



Monitoring Firearm-Related Deaths in California, 2021

Background

Use of firearms as a mechanism to facilitate violence is a concerning public health problem. Nationally, in 2021 there were more than 48,000 firearm-related deaths, which equates to 133 firearm-related deaths per day¹. The medical cost associated with these deaths alone was estimated to be over \$318 million in 2021 and, when combined with the value of life lost, the economic impact exceeds \$532 billion¹. Understanding the patterns and nuances of these deaths is essential to the development of data-informed prevention strategies and policies that address firearm violence. 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. Statewide rates presented here are calculated using population estimates from the California Department of Finance². 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 deaths 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, what, where, when, and how** of the deaths to help us try to understand **why** they occurred and prevent similar deaths from occurring in the future.

This document summarizes demographic data for firearm-related deaths of California residents in 2021. Data on the circumstance surrounding these deaths are also summarized for decedents of firearm-related violent deaths that occurred in the subset of 31 participating CalVDRS counties. Circumstance data is reported as a percentage of incidents where circumstances were known; circumstances are known for 86% 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 law enforcement-involved fatal encounters, where a person is killed or dies as the result of injuries inflicted by a law enforcement officer), 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 (58 counties)

Firearms were used in more than 1 in 3 suicide deaths (38%) and nearly 3 of every 4 homicides (75%). Firearm-related violent deaths comprised 51% of violent deaths to California residents (n=3,578) in 2021.

- 1,952 were homicides (including law enforcement-involved fatal encounters) (55%)
- 1,575 were suicides (44%)
- 32 were unintentional firearm deaths (1%)
- 19 were of undetermined intent (<1%)

The majority of firearm-related deaths occurred in people who are:

- White (37%) or Hispanic (37%)
- Male (90%)
- In the 25-64 year old age range (64%)

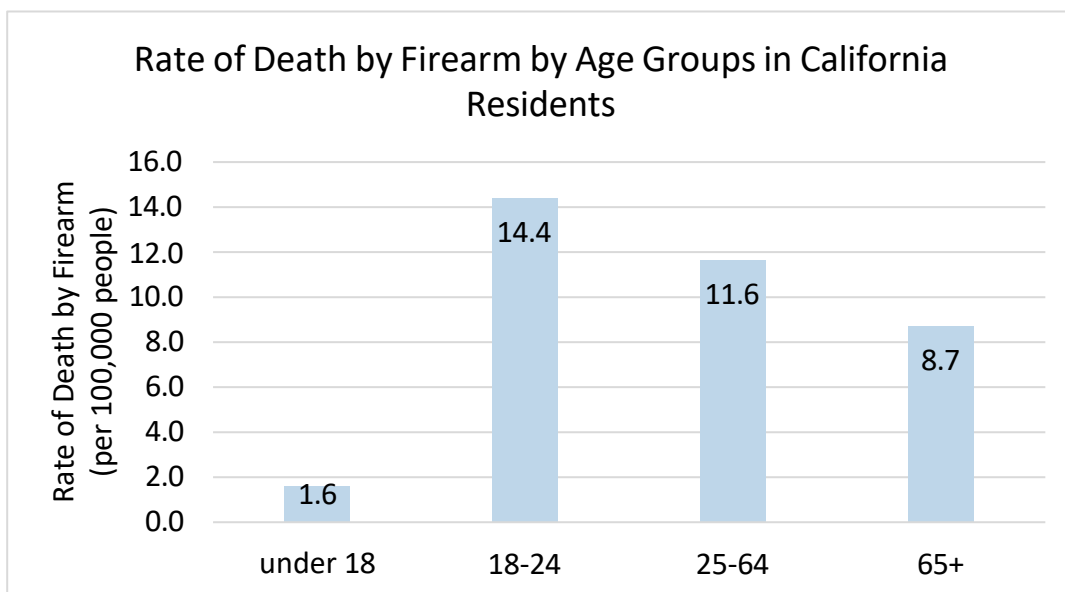


Figure 1: Overall rate of death by firearm by age group in California residents, 2021

- Homicide was the most common manner of death for firearm-related deaths for those under the age of 18 (70%), 18-24 years old (72%), and 25-64 years old (57%).
- Suicide was the most common manner of death for firearm-related deaths for those older than 65 years (93%).
- Less than 1% of firearm victims were under the age of 10.

