

# Gun Violence and Youth

Youths in the United States can be involved with violence as perpetrators, victims, or witnesses/bystanders (David-Ferdon and Simon 2014; OJJDP 2014). Violence is the “intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation” (OJJDP 2014, 14). Applying this definition to the scope of this literature review, *youth gun violence* is when a gun or firearm\* is present in the process of a youth (ages 10–24) intentionally using force or power to threaten or harm others. A youth is a victim of gun violence when he or she is injured or killed as a consequence of someone (a youth or an adult) intentionally using a gun to threaten or harm someone (whether the youth victim was the intended target or not).

This literature review will focus on intentional gun violence involving youths ages 10 to 24, which includes homicides (victimization and perpetration), nonfatal injuries, suicides, community violence, and school violence/school shootings. Unintentional gun violence (including accidental injuries or deaths from guns) will not be explored.

## Scope of the Problem

The scope of the problem of youth gun violence in the United States is reflected by the incidence and prevalence of gun-related homicides, suicides, and nonfatal injuries of youths.

There are as many as 33,000 gun-related deaths every year in the United States, and youths 24 and younger represent about 20 percent of that number (Kochanek et al. 2016). Even youths who are not hurt or killed by guns but who witness gun violence are likely to experience adverse outcomes later in life (Finkelhor et al. 2015b). While mass shootings tend to be the focus of national news stories, they account for less than half of 1 percent of gun deaths each year (Luca, Malhotra, and Poliquin 2016).

**Youth Gun Homicide.** Homicide was the third-leading cause of death among youths 10 to 24 years old in 2014. This reflects a decline from 1999, when homicide was the second-leading cause of death among youth (CDC 2016). Between 1993 and 2010, the firearm homicide rate declined by 51 percent for 18- to 24-year-olds and by 65 percent for 12- to 17-year-olds (Planty and Truman 2013). Similarly, between 1994 and 2010, serious violent crime against 12- to 17-year-olds involving a firearm declined by 95 percent (White and Lauritsen 2012).

**Youth Victims of Gun Homicide.** Firearms were the murder weapon in 86 percent of youth homicides in 2014 (CDC 2016). The following information, using a variety of data sources, provides greater detail on youth homicides attributable to firearms:

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\*The terms *gun* and *firearm* will be used interchangeably throughout the review, depending on the terminology in the source of the information.

- During 2014, homicides with a firearm accounted for 3,702 homicides committed against youths ages 10 to 24 (CDC 2016; Child Trends Databank 2015).
- Of the 3,702 firearm homicides committed against youth, 68 percent were carried out against African Americans, 19 percent against Hispanics, 12 percent against whites, and 1 percent against American Indians/Alaskan Natives or Asians/Pacific Islanders (CDC 2016).
- Youth firearm homicide victims are more likely to be male, with 89 percent of homicides against youths ages 10 to 24 in 2014 committed against males (CDC 2016).
- Youths ages 15 to 24 experienced a higher rate of homicides with a firearm than any other age group, at about 8.2 per 100,000 people (CDC 2016; Kochanek et al. 2016).
- During 2009–10, 70 percent of all firearm homicides of 10- to 19-year-olds were committed in the most populous metropolitan statistical areas in the country (Kegler and Mercy 2013).

Overall, these trends reflect that youth homicide victims ages 15 to 24 are more likely to be male and African American or Hispanic and to live in highly populous/urban areas of the country (Planty and Truman 2013; Teplin et al. 2015).

*Youths Who Commit Gun Homicides.* Based on the Uniform Crime Report (UCR) Supplementary Homicide Reports (SHRs), there were an estimated 3,374 homicides with a firearm committed by known 12- to 24-year-olds in 2014 (Puzzanchera, Chamberlin, and Kang 2016).

- Of the estimated 3,374 homicides committed by known youths, 70 percent of the cases involved an African American individual, 27 percent of cases involved a white individual, and 1 percent were American Indians, Alaskan Natives, Asians, or Pacific Islanders (Puzzanchera, Chamberlin, and Kang 2016). The UCR SHR demographic data cannot be broken down by ethnicity (Hispanic versus non-Hispanic).
- Males accounted for more than 90 percent of the known 12- to 24-year-olds who committed a homicide with a firearm in 2014 (Puzzanchera, Chamberlin, and Kang 2016).
- The estimated number of firearm-related homicides committed by known juvenile offenders (ages 12–17) more than quadrupled between 1984 and 1994, from 543 to 2,271. However, between 1994 and 2001 the rate of firearm-related homicides committed by juveniles declined. Firearm-related homicides by juveniles increased by 50 percent from 2001 to 2007, but decreased from 2007 to 2014 by 39 percent (OJJDP 2016a).

