



Firearm Injuries

Firearm Injury Emergency Department Visits, Hospitalizations, and Deaths in Washington State

Examination of firearm violence and its impact on communities and diverse populations, is growing at the national, state, and local level. The Centers for Disease Control and Prevention (CDC) set a strategic priority for 2020-2024 to increase understanding of the causes of firearm-related injuries and deaths, and effective prevention through research. In 2020, CDC committed \$7.8 million to fund 16 firearm violence research awards, including to the University of Washington.

This report details some of the key firearm-related findings the Washington State Department of Health (DOH) has collected in the last few years through the view of:

- Emergency Department (ED) visits – when a patient receives care in a Washington emergency department.
- Hospitalizations – when a patient is admitted and receives inpatient care at a Washington hospital.
- Deaths – when a Washington resident dies, and “firearm” was listed as the mechanism of injury on the death certificate.

Key Findings

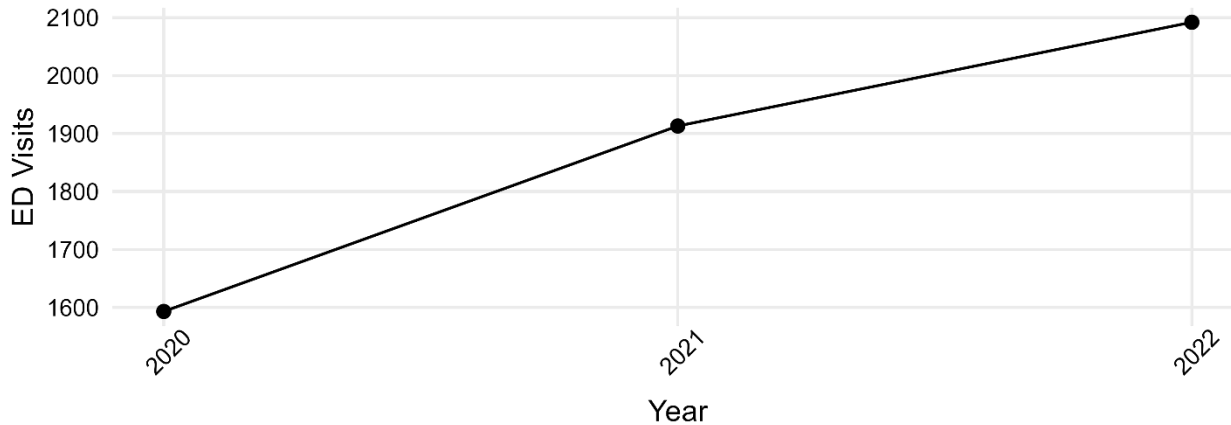
- Firearm injury ED visits, hospitalizations, and deaths **increased from 2020 to 2022**.
- Patients aged **25-44 years** had the highest number of firearm injuries and accounted for **approximately 1/2** of all firearm injury ED visits and hospitalizations and 37% of all firearm injury deaths.
- **Younger patients (0-24 years)** were heavily impacted and accounted for **approximately 1/3** of all firearm injury ED visits and hospitalizations and 17% of all firearm injury deaths.
- **Males** were heavily impacted and accounted for 86% of firearm injuries, despite only representing approximately 46% of all ED visits and hospitalizations in Washington.
- **Black or African American** patients were disproportionately impacted by firearm injuries, which reflect [structural issues related to/resulting from racism, poverty, segregation, disinvestment, and other social factors experienced by communities throughout Washington.](#)
- A majority of firearm deaths were suicide-related, took place in a house or apartment, and involved a handgun.

Emergency Departments (ED)

In **2022**, there were **2,092** ED visits for firearm injuries in Washington. This is a **9.4% increase from 2021** and a **31.3% increase from 2020**, which had 1,913 (2021) and 1,593 (2020) firearm injury ED visits.

