# Gun Violence in the United States 2023

## **EXAMINING THE GUN SUICIDE EPIDEMIC**





The Center for Gun Violence Solutions and The Center for Suicide Prevention

## **About This Report**

## About the Johns Hopkins Center for Gun Violence Solutions

The Center for Gun Violence Solutions at the Johns Hopkins Bloomberg School of Public Health addresses gun violence as a public health emergency and uses objective, nonpartisan research to develop solutions which inform, fuel, and propel advocacy to measurably lower gun violence. Home to some of the nation's leading gun violence prevention experts, the Center conducts rigorous research to drive solutions to save lives. In addition to our researchers, the Center's team includes expertise in the fields of policy, law, implementation, community engagement, and communications. This comprehensive advocacy skill set enables us to impact all phases of the policy change process. Because gun violence disproportionately impacts vulnerable populations, we center our work on addressing these disparities and seek insights from those most affected to develop meaningful solutions. Our team collaborates with legislators, community members, law enforcement, health care providers, fellow advocates, and researchers across the country to drive effective and impactful gun violence solutions.

## About the Johns Hopkins Center for Suicide Prevention

The Johns Hopkins Center for Suicide Prevention is the nation's first center housed within a school of public health dedicated to advancing suicide prevention through comprehensive public health approaches. Combining rigorous epidemiologic research, clinical expertise, and innovative methodologies, the Center addresses suicide prevention at both the population and individual levels. Our multidisciplinary team works to understand and reduce rising suicide rates and related disparities that disproportionately impact vulnerable communities. We provide training and resources for researchers, clinicians, policymakers, and families bereaved by suicide to support the translation of evidence into effective, equitable prevention strategies. Through collaboration with state and federal agencies, local partners, health care providers, and those personally affected by suicide, the Center serves as a trusted national resource committed to data-driven, scalable solutions that save lives.

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## Data Source

This report outlines gun death data from 2023, the most recent year finalized data is available. All data were accessed using the Centers for Disease Control's Underlying Cause of Death database, part of the Wide-ranging Online Data for Epidemiologic Research (WONDER) database. The Underlying Cause of Death database contains data based on death certificates for U.S. residents and is the most reliable national source of gun death data available in the U.S.



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Gun Violence in the United States 2023

## Introduction

## 46,728 people died from gun violence in the U.S. in 2023. Each day, an average of 128 people died from gun violence—one death every 11 minutes.

Disturbingly, gun suicides reached an all-time high in both the total number of deaths and the overall rate. Overall, firearms remained the leading cause of death for young people 1 to 17 for the past four years, accounting for more deaths than car crashes, overdoses, or cancers. In 2023, there were 2,566 gun deaths among young people including 118 from ages 1–4, 116 from ages 5–9, 530 from ages 10–14, and 1,802 from ages 15–17. While firearms are the leading cause of death overall for young people ages 1 to 17, they are among the leading causes, but not always the top cause, for some individual youth age groups.

Gun suicides have accounted for the majority of all gun deaths each year since 1995. Gun suicides have increased in the last three years, while gun homicides have declined. In this year's report, we examined the rise of gun suicides, their disproportionate impact on vulnerable populations, and policy recommendations to address the gun suicide epidemic. For more information on public health interventions, please see the companion piece to this report, <u>From</u> <u>Crisis to Action: Public Health Recommendations for Firearm</u> <u>Suicide Prevention.</u>

While the burden of gun violence in the U.S. remains high, there are evidence-based, equitable solutions to save lives. These solutions are supported by most people, including gun owners.<sup>1</sup> Despite this broad support, many policymakers have been unwilling to heed the evidence and enact policies that will save lives.

Each year, it is our mission to provide policymakers and the public accurate and up-to-date data on gun fatalities and illustrate the enormous toll gun violence has on our country. This report is an update to **Gun Violence in the United States 2022: Examining the Burden Among Children and Teens.** It uses firearm mortality data listed on death certificates that are provided to the Centers for Disease Control and Prevention (CDC) and made available through the CDC WONDER Underlying Cause of Death database. The finalized data for 2023 was made available in January 2025.<sup>2</sup> The lag in data availability makes it challenging to understand the burden of gun violence in real time; however, understanding the magnitude of this issue, even with the time lag, is essential to inform public health interventions to reduce violence.