Overall, these trends reflect that the majority of firearm-related homicides involving known youths are perpetrated by males and African Americans.

*Nonfatal Gun Violence.* There is conflicting information about whether the trend in nonfatal firearm-related violence has been increasing or decreasing over time. Data from the Centers for

Disease Control and Prevention (CDC)—which is primarily based on reports from U.S. emergency departments—indicate that nonfatal gunshot injuries (specifically rates of assaults and self-harm) are increasing. However, data from the Bureau of Justice Statistics’ National Crime Victimization Survey (NCVS) suggest there has been a decline in rates of nonfatal firearm victimizations of youths, which includes victimization reports in which the offender had shown or used a firearm (Planty and Truman 2013; Truman and Langton 2015). Using available data from these sources, the following trends emerge when the scope is limited to those ages 12 to 17 and 18 to 24:

- According to CDC (2016) estimates, there was a roughly 7 percent increase in the rate of nonfatal firearm gunshot injuries for youths ages 12 to 17 from 2001 to 2014 (from 21.1 to 22.6 per 100,000) and a 20 percent increase for youths ages 18 to 24 (from 59.5 to 71.2 per 100,000).
- In contrast, the NCVS reported that the rate for nonfatal firearm victimizations against youths 12 to 17 declined by about 36 percent between 2001 and 2011 (from 2.2 to 1.4 per 1,000). Further, the rate declined by about 24 percent for 18- to 24-year-olds during the same period (from 6.8 to 5.2 per 1,000) [Planty and Truman 2013].

Disparities between these two data sources could explain differences between the reported trends. Planty and Truman (2013, 11) acknowledge the differences in NCVS and CDC trend data. Their report notes that NCVS is a residential household survey and does not include hidden populations such as those who are homeless or institutionalized (e.g., jails or mental health facilities). Further, some of the CDC estimates used to calculate injury trends may be based on small sample sizes, and should be interpreted with caution.

*Youth Gun Suicide.* According to the CDC’s National Vital Statistics System, suicide was the 10th-leading cause of death in the United States in 2014; however, it was the second-leading cause of death in youths 10 to 24 years old (Kochanek et al. 2016; CDC 2016). This is in contrast to suicide’s rank as the third-leading cause of death among youths 10 to 24 in 1999, showing that while homicides may be decreasing for youths suicides are increasing (CDC 2016).

- Of the 5,504 youths ages 10 to 24 who died by suicide in 2014, almost half (2,444) were carried out with a firearm (Child Trends Databank 2015; CDC 2016).
- Of the 2,444 suicides with a firearm by youths 10 to 24 years old in 2014, 76 percent were white, 10 percent were African American, 10 percent were Hispanic, and 4 percent were by American Indians, Alaskan Natives, Asians, and Pacific Islanders (CDC 2016).
- Males ages 10 to 24 years old (88 percent) were more likely than their female counterparts to kill themselves with a firearm (12 percent) [CDC 2016].

Overall, the numbers suggest that the majority of suicides committed by 10- to 24-year-olds are male and white.

*Community Gun Violence.* While youths can be directly exposed to gun violence—through victimization or perpetration—they can also be indirectly exposed, by witnessing gun violence in their communities (Listenbee et al. 2012). Youths who witness gun violence experience similar negative psychological and physical harm as youths who have had direct exposure (Futures Without Violence 2016).

There are various forms of violence that youths may witness in their lifetimes, including assaults, physical abuse, thefts, and shootings. According to the National Survey of Children’s Exposure to Violence (most recently conducted in 2014), about 38 percent of children age 17 and younger have witnessed violence in the family or the community in their lifetimes (Finkelhor et al. 2015a). With regard to specific exposure to gun violence:

- About 8 percent of children reported being exposed to a shooting (including hearing gunshots or seeing someone shot) in their lifetimes, with children 14 to 17 years reporting the highest levels of exposure to a shooting (13 percent). Additionally, boys were more likely than girls to report exposure to shootings (Finkelhor et al. 2015a).
- Youth exposure to shootings has decreased between 2008 and 2014, although this change has been minimal (Finkelhor et al. 2014; Finkelhor et al. 2015a).
- Youths are more likely to witness assault in their communities in their lifetimes than to be exposed to a shooting (28 percent compared with 8 percent, respectively) [Finkelhor et al. 2015a].
- Although the national level of youth exposure to shootings is low, violent crimes in urban areas are more likely to involve guns than those in suburban or rural areas (Duhart 2000).