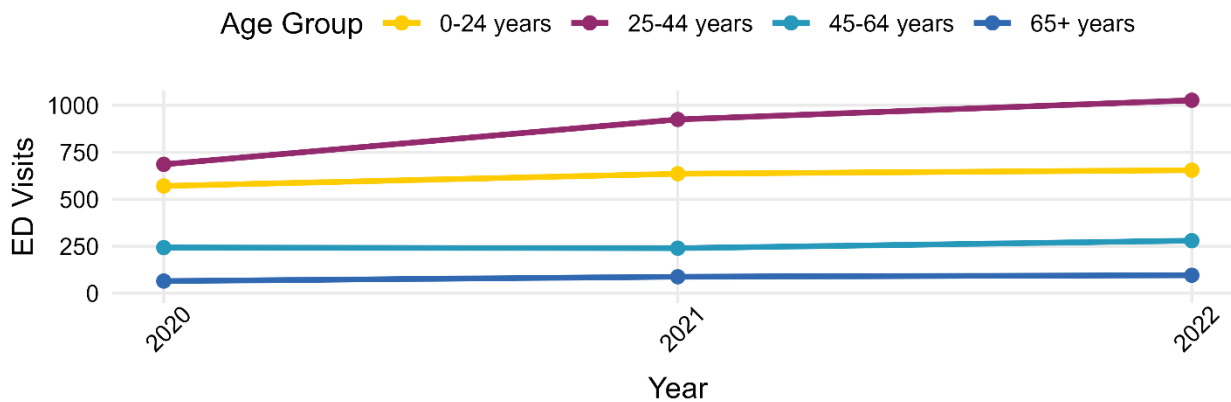
Source: Washington State Department of Health -- Rapid Health Information NetwOrk (RHINO)

Figure 1. Yearly count of firearm injury ED visits in Washington (2020-2022)



People ages (25-44) had the largest increase in firearm injury ED visits with **1,027** in 2022 compared to **686** in 2020 (49.7% increase).

Figure 2. Yearly count of firearm injury ED visits in Washington, by age group

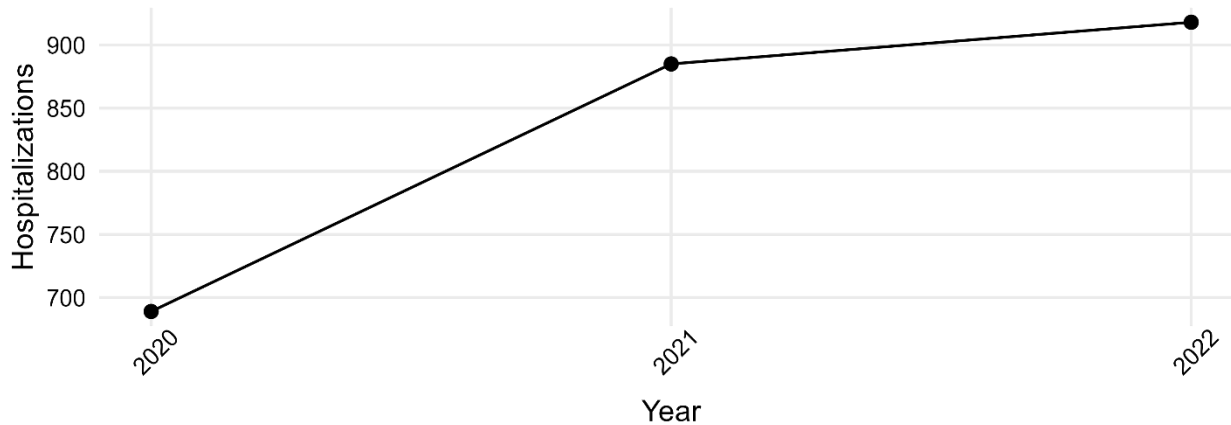


Hospitalizations

In **2022**, there were **918** firearm injury hospitalizations. This represents a **3.7% increase from 2021** and a **33.2% increase from 2020**, which had 885 (2021) and 689 (2020) firearm injury hospitalizations.

