

Monitoring Firearm-Related Deaths in California, 2018

Background

Use of firearms as a mechanism to facilitate violence is a concerning public health problem. Nationally, in 2019 there were 39,707 firearm-related deaths, which equates to 109 firearm-related deaths per day¹. The medical cost associated with these deaths alone was estimated to be over \$175 million in 2010², and the economic impact since then has been estimated to exceed tens of billions of dollars in medical expenses and lost productivity¹. In addition, these deaths have a tremendous impact on the lives of those who are left behind¹. Understanding the patterns and nuances of these deaths is essential to address the issue of firearm violence by developing informed prevention strategies and policies. This report is intended to serve as a resource to better understand the deaths of those impacted by firearm violence so that they can be prevented in the future.

Data Sources

Vital statistics data are collected from death certificates for all violent deaths that occur in California. Enhanced surveillance through CalVDRS is completed for a subset of participating counties by linking vital statistics data to supplemental data abstracted from coroner and medical examiner reports, toxicology reports, and law enforcement reports. Circumstances that contributed to the death that were documented in these reports were abstracted from this supplemental data and included in the surveillance system. This additional data can address the **who**, **where**, **when** and **how** of the deaths to help us try to understand **why** they occurred.

This document summarizes demographic data for firearm-related deaths that occurred to all California residents in 2018. Circumstance data are also summarized for decedents of firearm-related violent deaths that occurred in the subset of 21 participating CalVDRS counties. Circumstance data is reported as a percentage of incidents where circumstances were known; circumstances are known for 88% of firearm-related violent deaths.

About CalVDRS

The California Violent Death Reporting System (CalVDRS) is housed in the Injury and Violence Prevention Branch in the California Department of Public Health. CalVDRS is funded by the Centers for Disease Control and Prevention to conduct statewide surveillance on violent deaths that occur in California. Violent deaths include homicide (including legal intervention deaths that result from law enforcement acting in the line of duty), suicide, unintentional firearm deaths, and deaths of undetermined intent that meet the CalVDRS definition. CalVDRS collects data from multiple sources (i.e., death certificates, medical examiner/coroner reports, and law enforcement reports) in order to gain a more comprehensive understanding of the circumstances surrounding these deaths. The goal of this system is to promote development of data-driven public health prevention strategies that aim to reduce the number of violent deaths that occur each year.

Results

All firearm-related deaths in California Residents

Firearms were used in more than 1 in 3 suicide deaths (36%) and nearly 2 of every 3 homicides (64%). Firearm-related violent deaths comprised 45% of violent death to CA residents (n=3,046) in 2018.

- 1630 were suicides (53%)
- 1360 were homicides (including Legal Intervention) (45%)
- 34 unintentional firearm deaths (1%)
- 22 undetermined intent (<1%)

Majority of firearm-related deaths:

- 48% White
- 88% Male
- 62% in the 25-64 age range

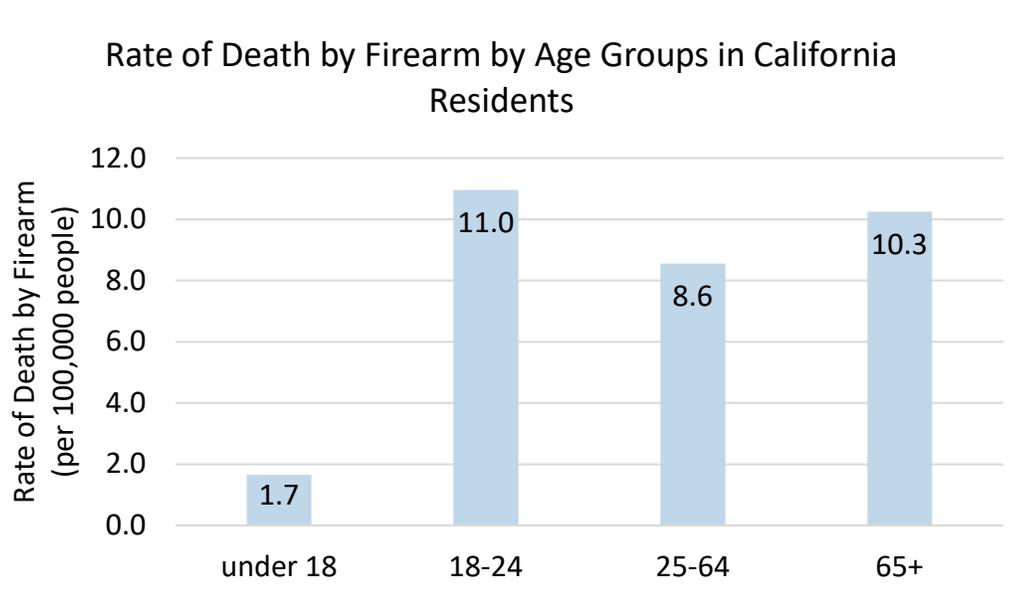


Figure 1: Overall rate of death by firearm by age group in California residents, 2018

- Homicide was the most common manner of death for firearm-related deaths for those under the age of 18 (66%) and 18-24 years old (73%).
- Suicide was the most common manner of death for firearm-related deaths for those 25-64 years old (57%) and those older than 65 years (91%).