We recognize that each data point discussed in this report is a person who died by gun violence. This loss has an immeasurable impact on families, friends, and communities; data can only partly illuminate the true burden of gun violence. In addition to analyzing the data, we must listen to and uplift the voices of those directly impacted by gun violence, their loved ones, and their communities.

#### In 2023, someone was **killed by a gun** every 11 minutes



## In 2023, someone died of **gun suicide** every 19 minutes



Nearly **six out of every 10 gun deaths** were suicides in the U.S.





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## **2023 Five Fast Facts**

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## An Overview of U.S. Gun Deaths in 2023

In 2023, 46,728 individuals died from gun violence in the United States—the third-highest annual total ever recorded. Despite a 3.4% decline in the overall gun death rate from 2022—equating to 1,476 fewer deaths—this reduction was largely driven by a decrease in gun homicides. Alarmingly, gun-related suicides continued to rise, reaching record levels. These data highlight the urgent need for targeted, evidence-based public health interventions to address this growing issue.

- The overall gun homicide rate decreased by 8.6% from 2022 to 2023. Despite this decrease, 17,927 people lost their lives by gun homicide in 2023, the fifth-highest number of deaths ever recorded.
- Gun suicides continued to reach all-time highs, increasing by 1% from the previous record in 2022, resulting in a total of 27,300 people dying by gun suicide in 2023.
- Overall, guns were the leading cause of death for young people 1–17 for the fourth consecutive year, prematurely taking the lives of 2,566 young people in 2023 (see full breakdown on page 1). The overall gun death rate among young people 1–17 increased by 1% in 2023 compared to 2022.

#### Figure 1

#### 46,728 lives were lost to gun violence in 2023

#### 🛉 = 100 gun deaths



\* The CDC data classification "legal intervention" undercounts police-involved gun fatalities classifying them as other types of gun deaths. To address this gap, media sources like the Washington Post's Fatal Force database have tracked police-involved shootings in recent years, reporting that 1,164 people were shot and killed by police in 2023.



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## Lethality and Availability of Firearms

Due to their high lethality and availability, guns fuel our country's high suicide and homicide rates. **Nearly four out of every five homicides and more than half of all suicides are by gun.** 



### **Gun Violence Across States**

In general, the states with the highest gun death rates tend to be states in the South or Mountain West, with weaker gun laws and higher levels of gun ownership, while gun death rates are lower in the Northeast, where gun violence prevention laws are stronger.

- For example, the age-adjusted gun death rate in Mississippi (29.4 per 100,000), the state with the highest gun death rate, was eight times higher than the age-adjusted gun death rate in Massachusetts (3.7 per 100,000), the state with the lowest rate in 2023. In other words, someone living in Mississippi was eight times as likely to die by gun violence as someone living in Massachusetts.
- While two states might have similar gun death rates, the type of gun violence driving that rate can differ entirely. Maryland (12.3 per 100,000) and South Dakota (12.3 per 100,000), for instance, have similar overall age-adjusted gun death rates. Yet, 63% of gun deaths in Maryland were homicides while in South Dakota, only 10% were.

Gun violence manifests itself differently across states; **but the end result—a preventable death—is the same.** 



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"Other gun death rate" includes legal intervention, unintentional, and undetermined.

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## **The Rise of Gun Suicides**

#### The majority of suicide deaths in the United States involve a gun.

Guns are dangerous when someone is at risk of self-harm as they are the most lethal suicide attempt method.<sup>3</sup> Although the majority of suicide attempts do not result in death, the use of a gun in an attempt is lethal in 90% of cases.<sup>4</sup>

#### Years of Potential Life Lost From Gun Violence and Suicide

Gun suicide has a greater impact on older adults, but younger people also bear a significant burden. Rising firearm death rates from both suicides and homicides among young people have contributed to the decline in overall U.S. life expectancy.<sup>5</sup> When people in crisis, especially younger people, lose their lives to guns, they lose decades of potential: the potential to grow up, have a family, contribute to society, and pursue their passions in life. These losses are felt across families, neighborhoods, and communities for generations.

