

FIREARM OWNERSHIP AND VIOLENT CRIME

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Each year, firearms are involved in tens of thousands of deaths and injuries in the United States. This paper will discuss the relationship between firearm ownership and violent crime, as well as the relationship between firearm ownership and rates of homicide and suicide. It will also examine whether gun violence and mental illness are linked. Lastly, this paper will focus on the importance of gun violence research and why federal funding for studies on gun violence and public health has been restricted over the years.

I. THE GUN IS THE PROBLEM

FIREARM violence has become a public health crisis. In 2018, there were 75,501 total incidents of firearm violence resulting in 14,789 deaths and 28,233 injuries.¹ Of the total number of incidents, nearly 340 were mass shootings.²

Firearm violence adversely affects any community, regardless of race, geography, or socioeconomic status. However, the risk factor for firearm violence differs across demographics. Nationally, young African-American and Hispanic males are at higher risk for violent firearm injury.³ In the 2017 report by the Centers for Disease Control and Prevention (CDC), homicide is the fourth leading cause of death for African-American males of all ages.⁴

According to the Brookings Institution, “gun deaths vary dramatically by gender and race.”⁵ Citing CDC data from 2011-2013, 77 percent of white gun deaths are suicides, while 19 percent are homicides.⁶ These figures are nearly the opposite in the black population, where only 14 percent of gun deaths are suicides, while 82 percent are

¹ GUN VIOLENCE ARCHIVE, <https://www.gunviolencearchive.org/> (last visited Apr. 18, 2020).

² *Id.*

³ Jessica H. Beard et al., *Quantifying Disparities in Urban Firearm Violence by Race and Place in Philadelphia, Pennsylvania: A Cartographic Study*, 107 AM. J. OF PUB. HEALTH 371 (2017).

⁴ *Leading Causes of Death – Males - Non-Hispanic black - United States, 2017*, CENTERS FOR DISEASE CONTROL AND PREVENTION (Nov. 20, 2019), www.cdc.gov/healthequity/lcod/men/2017/nonhispanic-black/index.htm.

⁵ Richard V. Reeves & Sarah Holmes, *Guns and race: The different worlds of black and white Americans*, BROOKINGS (Dec. 15, 2015), <https://www.brookings.edu/blog/social-mobility-memos/2015/12/15/guns-and-race-the-different-worlds-of-black-and-white-americans/>.

⁶ *Id.*

homicides.⁷ The firearm homicide rate among black men aged 20-29 is about 90 per 100,000, while the rate among white men aged 20-29 is only 20 per 100,000. The homicide rate among women in the same age group is significantly less.⁸

Studies also showed that in cities and regions in the United States where there are more guns, both men and women are at a higher risk for homicide and other forms of firearm violence.⁹ The same trend was observed among developed nations of the world: Where guns are more available, there are more homicides.¹⁰ Even with the exclusion of the United States, the results remain the same.¹¹ In another study, researchers analyzed the relationship between firearm availability and homicide across fifty states over a ten-year period (1988-1997).¹² After controlling for socioeconomic factors, the study found that communities with a higher number of firearms have higher rates of firearm homicide.¹³

The state of Virginia has the 34th highest rate of gun deaths in the U.S. with a rate of 11 deaths per 100,000 people.¹⁴ The rate of gun deaths has increased 17 percent from 2008 to 2017,¹⁵ with 66 percent of gun deaths being suicides.¹⁶ In other words, a person dies, on average, every 14 hours by gun suicide. Thirty percent of gun deaths are homicides with blacks eight times more likely to die by gun homicide than whites.¹⁷ Unfortunately, firearms are the leading cause of death among children and teens in Virginia, where black children and teens are three times as likely to die by gun violence as their white peers.¹⁸

⁷ *Id.*

⁸ *Id.*

⁹ Lisa M. Hepburn & David Hemenway, *Firearm availability and homicide: A review of the literature*, 9 *AGGRESSION AND VIOLENT BEHAV.* 417 (2004).