Rate of Death by Firearm by Race/Ethnicity in California Residents

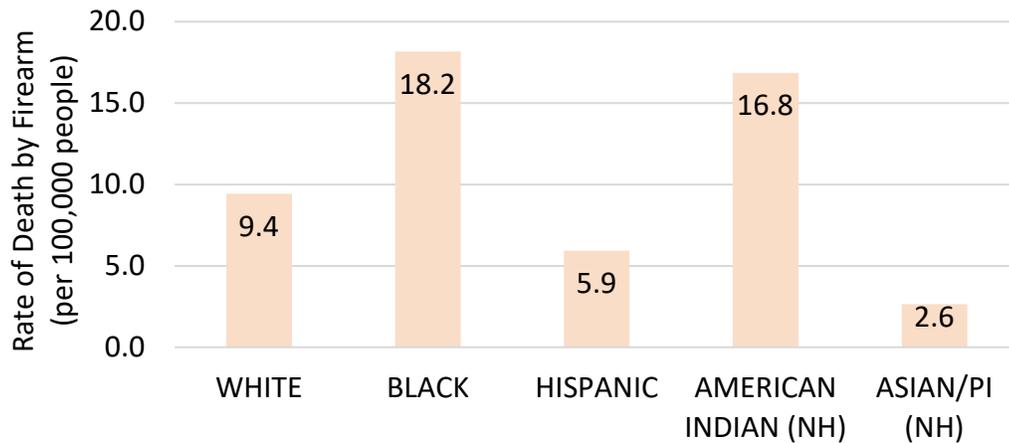


Figure 2: Overall rate of death by firearm by race/ethnicity in California residents, 2018

- Highest rate of homicide death by firearm by race/ethnicity in California residents, 2018 is 14.6 deaths per 100,000 people in the Black population
- Highest rate of suicide death by firearm by race/ethnicity in California residents, 2018 is 8.1 deaths per 100,000 people in the American Indian population, followed by White population (7.8 deaths per 100,000 people)

Rate of Death by Firearm by Sex in California Residents

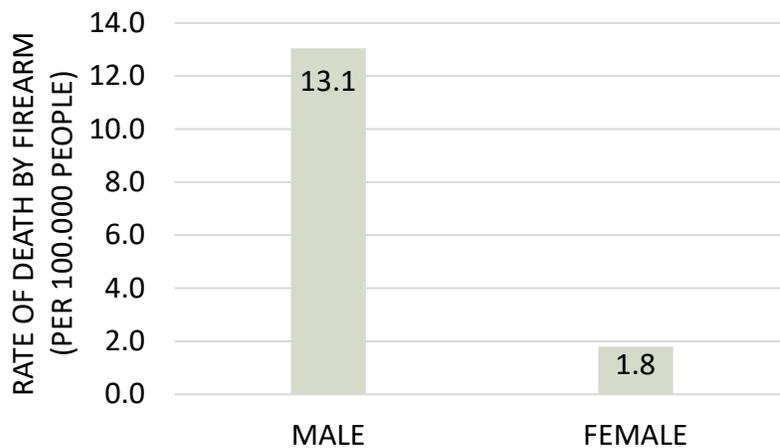


Figure 3: Overall rate of death by firearm by sex in California Residents, 2018

- Firearms were the most common weapon used by males who died by suicide (42%); 17% of females who died by suicide used a firearm
- Nearly 3 out of 4 male homicides (72%) used a firearm as a weapon and over half (52%) of female homicide used a firearm as a weapon

Firearm-related suicide circumstances in CalVDRS Participating Counties

- Of the 795 firearm-related suicide deaths from CalVDRS participating counties 91% (n=723) had at least one circumstance documented
- Circumstances are not mutually exclusive, and more than one can be applicable for a single death
- 34% of those who died due to a firearm-related suicide were diagnosed with a current mental health problem and a quarter (25%) were noted to have been in a depressed mood
- 16% of those who died due to a firearm-related suicide had a history of mental health treatment and 10% were currently receiving mental health treatment
- Younger people who died by firearm-related suicide were most likely to have a history of suicidal thoughts or plans (50%), recently disclose intent to commit suicide (31%), have a history of previous suicide attempts (13%), and leave a suicide note (63%)