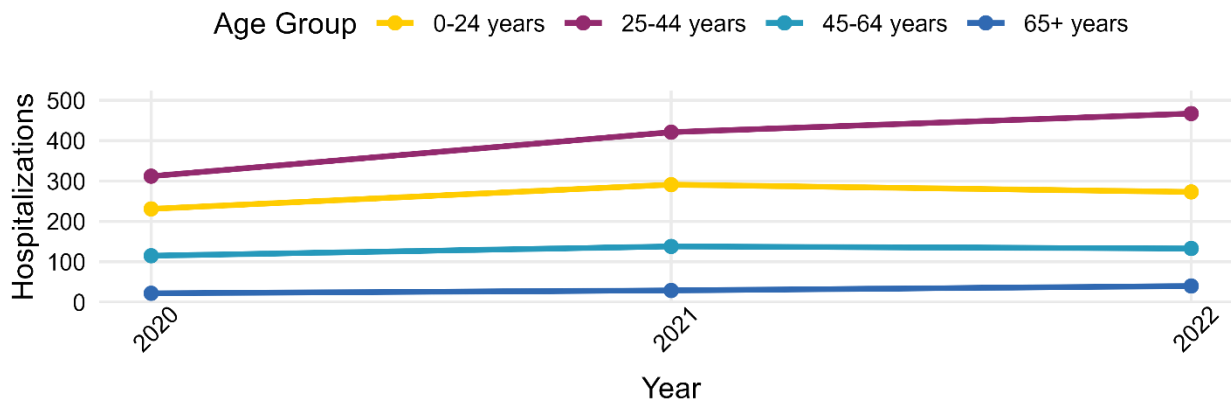
Source: Washington State Department of Health -- Rapid Health Information Network (RHINO)

Figure 3. Yearly count of firearm injury hospitalizations in Washington (2020-2022)



People ages 25-44 had the largest increase in firearm injury hospitalizations with **467** in 2022 and **312** in 2020 (a 49.7% increase).

Figure 4. Yearly count of firearm injury hospitalizations in Washington, by age group

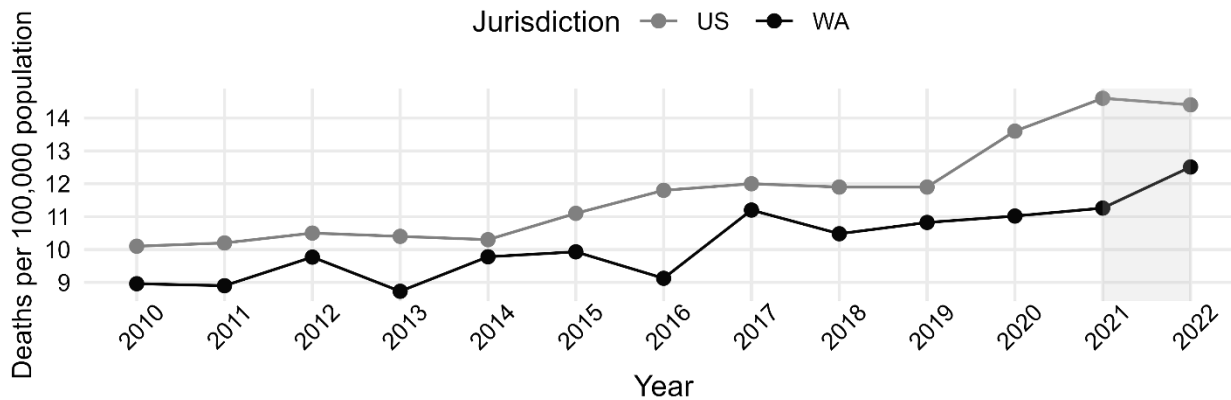


Death Summary

In 2022, there were **1,015** firearm deaths among Washington residents. This represents a **13.3% increase from 2021** and a **17.6% increase from 2020**, which had 896 (2021) and 863 (2020) firearm deaths.

Sources: Washington Death Certificate Data and the Washington Violent Death Reporting System (WA-VDRS)