Overall, although exposure to gun violence isn’t as prevalent as other forms of community violence, it is still a potentially traumatic event that many youths will experience in their lifetimes.

*School Gun Violence.* During the school year of 2011–12, school-related homicides accounted for less than 2 percent of all homicides (Child Trends Databank 2015; Robers et al. 2012; Planty and Truman 2013). While school shootings are rare, most homicides against youth at school were committed with a firearm (Planty and Truman 2013).

- During the 2009-10 school year, there were 1,749 reports of firearm possession incidents at schools (a rate of 3.5 per 100,000 people). During the 2013–14 school year, this number decreased to 1,501 (a rate of 3.0 per 100,000) [Zhang, Musu-Gillette, and Oudekerk 2016].
- About 4 percent of students in grades 9–12 reported carrying a weapon at least 1 day during the previous 30 days in 2015, a decline from about 12 percent in 1993 (Zhang, Musu-Gillette, and Oudekerk 2016; Kann et al. 2016).

- In 2013, 3.7 percent of students ages 12 to 18 reported having access to a loaded gun without adult permission, either at school or away from school, which is a decrease from 6.7 percent in 2007 (Zhang, Musu-Gillette, and Oudekerk 2016).
- White male students were more likely to have carried a gun than any other demographic (Kann et al. 2016).

*School Shootings.* According to Stanford’s *Mass Shootings in America* database, there have been an estimated 220 victims in school-related mass shootings, 140 of which were fatalities, from the Columbine High School (Littleton, Colo.) shooting in 1999 through the Umpqua Community College (Roseburg, Ore.) shooting in 2015\* (Stanford Geospatial Center and Stanford Libraries 2016).

Bushman and colleagues (2016) examined the differences between and similarities of school shooters and street shooters. Overall, they noted that school shooters generally were white, male adolescents from stable, low-crime towns or suburbs, and they generally did not know the people they killed personally. Conversely, street shooters tend to live in densely populated areas with high crime levels and poverty rates, and they tend to aim to hurt or kill individuals they know. In addition, using data from the *2004 Survey of Inmates in State Correctional Facilities* (the most recent data available), the report authors found that nearly half of all street shooters under age 18 obtain their weapons from street or black market sources, 37 percent receive them from a friend or family member, and 13 percent steal them. In contrast, findings from other data sources have shown that more than half of school shooters obtain their weapons from home or a relative (Bushman et al. 2016).

*International Comparisons of Youth Gun Violence.* In 2012, firearms were involved in nearly 50 percent of all homicides committed worldwide (Butchart and Mikton 2014; Kieselbach and Butchart 2014; Mikton et al. 2016). In addition, according to a World Health Organization global status report on violence prevention, 43 percent of annual homicides worldwide involve youths ages 10 to 29 years (Butchart and Mikton 2014). Youths are disproportionately affected by homicide regardless of country level of income (Butchart and Mikton 2014; Mikton et al. 2016); however, the youth homicide rate in the United States is higher than other high-income countries (e.g., Australia, Canada, United Kingdom) [Bushman et al. 2016; David-Ferdon and Simon 2014]. For example, in 2003, the firearm homicide rate among U.S. youths ages 15 to 24 was 42 times as high as the rate for youths in similar high-income nations (Richardson and Hemenway 2011).

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\*This number includes shootings at the following schools: Columbine High School; Appalachian School of Law (Grundy, Va.); University of Arizona College of Nursing (Tucson, Ariz.); Red Lake High School (Red Lake Indian Reservation, Minn.); West Nickel Mines Amish School (Bart Township, Pa.); Virginia Polytechnic Institute and State University (Blacksburg, Va.); Northern Illinois University (DeKalb, Ill.); Chardon (Ohio) High School; Oikos University (Oakland, Calif.); Sandy Hook Elementary School (Newtown, Conn.); University of California, Santa Barbara (Isla Vista); Marysville (Wash.) Pilchuck High School; University of North Carolina at Chapel Hill School of Dentistry; and Umpqua Community College.

*Gun Prevalence Compared With Other Weapons.* From 2004 through 2013, most violent victimizations committed by adolescents ages 12 to 17 were simple assaults that did not involve a weapon. However, among homicides with a weapon committed by youth, firearms were the weapon of choice (Oudekerk and Morgan 2016).

