

Gun Violence and Youth

Gun violence poses a serious threat to America's children and youth. Existing data clearly point to the need for improved strategies for keeping guns out of the hands of children and youth and those who would harm them. Gun violence in schools is extremely rare, as are violent crimes committed by people with mental illness. However, the majority of youth murdered are killed with a firearm and nearly half of youth suicide deaths involve the use of a firearm. Efforts to end youth gun violence must focus on accessibility and prevention. Additionally, federal safety and health agencies must be empowered to conduct comprehensive research into the causes of and solutions to this unacceptable source of harm to our children, families, and communities.

Firearm Deaths in the United States (CDC, 2019; Children's Defense Fund, 2019)

- In 2017, there were 2,490 firearm deaths among school aged youth (5-18 years).
 - Every day there were seven such fatalities.
 - Every week there were 48 5- to 18-year-olds killed via firearms.
 - A school aged youth dies from a gun every 3.5 hours.
- Gun deaths are the second leading cause of death for youth under 19 years old.
- Gun deaths among children and teens has continued to grow every year since 2014.
- More children and teens were killed by guns in 2017 than in any year since 1998.
- Between 1963 and 2017, 186,239 children and teens were killed by firearms. This is more than 3.5 times greater than the number of U.S. soldiers killed in Vietnam, Persian Gulf, Afghanistan, and Iraq wars combined.).
- More children under 5 years were killed by guns in 2017 than law enforcement officers.
- Greater than 60% of children and teen gun deaths were homicides in 2017 (i.e., 1,927 homicides to 1,296 suicides).
- Of the 1,587 youth (age 5-18) homicide deaths in 2017, 85% were killed by a firearm.
- Of the 2,337 youth (age 5-18) suicide deaths in 2017, 42% were killed by a firearm.
- Of the 1,725 males (age 5-18) suicide deaths in 2017, 50% were killed by a firearm.
- Of the 612 females (age 5-18) suicide deaths in 2017, 21% were killed by a firearm.
- In 2017, across all age groups, there were 39,773 individuals killed by firearms (with 60% of these deaths being suicide and 37% homicide).
- Among high-income countries, 83.7% of all firearm deaths occur in the United States. 91.7% of all women and 98.1% of all children 0 to 4 years old killed by firearms were in the United States (Grinshteyn & Hemenway, 2019).

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Homicide and Suicide at School

- 1.2% of youth homicides and 0.2% of suicide deaths take place at school, on the way to or from school, or at a school sponsored event (Musu et al., 2019).
- During the 2015-2016 school year the odds of a student (age 5-18) being the victim of a school-associated homicide or suicide was one in 2.8 million (Musu et al., 2019; Snyder et al., 2019). The odds of being struck by lightning in any one year are about one in 700,000.
- Approximately 90% of school-associated homicides involve a single victim and 62.8% involved the use of a firearm (Holland et al., 2019).
- For youths 12-18 years, witnessing a shooting or being threatened or assaulted with a firearm at school or in their community increased the odds of a subsequent firearm crime (McGee et al., 2017). Youth who experience a prior firearm injury have the highest risk of subsequent firearm violence perpetration (Sumner et al., 2016).
- In 80% of school-associated firearm-related homicides and suicides, the weapons used were obtained from the home or from a friend or relative (Reza et al., 2003).

Guns and Other Weapons at School

- In 2017, 3.8% of high school students carried a weapon (e.g., gun, knife, or club) on school property at least one day in the 30 day prior being surveyed, and 6% were threatened or injured by a weapon (e.g., gun, knife, or club) on school property in the past year (Kann et al., 2018).
 - Trend analyses suggests the prevalence of having been threatened or injured with a weapon on school property has decreased from 2003 to 2017 (9.2% to 6.0%; Kann et al., 2017).
 - Trend analyses suggests the prevalence of high school students having carried a weapon decreased during 1991–1999 (26%–17%) and then did not change significantly during 1999–2017 (Kann et al., 2017).

Factors Related to Multi-Victim School Shootings

- Studies of school shootings in the 1990s suggested that: a) shooters often had multiple, non-automatic guns; b) killers shot deliberately at individual victims and took their time doing so; c) theft was the dominant method by which shooters obtained weapons; d) all shootings were planned in advance; e) most youth had told peers before committing the acts; f) most reported having a history of feeling bullied or threatened; g) shooters often had a history of mental health problems; and h) many had made suicidal gestures before the incidents (Fein et al., 2004; Redding & Shelf, 2001).
- The US National Center for Injury Prevention and Control lists the following risk factors for school and youth violence: Prior history of violence, drug, alcohol, or tobacco use, association with delinquent peers, poor family functioning, poor grades in school, and poverty in the community (CDC, 2016).
- The majority of school shooters report feelings of exclusion, social isolation, rejection, and/or abuse from peers (Rocque, 2012).
- Mass school violence is rare, accounting for less than 1% of all annual homicides for youths ages 5 to 18 (Borum et al., 2010).
- According to the U.S. Secret Service, there is no profile for a school shooter. However, since shootings tend to be planned in advance and oftentimes youth tell others of the plan, a threat assessment approach is recommended (Fein et al., 2004).
- The type of gun used is associated with the number of fatalities. Rifles and shotguns are used in the

