

FIREARM INJURY IN THE U.S.

The authors of this Resource Book have collective expertise in areas of public health, medicine, nursing, epidemiology, demography, and public policy. The information presented here is based on a wide body of literature and has been reviewed by academic scholars from many different disciplines. Our goal is to offer an inclusive introduction to the field of firearm injury prevention by providing a resource for multiple levels of study.

This Resource Book will help readers:

- Understand the problem of firearm injuries in terms of national public health: the magnitude of gun-related injury, disability, and psychological and economic impact to our society.
- Review the current data available for firearm injury, their limitations, and where more information and study is needed.
- Understand the disproportionate magnitude of firearm injury in the U.S. on an international level of comparison.
- Understand the benefit of addressing firearm injury from a public health approach.
- Learn how potential interventions can be identified to reduce death and disability from firearm injury.

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A NOTE ABOUT THE DATA SOURCES

Data are presented from available sources to illustrate the magnitude of firearm injury in terms of deaths, nonfatal injuries, and other effects on society. Thirteen national data systems are available in the U.S., each managed by a single federal agency, to compile information on firearm mortality, morbidity (nonfatal injury outcomes), and associated risks and behaviors.¹ These data systems primarily collect broad-based information for surveillance and have been created largely in the last 10-15 years. Some advances in these data systems have occurred; however, significant limitations remain. Most importantly, the systems are not linked. Important information, such as community-level data, circumstances of firearm deaths, types of weapons used, victim-offender relationships, involvement of substance abuse, or locale where the firearm injury occurred, are not consistently collected, leaving the data fragmented. The nonfatal injury data for firearms are particularly limited, as they remain non-specific and difficult to use for epidemiological study.

The main data sources cited in this resource book are:

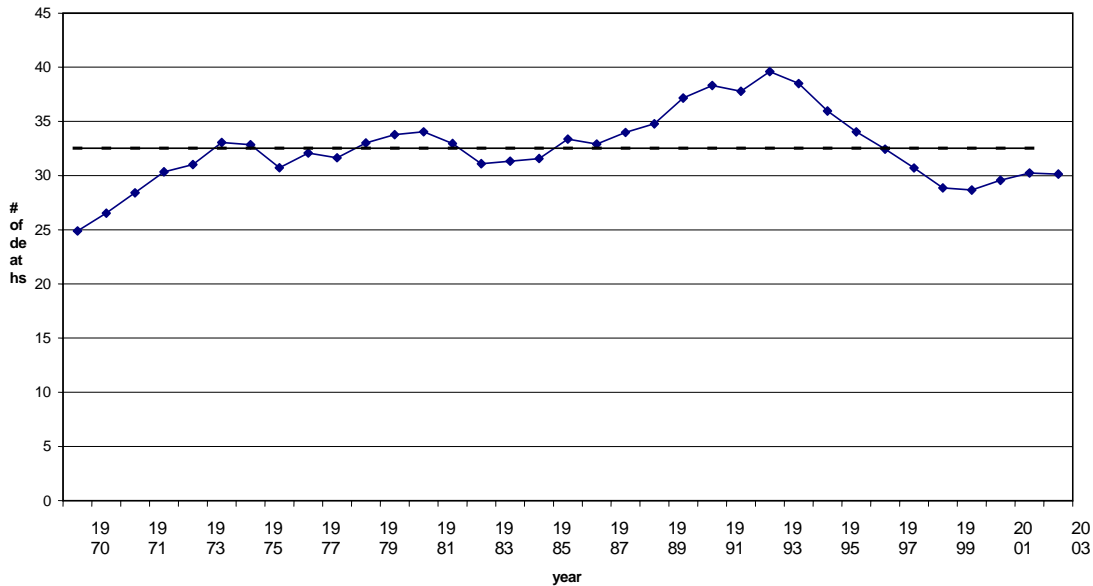
- The Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics publishes annual data on deaths from different causes in the National Vital Statistics System. It takes about 18 months to collect, compile, verify and release these statistics to the public, accounting for the lag time in much of the data reported in this resource book. Beginning in 1999, mortality data have been coded using ICD-10 codes. Graphs that include data from 1999 have a break in the trend line because the NCHS has recommended not combining these data.
- The Federal Bureau of Investigation (FBI) Uniform Crime Reporting (UCR) system compiles crime statistics annually from 17,000 city, county, and state law enforcement agencies that submit data *voluntarily*. The UCR publishes crime data annually, with a lag time of approximately one year, and is considered the most reliable homicide data.
- The Bureau of Justice Statistics (BJS) in the Department of Justice (DOJ) provides the National Crime Victimization Survey (NCVS), collecting data on reported and unreported fatal and nonfatal violent crimes against people age 12 or older in the United States.
- The National Electronic Injury Surveillance System (NEISS) provides data for nonfatal firearm injury. NEISS data is collected from a sample of 91 hospitals in the U.S. by the Consumer Product Safety Commission and is extrapolated to the national population to estimate the extent of nonfatal injuries.
- Professional journals provide other firearm-related research (i.e., trauma registries, surveys, clinical studies), but are mostly limited to single experience, case reports and retrospective analysis.

SECTION I. FIREARM INJURY IN THE UNITED STATES

Firearm injury in the United States has averaged 32,538 deaths annually between 1970 and 2002 (See Figure 1).^{2,3} It is the second leading cause of death from injury after motor vehicle crashes and, in several states, is the leading cause of injury death.⁴ An estimated two nonfatal injuries occur for every firearm death.^{5,6} Firearms are involved in approximately 65% of homicides, 55% of suicides, 40% of robberies, and 20% of aggravated assaults.^{7,3} The fatality rate of firearm violence is similar to HIV, which is recognized as an epidemic by the Centers for Disease Control and Prevention (CDC), and is more than twice as high as the U.S. Department of Health and Human Services' "Healthy People" goals for the year 2010.

Figure 1. Annual Firearm Mortality – U.S., 1970-2003

In the last thirty years, an average of 32.47 Americans died each year from firearm injuries. 1999 was the first year since 1971 that there were less than 30,000 firearm deaths.



Average # of annual deaths = 32.47

Source: National Center for Health Care Statistics, CDC.

*Beginning in 1999, mortality data have been coded using ICD-10 codes. Graphs that include data from 1999 have a break in the trend line because NCHS has recommended not combining these data.

Several additional facts compel the interdisciplinary study of firearm injury and development of interventions to reduce its impact:

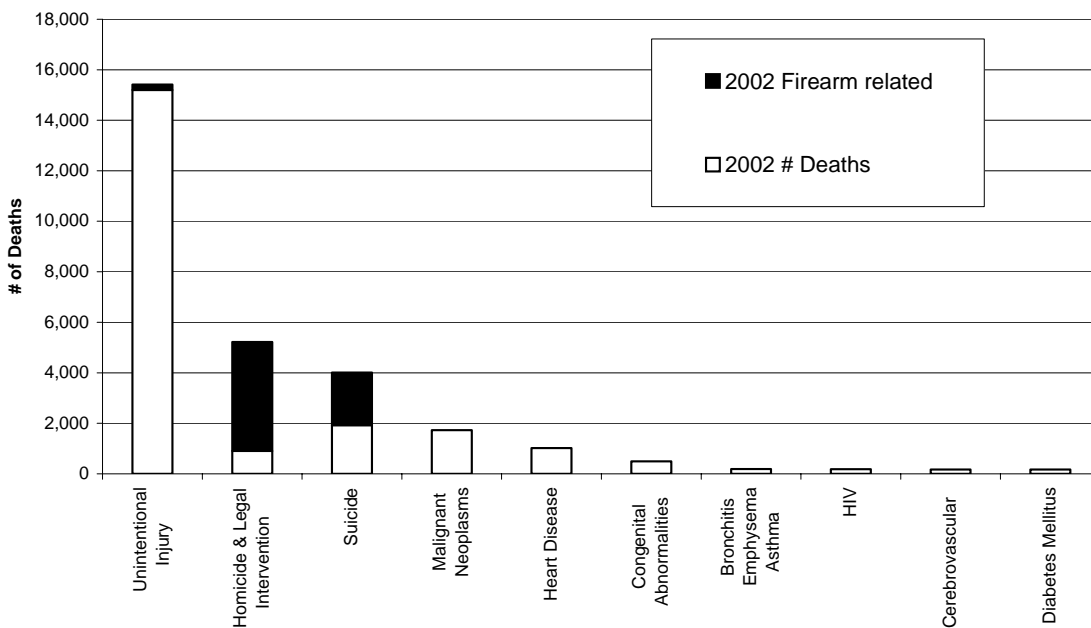
- Firearm injury and its subsequent repercussions are preventable. Research on firearm injury provides evidence that specific changes can be made that will reduce the deaths, disability, and costs to society.

- Firearm injury disproportionately affects young people, resulting in lives cut short or forever affected by violence (See Figure 2).
- Compared to other causes of death, the number of firearm injury and death in the United States demonstrates its impact on American society. Firearms, especially handguns, are effective lethal weapons with the capability to escalate often-impulsive acts of interpersonal violence or suicidal thoughts into death.

Figure 2. U.S. Youth Firearm Deaths Compared to Other Causes, 2002

Firearm injury disproportionately affects young people. Among the leading causes of death for those ages 15-24, homicide ranks second and suicide ranks third, and the majority of both are firearm-related. Diseases that attract more public attention and research funding cause far fewer deaths than firearms.

