



**COLORADO** Child  
Fatality  
Prevention  
System

Motor Vehicle/Other Transport-related Deaths, 2011-2015



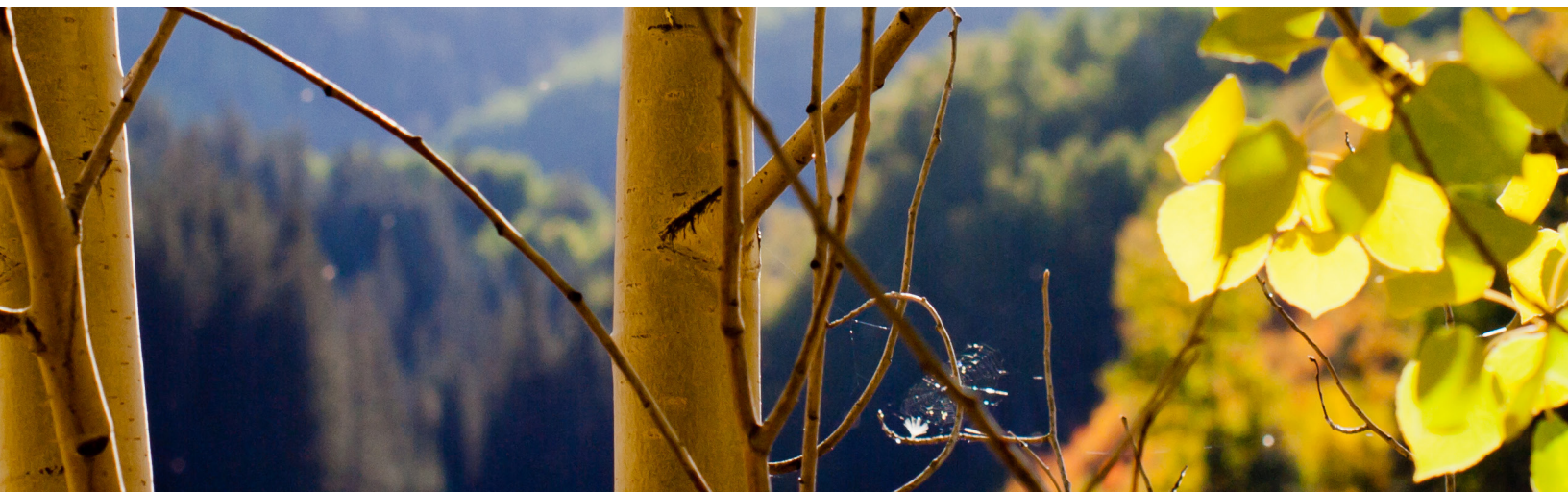


## Introduction

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 summary provides an overview of all deaths occurring in Colorado among those under 18 years of age due to motor vehicle or other transport-related causes. For more information on CFPS data, access additional cause-specific data briefs here: <http://www.cochildfatalityprevention.com/p/reports.html>.



## Overview of Motor Vehicle/Other Transport-related Deaths

Between 2011 and 2015, 213 motor vehicle/other transport-related fatalities occurred among those under 18 years of age in Colorado. Motor vehicle/other transport-related fatalities include deaths of drivers and occupants of passenger vehicles; bicyclists struck by a motor vehicle; pedestrians struck by a motor vehicle; and motorcycle, airplane, all-terrain vehicle (ATV) and farm equipment crashes.