- According to the SHRs, of the 4,743 reported homicides committed by youths ages 12 to 24 with a weapon in 2014, 71 percent were carried out by firearm (Puzzanchera, Chamberlin, and Kang 2016). In contrast, about 12 percent were committed with a knife, 6 percent were committed with a personal weapon (e.g., hands, fists, feet), 8 percent were committed with another type (e.g., poison) or unknown weapon, and only 3 percent were committed with a blunt object (Puzzanchera, Chamberlin, and Kang 2016).

## Risk Factors for Youth Gun Violence

A significant body of research suggests that youth engagement in the most serious forms of violence is strongly linked to the convergence and interaction of individual, family, peer, school, and community risk factors (Hawkins et al. 2000; Herrenkohl et al. 2012; Shetgiri et al. 2016). Risk factors are categorized as having the ability to increase the likelihood of youth violence (Jolliffe et al. 2016). There is no single risk factor or specific combination of risk factors that can predict who is more likely to engage in violent behavior (Mmari, Blum, and Teufel-Shone 2010). However, the more individual, family, peer, school, and community risk factors present in a youth's life, the greater the probability of youth violence (Reingle, Jennings, and Maldonado-Molina 2012; Williamson, Guerra, and Tynan 2014) [for more information, see the Model Programs Guide literature review on [Risk Factors for Delinquency](#)].

Nevertheless, while little research has yet to be conducted on specific risk factors for youth gun violence, the risk factors associated with serious youth violence are relevant to any discussion of youth gun violence. Among the known risk factors for youth violence, emotional distress, violence exposure, alcohol use, and peer delinquency have been directly linked to youth gun violence. Of these risk factors, the strongest and most consistent predictor of youth gun violence is the exposure to or a history of violence (Shetgiri et al. 2016). In addition, the access to and availability of firearms increase the likelihood of weapon-related violence among youth (Miller, Azrael, and Hemenway 2002; Slovak and Singer 2001; Lizotte et al. 1994).

*Exposure to Violence.* Research suggests there is a cumulative effect of risk factors across individual, family, peer, school, and community domains that increases the probability of youth gun violence (Mmari, Blum, and Teufel-Shone 2010). The events and circumstances characteristic of the environment (home, community, and school) have an influence on the development of individual risk factors for gun violence. For example, "Sixty percent of all U.S. youths report exposure to some form of violence... in a given year" (Zimmerman and Posick 2016, 178). Exposure to violence refers to direct exposure (personal victimization) or indirect exposure (witnessing or hearing about the victimization of a family member, friend, or

neighbor) [Zimmerman and Posick 2016]. Studies suggest a significant relationship between exposure to guns and shootings and psychological trauma (Slovak and Singer 2001). Violence exposure is linked to emotional distress, anxiety, depression, and posttraumatic stress disorder (Margolin and Gordis 2000). The psychological injuries connected to the exposure to violence are often ignored, but this is problematic since the most significant predictor of future violent behavior for both male and female youths is a history of violence (Hawkins et al. 2000).

*Access and Availability to Firearms.* Violence exposure and violence commission predict each other over time (Henrich, Brookmeyer, and Shahar 2005). Thus, what differentiates youth gun violence from other serious forms of violence is the presence of a firearm. The access and availability to firearms is a facilitating factor in youth gun violence (Shetgiri et al. 2016; Miller, Azrael, and Hemenway 2002; Lizotte et al. 1994). Youths who have witnessed violence in their environments are more likely to become involved in assaultive behavior and carry weapons (Patchin et al. 2006). In these instances violent behavior progresses from physical fighting to more deadly forms, such as gun violence (Dahlberg and Potter 2001). Part of what enables youths to progress to more deadly forms of violence is related to their access to and the availability of firearms in their homes and communities (Williamson, Guerra, and Tynan 2014). Youths who live in homes where firearms are present but not safely stored are more likely to be involved in some form of gun violence (Johnson et al. 2010). Weapons have become a significant element in the homicide and suicide deaths among teens (Slovak and Singer 2001). Community violence has led to a prevailing fear, among youth, of being shot (Powell, Sheehan, and Christoffel 1996) and weapon-carrying in self-defense (Shetgiri et al. 2016). Consequently, of all risk factors associated with youth violence, exposure to violence and availability of firearms most increase the likelihood of engaging in youth gun violence.