Top 10 Leading Causes of Death, 15-24 year olds – U.S. 2002

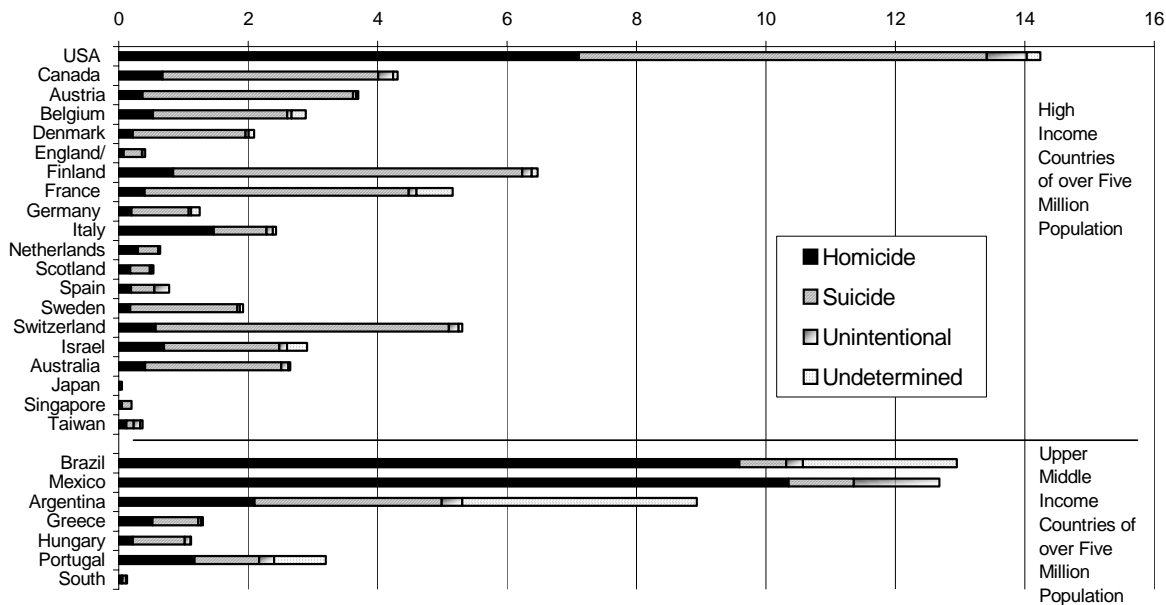


Source: National Center for Injury Prevention and Control, CDC.

INTERNATIONAL COMPARISONS

Compared to other industrialized countries, violence and firearm death rates in the United States are disproportionately high. Of the approximately 50 upper- and middle-income countries with available data, an estimated 115,000 firearm deaths occur annually and the U.S. contributes about 30,000.⁸ Among industrialized nations, the U.S. firearm-related death rate is more than twice that of the next highest country (See Figure 3). The firearm death rate in the U.S. (14.24 per 100,000) is eight times the average rate of its economic counterparts (1.76).⁹

Figure 3. Age-Adjusted Firearm Mortality Rates per 100,000 Population, by Intent.
Based on single year available data between 1990 and 1995



Source: Krug et al. International Journal of Epidemiology, 1998.

- Compared to high-income Asian countries (Taiwan, Singapore, Hong Kong, and Japan), the firearm mortality rate in the U.S. is over 70 times higher (14.24 per 100,000 in the U.S. compared to 0.1925 per 100,000 in Asia).⁹
- The correlation between firearm availability and rates of homicide is consistent across high-income industrialized nations: where there are more firearms, there are higher rates of homicide overall.¹⁰ The U.S. has the highest rates of both firearm homicide and private firearm ownership. In 2001 an estimated 35% of U.S. households had a firearm.¹¹
- Rates of youth violence and death are high worldwide.¹² In the U.S., the youth firearm death rate is high relative to other countries. The death rate for all causes of firearm mortality (homicide, suicide, and unintentional) is higher for people less than 25 years old in the U.S. than in other high-income nations.⁹
- In 1995, the overall firearm-related death rate among American children younger than 15 years was nearly 12 times higher than for children in 25 other industrialized countries combined.¹³
- Excluding firearm suicides, the rate of child suicide in the U.S. would be similar to that of other countries.¹⁴
- Among all industrialized countries, more men are killed by firearms than women. However, women in the U.S. die from firearm injuries in a higher proportion than in most other high-income countries.⁹

SECTION II. USE OF FIREARMS: LETHALITY AND INTENT

Compared to other weapons commonly used in interpersonal violence, firearms have the highest lethality.¹⁵ The likelihood and severity of injury depends on the type of weapon used and the intent of the person using the weapon.

Case fatality rates (CFR) vary across intent. It is estimated that nearly one-third of all gunshot injuries are fatal. The fatality rate depends on the intent of the firearm event and the body part injured in a shooting (See Table 1).

- Intentional self-directed firearm injuries resulted in death in 76.6% of cases.¹⁵
- Intentional interpersonal firearm injuries resulted in death in 21.6% of cases.¹⁵
- Unintentional firearm injuries resulted in death in 7.3% of cases.¹⁵
- The CFR for firearm injuries to the head (61.0%) was more than triple the CFR for injuries to other parts of the body (18.7%).¹⁵

Table 1. Firearm Deaths in 2003

The 2003 firearm death rates in the United States vary according to intent.

United States Firearm Death Profile, 2003		
	Number	Rate*
Total Firearm Deaths	30,136	10.36
Suicides	16,907 (56.1%)	5.81
Homicides	11,920 (39.6%)	4.10
Unintentional	730 (2.4%)	0.25
Legal Intervention	347 (1.2%)	0.12
Undetermined	232 (0.8%)	0.08
*Death rate per 100,000 population.		

Source: National Center for Injury Prevention and Control, CDC.

THE ROLE OF HANDGUNS IN FIREARM INJURY

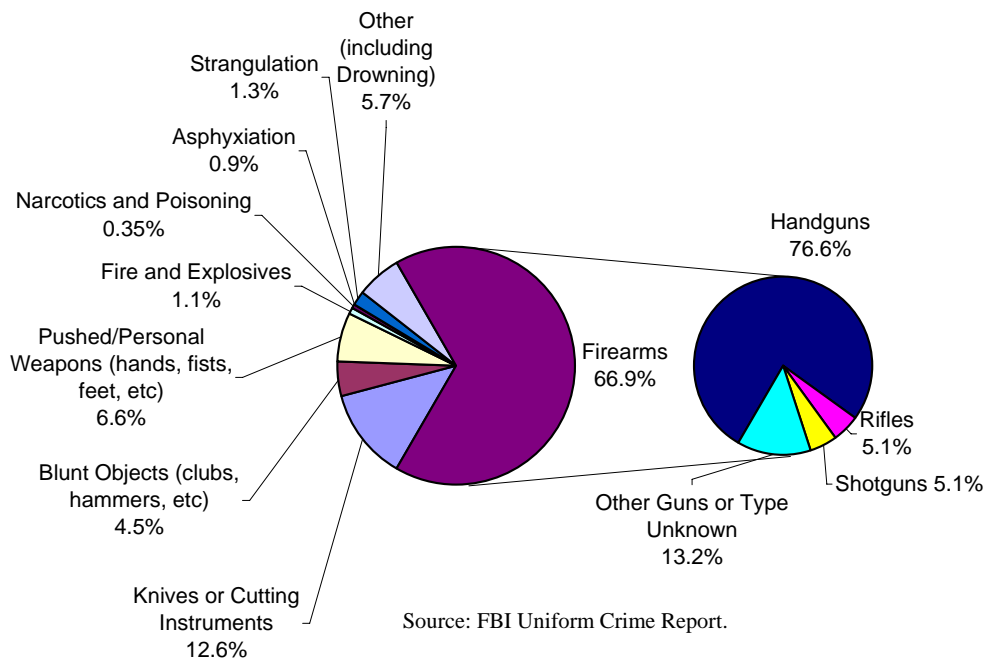
Firearms refer to all guns, with two major subsets being long guns (i.e. rifles and shotguns) and handguns (i.e. revolvers and pistols). Handguns are lightweight, concealable, easy to fire, and powerful, relative to their size. This makes them the weapon of choice for self and home protection. For many of the same reasons, handguns are more likely to be used in interpersonal violence and crime, as well as self-directed injury.

- In 1997, handguns comprised about one-third of all firearms owned in the U.S. (65 million of 192 million total).¹⁶
- Firearms are present in about one third of American households.¹¹ 61% of these households with firearms (or 19% of all U.S. households) are estimated to have handguns.¹⁷
- Handguns are used in half of all homicides,^{7,18} approximately 75% of all firearm homicides (See Figure 4), and 70% of all firearm suicides.^{19,20,21}

- Handguns account for 77% of all traced guns used in crime.²²
- Semi-automatic and automatic pistols are capable of inflicting greater injury, as more bullets can be fired in a shorter period of time.²³ The increased use of semi-automatic weapons has resulted in changed wounding patterns with an increased number of bullet wounds per incident per body and a subsequent higher mortality.^{23,24,25}
- Of the two major types of handguns, revolvers and pistols, pistols currently are more popular.²⁶ Revolvers typically hold 5-6 cartridges in a rotating cylinder and must be manually reloaded when the cylinder is empty. A revolver fires one bullet with each trigger pull.²⁶ Pistols are typically semi-automatic, hold 7 or more cartridges, and have an internal magazine where ammunition is stored. The chamber of a semi-automatic weapon is reloaded automatically after each round is fired, but the trigger must be pulled for each firing (a fully-automatic weapon would fire multiple rounds with a single pull of the trigger).²⁶
- In 2000 semi-automatic pistols were the most frequently traced handguns by law enforcement for all age groups (50%).²² Among juveniles less than 17 years old arrested in 1999, handguns were the most common type of firearm recovered by law enforcement (87%).¹⁸ Semi-automatic pistols were the weapon of choice for juveniles, with 58% traced among youth under age 18 and 60% for those ages 18-24, compared to 47% among persons age 25 or older.¹⁸

Figure 4. Homicide Weapons By Type—U.S., 2003

In 2003, firearms were used in 66.9% of all homicides. Handguns accounted for 51.1% of the total homicides and approximately 75% of all firearm homicides. By comparison, shotguns were used in 5.1% of firearm homicides and rifles were used in 5.1% of firearm homicides.