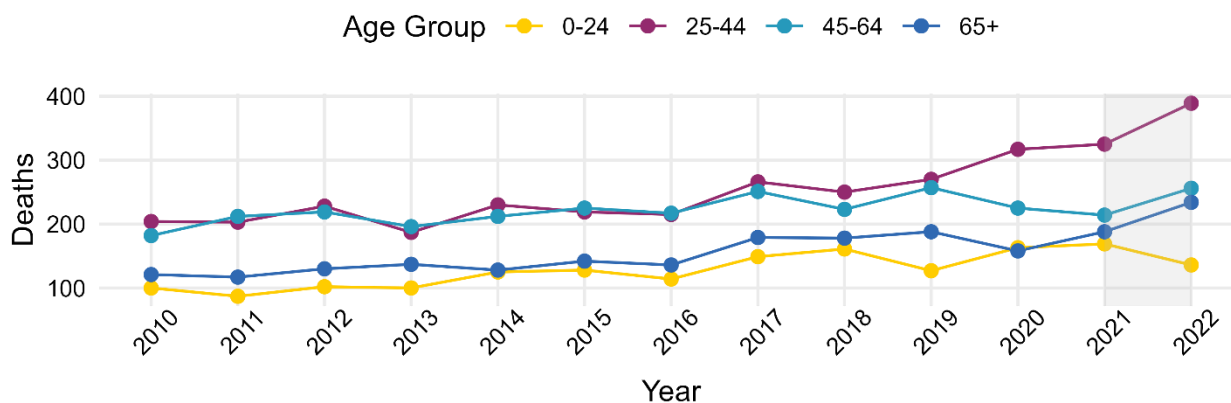
Figure 5. Yearly age-adjusted rate of Washington resident firearm deaths (2010-2022)



Source: Washington Death Certificate Data. 2022 data is preliminary.

Since 2010, Washington residents ages 25-44 had the largest increase in firearm deaths. Firearm deaths among residents 45 or older also increased since 2020.

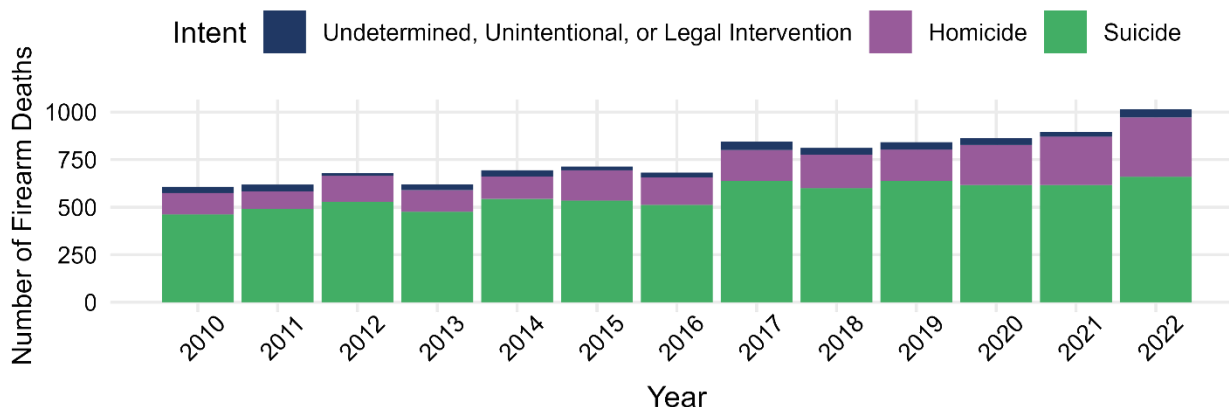
Figure 6. Yearly count of Washington resident firearm deaths, by age group



Source: Washington Death Certificate Data. 2022 data is preliminary.

Deaths by suicide make up most firearm deaths among Washington residents; however, homicide deaths by firearm have been increasing since 2019.

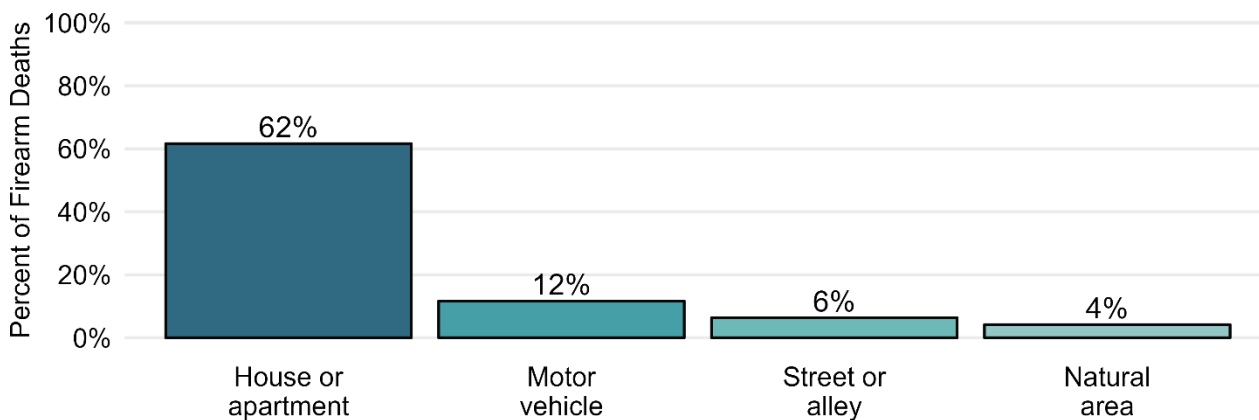
Figure 7. Intent of Washington resident firearm deaths (2010-2020)



Source: Washington Death Certificate Data. 2022 data is preliminary.