¹⁰ *Id.*

¹¹ David Hemenway & Matthew Miller, *Firearm Availability and Homicide Rates across 26 High-Income Countries*, 49 *J. OF TRAUMA INJ., INFECTION, AND CRITICAL CARE* 988 (Dec. 2000).

¹² Matthew Miller et al., *Rates of Household Firearm Ownership and Homicide Across US Regions and States, 1988–1997*, 92 *AM. J. PUB. HEALTH* (Dec. 2002).

¹³ *Id.*

¹⁴ GUN VIOLENCE IN VIRGINIA, EVERYTOWN (Feb. 2020), <https://everytownresearch.org/wp-content/uploads/2020/03/Every-State-Fact-Sheet-2.0-030420-Virginia.pdf>.

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

There are more gun suicides than gun homicides in the United States, with suicides making up 60 percent of total gun deaths.¹⁹ There is also a positive correlation between age and the rise of firearm suicides. Men aged 45 and older account for the majority of firearm suicides.²⁰ At 55, males are 10 times more likely than females to commit suicide by firearm.²¹ The number of firearm suicides per year is almost double the number of firearm homicides.²²

Most gun owners cite protection as the major reason for owning a gun. However, it appears that guns are seldom used for home defense. For example, results of a study of all gunshot injuries in Galveston, Texas over a three-year period revealed that only two incidents were related to residential burglary or robbery.²³ In one of those incidents, moreover, the homeowner was actually shot and killed by a burglar.²⁴ Meanwhile overwhelming evidence demonstrates that a gun in the home is a risk factor for completed suicide and gun accidents are most likely to occur in homes with guns.²⁵

Women are affected by gun ownership in unique ways: residents of 67 battered women shelters were interviewed for a study which revealed that firearms are more common in the households of battered women and their partners than among the general population.²⁶ Of the 417 women interviewed, one third had a gun in the home.²⁷ Even more disturbingly, two thirds of the women had been threatened with a gun.²⁸ Studies suggest that women who own a gun are more likely to experience gun-related threats, physical abuse and verbal abuse.²⁹ This supports previous research that a gun kept in the home is more likely to be used against family members than for self-defense.³⁰ It should also be noted that in Virginia, black women are twice as likely as white women to be fatally shot by a partner.³¹

¹⁹ J. Xu et al., *Final Data for 2013*, 64 NATIONAL VITAL STATISTICS REPORT 1 (2016).

²⁰ W.J. Tuan & J.J. Frey, *Wisconsin Firearm Mortality, 2000-2014*, 116 WMJ 194 (2017).

²¹ *Id.*

²² RAHN K. BAILEY, *AT GUNPOINT: FIREARM VIOLENCE FROM A PSYCHIATRIST'S PERSPECTIVE* 104 (Outskirts Press, 2018).

²³ David Hemenway, *Risks and Benefits of a Gun in the Home*, 5 AM. J. LIFESTYLE MED. 502 (Feb. 2, 2011).

²⁴ *Id.*

²⁵ Hepburn & Hemenway, *supra* note 9, at 417–40.

²⁶ Susan B. Sorenson & Douglas J. Wiebe, *Weapons in the Lives of Battered Women*, 94 AM. J. PUB. HEALTH 1412, 1412–17 (2004).

²⁷ *Id.* at 1414.

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.* at 1413.

³¹ *Id.*

II. THE NEED FOR RESEARCH ON GUN VIOLENCE

Since 1997, Congress has blocked federal funding for gun violence research by passing a provision called the Dickey Amendment in annual appropriations legislation.³² The provision arose in response to a CDC-funded 1993 study by Arthur Kellermann and colleagues which illustrated the increased risk of homicide associated with the presence of a firearm at home.³³