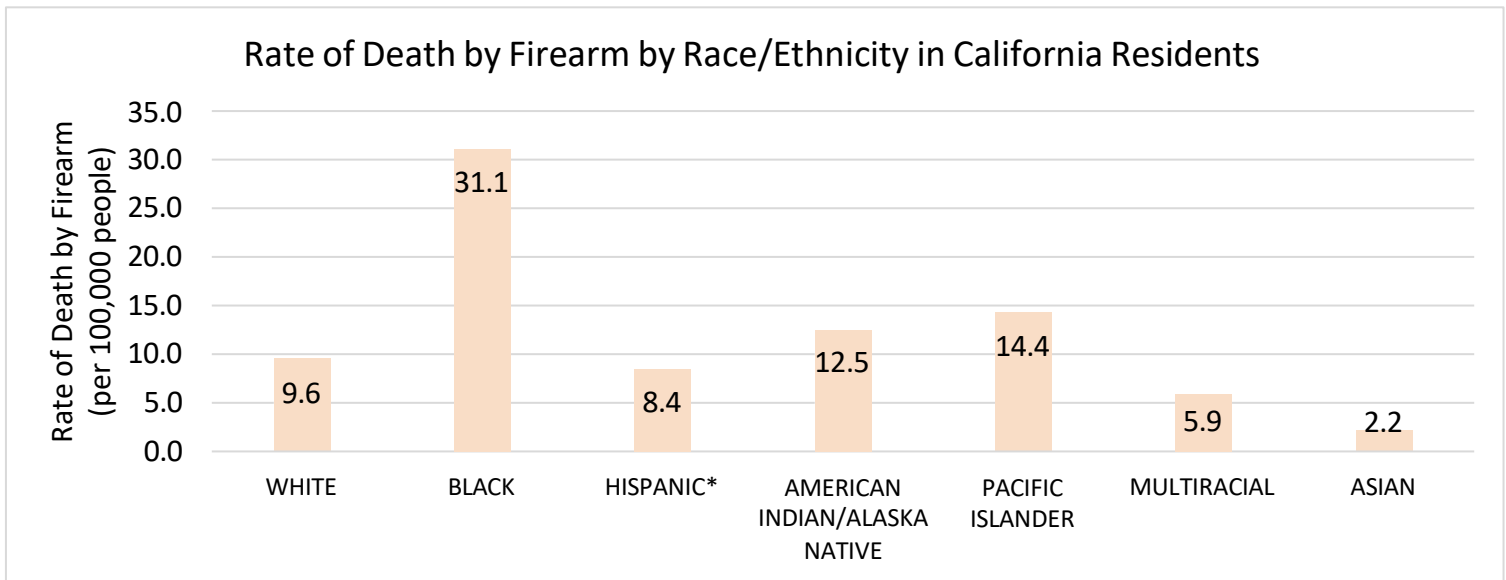


Figure 2: Overall rate of death by firearm by race/ethnicity in California residents, 2021
 Note: *Hispanic of any race

- The highest rate of homicide death by firearm by race/ethnicity in California residents for 2021 was among people who are Black (26.6 deaths per 100,000 people).
- The highest rate of suicide death by firearm by race/ethnicity in California residents for 2021 was among people who are White (7.7 deaths per 100,000 people). The rate of firearm suicide death was also high among people who are American Indian/Alaska Native (6.3 deaths per 100,000 people), however this rate is likely to be unstable due to a small sample size and thus should be interpreted with caution.