Notably, however, there is significant variation in the impact of risk factors on youths. Certain psychological and biological characteristics—including hyperactivity and antisocial behavior—link male youths to more serious forms of violent behavior than female youths, (Kodjo, Auinger, and Ryan 2001; Bolland 2003). Female youths who are exposed to violence are more likely to internalize their symptoms and are less likely than male youths to cope in positive manners, leading to other individual risk factors (Rosario et al. 2008). Whites and Asians tend to witness crime less often than African American and Hispanic youths do. Yet, even when compared with Hispanic youths, black youths were more vulnerable to violent behavior in that they tended to live in neighborhoods with higher levels of violent crime and were more likely to engage in violent crime themselves (Luthar and Goldstein 2004). Male youths from all racial and ethnic backgrounds have a greater likelihood of dying from a gunshot wound, compared with all other natural causes combined (Jones and Krisberg 1994). Consequently, research suggests that there may be gender, racial, and ethnic differences in the factors that lead to youth gun violence (Shetgiri et al. 2016).

## Protective Factors Against Youth Gun Violence

Resiliency theory indicates that some youths exposed to such risk factors do not develop negative, violent behaviors because of the influence of protective factors (Stoddard et al. 2013). Protective factors are the events, opportunities, and experiences in the lives of youth that lessen or buffer against the probability of violence (Resnick, Ireland, and Borowsky 2004). Protective factors help youths overcome the negative effects of risk factors and are essential in helping them compensate for or protect against the effects of risk on healthy development (Fergus and Zimmerman 2005) [for more information, see the Model Programs Guide literature review on [Protective Factors Against Delinquency](#)].

*Parent and School Connectedness.* Of these protective factors for serious forms of youth violence, there are two that have been shown to make a slight impact of youth gun violence. Research suggests that parent and school connectedness counterbalance the risk of exposure to, and committing, violence (Luthar and Goldstein 2004). Parental presence and proper supervision can assist in controlling where and with whom youths spend their time, thus reducing the likelihood of violence exposure (Henrich, Brookmeyer, and Shahar 2005). However, parental connectedness may be a significant buffer against violence only for Latinos and not whites and African Americans (Shetgiri et al. 2016). High education aspirations and the physical interventions often found in schools, such as the use of weapon detectors, allow for the development of a safe connection to the school environment (Henrich, Brookmeyer, and Shahar 2005.) However, high educational aspirations are a protective factor only for Latinos and African Americans (Shetgiri et al. 2016), and the effects of school connectedness on exposure to weapon violence may not extend beyond the building walls (Henrich, Brookmeyer, and Shahar 2005). Given the racial and ethnic disparities for these protective factors, caution should be taken to not generalize their ability to protect and buffer against youth gun violence for all youth.

Overall, given the paucity of research on risk and protective factors that directly affect youth gun violence, more attention should be paid to this area of research. Knowing what factors increase or decrease the risk for all forms of youth violence is necessary to the process of designing empirically based gun prevention strategies (Herrenkohl et al. 2000). Concentrated prevention efforts to enhance protective factors, such as parental and school connectedness, may help youth overcome the debilitating effects of risks, such as exposure to violence and the access to and the availability of firearms (Stoddard et al. 2013) and ultimately make a significant impact on youth gun violence.

## Policy Research on Guns

*Federal Laws.* There are numerous federal laws that regulate gun purchases made from licensed sellers.

- *The Federal Firearms Act of 1938 and the Gun Control Act (GCA) of 1968.* These laws created regulations with regard to the selling of firearms. Under the GCA, businesses selling firearms were required to obtain a federal firearm license (FFL), and interstate sales of firearms were limited to only those sellers with FFLs. In addition, the GCA established several new requirements, such as
  - Prohibiting certain individuals (for example, those convicted of a felony offense) from buying firearms
  - Making it a crime to sell or transfer a firearm to someone who is forbidden from possessing one
  - Requiring buyers to sign a form stating that had not been convicted of a felony or were otherwise disqualified by law from purchasing a gun

However, the GCA did not regulate firearms transfers made by private gun owners (Webster and Wintemute 2015). The GCA set age restrictions for the purchase and transfer of handguns and long guns (i.e., rifles and shotguns):