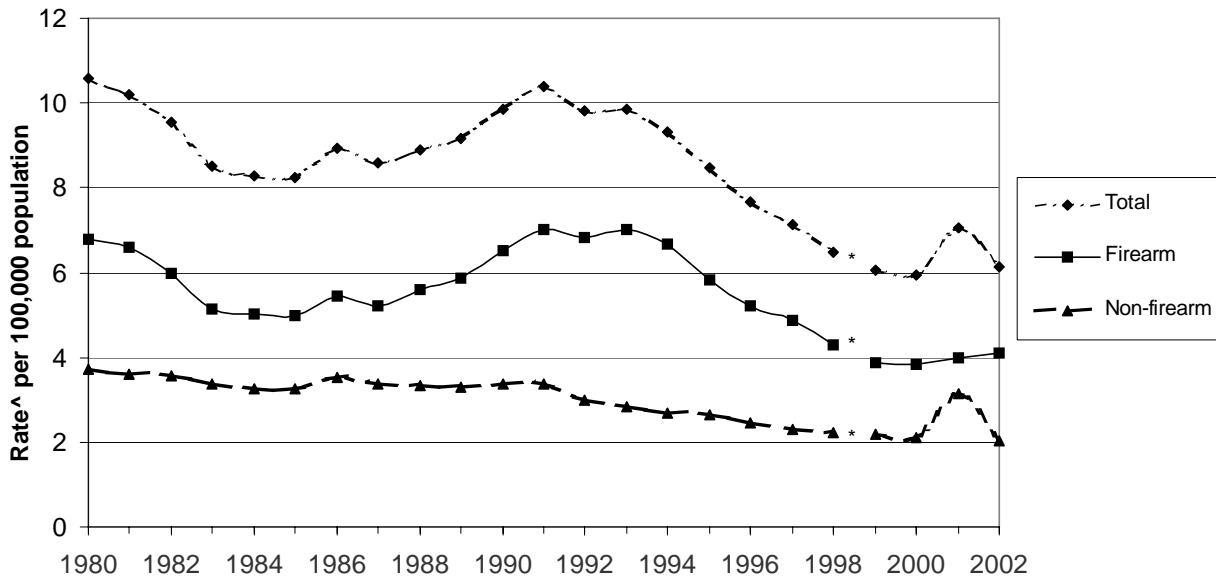


INTENTIONAL INTERPERSONAL: FIREARM HOMICIDE

The majority of homicides in America are committed with a firearm, usually handguns, thus the overall homicide rate generally parallels the firearm homicide rate (See Figure 5).

Approximately 6.7 out of every 10 homicides are committed with a firearm.^{3,7}

Figure 5. Firearm and Non-Firearm Homicide—U.S., 1980-2002. *The majority of homicides are committed with a firearm; overall homicide rates tend to parallel firearm homicides.*



Note: Deaths associated with the September 11, 2001 terrorism attacks are included in the homicide and suicide counts and death rates.

Source: National Center for Injury Prevention and Control, CDC.

^Age-adjusted rates per 100,000 U.S. standard population year 2000 standard.

*Beginning in 1999, mortality data have been coded using ICD-10 codes. Graphs that include data from 1999 have a break in the trend line because NCHS has recommended not combining these data.

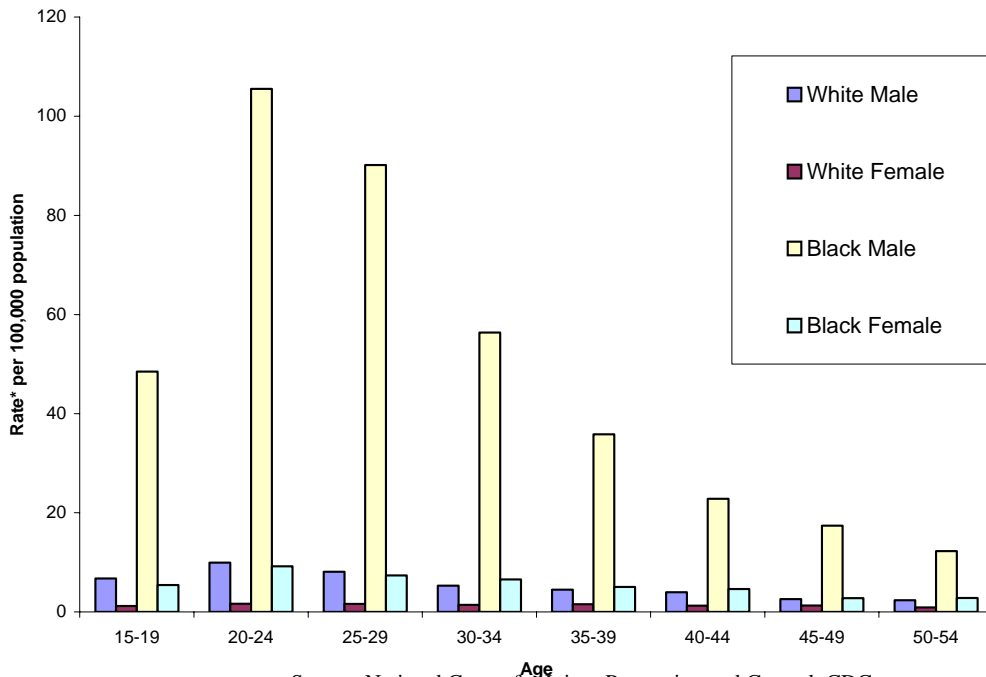
Victims of firearm homicide in 2002

Firearm homicide victims are disproportionately young, black, and male.

- In 2002, the majority (78%) of homicide victims were younger than 40 years old. 54% percent of victims were between 15 and 29 years (See Figure 6).^{3,27}
- Black males and black females are more likely to be the victims of firearm homicide than their white counterparts. The age-adjusted rate of firearm homicide among black males in 2002 (28.6 per 100,000) was more than eight times that of white males 3.4 per 100,000).^{3,27} Black males ages 20-24 years had the highest rate at 105.5 per 100,000 people.^{3,27}

Figure 6. Firearm Homicides, Ages 15-54, by Race, and Gender—U.S., 2002

Of the 11,829 firearm homicide victims in 2002, most were male, younger than 40, and black.



Source: National Center for Injury Prevention and Control, CDC.
 * Age-adjusted rate per 100,000 U.S. Standard population based on year 2000 standard

High impact on youth

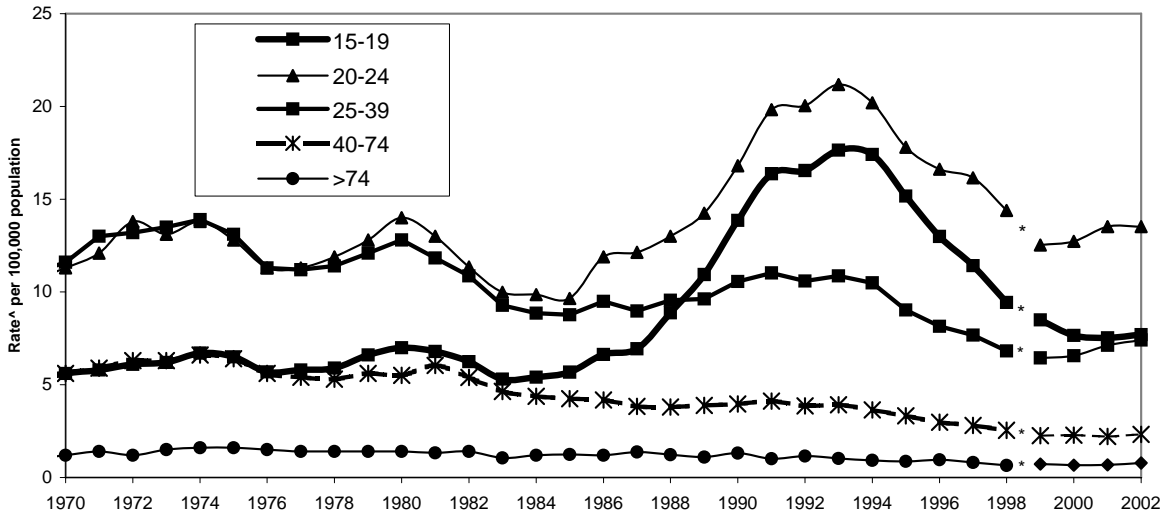
Firearm homicide is the second leading cause of death between 15-24 year-olds in the United States. In recent decades the absolute number of firearm deaths among youth has increased, as has the percentage of homicides and suicides attributed to firearms. The sharp upswing in the homicide rate in the late 1980s and early 1990s was largely attributable to changes in patterns of youth violence.

- The increase in gun-related homicides in the mid-1980s was due largely to an increase in juveniles killed with a firearm, while other types of homicide remained constant.¹⁸
- Between 1985 and 2002, the firearm homicide death rate increased 36% for 15 to 19 year olds, 40% for 20 to 24 year olds, remained about the same for 25 to 29 year olds, and decreased for those over age 34 (See Figure 7).³
- Although school shootings are widely publicized when they occur, they remain relatively rare events. In recent years, fewer school-associated violent deaths have occurred, but there have been more deaths per event. From 1994-99, 75% of all violent deaths at school involved a firearm.²⁸ While these shooters have no standard profile, their acts were not usually impulsive and, in most cases, some other person was informed of their intent to attack prior to the event.²⁹

- In 1976, 56% of homicides committed by juveniles (under 18) involved a firearm; by 2002, that percentage had risen to 68%.³⁰ Overall, between 1980 and 1997, 3 of 4 juveniles murdered, (ages 12 to 17) were killed with a firearm.¹⁸
- In 2002, about 10% of those killed with a firearm were less than 20 years old.^{3,27}

Figure 7. Firearm-Related Homicide, by Age—U.S., 1970-200

Firearm homicide rates are highest among youth ages 20-24, with a peak in these age groups in the early 1990s.



Source: National Center for Injury Prevention and Control, CDC.

^Age-adjusted rate per 100,000 U.S. standard population based on year 1940 standard for 1969-1979 and year 2000 for 1980-2002.

*Beginning in 1999, mortality data have been coded using ICD-10 codes. Graphs that include data from 1999 have a break in the trend line because NCHS has recommended not combining these data.

INTENTIONAL INTERPERSONAL: FIREARMS, GUN-RELATED HOMICIDE & VIOLENT CRIME

A substantial number of violent crimes (defined as rape, sexual assault, robbery, aggravated assault, and simple assault)³¹ involve a firearm. In 2003:

- Firearms were used in 27% of all murders, robberies, and aggravated assaults collectively.⁷
- 45% of firearm murders occurred during an argument, brawl, or in connection with a known or suspected felony and 1,756 people were killed by offenders during these felonies. In contrast, there were 566 cases of justifiable homicide using a firearm; law enforcement officers killed 363 people and 203 people were justifiably killed by private citizens.⁷ (See defensive gun use section)
- The type and presence of weapon differs widely with the type of crime (*e.g.*, firearms were used in 9% of murders involving rape versus 75% of murders involving robbery).⁷
- According to 1999 data, a high proportion of juvenile firearm-involved crime occurs immediately after school.¹⁸

Trends in Violent Crime

The late 1990s saw promising decreases in violent crime in large cities, providing an important opportunity to identify factors that might be used to further reduce firearm violence. The decrease was likely the result of several factors³² that include:

- The collection of location-specific crime data, the analysis of those data, and the development of strategies to efficiently allocate police resources.
- Improving troubled neighborhoods.
- Stricter sentencing and stricter laws to keep felons from obtaining firearms.