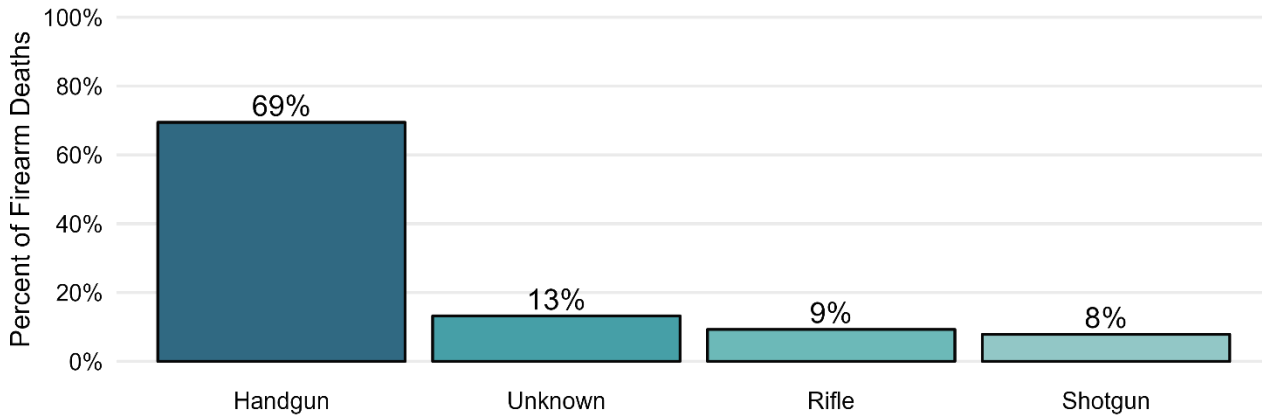
Additional information related to intent, location, firearm type, and more is collected for firearm deaths that happened in Washington, regardless of residency. This additional info is often called ‘known circumstance.’ In 2021, this information was collected for 841 firearm-related deaths. Most of these deaths happened in a home (62%) and involved a handgun (69%).

Figure 8. Locations of firearm deaths (2021)



Source: Washington Violent Death Reporting System (WA-VDRS)

Figure 9. Type of firearm used in firearm deaths (2021)

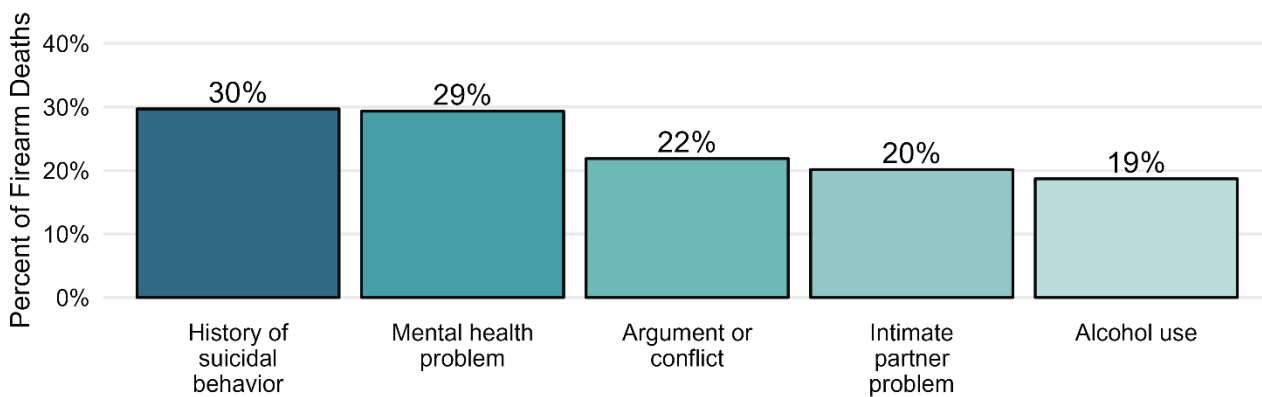


Source: Washington Violent Death Reporting System (WA-VDRS)