- A person must be at least 18 years old to purchase a long gun from a licensed gun seller; however, there is no age restriction on a person to possess a long gun or buy a long gun from a private seller.
  - A person must be at least 21 years old to purchase a handgun from a licensed gun seller but may be only 18 to be transferred a handgun from someone who is not a licensed gun dealer or to possess a handgun (Webster and Wintemute 2015).
- *The Youth Handgun Safety Act.* The act was passed as part of the Violent Crime Control and Law Enforcement Act of 1994 and decreased the legal age of possessing a handgun to 18 (OJJDP 1996).
  - *The Gun-Free Schools Act.* The act also took effect in 1994, and amended part of the Elementary and Secondary Education Act of 1965, requiring schools receiving federal education funds to adopt a policy that required expulsion (for no less than 1 year) for any student who brings a firearm to school (OJJDP 1996).
  - *The Brady Handgun Violence Prevention Act.* The Brady Act was also enacted in 1993, establishing several new requirements and standards to sell and purchase firearms (for example, a 5-day waiting period before a licensed seller, manufacturer, or importer could transfer a gun to a buyer, and mandatory background checks were required for all individuals looking to purchase firearms from licensed gun dealers). Like the GCA, the Brady Act exempted background checks for firearm transfers made by private gun owners (Webster and Wintemute 2015; Cook and Ludwig 2013; Fleegler et al. 2013).
  - *The FBI's National Instant Criminal Background Check System (NICS).* NICS was created under the Brady Act to help conduct the mandatory background check. Launched in

1998, NICS has completed more than 200 million background checks, with about 1.1 million denials (FBI 2014).

*State Laws.* A recent study on state gun laws found almost 3,200 laws had been passed between 1990 and 2014, including laws to loosen or tighten gun restrictions (Luca, Malhotra, and Poliquin 2016).

Transactions involving guns generally take place by two means: through licensed businesses or through private sellers. Because federal laws regulate gun purchases by licensed sellers but do not regulate sales made by private gun owners, many states have attempted to regulate gun sales by private, unlicensed sellers (Braga and Hureau 2015).

Following are descriptions of three types of state laws that govern gun sales made by licensed and unlicensed sellers.

- *Permit to Purchase (PTP).* Approximately 11 states have PTP laws, which require individuals to obtain a permit or license (contingent on a background check) before purchasing a handgun, from either licensed businesses or private sellers (Crifasi et al. 2015). PTP laws vary by state; for instance, some states require people to get permits in person, while others allow permits to be obtained online or by mail (Webster and Wintemute 2015). However, these laws wouldn't directly affect youths under 21—the minimum age set by federal law to purchase a handgun.
- *Background Checks.* Although the Brady Act requires mandatory background checks for all individuals looking to purchase firearms from licensed gun dealers, sales by private gun owners are exempted from this requirement. However, some states have sought to strengthen the Brady background checks (Rudolph et al. 2015). Approximately 17 states and the District of Columbia have adopted stricter background check requirements for private sellers (Rudolph et al. 2015). For example, in Massachusetts, citizens are required by law to report *all* sales, transfers, inheritances, and losses of firearms to the Firearms Record Bureau. This law covers private transactions of guns (Braga and Hureau 2015).
- *Child Access Prevention (CAP) Laws.* CAP laws are examples of laws specifically focused on preventing youth from accessing guns. CAP laws make it a crime to store firearms in a way that can be easily accessible to youth (Webster et al. 2004). Since 1981, some 26 states and the District of Columbia have passed a CAP law. CAP laws may vary by state on factors such as the requirements to store a firearm or the criminal liability of gun owners if youth gain access to a firearm (which can result in fines, imprisonment, or both) [Anderson and Sabia 2016].

*Impact of State and Federal Legislation.* There are only a limited number of studies examining the effectiveness of firearm legislation at the state and federal levels. Cook and Ludwig (2013) examined the impact of the Brady Act on rates of homicides and suicides by comparing 32 states affected by the law with 18 states that already had background checks in place before the law's passage. The findings showed that although firearm-related homicide rates declined

nationwide following the law's enactment, there was no statistically discernible difference in the reduction of homicide trends between Brady states and non-Brady states. The result was similar for suicide rates, except for a significant difference in suicide rates for adults 55 and older (no other age group was affected) [Cook and Ludwig 2013; Webster and Wintemute 2015]. However, the study included only data on rates of homicides and suicides of adults 21 and older. The study authors argued that the GCA had already set the minimum age limits to buy and possess a firearm; thus, the Brady Act would likely not affect access to guns by those under 21 (Cook and Ludwig 2013). Therefore, the possible specific impact the Brady Act did or didn't have on youth homicide and suicide rates is not known.