In 2001 an increase in violent crime was experienced for the first time in almost a decade.³³ The largest increases were seen in cities with populations of 250,000 – 499,999. Similar to the explanations for periods when crime indices decline, there are no definitive answers for the recent increases in murder and robbery. Further study and analysis of long-term trends is required.

Defensive Gun Use (See Intentional Interpersonal introduction)

Guns are popularized as effective protection against crime and injury. The discussion of victimization and homicide offense begs the question of whether or not guns have a deterrent effect. The answers to this question vary widely. One effort to quantify the benefit of firearm ownership estimates that guns are used for self-defense in the United States as many as 2.5 million times each year.³⁴ The National Crime Victimization Survey (NCVS) yields a more conservative estimate, approximately 100,000 defensive gun uses (DGU) each year.³⁵ Estimating the number of times guns are used for protection is a difficult task with inconclusive validity. The former estimate, for example, extrapolates low prevalence events – that is, few survey respondents report having used a gun to defend themselves – and can yield gross overestimates of the population that actually used a gun in defense.³⁶ Conversely, the NCVS does not ask about all crimes nor does it specifically ask respondents if they had used a gun in self-defense.³⁷ Additionally, survey respondents in the NCVS estimate may be reluctant to reveal illegal use or ownership of a firearm. There is no information on the incidence of “offensive” gun use, i.e. use of guns to intimidate or threaten, especially between intimates.

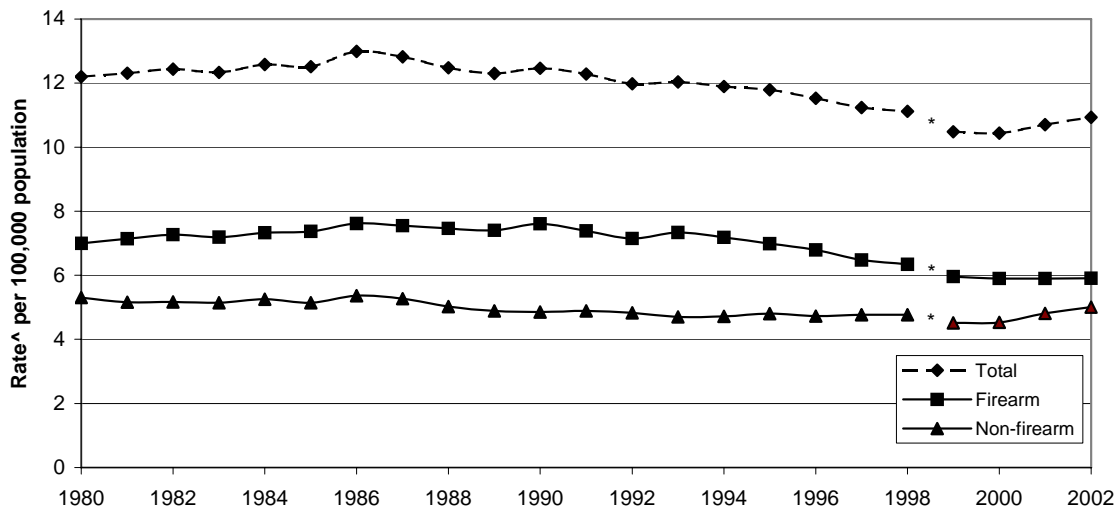
INTENTIONAL SELF-DIRECTED: FIREARM SUICIDE

Suicide is the 11th leading cause of death among Americans.²⁷ More people die each year in the U.S. from suicide than from homicide. A firearm is the most commonly used method to commit suicide (54%). The firearm suicide rate has remained virtually unchanged over the past two decades (See Figure 8).³

- Someone commits suicide with a firearm every 17 minutes.³⁸
- Handguns are the most frequently used type of firearm, accounting for 70% of the firearm-related suicides.³⁸
- Suicide attempts with a gun are the most fatal of all gun injury and result in death 70-90% of the time. By contrast, only 10-15% of suicide attempts by any other means (i.e. hanging, carbon-monoxide poisoning, pills, or cutting) are fatal.³⁹ Hospitals see a significant number of firearm injuries labeled as accidental or unintentional that are intentional in nature. Identification of these attempts is needed to prevent a repeated successful attempt. This is especially important in youth where there are 100-200 youth suicide attempts for every completion.³⁸

Figure 8. Firearm and Non-firearm Suicide—U.S., 1980-2002

Firearm suicides rates have remained relatively stable.



Source: National Center for Injury Prevention and Control, CDC.

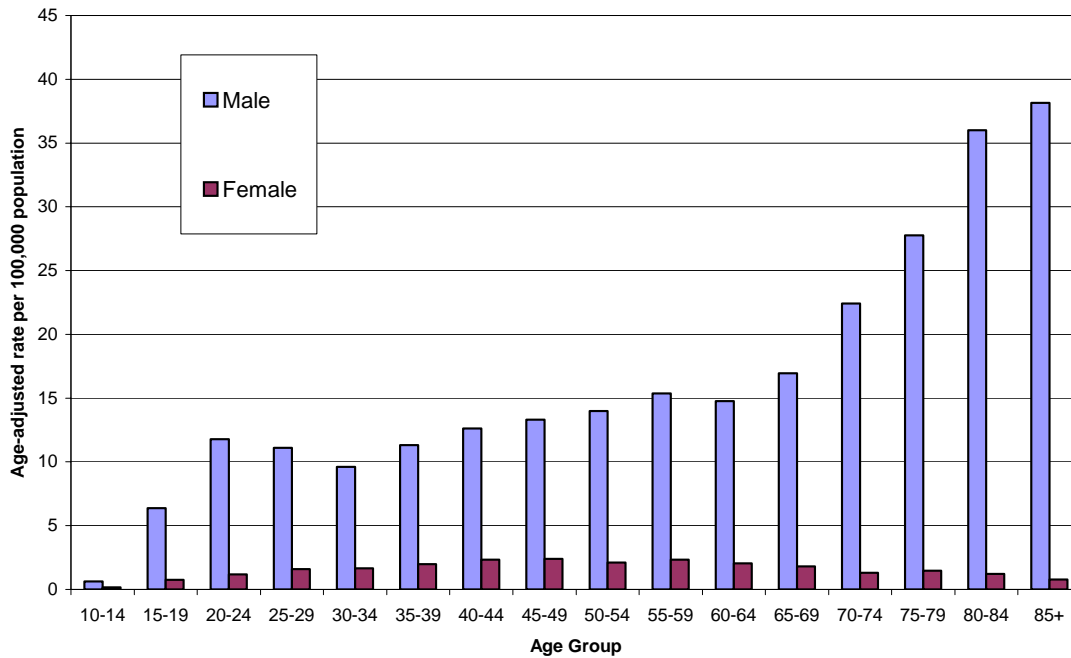
^Age-adjusted rate per 100,000 U.S. standard population year 2000 standard.

*Beginning in 1999, mortality data have been coded using ICD-10 codes. Graphs that include data from 1999 have a break in the trend line because NCHS has recommended not combining these data.

- About 80% (13,809) of the firearm suicide victims were white males, a rate of 11.92 per 100,000 population. There are two incidence peaks: 13% under age 25 and 18% over age 64.²⁷
- Although females are an estimated 3 times more likely to attempt suicide,³⁸ males are more likely to use a firearm (See Figure 9); consequently, more male suicide attempts are fatal. In 2002, firearms accounted for 59% of suicides among males and 33% among females.^{3,27}

Figure 9. Firearm Suicide, by Gender and Age—U.S., 2002

Men are more likely than women to commit suicide with a firearm, especially in older age. In 2002 the age-adjusted rate of firearm suicide among men over 80 was more than twice that of any other age group.

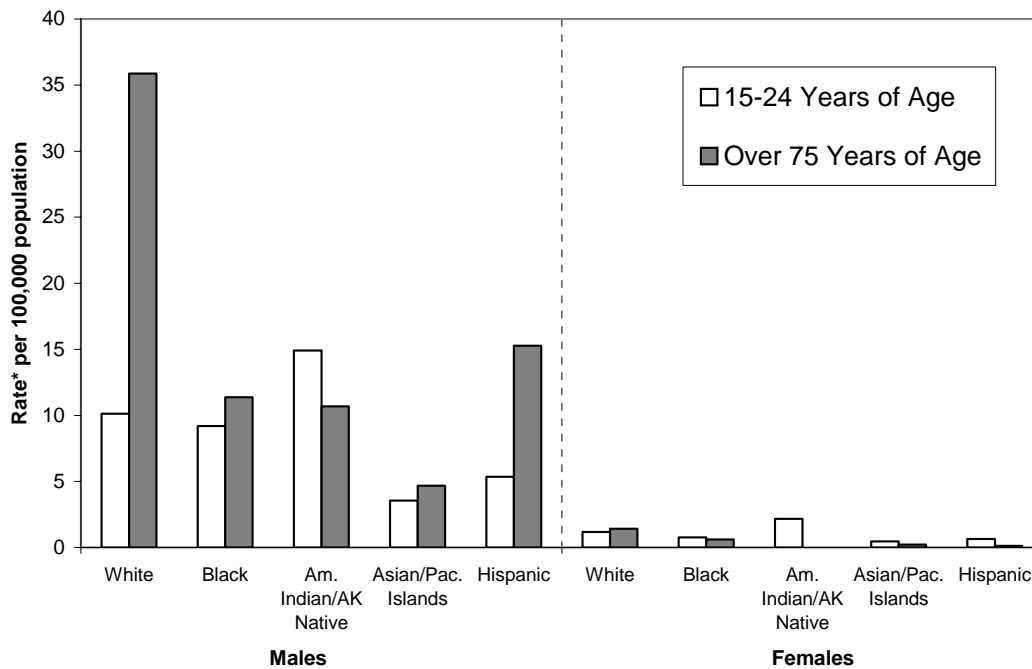


Source: National Center for Injury Prevention and Control, CDC.

- The risk for death from firearm suicide is highest among white males over age 75 (See Figures 9,10).³
- Firearm suicides are more prevalent among Hispanics and American Indians and Alaskan Natives compared to other ethnic groups, especially among males (see Figure 10).
- Between 1979 and 1997, the rate of firearm suicide among African-American males ages 15-19 increased by 133 percent (from 3.6 per 100,000 to 8.4), while the rate among same-age white males increased only 7 percent (from 9.7 per 100,000 to 10.4).⁴⁰

Figure 10. Firearm Suicide, By Race/Ethnicity and Age-U.S., 1999-2002

Comparing selected age groups by race illustrates that the U.S. firearm suicide rate is highest among white and Hispanic males over age 75 and Native American/Alaskan Native males ages 15-24.