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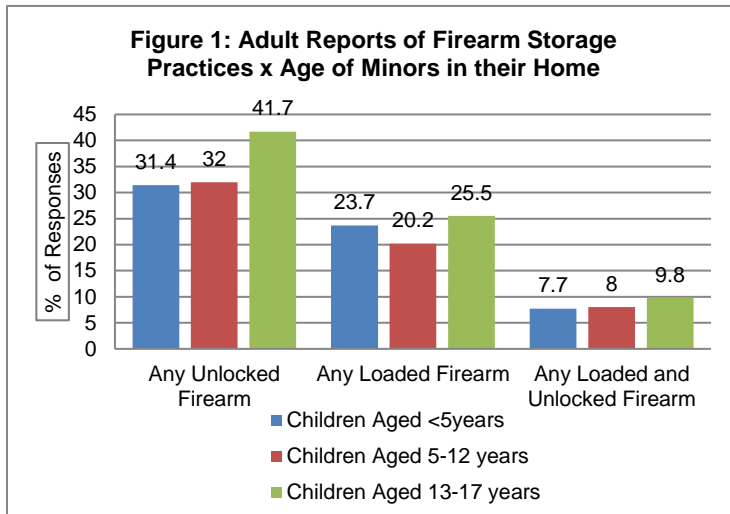
minority of shootings, but they significantly increase the casualty and fatality rates, when compared with handguns (Livingston et al., 2019).

Availability and Storage of Firearms in the U.S. and Association With Violence

- United States residents make up 5% of the global population but own nearly half (46%) of all civilian-owned guns in the world (Children’s Defense Fund, 2019) and have a 29 times higher firearm homicide rate than other high-income countries (Grinshteyn & Hemenway, 2019).
- A child is 82 times more likely to die from a firearm-related injury in the U.S. than in other similar nations (Grinshteyn & Hemenway, 2019).
- Among the 23 wealthiest, developed nations, the U.S. accounts for approximately 30% of the overall population but over 90% of deaths due to firearms among children 15 years or younger (Thakrar et al., 2018).
- Several cross-sectional studies have shown that areas with higher rates of possession of household firearms have disproportionately higher numbers of death by homicide (Dahlberg et al., 2004; Miller, Azrael, & Hemenway, 2002b; Miller, Hemenway, & Azrael, 2007; Ruback et al., 2011).
- 82% of firearm-related suicides among youth were committed using a firearm that was owned by a household member (Knopov et al., 2019).
- States where more households own guns have higher rates of suicide by firearm. For every 10-percentage point increase in household gun ownership, the youth suicide rate increases by 26.9% (Knopov et al., 2019).
- Youth are more likely to commit suicide with a firearm, as opposed to other means, when firearms in the home are unlocked or in plain sight (Azrael et al., 2004; Choi et al., 2017; Shah et al., 2000).
- Even when accounting for rates of poverty, unemployment, substance abuse, and the number of registered firearms there was a significant link between firearm legislation stringency and pediatric firearm mortality (Madhavan et al., 2019).
- In states with permissive gun laws, youth gun carrying increases. Rates of youth gun carrying further increase when gun ownership is prevalent among adults in the community (Xuan & Hemenway, 2015).
- Although protection is the primary reason for gun ownership, firearms are used in self-defense by victims in approximately 1% of crimes (Hemenway & Solnick, 2015). Each time a home firearm is used in self-defense, there are 11 completed and attempted firearm suicides, seven assaults and homicides with a firearm, and four accidental firearm deaths or injuries (Kellermann et al., 1998).
- The number of suicide, homicide, and unintentional firearm deaths among youth (ages 5-14) is higher in states and regions where guns are more prevalent (Miller, Azrael, & Hemenway, 2002a).
- Even among states where suicide attempt rates are higher, if gun ownership is low, rates of suicide are lower compared to states with low suicide attempt rates but relatively high gun ownership rate (Knopov et al., 2019).
- In the U.S., youth are disproportionately represented as victims and perpetrators of firearm homicide. Victimization is highest among males, older children and African-American and Hispanic youth (Child Trends, 2019; Dahlberg, 1998; Fowler et al., 2017; Hepburn & Hemenway, 2004).
- Approximately half (45%) of gun owning households with children do not store their firearms safely (Crifasi et al., 2018) and 75% of children in gun owning households know where firearms are kept (Baxley & Miller, 2006). A majority of students and parents agree that guns are too easy to obtain (Children’s Defense Fund, 2018).
- Increases in the overall homicide rate appear to be primarily attributable to an increase in firearm

homicide by youth (Fowler et al., 2017; Hepburn & Hemenway, 2004).