MENTAL HEALTH CIRCUMSTANCES	10-17 years (n=16)	18-24 years (n=44)	25-64 years (n=420)	65+ years (n=243)
Current mental health problem	31%	30%	37%	30%
Current mental health treatment	13%	7%	11%	8%
History of mental health treatment	19%	14%	18%	11%
Current perceived depressed mood	31%	27%	24%	28%
History of suicidal thoughts or plans	50%	45%	31%	31%
History of previous suicide attempt	13%	7%	11%	6%
Recently disclosed intent to commit suicide	31%	27%	22%	21%
Left a suicide note	63%	18%	26%	35%

Under 18 years old

31% had a problem with their current or former intimate partner

13% had a problem with a friend

13% experienced school problems

18-24 years old

27% had either alcohol dependence, substance abuse issues, or both

34% had a problem with their current or former intimate partner

14% were involved in an argument or conflict prior to their death

14% experienced job or financial problems

25-64 years old

26% had either alcohol dependence, substance abuse issues, or both

27% had a problem with their current or former intimate partner

13% were involved in an argument or conflict prior to their death

18% experienced job or financial problems that contributed to their death
14% experienced job or financial problems

65 years and older

12% had either alcohol dependence, substance abuse issues, or both

54% experienced physical health problems that contributed to their death

Firearm-related homicide circumstances in CalVDRS Participating Counties

- Of the 714 firearm-related homicide deaths from CalVDRS participating counties 85% (n=609) had at least one circumstance documented
- Circumstances are not mutually exclusive, and more than one can be applicable for a single death
- Older adults (65+ years of age; 69%) were more likely to know the suspect responsible for their death and 14% of firearm-related homicides in that age group involved a family relationship problem
- Younger victims (61%) were more likely to be involved in a gang-related firearm-related homicide than older firearm-related homicide victims (7%)
- Younger victims (under 18 22%; 18-24 28%) were more likely to be involved in a drive-by shooting
- 17% of firearm-related homicides were precipitated by another crime
- Approximately a quarter of those under the age of 65 were involved in argument that resulted in a homicide
- Older adults over the age of 65 were more likely to be victims of random violence (7%) or a homicide victim as a result of being a bystander (10%)
- For firearm-related intimate partner homicides – younger adults are more likely to be involved in a single homicide (under 18 40%; 18-24 67%; 25-64 47%) whereas older adults are more likely to be involved in situation where homicide(s) are followed by a suicide (65+ 69%)

HOMICIDE CIRCUMSTANCES	10-17 years (n=49)	18-24 years (n=134)	25-64 years (n=397)	65+ years (n=29)
Suspect was known to victim	20%	14%	24%	69%
Gang-related	61%	53%	41%	7%
Precipitated by another crime	10%	18%	18%	10%
Drive-by shooting	22%	28%	18%	7%
Drug involvement	2%	5%	5%	7%
Intimate partner violence related	10%	7%	13%	55%
Family relationship problem	4%	4%	4%	14%
Argument led to homicide	25%	23%	26%	7%
Fight between two people	2%	7%	9%	0%
Random violence	2%	1%	2%	7%
Homicide victim was a bystander	6%	2%	2%	10%
Legal intervention deaths	6%	9%	10%	3%

Resources

[Firearm Violence Prevention](#)

National Suicide Prevention Hotline: 1.800.273.TALK (8255) or text 74174. Chat is also available at [SuicidePreventionLifeline.org](#).

References

1. Firearm Violence Prevention. Centers for Disease Control and Prevention Violence Prevention website. Accessed July 7, 2021. <https://www.cdc.gov/violenceprevention/firearms/fastfact.html>.
2. Data & Statistics (WISQARS): Cost of Injury Reports. Center for Disease Control and Prevention website. Accessed July 7, 2021. <https://wisqars.cdc.gov:8443/costT/ProcessPart1FinishOutServlet>.

Notes about CalVDRS data

In 2018, 21 counties participated in CalVDRS enhanced data collection, including: Amador, Butte, Fresno, Humboldt, Imperial, Kern, Kings, Lake, Los Angeles, Marin, Mono, Placer, Sacramento, San Benito, San Diego, San Francisco, San Mateo, Shasta, Siskiyou, Ventura, and Yolo Counties. Together, the CalVDRS counties represent 52% of the violent deaths that occurred in 2018 in California and cover a mix of both urban and rural counties across the state.

CalVDRS is supported by a grant funded by the Centers for Disease Control and Prevention (CDC), National Center for Injury Prevention and Control. CDC Grant Number (5 NU17CE924854).

For more information on CalVDRS please contact IVPB@cdph.ca.gov.