Source: National Center for Injury Prevention and Control, CDC.

*Age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard.

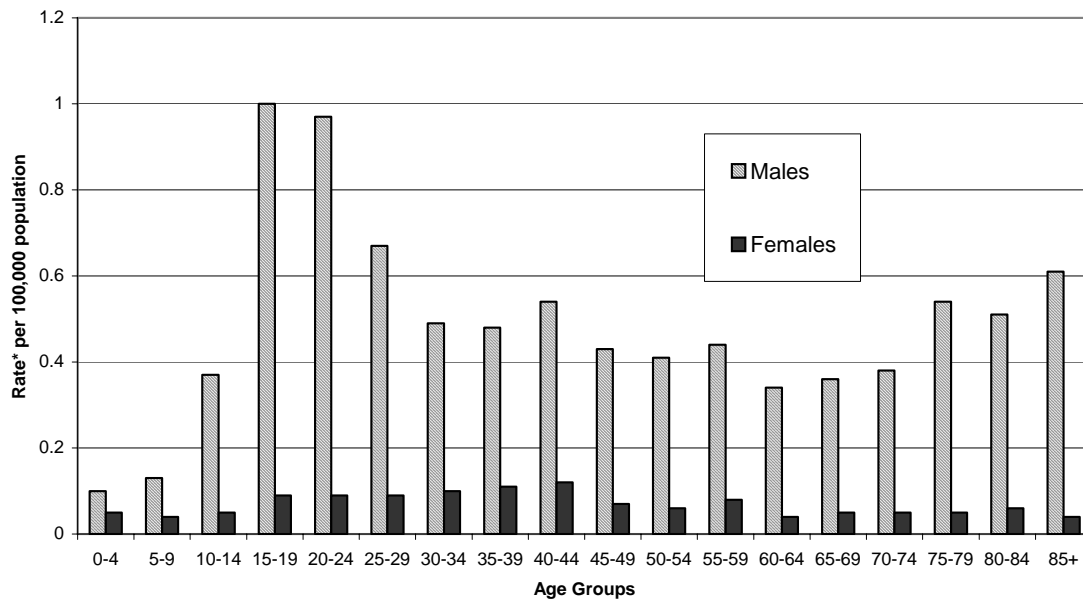
UNINTENTIONAL FIREARM DEATHS

Unintentional firearm deaths represent a small proportion of firearm fatalities (See Figure 11) and have steadily declined since the 1930s. This may be due to advances in emergency medical care and decreases in the household prevalence of firearms and the percent of the population who engage in hunting, live in rural areas, and regularly handle guns.^{41,42}

- Unintentional firearm death disproportionately affects children, with 16% of the unintentional deaths occurring among youth under age 20.^{3,27}
- Unintentional gun injuries account for 14% of all firearm deaths under age 15.³
- From 1980 to 1993, there was an increase in unintentional firearm deaths for 15-19 year old black males, followed by a decline in the later years of the 1990's.³

Figure 11. Unintentional Firearm Mortality—US, 1999-2002

Unintentional firearm deaths represent a small proportion of overall firearm deaths, but disproportionately affect males, especially between 10-30 years of age.



Source: National Center for Injury Prevention and Control, CDC.

*Age-adjusted rate per 100,00 U.S. standard population based on year 2000 standard.

SECTION III. IMPACT OF FIREARM INJURIES

The impact of firearm injury extends beyond the fatal statistics, with widespread repercussions throughout society. Though many of these effects are difficult to quantify, they are gaining recognition and interdisciplinary research has begun. Areas of study include nonfatal firearm injury, health care, economics, psychology, and sociology.

NONFATAL INJURIES: MORBIDITY AND DISABILITY

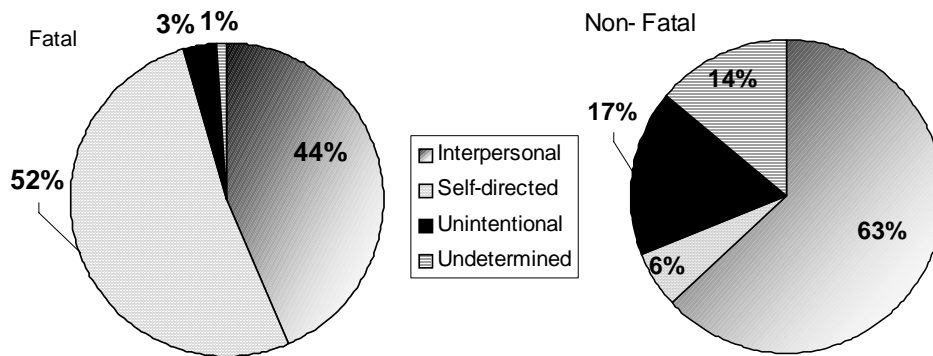
For every person who dies from a gunshot wound, at least two others are shot and survive. However, these numbers vary widely based on intent, with self-inflicted injuries much more likely to be fatal. On average, there were more than 100,000 firearm injuries per year between 1993 and 1998. (See Table 2 & Figure 12).

Table 2: Average Annual Number of Firearm Injuries--U.S., 1993-98

	Fatal	Nonfatal	Totals
Interpersonal	15,371	50,067	65,438
Self-directed	18,227	4,513	22,740
Unintentional	1,181	13,688	14,869
Undetermined	429	11,117	11,546
Totals	35,208	79,385	114,593

Source: Gotsch et al, MMWR 2001; 50(SS-2).

Figure 12: Estimated Annual Number of Firearm Injuries in U.S., by Intent, 1993-98 While unintentional firearm injuries only account for 3% of fatal injuries they account for 17% of non-fatals. Intentionally self-inflicted firearm injuries, on the other hand account for 52% of firearm fatalities and only 6% of non-fatals.



Source: Gotsch et al, MMWR 2001; 50(SS-2).

Nonfatal firearm-related injuries in all intent categories from 1993-1998 had the following characteristics:¹⁹

- 20% occurred in the home
- 35% involved a handgun
- Approximately 60% were transported to the ED by ambulance or other emergency services.
- Approximately 2% were job-related

Injury patterns by intent:

- More than half of the intentionally self-inflicted nonfatal injuries involve gunshot wounds to the head or neck and are highly fatal.
- In contrast, approximately 15% of firearm-related assaults and those of undetermined intent were head or neck injuries, and more than 30% were gunshot wounds to the leg or foot.
- More than 70% of unintentional nonfatal injuries were gunshot wounds to the legs or arms, resulting in lower fatality.¹⁹

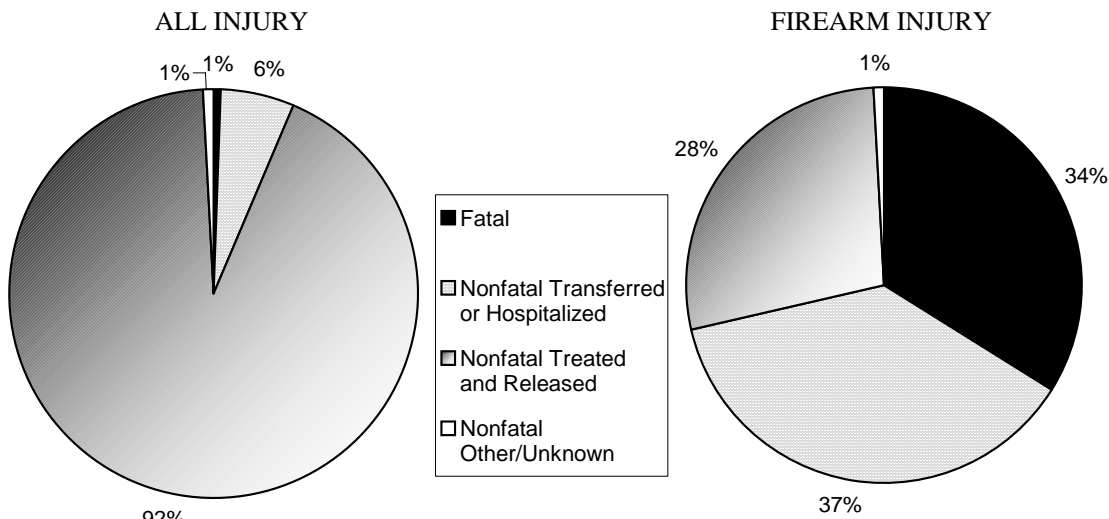
THE ROLE OF TRAUMA CENTERS

Trauma centers, primarily located in metropolitan areas, disproportionately treat gunshot wounds and serve a critical role in managing these injuries, thereby improving outcomes for firearm injury survivors and decreasing fatalities.⁴³ New approaches to diagnosis and management of wounds, including damage control and temporary shunts,^{44,45,46,47,48} have decreased mortality, but less is known about the long-term emotional and sociological sequelae.

- In 2002, there were approximately 90,000 fatalities and non-fatal injuries associated with firearms (Figure 13). On average, 60% of those surviving long enough to be taken to emergency departments require hospitalization.⁵ The average length of hospital stay for mild to moderate firearm injuries is 10-13 days.^{12,49}
- The establishment and growth of trauma centers and trauma response systems may partially account for the decline in the nation's homicide rate in the late 1990s.^{50,51,52} There is some evidence that a part of the downward trend seen in firearm homicide is due to expert clinical care provided in trauma systems.⁴³
- The most serious disabilities for firearm injury survivors result from amputation, and brain and spinal cord injuries. Nationally, 16.5% of spinal cord injuries are caused by gunshot injuries.⁵³

Figure 13. Outcomes for All Injuries vs. Firearm Injuries, 2002

About 1% of all injury is fatal; however, firearm injuries are fatal in more than 30% of cases.



Total Nonfatal Injuries and Fatalities in 2002: 28,579,312
 Total Firearm Nonfatal Injuries and Fatalities in 2002: 89,083

Source: National Electronic Injury Surveillance System and National Vital Statistics Reports, CDC.