Marvell (2001) examined the impact that juvenile gun possession bans has made on reducing gun homicides, especially of youths. The study looked at the impact of state and federal laws that banned juveniles from possessing guns (specifically those laws passed in the early 1970s through 1994). The focus was on homicides and gun homicides of 15- to 24-year-olds. Overall, the results suggested that the various laws with juvenile handgun bans made little or no impact on crime measures, including gun homicides of youths.

With regard to state laws, a study of Connecticut's PTP law found a reduction in homicide rates following passage of the law (Rudolph et al. 2015), while a study of the repeal of Missouri's PTP law found an increase in firearm homicides and diversion of guns to criminals (Webster, Crifasi, and Vernick 2014). However, these studies were done with state-level data (that include rates of both adults and juveniles); therefore, it is unclear what the impact of PTP laws is specifically on youth-related gun violence and homicides. Conversely, studies of CAP laws have examined the impact of such legislation on youth. Studies have found reductions in unintentional shooting deaths of children (Webster and Starnes 2000), reductions in youth suicides (Webster et al. 2004), and reductions in reports of gun carrying by youths (Anderson and Sabia 2016).

## **Public Health Perspective on Gun Violence**

Researchers, public health officials, and medical experts have suggested that because of the interrelated individual-familial-community risk factors and the large number of individuals affected, gun violence is also a public health issue (IOM and NRC 2013b; Butkus et al. 2014).

The public health field is concerned with problems that are related to significant levels of morbidity and mortality (for example, viruses, diseases, or other illnesses) in communities and the general public. A public health approach has three important components: "1) a focus on prevention, 2) a focus on scientific methodology to identify risk and patterns, and 3) multidisciplinary collaboration to address the issue" (IOM and NRC 2013b, 3).

Public health strategies generally concentrate on the relationships of three elements: 1) the "agent" (or the source of the injury, which in the case of gun violence would be the gun or the shooter or both); 2) the "host" (which would be the victim of the gun violence); and 3) the

“environment” (which would be the condition under which the violence occurred, including social, physical, or even virtual environments that affect gun policies, norms, and behaviors) [IOM and NRC 2013b].

Although justice personnel may be primarily responsible for the apprehension, prosecution, and sanctioning of gun violence offenders, using a public health approach to combat the dilemma of youth gun violence allows for justice policymakers and practitioners to use a comprehensive, collaborative method that can be informed by research from different fields that have successes in reducing and preventing other behavior-related issues (for example, tobacco use and motor vehicle fatalities).

One example of an initiative influenced by the public health approach is the [Shared Framework to Reduce Youth Violence and Promote Well-Being](#). The Shared Framework is a collaborative effort between the Office of Juvenile Justice and Delinquency Prevention and the CDC designed to help concentrate and strengthen the collective action to reduce youth violence and ensure healthy and safe futures for children and youth. The Shared Framework includes a vision statement, values, principles for action, and a logic model showing the means to attain goals (OJJDP 2014). The Share Framework draws on previous models, including the public health approach to preventing youth violence.

## Outcome Evidence

This section presents several evidence-based practices and programs that were shown to significantly reduce the occurrence of gun violence, including homicides, assaults, and other measures of violent crime. Overall, there is evidence supporting that interventions can reduce violent crime and offending in juveniles, and gun violence in general; however there is less evidence supporting reductions in juvenile gun violence. The following are examples from CrimeSolutions.gov and the Model Programs Guide that represent some of the most relevant interventions to youth gun violence.

*Interventions Specifically Focused on Reducing Gun Violence.* The [Reducing Gun Violence](#) practice concentrated on interventions that aimed to reduce the threat to public safety caused by firearms and to decrease the number of illegal firearms or weapons in the possession of criminals. This practice had an overall weak to moderate effect on gun crime (note no distinction was made about youth or overall gun crime). However, this practice is diverse; the effects reported in a meta-analysis by Makarios and Pratt (2012) of different types of programs under the umbrella included law enforcement campaigns to reduce gun violence, gun laws, and gun buy-back programs.

The most promising program strategies were

1. Community interventions, such as Operation Ceasefire

2. Hot spots policing strategies
3. Weapon ban laws
4. Stricter probation requirements for juvenile gun offenders, though the authors noted there were limited data on this strategy

The meta-analysis found that enhanced prison terms, waiting periods, and background checks had little effect on reducing gun violence. No significant relationships were found between reduced gun crimes and prosecutorial strategies such as harsher sentencing, safe storage laws, and gun buy-back programs (that is, these programs were found to have no effect on reducing gun violence).

