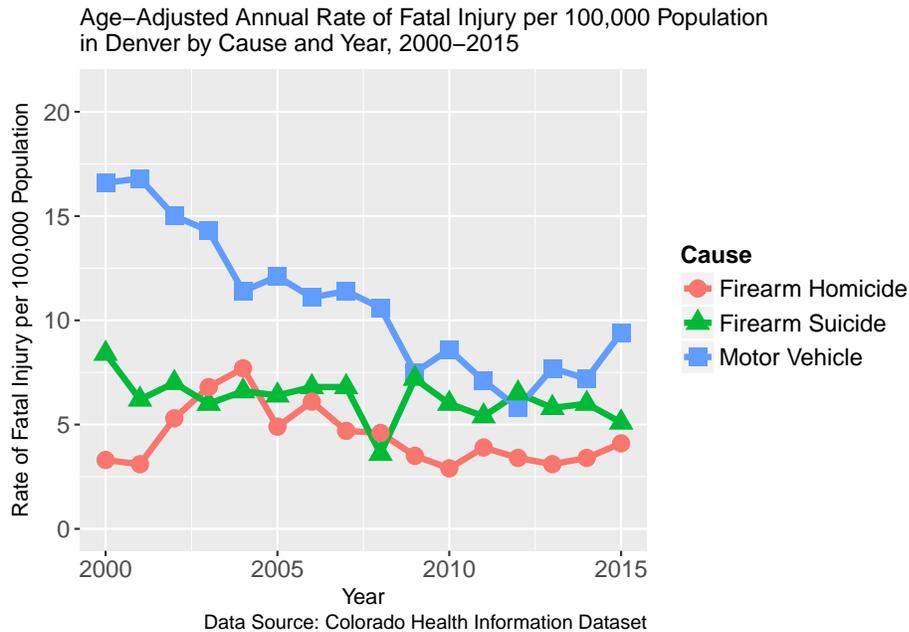


# The Epidemiology of Firearm Injuries in Denver, Colorado: Executive Summary

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# Executive Summary

Unlike other types of fatal injuries, the rates of firearm homicides and firearm suicides in Denver have remained relatively stable during the initial 15 years of the 21st century. The figure below compares the rates of firearm homicides and firearm suicides to the rate of fatal motor vehicle crash injuries from 2000 through 2015.



The rate of motor vehicle crash deaths has decreased - on average - since 2000, even after dramatic improvements in road safety during the second half of the 20th century. Efforts to improve road safety have been systematic, ongoing and coordinated across sectors of the economy. Many public health professionals view the demonstrated success of motor vehicle safety efforts as a model of how firearm injuries might be prevented. After all, a public health approach effectively reduced motor vehicle injuries and deaths without limiting Americans' access to cars, as evidenced by the 11-fold increase in motor vehicles between 1925 and 1997.

The following initiatives from across the U.S. provide diverse examples of how a public health approach to preventing gun violence might work:

- The Colorado Firearm Safety Coalition is a partnership of gun shop owners, firearm trainers and public health researchers working together on firearm safety. Much of the Coalition's work focuses on suicide prevention. The group promotes awareness of and utilization of mental health services. Also, borrowing materials from a similar program in New Hampshire, the group provides tips to firearm retailers and firing range owners who are well-positioned to identify potentially suicidal individuals.
- LOK-IT-UP, based in Washington state's King County, is a public health campaign promoting the use of safe storage devices, such as gun safes and lock boxes. Retailers who offer discounted safe storage devices are recognized on the Public Health - Seattle & King County website. Law enforcement agencies and public health officials raise

awareness about safe storage devices through targeted communications. The campaign addresses both suicide prevention and crime prevention. Safe storage devices may reduce the likelihood a gun will be stolen and used in a crime, as well.

- Cure Violence is an evidence-based program that applies infectious disease control strategies to interrupting the spread of violence throughout communities. Specially-trained violence interrupters and outreach workers identify and mediate potentially lethal conflicts before they occur. Outreach workers assist individuals at a high risk of engaging in violence with access to social services, job training and other risk-reducing interventions. Workers also partner with local business owners and other community leaders to change norms around violence, reinforcing the idea that violence is a preventable health issue. A.I.M. (which stands for At-risk Intervention and Monitoring) - a program based in the Denver Health Emergency Medicine Department - follows a similar approach, intervening with victims of violence to reduce recidivism to the ED.

Strong partnerships across sectors underpin all of these initiatives. They involve stakeholders in the private sector, as well as the public sector. Both the Cure Violence model and the King County program connect public health agencies and public safety agencies, which are increasingly working together on various issues.

All programs are also grounded in epidemiology, the science of public health. A public health approach to injury prevention begins by gathering and analyzing data on the health of the population. This report, summarizing the burden of firearm injuries in Denver, is one step to help develop an evidence base that policymakers and community groups can use to guide action and evaluate campaigns like those described above.

## Key Findings

- There were **326 deaths** due to firearm injuries in Denver from January 1st, 2011 through December 31st, 2015. Among the deceased were men and women, individuals in every age group and people of different races and ethnicities. Our data show that patterns are different for homicides and suicides, but firearm injuries can affect us all.
- The **rate of firearm-related deaths was stable** from 2011-2015.
- The **rate of non-fatal firearm injuries has increased since 2015**. Because it takes time to compile all of the data on deaths, it is unclear whether the rate of firearm-related deaths has increased, as well.
- There are **more firearm-related deaths due to suicide** than any other category of firearm-related death, including homicide.
- **Men are more likely to be injured by firearm than women**. Approximately 84% of firearm homicide victims and 91% of firearm suicide victims were male.
- **Firearm injuries are much more likely to result in death, compared to other injuries**. Of 575 trauma cases in which a paramedic found the patient dead at the scene, 40% were injured by firearm even though firearm injuries accounted for less than 1% of all trauma-related paramedic responses.
- The **patterns of suicide and homicide are very different from one another**.

- The rate of firearm homicide was highest among adolescents and young adults, whereas the rate of firearm suicide was highest among older adults.
- The rate of firearm homicide deaths was significantly higher among African Americans than whites, whereas the rate of firearm suicide deaths was not statistically different between whites and African Americans.
- The rate of firearm homicides was higher in high-poverty neighborhoods, whereas the rate of firearm suicides was not correlated with poverty.
- From data collected several years ago, Denver has a relatively low rate of firearm-related homicides compared to other U.S. cities, but a relatively high rate of firearm-related suicides.