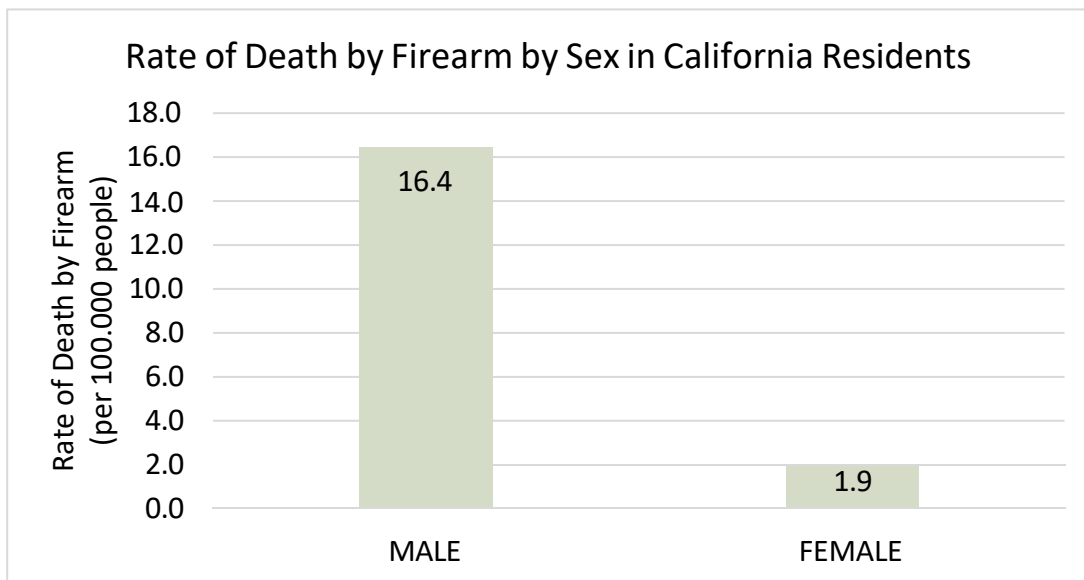


Figure 3: Overall rate of death by firearm by sex in California Residents, 2021

- Firearms were the most common weapon used by males who died by suicide (44%); 18% of females who died by suicide used a firearm.
- More than 3 out of 4 male homicides (79%) used a firearm as a weapon and over half (53%) of female homicides used a firearm as a weapon.

Firearm-Related Suicide Circumstances in CalVDRS Participating Counties (31 counties)

- Of the 891 firearm-related suicide deaths from CalVDRS participating counties, 94% (n=834) had at least one circumstance documented; circumstances are not mutually exclusive—more than one can be applicable for a single death.
- 38% of those who died due to a firearm-related suicide were diagnosed with a current mental health problem and over a quarter (26%) were noted to have been in a depressed mood.
- 19% of those who died due to a firearm-related suicide had a history of mental health treatment and 14% were currently receiving mental health treatment.
- Young adults and adults most frequently experienced intimate partner problems that contributed to their death (18-24 years, 26%; 25-64 years, 26%).

SUICIDE CIRCUMSTANCES	Under 18 years (n=10)*	18-24 years (n=70)	25-64 years (n=462)	65+ years (n=292)	Overall
Current mental health problem	*	39%	43%	29%	38%
Current mental health treatment	*	9%	18%	7%	14%
History of mental health treatment	*	16%	25%	10%	19%
Current perceived depressed mood	*	27%	28%	24%	26%
History of suicidal thoughts or plans	*	24%	35%	32%	33%
History of previous suicide attempt	*	13%	11%	3%	8%
Recently disclosed suicidal intent	*	14%	14%	18%	16%
Left a suicide note	*	21%	26%	36%	30%
Intimate partner problem	*	26%	26%	8%	19%

*Percentages cannot be displayed due to the small sample size.

Firearm-Related Suicide Circumstances in CalVDRS Participating Counties (continued)

Under 18 years old*

Circumstances noted included: a relationship problem with a family member or friend, argument or conflict, experiencing a problem at school or related to school

18-24 years old

17% had either alcohol dependence, substance use issues, or both

26% had a problem with their current or former intimate partner

17% were involved in an argument or conflict prior to their death

7% experienced job or financial problems

25-64 years old

30% had either alcohol dependence, substance use issues, or both

26% had a problem with their current or former intimate partner

17% were involved in an argument or conflict prior to their death

15% experienced job or financial problems that contributed to their death

65 years and older

10% had either alcohol dependence, substance use issues, or both

53% experienced physical health problems that contributed to their death

*Percentages cannot be displayed due to the small sample size.