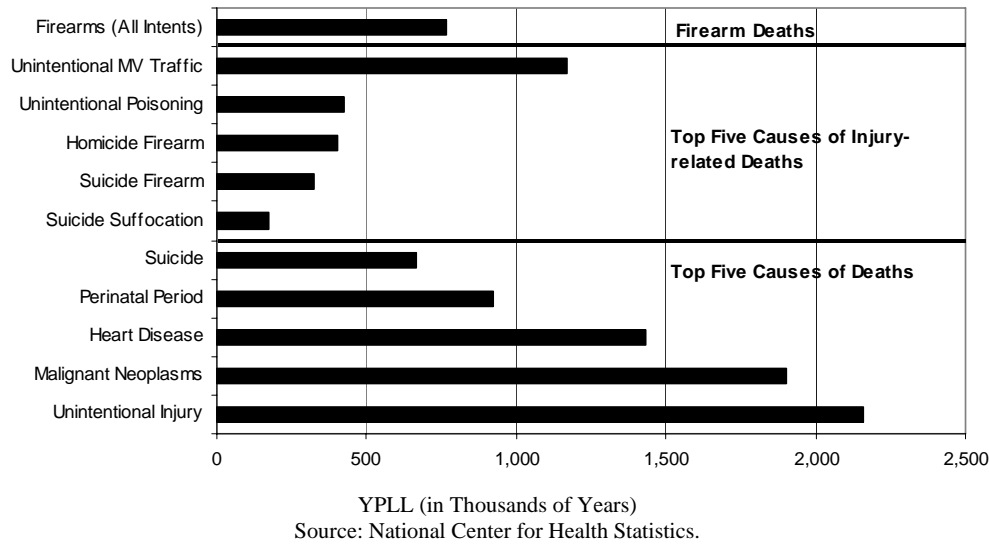
ECONOMIC COSTS

Firearm injury is costly to individuals and society. A small percentage of the total estimated cost of firearm injury comes from medical expenses and lost productivity. Change in quality of life and deterioration in community living and society have far greater economic tolls. Public and private efforts to reduce the risks of gun violence carry much of the burden.⁵⁴

- In a study of U.S. firearm injuries from 1994, cost was estimated at \$2.3 billion in lifetime medical costs, an average of \$17,000 per injury. Of these costs, 74% are accounted for by assaults.⁵⁵ Most of the costs of firearm injuries are due to long-term consequences, not acute care.^{54,56}
- U.S. taxpayers pay about half (\$1.1 billion) of the total lifetime costs of treating gunshot injuries, with private insurance, victims, and other sources covering the rest.⁵⁵
- Survivors of firearm injuries incur losses in productivity, ongoing medical costs, long-term disability, as well as physical and psychological problems. Some research shows that when these factors are considered in the context of a willingness to pay methodology and quality of life cost estimates, the price tag reaches \$100 billion annually.^{54,56}

Firearm injury is the fifth leading cause of years of potential life lost (YPLL) for all injury and the second leading cause of YPLL for injury-related deaths in those under the age of sixty-five, a ranking surpassed only by motor-vehicle crash injuries.³ (See Figure 14)

Figure 14. Years of Potential Life Lost (YPLL)—U.S., All Races, Both Sexes, <65, 2002



PSYCHOLOGICAL IMPACT

Studies have shown an increase in depression and stress as the result of violence, but few studies have discussed the consequences of firearm violence in particular. People living with the threat of violence change their social behavior as they adapt to the increased risk of violence.

Given the unexpected nature of physical trauma, a violent event can become a defining moment in the injured person’s life. In response to the injury, the survivor separates his/her life into “before injury” and “after injury”.⁵⁷ Survivors of traumatic injury experience increased levels of posttraumatic psychological distress and depression and are forever changed by their injury.^{57,58,59}

Children are exposed to community violence at disturbingly high rates, particularly in the inner city. It is estimated that one quarter of low income urban youth have witnessed a murder.⁶⁰ Being abused, exposed to domestic violence, and having a mother using substances are associated with a higher number of health problems in children; in fact, the strongest predictors of poor child health are the mother’s physical health and the child’s level of traumatic stress.⁶¹ Frequent exposure to violence is significantly associated with both internalizing symptoms and externalizing problem behaviors, including posttraumatic stress symptoms, depression, anxiety, dissociation and aggression.⁶²

PSYCHOSOCIAL REPERCUSSIONS

In addition to the impact highlighted above, firearm injury has longer term psychosocial repercussions. For example, children exposed to violence experience substance abuse, school failure, anxiety, and behavioral problems at higher levels.⁶³ The pervasive threat to society’s sense of safety is not easily quantified. Whether a person’s experience of firearm violence is

firsthand, shots heard outside a window, or a story in the morning newspaper, his/her safety is called into question. As a result, many youth feel they must carry a weapon for a sense of protection, as well as to establish status and social identity.⁶⁴ In one study of youth, fear seems to contagiously drive violence as it feeds into the development of an “ecology of danger”.⁶⁵

SECTION IV: FACTORS CONTRIBUTING TO FIREARM INJURY

Scholars from many disciplines including criminology, law, nursing, medicine, public health, sociology, psychology, and economics study firearm injury. Interdisciplinary teams continue to seek explanations for the complex causes and effects of violence and firearm injury. The root causes include poverty, illicit drug markets, lack of educational or employment opportunities, fear, stress, racial and income inequalities, substance abuse, and mental health. Explanations for the dramatic rise of firearm violence in the 1980s that peaked in 1993 generally focus on changes among youth violence, including involvement in illicit drug sales, especially crack cocaine, and increased availability of firearms.³²

A PUBLIC HEALTH APPROACH

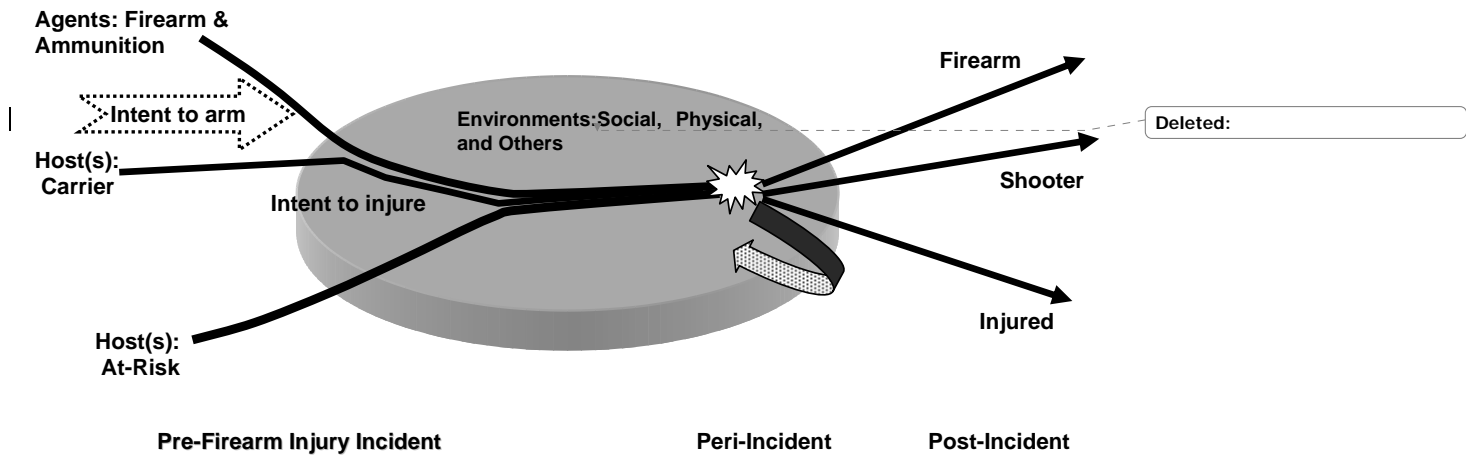
Public health provides a useful framework to address firearm injury because it seeks to prevent harm to both individuals and the community. This approach is informed by epidemiology, “the study of the distribution and determinants of health-related states or events in specified populations and the application of this study to control of health problems.”⁶⁶ In the 1970’s, William Haddon applied this approach to injury prevention, specifically motor vehicle crashes, bringing about significant changes to motor vehicle design and operation.⁶⁷ The recently released World Health Organization report on violence and health recommends a public health approach to understand the complex social, psychological, economic and community underpinnings of violence, as a complement to the law and order approach.⁸

A similar approach can be taken for firearm injury.⁶⁸ Before interventions can be designed, it is important to understand what factors contribute to the injury event. Firearm data should include factors related to the weapon used (design, sale, and storage), the people who misuse weapons, people who could be injured by the misuse of weapons (behavior, attitudes, and intent), and factors in the environment (such as social, physical, political, and economic circumstances).

A visual representation of the pathway of a firearm injury event (Figure 15) depicts three critical factors that must converge in order for the event to occur: 1) the agents must be available (firearm and ammunition), 2) a person must acquire and use the weapon (host: carrier), and 3) there must be a person at risk of being shot (host: at-risk).⁶⁹ Note that the carrier and at-risk host are the same person in the case of a self-inflicted injury (whether intentional or not). The timeline of a firearm event involves factors from long before the event (pre-incident) to those immediately around the event (peri-incident), to after the event (post-incident). The social and physical environments may influence whether and how the factors intersect. For example, rural areas are disproportionately affected by firearm suicide while urban areas experience greater rates of firearm homicide.⁷⁰ Physical environments enhance or inhibit the chances of firearm involvement in an interaction. Social environments, such as a concentration of poverty, may support community norms that increase levels of violence. The trajectories for firearm injury do not end with a firearm injury. A given event can result in different outcomes for the injured person, ranging from immediate death, a lifetime of disability, or other life changes. The shooter’s trajectory could continue with involvement in other firearm events, move through the criminal justice system or also end in a subsequent death from firearm violence. The discharged firearm may be found and traced, destroyed, or continue to be used in other events. Communities

and individuals must deal with the fallout of a traumatic firearm event or events, which can, in turn, affect the community environment as a whole. Each factor identified along the pathway represents a potential point of intervention to reduce firearm injuries.

Figure 15. Pathway of a firearm event depicts critical factors that must converge before an event, with several possible outcomes for individuals and the larger community. Various points along the pathway represent potential places to intervene to reduce firearm injuries and their repercussions.



FIREARM CONSUMER MARKETS

Figure 15 provides a framework for understanding more about the weapon used to injure, the people involved in the injury, or the circumstances and environment surrounding the event. A brief discussion of firearm consumer markets will follow the pathway from the point of firearm production, to acquisition, availability, and consumer choices.