**Figure 1. Motor vehicle/other transport-related fatalities occurring in Colorado by year, 2011-2015 (n=213)**

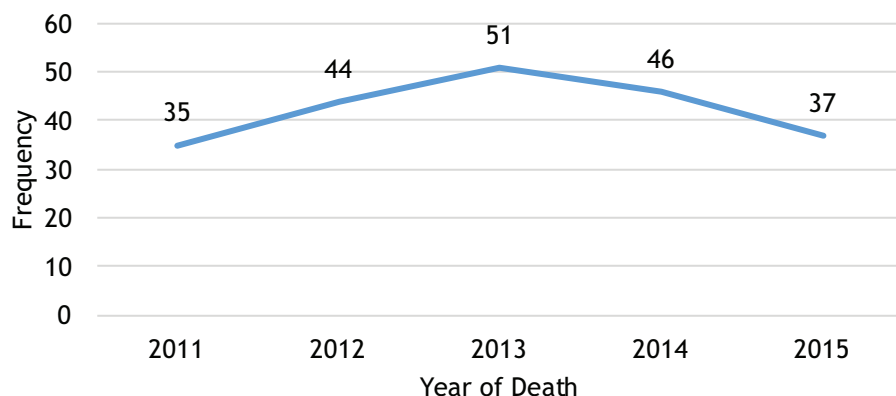
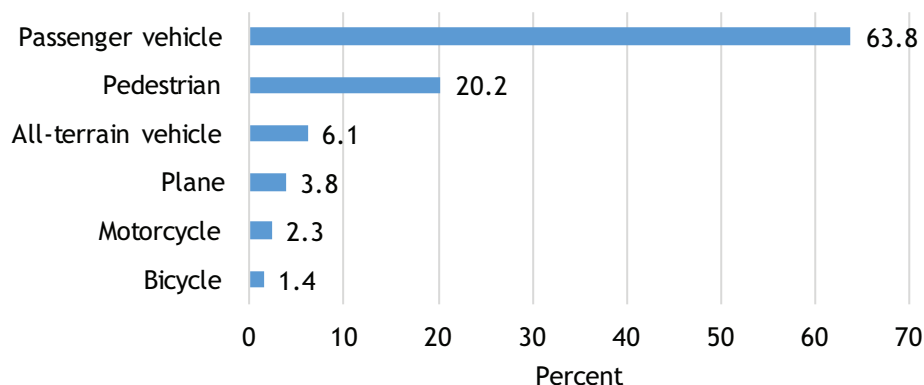


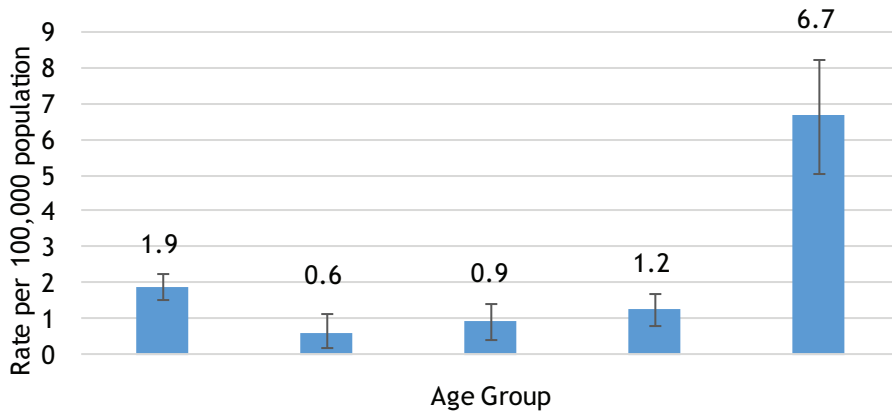
Figure 1 demonstrates the number of motor vehicle/other transport-related fatalities occurring between 2011 and 2015. The number of events ranged from 35 in 2011 to 51 in 2013, representing an average of 42.6 deaths per year. Figure 2 demonstrates that 63.8 percent (n=136) of decedents in motor vehicle/other transport-related fatalities were occupants of passenger vehicles, 20.2 percent (n=43) were pedestrians and 6.1 percent (n=13) were involved in ATV crashes.

**Figure 2. Motor vehicle/other transport-related fatalities occurring in Colorado by type, 2011-2015 (n=213)**



## Passenger vehicle fatalities

**Figure 3. Age-specific rates of passenger vehicle fatalities occurring in Colorado among Colorado residents by age group, 2011-2015 (n=119)**



Between 2011 and 2015, 136 infants, children and youth died in Colorado as a result of passenger vehicle crashes. Of the 136 deaths, 83.1 percent (n=113) of passenger vehicle fatalities occurred among those 8 through 17 years of age. Males represented 62.5 percent (n=85) of all decedents. Figure 3 displays the age-specific rates of passenger vehicle fatalities occurring in Colorado among Colorado residents. The age-specific rate of passenger vehicle crash fatalities was highest

among those 15 through 17 years of age at 6.67 deaths per 100,000 population. This represents a significantly higher rate than for all other age groups. Too few events were identified among those under 1 year of age to report in accordance with applicable privacy standards. While males trended toward a higher rate than females in all age groups, this difference was not statistically significant (data not shown). A modest, yet significant, increase in the rate for Hispanic or Latino decedents (2.77 per 100,000 population) was observed relative to non-Hispanic White decedents (1.57 per 100,000 population) (data not shown). For 122 fatal passenger vehicle crashes, a driver was determined to be responsible for causing the fatal crash. In these instances, the most frequently reported causes of the fatal crash were speeding (49.2 percent, n=60), recklessness (41.8 percent, n=51) and inexperience (30.3 percent, n=37).