Among deaths where additional information was known:

- 30% had a history of suicidal behavior.
- 29% had a documented history of mental health diagnosis.
- 22% had a recent argument or conflict.
- 20% were experiencing an intimate partner problem.
- 19% were using alcohol prior to death.

Figure 10. Most frequent circumstances surrounding firearm deaths (2021)



Source: Washington Violent Death Reporting System (WA-VDRS)

Table 1. Demographic information of firearm injury patients and deaths (2020-2022)

	Emergency Department Visits ¹		Hospitalizations ¹		Deaths ²	
	Firearm ¹ (n = 5,598)	All ED Visits ¹ (n = 7,700,723)	Firearm ¹ (n = 2,492)	All Hospitalizations ¹ (n = 1,991,827)	Firearm ² (n = 2,774)	Washington Population ³
Age Group						
0-24	33%	24%	32%	18%	17%	30%
25-44	47%	29%	48%	21%	37%	28%
45-64	14%	24%	15%	22%	25%	25%
65+	4%	24%	4%	38%	21%	17%
Sex						
Female	13%	53%	12%	55%	13%	50%
Male	86%	47%	88%	45%	87%	50%
Race						
American Indian or Alaska Native	4%	2%	3%	2%	2%	2%
Asian	2%	4%	3%	5%	3%	10%
Black or African American	23%	7%	24%	5%	9%	4%
Multiracial	1%	1%	3%	0%	4%	10%
Native Hawaiian or Other Pacific Islander	2%	1%	2%	1%	1%	1%
Other Race	14%	12%	12%	9%	-	-
White	47%	69%	48%	71%	79%	73%
Ethnicity						
Hispanic or Latino	19%	13%	18%	8%	12%	14%
Not Hispanic or Latino	74%	83%	75%	85%	88%	86%

- 1) Data Source: Washington State Department of Health – Rapid Health Information NetwOrk (RHINO)
- 2) Data Source: Washington State Department of Health – Washington Death Certificates
- 3) Data Source: Washington State Population Interim Estimates (PIE), March 2022
- 4) "-" Other Race category is not present within Washington Death Certificate Data.
- 5) "Unknown" and "Not Reported" values have been excluded from this table. Percentages are rounded to the nearest full number. Therefore, estimates may not add exactly to 100% within demographic categories.

What Can You Do to Prevent Firearm Injuries and Deaths

- 1) **Store firearms safely.** This includes putting a firearm in locked storage, storing ammunition and firearms separately, and installing a trigger lock on a firearm to prevent others from using it.
- 2) **Call 988** to get support for yourself or loved ones related to suicidal thoughts, mental health crises, substance use concerns, and more. The 988 lifeline is free, confidential, available 24 hours 7 days a week, and has interpretation services available for over 240 languages and dialects.
- 3) **Consider temporarily storing firearms away from your home** if you or loved ones are depressed, suicidal, or are abusing drugs or alcohol. The [University of Washington Firearm Injury & Policy Research Program](#) has recently created a map of [temporary safe storage sites in Washington](#).
- 4) If you or loved ones are at substantial risk of harming yourself or others, civil orders such as [Voluntary-Do-Not-Sell](#) or [Extreme Risk Protection Orders](#) can be used to petition temporary restrictions on purchasing or possessing firearms.

Strategies to Address Firearm Violence

Public calls to examine all forms of firearm violence and its impact on communities and diverse populations are growing at the national, state, and local level. In 2016, Gov. Jay Inslee released [Executive Order 16-02 \(EO 16-02\)](#), which addresses the need for a public health approach in reducing firearm fatalities and suicides. Since firearm suicides have historically accounted for two-thirds of firearm deaths, the Washington State Department of Health Injury and Violence Prevention (IVP) program has focused firearm prevention strategies on suicide prevention, increasing the capacity of statewide crisis services, and reducing access to lethal means to prevent suicide.