Production

The production rate of handguns exceeded rifles and shotguns in the 1990s, during the same time period in which there was a dramatic increase in firearm deaths.⁷¹

- Domestic rifle and shotgun manufacture has remained relatively stable since the mid-1980's.
- In 1986, pistols accounted for 49% of the 1.4 million handguns produced. During the peak of gun violence in 1993, they accounted for 80% of the 2.8 million handguns produced.⁷¹
- In 2000, handgun production hit its lowest point since 1981.^{72,73}

Role of Firearm Availability in Firearm Injury

Gun owners cite hunting and sport shooting most commonly as the reasons for owning long guns, and mention self-protection as the primary reason for owning a handgun.¹⁶ Yet there is a marked relationship between gun ownership and firearm homicide.⁷⁴ Across industrialized

countries, homicides are more prevalent in countries with more firearms and the United States has both the highest number of privately owned guns among industrialized nations and the highest rate of firearm homicides.¹⁰ In the U.S., states with a higher availability of firearms have higher rates of firearm suicide, homicide, and unintentional deaths among children ages 5-14 compared to states with less availability of firearms.⁷⁵

Firearms as a risk factor for gun-related homicide

A debate is ongoing about the consequences of owning firearms: Is access to a gun protective or an increased risk factor for the firearm owner to be killed?^{76,77,78,79,80,81} While some studies suggest that firearms can serve a protective function, the bulk of evidence suggests that gun availability increases the likelihood for individuals to be killed, or to kill another person:

- A gun in the home is a risk factor for household members to be shot fatally in their home.⁷⁶
- The risk of being killed appears particularly high among women,⁸⁶ which reflects the increased likelihood for a woman to be killed by her spouse, partner or family member rather than a stranger.⁸² Firearms, especially handguns, are more common in the homes of battered women.⁸³
- People with a family member who has purchased a handgun are at increased risk of being shot and killed.⁸⁴
- Owning a gun may moderately increase the likelihood of fatally shooting another person.⁸⁵

Firearms as a risk factor for gun-related suicide

- Having a firearm in the home is a risk factor for suicide by firearm, but is inversely associated with suicide by other means.⁸⁶
- The relative risk to commit suicide in the home with a firearm is 5 times greater among people living in homes where guns are present compared to people living in homes without a gun.⁸⁷ For households with members under 24 years of age, it is 10 times greater.⁸⁷
- The relative risk for suicide among adolescents is considerably higher among children who live in homes where guns are present compared to children not living with guns in the home.^{88,89,90}
- The rate of firearm suicide among a cohort of adults who purchased a handgun was 57 times higher in the first week after the purchase than was the firearm suicide rate in the United States in general.⁹¹

Firearms as a risk factor for gun-related unintentional shooting deaths

- The estimated relative risk of dying from an unintentionally inflicted gunshot wound is 4 times higher among adults who have guns in their home compared to others.⁹²

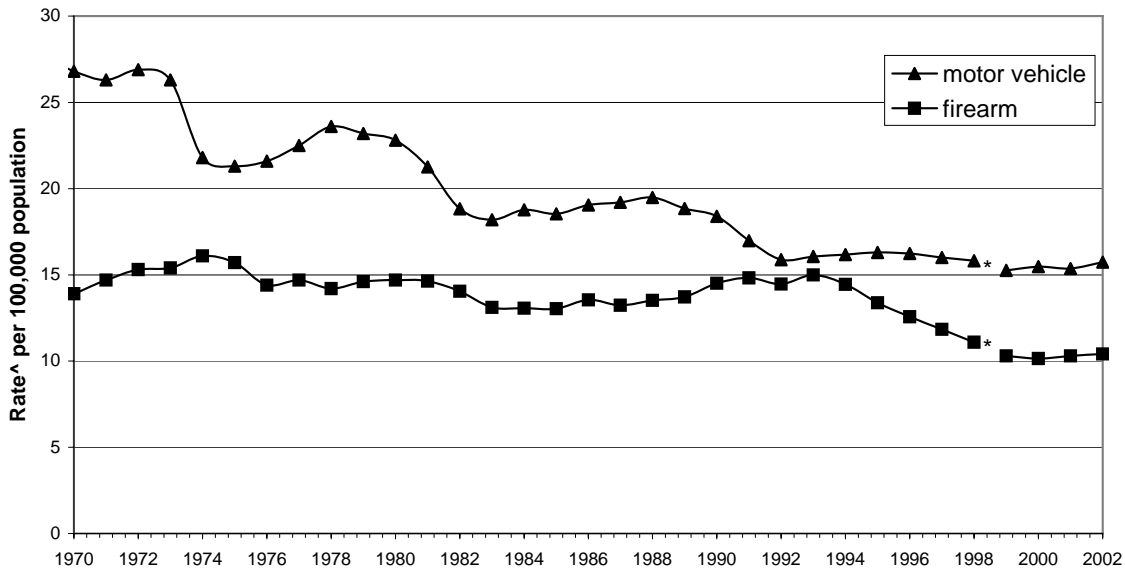
Firearm as a consumer product

Consumers should be well informed when making the decision of whether or not to purchase a firearm, given the potential harm and effect of owning a gun. Evidence from regulation of consumer products demonstrates that designing safer products and restricting access to dangerous products can prevent injuries and death. All consumer products, with the exception of firearms, are regulated for safety by the government.⁹³

One of the best examples of the role of consumer product safety regulation is the design of motor vehicles. Safety features such as seat belts and airbags, the setting of safety standards, and strict licensing laws contributed to the significant decrease in the number of motor vehicle-related deaths over the past thirty years. While the death rate for motor vehicle crashes has decreased since 1968, the firearm death rate has remained relatively stable during the same period (see Figure 16).^{3,94}

Figure 16. Firearm and Motor Vehicle-Related Mortality—U.S., 1970-2002

The 45,579 motor vehicle-related deaths in 2002 represent a 43% decrease in rate since 1968; the 30,242 firearm-related deaths in 2002 represent a 19% decrease in rate since 1968.



Source: MMWR Vol 43, No 3 and National Center for Injury Prevention and Control, CDC.

^Age-adjusted rate per 100,000 U.S. standard population based on year 1940 standard for 1969-1979 and year 2000 for 1980-2002.

*Beginning in 1999, mortality data have been coded using ICD-10 codes. Graphs that include data from 1999 have a break in the trend line because NCHS has recommended not combining these data.

Making firearms safer would reduce injuries from unintentional use and possibly from criminal use. The processes for stimulating such changes in design can include market forces and litigation, consumer education, product oversight, and regulation.

SECTION V: PREVENTING FIREARM INJURY

This Resource Book has presented data that describe the extent of firearm injury in the United States. Firearm injuries and fatalities affect every aspect of society with a particularly high impact on youth, minorities, and males (young and old). The most cost effective and efficient way to reduce firearm injury and death is primary prevention. This can be achieved by collecting and analyzing comprehensive and reliable data, translating those data into action, and evaluating interventions for effectiveness.

When speaking about firearm injury prevention, the 2nd Amendment is irrelevant because injury prevention is aimed at reducing the burden of injury rather than entering a constitutional debate. There are currently laws in place that regulate firearms at all levels of government: federal, state and local. Federal laws are the most far-reaching because they must be upheld across the country and they supercede local and state laws. Several important federal laws passed in the 20th century improved firearm safety and regulated access to firearms, such as the Brady Bill in 1993, which instituted background checks before gun purchase. Laws were also passed that restricted the ability of the government to regulate firearms, in particular by excluding firearms from the Consumer Product Safety Commission in 1972. Further explanation of the 2nd Amendment and federal laws are listed in the Appendix.

Current Federal Laws Are Not Enough

Under current law, no single government agency has administrative authority to monitor firearm safety²⁶ and federal funds are strictly limited on how they can be used for firearm injury prevention.⁹⁵ In addition, under current law:

- The U.S. is among only 22% of responding nations according to the United Nations that do not have regulations regarding the storage of firearms.⁹⁶
- The U.S. and Czechoslovakia are the only countries among industrialized nations that do not have a firearm licensing system.⁹⁶
- About one-third of all firearm sales are currently excluded from federal law on background checks: sales at gun shows, through classified ads, or among friends and family.¹⁶

Most Americans Are Ready for Change

According to several surveys, there is strong support among the American public, including both gun owners and non-gun owners, for new and creative strategies to reduce firearm injuries and deaths.

Firearms and Criminals⁹⁷

- 70% of people polled agreed with the statement that government should do “everything it can to keep handguns out of the hands of criminals...”
- 52% of gun owners agreed with this same statement.

Regulations and safety standards⁹⁷

- 68% of people polled favored government safety regulations.
- 94 % believe that handguns made in the U.S. should meet the same standards as imported handguns.

Reducing the illegal sale of guns⁹⁷

- 81% of people polled believe handgun purchases should be limited to one per month.
- 82% agree with mandatory registration of handguns and pistols.
- 70% think that only operators of gun stores should receive licenses to sell guns.
- 90% of those polled would require handgun manufacturers to make serial numbers tamper-resistant.

Health Professionals⁹⁸

The majority of internists and surgeons believe that:

- Firearm injury is a public health issue.
- Firearm safety issues should be incorporated into their practices.
- Physicians should join community efforts to regulate handguns.
- Specific gun regulation measures should be adopted as public policy.

COLLECT COMPREHENSIVE, RELIABLE DATA TO DESIGN APPROPRIATE INTERVENTIONS

The first step in reducing the impact of firearm injury is to collect reliable, community-specific data that can be used to support the design of appropriate interventions. There are currently 13 different data sets that collect information on firearm-related injuries,^{1,99} but there is no comprehensive national database that provides detailed information on violent deaths. The available databases, usually limited to the national or state level, make it difficult to examine local trends. They rely on voluntary reporting, contain little information on survivor data or circumstances surrounding the shootings and are not linked. Comprehensive data for firearm deaths are crucial to addressing the problem, designing interventions, and evaluation.¹⁰⁰ A National Violent Death Reporting System (NVDRS) would provide critical information for firearm deaths in the context of all other violent death, including child abuse, domestic violence, and suicide.

FROM DATA TO ACTION

There are presently many efforts attempting to define, quantify, and understand the problem of firearm violence. Many national and local programs are seeking to decrease its impact. The key to progress will be to utilize available resources in combination with the data to design effective interventions and to continually evaluate those interventions, whether they are programs or laws, to allow for modification and improvement.