Firearm-Related Homicide Circumstances in CalVDRS Participating Counties (31 counties)

- Of the 1,093 firearm-related homicide deaths from CalVDRS participating counties, 81% (n=880) had at least one circumstance documented; circumstances are not mutually exclusive—more than one can be applicable for a single death.
- Among older adults (65+ years), 60% were likely to know the suspect responsible for their death and 33% of firearm-related homicides in that age group involved a family relationship problem.
- Younger adults and middle-aged victims were more likely to be involved in a gang-related firearm-related homicide (under 18 years, 39%; 18-24 years, 48%; 25-64 years, 44%) than older firearm-related homicide victims (65+ years of age, 7%).
- 14% of firearm-related homicides were precipitated by another crime.
- 40% of those aged 65 and older were involved in an argument that resulted in a homicide.
- Firearm-related intimate partner homicides comprised 5% of total firearm-related homicides – those aged 25-64 years were more likely to be involved in a homicide followed by a suicide incident (18%) compared to all other types of intimate partner homicides (i.e., single homicide, multiple homicide). Younger adults

(18-24 years) and those aged 25-64 years were involved in single homicide incident related to intimate partner violence (18-24 years, 71%; 25-64 years, 72.5%) at a similar proportion.

HOMICIDE CIRCUMSTANCES	Under 18 years (n=44)	18-24 years (n=194)	25-64 years (n=627)	65+ years (n=15)*	Overall
Suspect was known to victim	25%	10%	16%	60%	16%
Gang-related	39%	48%	44%	7%	44%
Precipitated by another crime	9%	12%	16%	7%	14%
Drive-by shooting	20%	22%	19%	20%	20%
Drug involvement	2%	3%	3%	0%	3%
Intimate partner violence related	0%	4%	6%	7%	5%
Family relationship problem	0%	<1%	1%	33%	2%
Argument led to homicide	16%	23%	25%	40%	24%
Physical fight between two people	0%	5%	5%	7%	5%
Random violence	2%	2%	1%	0%	1%
Homicide victim was a bystander	5%	1%	1%	0%	1%
Law enforcement-involved fatal encounter	2%	4%	10%	7%	8%

*Percentages are likely to be unstable due to the small sample size and thus should be interpreted with caution.

Opportunities for Prevention

A focus on firearms can prevent suicide and homicide.

Firearms were used in over one-third of all suicides and in 44% of suicides among males. Firearms were also the fatal weapon for most victims of homicide (75%). Strategies to facilitate safe firearm storage or those that may limit access to firearms in certain cases (e.g., gun locks, gun safes, gun violence restraining orders, youth, individuals at risk of harming themselves or others) may help to prevent these deaths. Additionally, strategies to facilitate a culture of firearm safety (e.g., safe and secure gun storage, training and licensing for owners, engagement with responsible gun dealers and owners in identifying solutions to violence) would further help prevent these deaths in the future.

While we strive to highlight important data, we cannot include all the data that we would like to. Please visit our [CalVDRS Data Dashboard](#) and the [California Firearm Injury Dashboard](#) to review more data.

Resources

Homicide Prevention Resources:

[Firearm Violence Prevention](#)

[Preventing Intimate Partner Violence Across the Lifespan: A Technical Package of Programs, Policies, and Practices](#)

[Youth Violence Prevention: Resource for Action](#)

Suicide Prevention Resources:

Know the Signs

Every day in California friends, family and co-workers struggle with emotional pain. And, for some, it's too difficult to talk about the pain, thoughts of suicide, and the need for help. Everyone can play a role in

suicide prevention by learning the warning signs of suicide, finding the words to reach out to a loved one, and knowing where to turn for help. Visit [Know the Signs webpage](#) to learn more about suicide prevention.



The Centers for Disease Control and Prevention (CDC), [Suicide Prevention Resource for Action](#).

988 Suicide and Crisis Lifeline

Call or text 988. Chat also available at 988lifeline.org.



References

1. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. (2005) [2023 Nov 27]. Available from URL: www.cdc.gov/injury/wisqars.
2. California Department of Finance, [Report P-3: Complete State and County Population Projections Dataset](#), Vintage 2023 release (2023.7.19).

Notes about CalVDRS data

In 2021, 31 counties participated in CalVDRS enhanced data collection, including: Amador, Butte, Colusa, Fresno, Glenn, Humboldt, Imperial, Kings, Lake, Lassen, Los Angeles, Mendocino, Merced, Modoc, Mono, Orange, Placer, Sacramento, San Benito, San Diego, San Francisco, San Luis Obispo, San Mateo, Santa Cruz, Shasta, Siskiyou, Solano, Sonoma, Tehama, Ventura, and Yolo Counties. Together, the CalVDRS counties represent 62% of the violent deaths that occurred in 2021 in California and cover a mix of both urban and rural counties across the state.

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

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