- Child access prevention (CAP) laws were associated with a reduction in youth suicide rates (Gius, 2015; Madhavan et al., 2019).
- Keeping guns locked and unloaded reduces the risk of unintentional injury and suicide for children and adolescents (Grossman et al., 2005; Reza et al., 2003).
- A significant percentage of adults who have minor children living in their homes report that their firearms are not safely stored (Figure 1; Johnson, Miller, Vrinotis, Azrael, & Hemenway, 2006; Simonetti et al., 2015).



- Parents should discuss safe storage and handling of firearms with their children (Reza et al., 2003). However, children’s reports often contradict parental reports about their children’s access to firearms, with children reporting knowing the location of firearms and handling firearms when parents said they did not. This is true whether or not parents lock firearms and discuss firearm safety with their children (Baxley & Miller, 2006; Grossman et al., 2005).

Youth Suicide and Firearms

- Firearms are the most common method of suicide by youth, accounting for 42.6% of adolescent suicides from 2000 to 2016. This is true for males and females, younger and older adolescents, and for all races (CDC, 2019).
- Youth who died by firearm suicide are less likely to have a documented mental health issue and less likely to have disclosed suicidal intent compared to those who died by suicide using other means (Choi et al., 2017).
- The increase in the rate of youth suicide (and the number of deaths by suicide) over the past four decades is largely related to the use of firearms as a method (CDC, 2019). Firearms at 2.6 times more lethal than any other means of suicide (Knopov et al., 2019).
- Higher rates of gun ownership are not only associated with a shift from non-firearm to firearm suicide but with an increase in the overall suicide rate (Knopov et al., 2019).
- The majority (81% in one sample) of all firearm suicides by youth occur within the home with a firearm owned by the victim’s parent (Johnson et al., 2010).
- For every 10% decline in the number of households with both firearms and children, the rate of firearm suicides among children 0 to 19 years old dropped 8.3% (Miller et al., 2006).
- There is a positive association between the accessibility and availability of firearms in the home and the risk for youth suicide (Anglemyer et al., 2014).
- The risk conferred by guns in the home is proportional to the number and accessibility (e.g., loaded and unsecured) of guns in the home. A single firearm is associated with

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more than 3 times the risk of death by suicide (Anglemyer et al., 2014).

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- If a firearm is used in a youth suicide attempt, it will be fatal 95.3% of the time (Shenassa et al., 2003).
- Public policy initiatives that restrict access to guns (especially handguns) are associated with a reduction of firearm suicide and suicide overall, especially among youth (Barber et al., 2017; Grossman, 2018).
- Firearm suicides decreased between 2002 and 2007 but significantly increased from 2007 to 2014 (Fowler et al., 2017).

Policy Issues Related to Curbing Gun Violence

- There are many challenges in terms of what the federal government can impose on states in terms of laws. Two recent high-profile shootings (Virginia Tech and Congresswoman Gifford in Arizona) occurred in states with very restrictive gun laws where the perpetrators obtained guns legally (Sterzer, 2013).
- According to the Children’s Defense Fund (2019), loopholes in firearm safety laws have reduced their effectiveness. For example, the Brady Law, which required federal background checks for guns purchased from licensed retailers, did not require such checks for guns bought through private sales (and it is currently estimated that 40% of guns are bought from private sellers).
- Child access prevention laws, which require gun owners to store their guns in a way that would prevent unsupervised access by children and teens, have been shown to reduce gun carrying, accidental shootings, and suicides (Anderson & Sabia, 2018; Hepburn et al., 2006).
- Most people with serious mental illness do not commit violent crimes, and the very few who do are unlikely to use a gun (Applebaum & Swanson, 2010).

Effectiveness of Initiatives to Curb Gun Violence

- Safe storage programs have been shown effective in reducing accidental shootings, suicide, and firearm injuries (Butkus et al., 2014; Flegler et al., 2013). These programs were more positively received when provided by a gun safety training course or family discussion (Crifasi et al., 2018).
- Problem-oriented police initiatives to reduce gun violence (vs. “zero tolerance” policing initiatives) are associated with a statistically significant decrease in gun homicide, gun related assault, and youth homicide. These initiatives address the culture and community of gun violence in addition to providing sanctions (Braga et al., 2008; Kennedy et al., 1996).
- Tighter regulation of gun sellers (including licensing retail gun sellers, record keeping regulations, potential gun buyer registration/licensing, and regular compliance inspections) is associated with lower levels of gun diversion to criminals (Webster et al., 2009).
- Brief physician counseling with parents and distributions of gun locks is effective at reducing gun violence (Barkin et al., 2008; Grossman et al., 2012).
- The aspects of prevention efforts that have been shown to be among the most effective in reducing gun violence are offender notification meetings that stress individual deterrence, normative change in offender behavior, and increasing views of procedural justice (Braga et al., 2008).
- Among those with a violent misdemeanor, denial of gun purchase requests is associated with lower rates of gun offenses and violent crimes, compared to those who are allowed to buy a gun (Wintemute et al., 2001).

- Arming teachers and other school personnel has not been shown to be effective at reducing school-associated gun violence. In approximately 90% of multiple-victim shootings, civilian guns were allowed and/or armed security guards or law enforcement were present (Webster et al., 2016).

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