Compared to other causes of death, gun violence, including gun suicide, often poses a larger burden on society in terms of years of potential life lost. Years of potential life lost calculations estimate the average time a person would have otherwise been expected to live if they had not died prematurely. In 2023, gun injury deaths accounted for 1,108,690 years of potential life lost before the age of 65—more than diabetes, stroke, and liver disease combined.<sup>6</sup>

## Impact of Gun Suicides, 2023 - Quick Stats

**27,300** PEOPLE DIED BY GUN SUICIDE IN 2023



Someone died by gun suicide **every 19 minutes** 

Elder white males (ages 70+) face the highest rates of gun suicide compared to any other demographic



In 2023, they were nearly five times as likely to die by gun suicide than their Black counterparts of the same age group In 2014, gun suicides accounted for 32% of all suicides among young Black people (ages 10-19)





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### **Gun Deaths Over Time**

Guns played a role in the escalation of lethal violence between 2014 and 2023. A significant surge in overall gun death rates, predominantly attributable to gun homicides, occurred in 2020. However, since 2021, these rates have generally decreased or remained constant, with the exception of the gun suicide rate.

The overall gun suicide rate has steadily increased as the number of gun suicides has reached all-time highs for three consecutive years.

Figure 4



#### **Gun Death Rates, 2014-2023**



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## The Lethality of Firearms in Suicides

Guns are the most lethal suicide method. Even though they are only used in 5-6% of suicide attempts, they result in more than half of all suicides, according to a 2019 study.<sup>7</sup>

- · Access to lethal means, like guns, greatly increases the risk that a suicide attempt will result in death. Despite accounting for a small fraction of suicide attempts, 90% of suicide attempts involving guns are fatal.<sup>8</sup> Drug poisoning and cutting account for approximately 80% of all suicide attempts, but 2% of these attempts are fatal.9
- · Guns were used in fatal suicides twice as often as the second most common method of fatal suicides (suffocation) and 26 times more often than cutting/piercing.
- Guns drove the overall suicide rates among Black and Hispanic/Latino people as they were the most common method used in fatal suicides in 2023.
  - Among Black people, guns nearly doubled (92%) while suffocation, the second most common suicide method, increased by 22% between 2014 and 2023.
  - In 2014, suffocation was the most common method of fatal suicide in Hispanic/Latino people; by 2023, guns were the most common method of fatal suicides as guns increased by 52%, whereas suffocation increased by 19%.
  - Guns were also the most common suicide method among their white counterparts, their rate of gun suicide increased by 18% in the last decade.

#### Figure 5



#### Suicide by Method, 2023

\* The "All other methods combined" category includes: Other specified, classifiable Injury (697 deaths), Drowning (453), Fire/Flame (183), Other land transport (174), Other specified, not elsewhere classified Injury (125), and Unspecified Injury (71).



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## **Gun Suicides by Educational Attainment**

In 2023, gun suicide rates varied based on educational attainment, which refers to the highest level of formal education completed.

- · Adults over 25 whose highest education was a high school diploma or GED experienced the highest gun suicide rate (17.1 per 100,000 people). Notably, this group also had the greatest gap between gun and non-gun suicide rates.
- · Those with master's, doctorate, or professional degrees had the lowest rates of gun suicide overall (4.6 per 100,000).

#### Figure 6

#### **Suicide Rates by Educational Attainment, 2023**



Population counts (ages 25 & older) come from the United States Census American Community Survey, 2023.



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## The Burden of Gun Suicide Across **Demographic Groups**

#### Gun Suicides by Sex and Race/Ethnicity

While gun violence, including gun suicide, can affect anyone, certain demographic groups face a disproportionately higher risk of gun suicide. In 2023, males had a significantly higher rate of gun suicide than females. Among racial and ethnic groups, white males had the highest rate of gun suicide accounting for nearly nine out of every 10 gun deaths. While not as high as for white males, gun suicide rates for other racial and ethnic groups have been on the rise in the last five years.