National Violent Death Reporting System (NVDRS): As of 2019, NVDRS is collecting violent death data from all counties to better understand the circumstances surrounding violent deaths that occur in the state including homicide, suicide, intimate partner violence, and other deaths. Analytics are underway to support evidence-based firearm violence prevention measures. IVP tracks the progress of Executive Order 16-02 and issues an [annual report](#).

Suicide Prevention Plan: [Washington's Suicide Prevention Plan](#) outlines several strategic goals. Among them are:

- Helping individuals, families, and communities understand that they have a role in improving community behavioral health and preventing suicide.
- Screening for and limiting access to lethal means to reduce suicide risk for people in crisis.

A key step toward achieving these goals is educating health professionals to ask patients and clients about suicidal thinking and to encourage safe storage of firearms. Starting in 2014, the Washington Legislature has passed successive laws requiring health professionals to take suicide prevention training, which includes a safe storage component. The state legislature has passed recent temporary firearm transfer laws and laws calling for firearm safety measures.

In 2018, [the Bree Collaborative](#), established by the state legislature, convened a panel of experts that issued recommendations for the primary care field to address lethal means safety as part of its screening process for all patients over 13 years old. Safe storage of firearms is estimated [to reduce the risk of suicide by 50 to 75 percent](#).

For firearm suicide prevention, there is special focus on collaboration and partnership to educate firearm retailers and work toward improved firearm safety training. IVP coordinates with a range of partners such as The Safer Homes Coalition, Seattle Children's Hospital, the Lock-It-Up campaign, Harborview Injury Prevention and Research Center, and other groups dedicated to educating firearm owners on safe storage options and raising awareness of the risks related to easy firearms access.

Data Notes

* represents data points with small numbers (1 to 9), which were suppressed in accordance with [Washington State Department of Health Standards for Reporting Data with Small Numbers](#).

Emergency Department (ED) & Hospitalization

The Washington State Department of Health's [Rapid Health Information NetwOrk \(RHINO\)](#) collects near real-time health encounter data from participating hospitals and clinics throughout Washington. Washington state law ([RCW 43.70.057](#)) requires emergency departments to report each healthcare visit to the RHINO program in a timely fashion, usually within 24 hours. As of May 2020, 100% of non-federal EDs are reporting data to RHINO. Data include demographic and visit information such as gender, race, ethnicity, age, coded diagnoses, and free-text information such as chief complaint narratives.

ED visits and hospitalizations include Washington residents as well as individuals who reside outside of Washington. Relevant visits were identified by searching for firearm injury indicators within various fields of the visit record including diagnosis codes and clinical notes.

Death

Death Certificate Data

Death certificate data is collected and managed by the Washington State Department of Health, Center for Health Statistics (CHS). 2022 Washington Death Certificate data included is considered preliminary and may change. The data was last updated on August 21, 2023. National death data included in this document is from [CDC Wonder](#) (Figure 5). Cause of death information is provided by a certifying physician, medical examiner, or coroner. The causes of death are then classified using the International Classification of Diseases – 10th revision (often referred to as ICD-10 codes). The [Injury and Violence Prevention](#) team works with the CHS to analyze injury deaths.

Firearm deaths are defined as any death with any of the following ICD-10 codes in the underlying cause of death field:

- X72-X74 (Suicide)
- X93-X95 (Homicide)
- W32-W34 (Unintentional)
- Y22-Y24 (Undetermined)
- Y35.0 (Legal Intervention)

Washington State Violent Death Reporting System (WA-VDRS)

The Washington State Violent Death Reporting System (WA-VDRS) data captures all types of violent deaths, including homicides, suicides, legal intervention, and unintentional firearm deaths. It also includes cases where cause of death is undetermined. It pools more than 600 unique data elements, including circumstances about the deaths from death certificates, medical examiner and coroner reports, law enforcement incident reports, and toxicology reports. These data help determine the magnitude of trends for specific causes of death, identify risk factors associated with deaths, and guide violence prevention programming.

The Washington State Department of Health is supported by the Center for Disease Control and Prevention (CDC) National Center for Injury Prevention and Control's [Firearm Injury Surveillance Through Emergency Rooms \(FASTER\) Grant](#) to support the dissemination of healthcare encounter data related to firearm injuries the state of Washington.