*Community-Driven Interventions. [Focused Deterrence Strategies](#)* is a person-based practice composed of several steps, beginning with selecting a particular crime problem such as youth homicide, convening an interagency working group (e.g., law enforcement, social services), and developing a response to targeted offenders or groups of offenders that uses a variety of sanctions (“pulling levers”) to stop continued violent behavior (Braga and Weisburd 2012). A meta-analysis by Braga and Weisburd (2012) revealed that focused deterrence strategies have shown a significant, moderate effect on overall crime reduction.

The program [Operation Ceasefire](#), developed in Boston, Mass., is a problem-solving police strategy that aims to reduce gang violence, illegal gun possession, and gun violence and has been replicated and modified by other communities. Braga and colleagues (Braga et al. 2001; Braga and Pierce 2005) found *statistically significant decreases in youth homicides and gun assaults and recovered new handguns*.

[Indianapolis Violence Reduction Partnership](#), based on Ceasefire, targeted high-risk chronic offenders (adults and juveniles) to reduce gun violence in Indianapolis, Ind., and has been found to be related to reduced gun- and non-gun-related homicides across all ages (McGarrell et al. 2006; Corsaro and McGarrell 2010).

[Operation Peacekeeper](#), based in Stockton, Calif., was designed to reduce gang involvement and violence among urban youths ages 10 to 18 through the use of Youth Outreach Workers serving as mentors for youths in neighborhood settings (Braga 2008). Evaluation results have found a decrease in gun-homicide incidents.

[Cure Violence](#), in Chicago, Ill., takes a public health approach, using trained street violence interrupters and outreach workers, public education campaigns, and community mobilization to reduce shootings and killings (Skogan et al. 2008). Evaluation results found Cure Violence was associated with decreases in shootings, killings, and retaliatory homicides in some neighborhoods.

The [Milwaukee \(Wisc.\) Homicide Review Commission \(MHRC\)](#) aims to reduce homicides and nonfatal shootings through a multilevel, multidisciplinary, and multiagency homicide review process. Azrael, Braga, and O'Brien (2013) found that the implementation was associated with a statistically significant decrease in homicides from January 1999 through December 2006.

*Hot Spots Policing Interventions.* [Hot Spots Policing](#) is a place-based practice in which law enforcement agencies expend limited resources in small geographic areas, usually in urban settings, where crime is concentrated and highly predictable (Braga, Papachristos, and Hureau 2012). Overall, hot spots policing has been shown to have a significant but small effect on reducing crime, though youth gun violence was not assessed.

Overall, there are a variety of interrelated programs and practices that appear to be effective at or promising for reducing violence and gun violence. There are some limitations to the research, such as the issue of generalizability of the findings to other cities or communities. In addition, there are but a limited number of programs and practices that have examined the specific impact on youth gun violence.

## Conclusion

The data available on the incidents of gun violence in the United States show how greatly youth are affected. Available data can describe how many youths are involved in gun violence every year (either perpetrating, witnessing, or being a victim of gun violence). However, the numbers cannot explain why youth gun violence is so prevalent. One issue is the lack of research focused exclusively on the causes, correlates, and consequences of youth gun violence. For instance, although research has examined the risk and protective factors related to youth violence in general, gun violence is usually not specifically focused on, but rather grouped together with other forms of violence, such as school or community violence. Some information is known about the risk factors related to youth gun violence (for example, the exposure to or a history of violence and the access to and availability of firearms are strong predictors of the occurrence of violence). Nevertheless, a great deal about the complexity of youth gun violence still is not known. Specific and well-defined research examining the prevalence and predictors of youth gun violence would help inform future policies and programs designed to reduce gun violence involving youth.

Some laws and policies that have been enacted at the federal and state levels are intended to reduce youths' access to guns. But while these laws restrict gun access to those under certain age thresholds (18 in some cases and 21 in others), with few exceptions the laws do not otherwise directly target youth behavior. As more information is gathered and analyzed, more informed policies can be developed to effectively address the issue of youth gun violence.

Moreover, many specific programs, using a public health approach, have been developed to target various forms of community-based violence, including youth gun violence. Several of these programs have been shown to reduce measures of violence; however, few programs have been evaluated to determine the particular impact on youth gun violence. What research is available can help guide programming efforts focused on reducing youth gun violence. For example, some promising strategies to reduce gun violence are community interventions (such as Operation Ceasefire and Cure Violence), hot spot policing practices, and weapon ban laws (Makarios and Pratt 2012). Future research should explore how these strategies can be tailored to the specific issue of youth gun violence.

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