- The gun suicide rate of Black females increased by nearly two-thirds (65%) from 2019 to 2023, the highest relative increase of all female races and ethnicities.
- Male Native Hawaiian or Pacific Islanders were nearly 10 times as likely to die by gun suicide than their female counterparts in 2023.
- The gun suicide rate among Hispanic/Latino females increased by 25% from 2019 to 2023.
- Guns accounted for nearly half (49%) of suicide deaths among American Indian or Alaska Native males ages 25-34 in 2023. The overall gun suicide rate in American Indian or Alaska Native males of the same age group doubled (109%) from 2019 to 2023.
- · While Asian males had the lowest rate of gun suicide compared to other male races and ethnicities, the overall Asian gun suicide rate steadily increased from 2019 to 2023. Across 10-year age groups, the rate of gun suicide among Asian males ages 55-64 experienced the highest relative increase (50%) in the last five years.

## Gun Suicide Rates by Sex and Race/Ethnicity, 2023



The number of gun suicide deaths for female Native Hawaiian/Other Pacific Islander was "suppressed" as the death count was less than 10.



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#### Age-Specific Gun Suicide Deaths

Guns were the most common method used in suicides across most 10-year age groups in 2023, underscoring the impact of guns on most ages when considering suicide.

- Guns accounted for the majority of all suicides across the following 10-year age groups: ages 20–29 (56%), ages 50–59 (53%), ages 60–69 (59%), ages 70–79 (73%), ages 80–89 (77%), and ages 90+ (75%).
- Elderly people ages 70 and older were at higher risk to die by gun suicide. Seven out of 10 elderly suicides were by gun in 2023.

#### Figure 8

#### Gun as Leading Method of Suicide by 10-Year Age Groups, 2023

Age Group	Total Suicide Deaths	Number of Gun Suicide Deaths	% of Overall Suicide Deaths by Gun
Ages 10-19	2,637	1,252	47%
Ages 20-29	7,833	4,370	56%
Ages 30-39	8,729	4,082	47%
Ages 40-49	7,943	3,831	48%
Ages 50-59	7,919	4,205	53%
Ages 60-69	6,839	4,063	59%
Ages 70-79	4,513	3,278	73%
Ages 80-89	2,402	1,847	77%
Ages 90+	494	371	75%

Ages 1-9 were excluded because the data was "suppressed," or the death count was less than 10.

#### **Gun Suicides Among Veterans**

Research shows that access to guns increases the risk of death by suicide.<sup>10</sup> Veterans disproportionately carry the burden of gun suicide in part due to their high rates of gun ownership as nearly half of all veterans own at least one gun.<sup>11</sup> Additionally, one in three veterans store their guns loaded and unlocked, further elevating the risk of suicide.<sup>12</sup>

According to the CDC's National Violence Death Reporting System, 24,995 current and former military personnel died by suicide between 2018 and 2022. More than two-thirds (73%) of the suicides were by gun.<sup>13</sup>

The suicide health disparities in veterans are further exacerbated by limitations in gun violence data. The data on veterans as well as other demographic groups may underreport the actual number of people impacted by gun violence. This is a result of incomplete and inconsistent reporting, as well as misclassification of race and ethnicity, and other demographic categories. Better data collection can provide a comprehensive understanding of gun deaths resulting in more informed policy solutions to address the growing gun violence crisis.



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#### **Gun Suicides Among Young People**

Overall, guns have been the leading cause of death for young people 1–17 for four consecutive years (see full breakdown on page 1). **The overall gun death rate for this age group nearly doubled (95%) between 2014 to 2023.** While the rise was mainly from an increase in gun homicides, gun suicides have also surged among young Black and Hispanic/Latino people (ages 10–19) over the past decade. Because CDC data on firearm suicide among 1–9-year-olds is suppressed, including 18–19-year-olds provides a more complete picture of firearm suicide trends among youth and emerging adults.

- Although the number of gun suicide deaths was higher for young white people than young Black people (ages 10–19) in 2023 (740 deaths compared to 207 deaths), the overall gun suicide rate among young Black people tripled (245%) from 2014 to 2023.
- The overall rate of gun suicides among young Hispanic/Latino people (ages 10–19) nearly doubled (98%) from 2014 to 2023.
- Historically, young white people have had higher gun suicide rates than young people of other races and ethnicities. However, this dynamic has started to shift as the overall gun suicide rate among young Black people (ages 10–19) surpassed the rate of their white counterparts for the second consecutive year.
- Among young Black people (ages 10–19), suffocation was the most common suicide method in 2019. After an 81% rise in the gun suicide rate among young Black people, by 2023 gun suicides surpassed suffocation. In contrast, the gun suicide rate among young white people declined by 6% over the same period.

