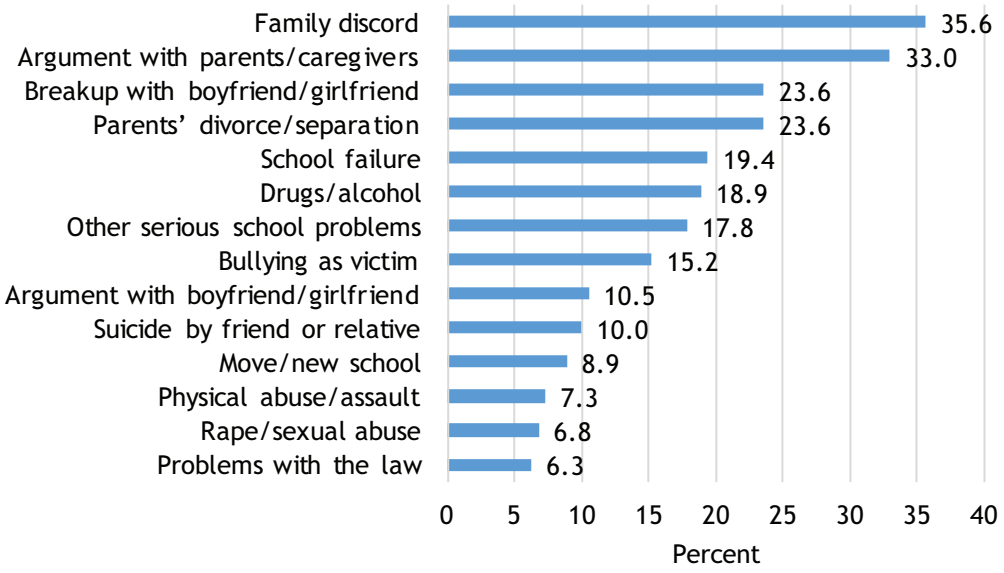
Circumstance information, including details of youth history of suicide-related behavior and personal crises, is collected through CFPS reviews. Between 2011 and 2015, the most common finding associated with suicide deaths included the decedent talking about suicide (47.6 percent, n=91), making prior threats (33.5 percent, n=64) or leaving a note (31.4 percent, n=60) (Figure 6). Suicide completely unexpected was indicated in 39.3 percent (n=75) of suicide deaths identified in CFPS; however, this question has recently undergone revision to tighten the criteria under which this question can be endorsed when other responses are conflicting. Moving forward, when any of the other circumstance are endorsed for a given review, teams will be directed not to endorse the “completely unexpected” response option.

Figure 6. Selected personal crises preceding death for youth deaths by suicide occurring in Colorado, 2011-2015 (n=191)



Information is also collected on acute or cumulative personal crises that may have contributed these suicide deaths. Between 2011 and 2015, the most common personal crisis identified was family discord (35.6 percent, n=68), followed by arguments with parents/caregivers (33.0 percent, n=63) or a breakup with boyfriend/girlfriend (23.6 percent, n=45) (Figure 7). Of the 191 youth ages 10 through 17 years of age who died by suicide, 31.9 percent (n=61) had a history of child maltreatment as a victim. Among those for whom this history was known, 21.9 percent (n=25) experienced physical abuse and 25.4 percent (n=29) experienced emotional abuse. Information on history of child maltreatment was missing or unknown for 40.3 percent (n=77) of suicide deaths among Colorado youth. Moreover, 41.9 percent (n=80) had received prior mental health services, 22.5 percent (n=43) were receiving mental health services at the time of their death and 17.3 percent (n=33) were on medications for mental illness. Finally, 7.3 percent (n=14) had issues preventing them from receiving mental health services.

Figure 7. Selected personal crises preceding death for youth deaths by suicide occurring in Colorado, 2011-2015 (n=191)



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

[1]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.