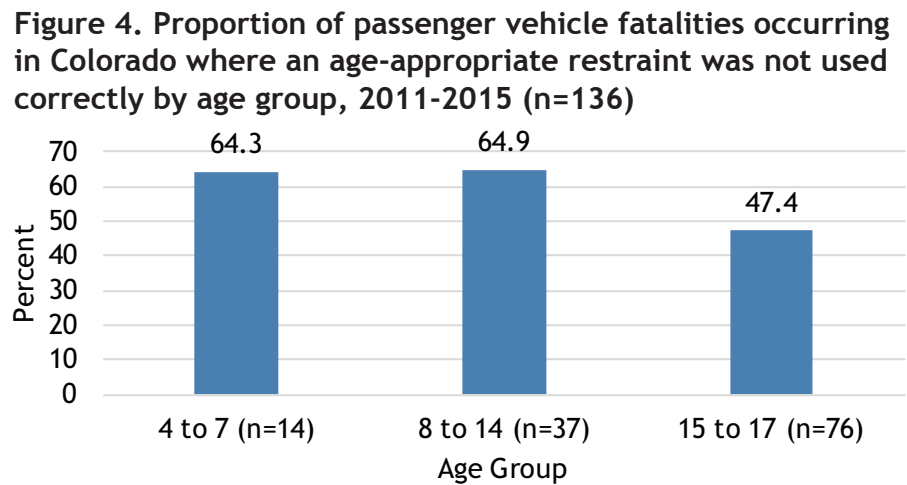


## Restraint Use

Increasing safety belt use is the single most effective way to save lives and reduce injuries due to crashes on Colorado roadways. Studies demonstrate that seat belts reduce serious injuries and death in crashes by about 50 percent.<sup>1</sup> Colorado's child passenger safety law requires:

- Children to be in a rear-facing car seat until 1 year of age;
- Children ages 1 to 3 years to be secured in a rear or forward-facing car seat, depending upon their height and weight;
- Children ages 4 to 7 years to be secured in a forward-facing car seat or booster seat, depending upon their height and weight;
- Children ages 8 to 16 years to correctly use a booster seat or lap and shoulder seat belt.

Of the 136 decedents under 18 years of age who died in Colorado in a passenger vehicle crash between 2011 and 2015, 116 (85.3 percent) had known data on restraint use. Of the 136 decedents, 45.6 percent (n=62) were not in an age-appropriate restraint. An additional 7.4 percent (n=10) of these decedents were improperly restrained (data not shown). Thus, of all decedents of fatal passenger vehicle crashes reviewed by the system for the period, 52.9 percent (n=72) were improperly restrained. Figure 4 demonstrates the proportion of decedents improperly restrained by age group. Too few decedents under 1 and from 1 to 3 years of age were improperly restrained to report in accordance with applicable privacy standards. The highest proportions of improperly restrained decedents of fatal passenger vehicle crashes was observed among those 4 through 7 years of age (64.9 percent, n=9) and those 8 through 14 years of age (64.9 percent, n=24). Among those from 15 through 17 years of age, the proportion improperly restrained decreased slightly to 47.4 percent (n=36).



<sup>1</sup>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/>

## Young Drivers

Between 2011 and 2015 there were 65 infants, children or youth under 18 years of age who died in fatal passenger vehicle crashes involving a young driver (15 to 18 years of age). Sixty-eight young drivers were involved in these crashes. The decedents in these fatal events were most often the young drivers themselves (55.4 percent, n=36) or a passenger of a young driver (43.1 percent, n=28). Young drivers involved in fatal passenger vehicle crashes were indicated to be responsible for 86.2 percent

(n=56) of those 65 fatal passenger vehicle crashes. In addition, 27.7 percent (n=18) of fatal passenger vehicle crashes involving young drivers indicated that drug or alcohol impairment was a circumstance contributing to the crash. Speeding over the limit (56.9 percent, n=37), inexperience (50.8 percent, n=33) and recklessness (46.2 percent, n=30) were the leading circumstances in fatal passenger vehicle fatalities where a young driver was indicated to be responsible for causing the crash. Young drivers were indicated to be in violation of graduated driver licensing (GDL) laws 7.4 percent (n=5) of the time (data not shown). Figure 5 demonstrates the proportion of decedents who were young drivers or passengers of young drivers who were improperly restrained. Of 65 fatalities, 57.1 percent (n=16) of passengers of young drivers who died in fatal passenger vehicle crashes were not properly restrained. Conversely, only 30.6 percent (n=11) of young drivers who died in fatal passenger vehicle crashes were improperly restrained. Nearly all of these passengers were between 15 and 17 years of age indicating that young passengers and peers of young drivers also need to be properly restrained.

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).

**Figure 5. Proportion of decedents of fatal passenger vehicle crashes involving young drivers occurring in Colorado improperly restrained by position, 2011-2015 (n=65)**