A public health approach to firearm injury frames the problem in terms of the convergence of an agent (in this case the firearm) with individuals (the person with the firearm and the person who is injured) within a social and physical environment. This approach can focus on the firearm agent (e.g. safety devices and firepower, as well as availability), preventing injury (primary prevention) and reducing the impact of injuries that do occur (repercussions) through individual factors (e.g. knowledge, behaviors, attitudes, and treatment), and factors in the environment (e.g. policy regulations, licensing, and access). Although interventions are easier to design when not complicated by issues of intent, firearm injury interventions need to acknowledge human intentions relevant to the decision-making processes of firearm acquisition and the intent to injure.

The complexity of intent and social mores surrounding firearm injury makes it impossible to design a single “cure-all” intervention. The brief review that follows categorizes possible intervention points along the causal paths toward a firearm injury, first taking into account who and what can be affected: the firearm, the individual, and the environment. We then look at how these factors can come together in the form of a homicide, suicide, nonfatal or unintentional shooting.

The list of potential firearm injury interventions is broken down into primary prevention and the reduction of repercussions on individuals, families and communities. This list identifies possible modifiable points for intervention that can be weighed for relevance, potential impact, and feasibility. The interventions listed below may be applicable to homicide, suicide, and/or unintentional firearm injury. The effectiveness of these potential interventions is largely unknown, but they provide reasonable strategies that merit further consideration and study.

Interventions that address the firearm as agent

Examples of interventions that focus on the firearm to prevent injury:

- Reduce access for youth and other unauthorized persons
- Implement safe storage laws
- Support sporting gun use in controlled, supervised setting
- Remove firearms from specific environments (e.g. homes, schools, public areas, airports, areas associated with alcohol consumption.)
- Design and/or replace existing firearms with personalized weapons
- Prevent criminals and youth from purchasing and carrying weapons
- Increase pressure required to squeeze a trigger
- Expand background checks to private purchasing, including gun shows
- Enforce regulations that keep guns away from people with restraining orders or on probation/parole
- Limit the frequency and quantity of handgun purchase
- Increase waiting periods before purchase
- Regulate ammunition availability
- Modify purchase applications from “shall issue” to “may issue”
- Modify firearm design with loaded chamber indicators
- Trigger locks
- Magazine safeties
- Tamper proof serial numbers encoded with weapon-specific information

Examples of interventions that focus on the firearm to reduce repercussions:

- Implement ammunition trace protocols in trauma centers and emergency departments
- Support ATF efforts for tracing and ballistic fingerprinting
- Dispose of firearm
- Enforce probation/ parole prohibitions on firearm ownership

Interventions that address the individual

Examples of interventions that focus on the individual to prevent injury:

- Influence public awareness about the risks of firearm ownership
- Raise awareness for risks from accessing firearms under the influence of alcohol
- Recommend that legitimate owners identify the most appropriate and safest gun for a given purpose
- Assure firearm owners are trained in proper handling, requiring training and education for firearm purchase
- Counter positive, attractive image of firearms, perhaps by regulating handgun advertising
- Educate people about the proper use and storage of firearms
- Provide accurate information about the dangers of carrying handguns for self-protection

Examples of interventions that focus on the individual to reduce repercussions:

- Improve pre-hospital transport and care and clinical procedures at trauma centers
- Identify and addressing symptoms of posttraumatic stress and depression
- Improve long term recovery, well-being (i.e. family supports)
- Improve access to rehabilitation services and sustainability of care

Interventions that address the social and physical environment

Examples of social, physical and other environmental interventions to prevent injury:

- Modify societal acceptance or permissiveness toward violence
- Modify youth beliefs about carrying firearms
- Expand law enforcement and surveillance of high-risk neighborhoods
- Eliminate concealed carry protection
- Institute mandatory registration of firearms
- Provide comprehensive mental health and substance abuse treatment
- Regulate handgun advertising

Examples of social, physical and other environmental interventions to reduce repercussions:

- Develop community crisis interventions (gang retaliation)
- Enforce stricter sentencing in the criminal justice system
- Implement standard of care in trauma and emergency medical systems
- Enhance access/mobility for people with disabilities
- Increase social and family support

These examples, though not a complete list, illustrate many potential ways to intervene in firearm violence. No single intervention will prevent all firearm injury and it is neither necessary nor feasible to implement all interventions at the community level. Communities and individuals should strategically use data to assure local relevance and effectiveness within their available resources. A community profile of unintentional injury, homicide, and suicide provides a useful starting point for setting priorities and structuring interventions. This can be accomplished through the resources of a trauma center in any community with local law enforcement and medical examiner information.

EVALUATING INTERVENTIONS

Once interventions are identified, selected and implemented, they need to be monitored and evaluated. Several resources have addressed gun violence, both directly and as part of a larger issue, and have suggested potential solutions for these problems. The Surgeon General has issued reports on youth violence and suicide.^{101,102} The Centers for Disease Control and Prevention distributed a sourcebook for community action, titled “Best Practices of Youth Violence Prevention”¹⁰³ and the Office of Juvenile Justice and Delinquency Prevention has a report on “Promising Strategies to Reduce Gun Violence”.¹⁰⁴ Additionally, several individuals have used the “what works” review to evaluate interventions for effectiveness.^{105,106,107}

While these reviews identify few interventions with “gold standard” documentation of effectiveness, they do identify the more promising types of interventions and provide caution against unintended and iatrogenic effects. For example, gun buyback programs and “scare tactic” approaches have not been shown to be effective in reducing firearm injury and may even have harmful effects.¹⁰⁶ The importance of being able to assess the potential effectiveness of

interventions, along with current limitations on such information, underscores the necessity of including evaluation in the design of new interventions.

Evaluation adds validity to any given intervention and provides an opportunity for that intervention to be piloted in other communities. The evidence garnered from evaluation can further inform communities and help shape local policy.¹⁰⁸

CONCLUSION

Violence is a problem worldwide, but measures are being taken to reduce its toll and burden. In the United States, there is a significant problem with firearm violence and injury, one that affects all aspects of American life and disproportionately affects youth. While there are many other mechanisms of violence, a firearm adds an element of lethality to any situation, intentional or unintentional. The resulting death and injury is extremely costly, economically, psychologically, and socially. Over time, it changes and destroys millions of lives and communities. Given the magnitude of the problem, addressing firearm injury can seem an insurmountable task, but the public health precedent for making motor vehicles safer can lead to sensible and effective policies. Surveillance and data analysis can inform communities of their specific problem with firearm injury and focus their decisions for intervention. While firearm policy has been the subject of long and heated debate in the United States, the fact remains that people have continued to die and be injured by firearms, mostly handguns. This report is an attempt to present the problem of firearm injury and appeal to a wide range of disciplines working in the areas of medicine, law, social services, and public health to expand their knowledge and redirect new energies to address the urgent problem of firearm injury and death in America.

Appendix: The 2nd Amendment and Federal Firearm Laws

The Second Amendment

Those opposed to firearm regulation often cite the Second Amendment to the U.S. Constitution as protecting the individual right of ownership and use of firearms. This interpretation of the Second Amendment is controversial, and has not been supported by the U.S. Supreme Court, which last ruled on the issue in 1939. The Second Amendment of the United States Constitution states, "A well-regulated Militia being necessary to the security of a free State, the right of the people to keep and bear Arms shall not be infringed."

- The U.S. Supreme Court ruled in *U.S. v. Miller* (1939) that the possession of a firearm is not protected by the Second Amendment unless it has some reasonable relationship to the preservation or efficiency of a well-regulated militia (today the National Guard and Army Reserves). Until recently, federal courts upheld this interpretation of the Second Amendment to protect the creation of state militias, but not to protect an individual's right to gun ownership.¹⁰⁹
- The U.S. Fifth Circuit Court of Appeals challenged Second Amendment precedent in *U.S. v. Emerson* (1999). The Court of Appeals issued two decisions in October 2001. One decision upheld the federal law passed in 1994 that prohibits persons under a restraining order to possess a firearm. With the second decision, the judges ruled 2-1 by *obiter dicta*, (a so-called judicial excursion not directly relevant to the case being decided), that the Second Amendment grants an individual right to gun ownership.¹¹⁰

Current Firearm Laws

National Firearms Act of 1934

- ◆ Established taxes that applied to sale, transfer and manufacturing of several types of automatic weapons and sawed-off guns.
- ◆ Required background checks and local police approval of purchases.
- ◆ Established a minimum barrel length for rifles and shotguns and prohibited their altering.

Federal Firearms Act of 1938

- ◆ Required annual licenses for manufacturers, dealers, and importers of firearms and handgun ammunition.
- ◆ Banned firearms sales to known criminals.

Gun Control Act of 1968

This law followed the deaths of Martin Luther King Jr. and Robert F. Kennedy and urban riots in the 1960s.

- ◆ Allowed ATF to establish rules and fees for Federal Firearm Licensees (FFLs).
- ◆ Regulated the importing and interstate sales of certain guns and ammunition.
- ◆ Defined minimum purchase ages and required serial numbers and transaction records.
- ◆ Prohibited certain individuals from owning a gun (i.e. felons, drug addicts, minors, mentally ill).

Legislation Establishing the Consumer Product Safety Commission 1972

- ◆ All consumer products became regulated for safety with the specific exclusion of firearms and tobacco.

McClure-Volkmer Act/Firearm Owners Protection Act of 1986

- ◆ Includes provisions for unlicensed sales of firearms without background check and allows federal firearm licensees to sell at gun shows.
- ◆ Restricts ATF inspections of FFLs to one per year and decreases FFL requirements (i.e., allows criminals to regain rights to own guns).

Brady Handgun Violence Prevention Act of 1993

- ◆ Required maximum 5-day waiting period for purchase of handguns to allow background checks, except for sales at gun shows.
- ◆ Increased fee of FFLs from \$30 to \$200, required destruction of records for background checks, and made stealing guns from dealers a federal offense.

Violent Crime Control and Law Enforcement Act of 1994 (Assault Weapon Ban)

- ◆ Banned possession, sale, and manufacturing of certain semi-automatic assault weapons and outlawed magazines that hold more than 10 rounds.
- ◆ Banned possession of a handgun or its ammunition by juveniles and persons under a restraining order.
- ◆ Provided stricter requirements of FFLs.

Domestic Violence Offender Gun Ban of 1996

- ◆ Prohibits persons convicted of a misdemeanor domestic violence offense from buying or owning a gun.

Firearms Owner's Protection Act of 1996

- ◆ Allows gun owners to transport firearms across state lines only if unloaded and not readily accessible.
- ◆ Bans future sales and possession of machine guns by private citizen.

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