#### Figure 9

#### Gun Suicide Rates by Young People (Ages 10-19) by Race/Ethnicity, 2014-2023





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## The Geography of Gun Suicides

#### **Gun Suicides by State**

Gun suicides vary widely across states as a result of socio-economic factors, demographics, and gun policies. Guns drove overall suicide rates in the country as they were used in the majority of suicide deaths in states with the highest rates of gun suicide, whereas non-guns were used in most suicide deaths in states with the lowest rates of gun suicide.

- In 2023, Wyoming (19.0 per 100,000) had the highest gun suicide rate, 10 times higher than Massachusetts (1.9 per 100,000), which had the lowest gun suicide rate.
- Wyoming, Montana, Alaska, and Idaho not only had the highest gun suicide rates but also had the highest overall suicide rates in the country in 2023. Guns drove the overall suicides among these states as six out of every 10 people who died from suicide used a gun.
- New Mexico (9.7 per 100,000) had the highest rate of gun suicide among young people (ages 10–19) in the country in 2023. This state had a gun suicide rate three times the national average.

#### Figure 10



#### Gun Suicide Rates by State, Highest to Lowest, 2023



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#### **Gun Suicides by Urbanization**

Gun suicide rates are closely related to urbanization. Generally, the more rural a county is by population density, the higher the gun suicide rate. Research shows rural counties experience higher rates of gun suicide because of limited access to mental health services, high rates of alcohol use, and the highest rates of gun ownership, thus allowing for easier accessibility and exposure to guns.<sup>14</sup>

- Rural counties had a higher percentage of gun suicides out of total suicides compared to metropolitan counties. Nearly two-thirds (63%) of all suicide deaths in rural counties were by gun, while more than one-third (37%) of suicide deaths were by non-gun.
- Large metropolitan counties had a lower percentage of gun suicides compared to rural counties as half of all suicide deaths were by gun, and the other half were by non-gun.

#### Figure 11



**Suicide Deaths by Urbanization, 2023** 

The 2013 urban classifications were combined for simplification. Large Central Metro and Large Fringe Metro classifications were combined as "Large Metro." Micropolitan and Noncore classifications were combined as "Rural."



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## **Public Health Spotlight**

Gun violence is an ongoing public health crisis in the United States that impacts the health and well-being of all of us. **Gun suicides account for more than half of all total gun deaths and are growing at an alarming rate as the total number of gun suicide deaths reached record highs for the third consecutive year.** The lives of certain populations are disproportionately impacted by gun suicide, including elderly people, veterans, American Indian or Alaska Native Americans, men, white Americans, and people living in rural regions.

In addition, racial disparities in gun deaths have widened within the last decade, with higher rates of gun suicides among Black and Hispanic/Latino people. Guns drove overall suicide rates for Black and Hispanic/Latino people as they were the most common method in fatal suicides. The rates of gun suicide nearly doubled (92%) and increased by half (52%) among Black and Hispanic/Latino people respectively, whereas the rate of their white counterparts only increased by 18%. Moreover, gun suicide rates of Hispanic/Latino and Black young people (ages 10-19) doubled and tripled that of their white peers respectively. The gun suicide rate among young Black people (ages 10-19) was higher than that of their white counterparts of the same age group for the second consecutive year.

Gun death rates vary across states due to socio-economic factors, demographics, and gun policies. Gun death rates in states such as Wyoming and Montana are predominantly driven by gun suicides. Wyoming had the highest gun suicide rate, more than two times the national average. However, Mississippi's and Louisiana's overall gun death rates are above the national average largely due to gun homicides. This contrast highlights the varying nature of gun violence across states, emphasizing the need for state-specific public health interventions to address the unique patterns of gun-related fatalities.



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## **Policy Recommendations**

Guns are the most common suicide method in the United States due to their high lethality and easy accessibility. Gun suicides can be prevented through effective, evidence-based policy solutions. Below are select policy recommendations that limit access to lethal means from individuals with an elevated risk of self-harm. For more information on a broader range of prevention methods, please see the companion piece to this report, *From Crisis to Action: Public Health Recommendations for Firearm Suicide Prevention*.



## Adopt Laws to Promote Safe and Secure Gun Storage Practices

More than half of all U.S. gun owners do not practice safe gun storage.<sup>15</sup> In fact, 4.6 million young people in the U.S. live in homes with at least one gun that is loaded and unlocked, exposing young people to guns and increasing the risk of gun violence, including gun suicide, among young people.<sup>16</sup> Seventy-nine percent of gun suicides among young people under 18 years old used a gun belonging to a family member.<sup>17</sup>

Many of these deaths can be prevented through strong safe and secure storage laws, such as Child Access Prevention (CAP) laws, which require that guns stored in households with a young person be kept secured when unattended. **Safe storage laws** are an effective tool to promote responsible gun storage practices as well as to restrict access to unauthorized or at-risk individuals, thereby preventing suicide.<sup>18</sup> These laws are linked with sizable reductions in gun suicide rates.<sup>19,20,21</sup> Safe storage laws should apply to both handguns and long guns to ensure these laws are as effective as possible.<sup>22,23</sup> Additionally, even in states where safe storage laws might not be in place, gun owners have a responsibility to store their guns safely in their homes and cars to ensure those who should not have access to firearms do not get them.



## Prevent Prohibited People From Purchasing a Firearm Through Firearm Purchasing Laws

Most states do not require background checks on private purchases, meaning that people convicted of a felony, with severe mental illness, or who are otherwise prohibited from possessing a gun can purchase one from a private seller. To address this dangerous gap, states should implement firearm purchaser licensing laws (sometimes referred to as permit-to-purchase) that require all prospective gun purchasers to obtain a license prior to buying a gun from a dealer or a private seller.

**Firearm Purchaser Licensing (FPL) laws** enhance universal background checks by establishing a licensing application process. The additional components of permit-to-purchase laws—fingerprinting, a more thorough vetting process, and a built-in waiting period—all play a vital role in preventing people with a history of violence, including those at risk for suicide, from purchasing a firearm. Studies show that states with FPL laws were associated with reductions in gun suicides.<sup>24</sup> Handguns often have more stringent regulations than long guns (i.e., rifles and shotguns). This creates a loophole where long guns may be easier to acquire for those who might be prohibited. Firearm purchaser licensing laws should apply to both handguns and long guns to close this gap.



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## Remove Guns From Individuals Determined to Be at Elevated Risk of Harming Themselves or Others

In some cases, people who are not otherwise prohibited from owning a gun may be at clear risk of violence or self-harm, often during a time of crisis. Strong **Extreme Risk Protection Order** (ERPO) laws include mechanisms to temporarily remove guns from individuals at risk for suicide. Research found that states with ERPO laws were associated with decreases in gun suicides.<sup>25</sup> In order to make these laws most effective at reducing harm, states should enact and implement ERPOs that include firearm relinquishment requirements for those who are subject to an ERPO.

Guns don't make people suicidal; however, because they are so lethal, guns increase the likelihood that someone who is experiencing suicidal ideation will die in the attempt if used. America's suicide epidemic—fueled by guns—is preventable. We must address this crisis through a comprehensive public health approach pushing for equitable, evidence-based gun violence and suicide solutions.

## For more recommendations to prevent gun suicide, read the companion piece to this report:



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## Glossary

**Age-adjusted rate**: The rates of almost all causes of death vary by age. Age adjustment is a technique for "removing" the effects of age from crude rates to allow meaningful comparisons across populations with different underlying age structures. Age-adjusted death rates are weighted averages of the age-specific death rates, where the weights represent a fixed population by age. An age-adjusted rate represents the rate that would have existed had the age-specific rates of the particular year prevailed in a population whose age distribution was the same as that of the fixed population. Age-adjusted rates should be viewed as relative indexes rather than as direct or actual measures of mortality risk.

**Burden of injury**: Describes the impact of a health problem (injury), including death and loss of health due to injuries, related financial costs, and other indicators.

**Cause of death**: Based on medical information—including injury diagnoses and external causes of injury—entered on death certificates filed in the U.S. This information is classified and coded per the International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10).

**International Classification of Diseases (ICD)**: Causes of death are classified per the International Classification of Disease. Deaths for 1999 and beyond are classified using the 10th Revision (ICD-10). ICD is designed to promote international comparability in the collection, processing, classification, and presentation of mortality statistics. This includes providing a format for reporting causes of death on the death certificate. The reported conditions are then translated into medical codes through the use of the classification structure and the selection and modification rules contained in the applicable revision of the ICD, published by the World Health Organization (WHO).

**Underlying Cause of Death database**: The database contains mortality data based on information from all death certificates filed in the 50 states and the District of Columbia. Deaths of nonresidents (e.g., nonresident aliens, nationals living abroad, residents of Puerto Rico, Guam, the Virgin Islands, and other territories of the U.S.) and fetal deaths are excluded. Each death certificate identifies a single underlying cause of death and demographic data.

**County classification**: The CDC categorizes all counties into six levels of urbanization that incorporate population number and density. From largest and most urban to smallest and most rural, they are:

**Large central metro counties**: Counties part of a metropolitan statistical area with  $\geq$ 1 million population and covers a principal city; most urban, large cities.

**Large fringe metro counties**: Counties part of a metropolitan statistical area with  $\geq 1$  million population but does not cover a principal city; akin to suburbs.

**Medium metro counties**: Counties part of a metropolitan statistical area of 250,000–999,999 population.

**Small metro counties**: Counties part of a metropolitan statistical area of less than 250,000 population.

**Micropolitan (non-metro) counties**: Counties part of a micropolitan statistical area (has an urban cluster of  $\geq$ 10,000 but <50,000 population).



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**Non-core (non-metro) counties**: Counties not part of a metropolitan or micropolitan statistical area; the most rural counties.

**Injury intent**: Describes whether an injury was caused by an act carried out on purpose by oneself or by another person(s), with the goal of injuring or killing. For the CDC data used in this report, all injury-related causes of death are classified by intent and by mechanism, determined according to the ICD-10 external cause of injury coded as the underlying cause of death on the death certificate.

**Homicide**: Injuries inflicted by another person with the intent to injure or kill, by any means. Excludes injuries due to legal intervention and operations of war. The ICD-10 cause of death codes for firearm homicide include X93 Assault by handgun discharge; X94 Assault by rifle, shotgun, and larger firearm discharge; X95 Assault by other and unspecified firearm and gun discharge; and \*U01.4 Terrorism involving firearms.

**Legal intervention**: Injuries inflicted by the police or other law-enforcing agents, including military on duty, in the course of arresting or attempting to arrest lawbreakers, suppressing disturbances, maintaining order, and other legal actions. Excludes injuries caused by civil insurrections. The ICD-10 cause of death code for legal intervention by firearm is Y35.0 Legal intervention involving firearm discharge.

**Suicide**: An intentionally self-inflicted injury that results in death. The ICD-10 cause of death codes for firearm suicide are X72 Intentional self-harm by handgun discharge; X73 Intentional self-harm by rifle, shotgun, and larger firearm discharge; and X74 Intentional self-harm by other and unspecified firearm and gun discharge.

**Undetermined intent**: Events where available information is insufficient to enable a medical or legal authority to make a distinction between accident, self-harm, and assault. The ICD-10 cause of death codes for firearm deaths of undetermined intent are Y22 Handgun discharge, undetermined intent; Y23 Rifle, shotgun, and larger firearm discharge, undetermined intent; and Y24 Other and unspecified firearm discharge, undetermined intent.

**Unintentional**: Unintentional injury that results in death. The ICD-10 cause of death codes for unintentional firearm deaths are W32 Accidental handgun discharge and malfunction; W33 Accidental rifle, shotgun, and larger firearm discharge; and W34 Accidental discharge and malfunction from other and unspecified firearms and guns.

**Injury mechanism or method**: The cause, or mechanism, of injury is the way in which the person sustained the injury; how the person was injured; or the process by which the injury occurred.

Suppressed: Rates are marked as suppressed when there are zero to nine deaths.

Unreliable: Rates are marked as "unreliable" when the death count is less than 20.

**Years of potential life lost (YPLL)**: CDC calculates premature mortality or early death by subtracting the age at death from the standard year and then summing the individual YPLL across each cause of death.



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## **EXAMINING THE GUN SUICIDE EPIDEMIC**



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