The National Rifle Association (NRA) convinced its allies in Congress to take action. Led by Representative Jay Dickey of Arkansas, they added a provision to a 1996 spending bill declaring that “[n]one of the funds made available in this title may be used, in whole or in part, to advocate or promote gun control.”³⁴ This is the Omnibus Consolidated Appropriations Act of 1996.³⁵ Although the Dickey Amendment does not directly ban gun research, it prevented the Centers for Disease Control and Prevention (CDC) from funding studies that could be perceived as anti-gun efforts.³⁶ Thus, CDC funding for research relating to firearms became almost nonexistent.³⁷

In 2016, the American Medical Association (AMA) formally classified firearm violence as a public health crisis that requires a comprehensive public health response and solution.³⁸ The AMA resolved to “actively lobby Congress to overturn legislation that for 20 years has prohibited the [CDC] from researching gun violence.”³⁹ There was at least one positive development in this direction in April 2019. The House Appropriations Committee released the Labor, Health and Human Services, Education, and Related Agencies funding bill for fiscal year 2020,⁴⁰ which sets out the federal expenditures for public mental health and substance use-related programs.⁴¹ For the first time in more than 20 years, Congress gave CDC funding—\$25 million—specifically to sup-

³² Allen Rostron, *The Dickey Amendment on Federal Funding for Research on Gun Violence: A Legal Dissection*, 108 AM. J. PUB. HEALTH 865, 865 (2018).

³³ *Id.*

³⁴ *Id.* at 866.

³⁵ *Id.* at 865.

³⁶ *Id.*

³⁷ *Id.*

³⁸ Press Release, Am. Med. Ass’n., AMA calls gun violence “a public health crisis” (June 14, 2016), <https://www.ama-assn.org/press-center/press-releases/ama-calls-gun-violence-public-health-crisis>.

³⁹ *Id.*

⁴⁰ Press Release, House Committee on Appropriations, Appropriations Committee Releases Fiscal Year 2020 Labor-HHS-Education Funding Bill (Apr. 29, 2019), <https://appropriations.house.gov/news/press-releases/appropriations-committee-releases-fiscal-year-2020-labor-hhs-education-funding>.

⁴¹ *Id.*

port firearm injury and mortality prevention research.⁴² The *Portland Press Herald* later reported that the House-passed fiscal 2020 Labor-HHS-Education spending bill would provide \$25 million each to the CDC and the National Institutes of Health (NIH) to “better understand and prevent injury and death as a result of firearm violence.”⁴³ This would help fill a knowledge gap about policies that are most effective at reducing injuries and death.⁴⁴

After the August 2019 mass shootings in El Paso and Dayton, the NRA issued a statement supporting President Donald Trump’s call to focus on mental illness as a means to reduce gun violence.⁴⁵ Although the NRA opposes gun control legislation, it holds steadfast to the belief that gun violence is caused by people with mental illness.⁴⁶ In the article “Mental Health and Firearms,” published online by the NRA Institute for Legislative Action, it declared: “Since 1966, the National Rifle Association has urged the federal government to address the problem of mental illness and violence. As we noted then, ‘the time is at hand to seek means by which society can identify, treat and temporarily isolate such individuals,’ because ‘elimination of the instrument by which these crimes are committed cannot arrest the ravages of a psychotic murderer.’”⁴⁷ On the other hand, one could focus on an opposing opinion: Instead of focusing on mental illness, why not ban high-powered weapons like the ones used in El Paso and Dayton massacres?

III. GUN VIOLENCE AND MENTAL ILLNESS

Far too often, people with mental illness are portrayed in the media as dangerous and unpredictable.⁴⁸ This greatly impacts public perception.⁴⁹ The vast majority of individuals with mental illness are not prone to violence.⁵⁰ On the contrary, people with mental health disorders

⁴² *Id.*

⁴³ Andrew Siddons, *Recent mass shootings add pressure to fund research on gun violence*, PORTLAND PRESS HERALD (Sept. 4, 2019), <https://www.pressherald.com/2019/09/04/recent-mass-shootings-add-pressure-to-fund-research-on-gun-violence/>.

⁴⁴ *Id.*

⁴⁵ Joseph Zeballos-Roig, *The NRA issued a statement supporting Trump’s call to focus on mental illness to reduce gun violence after the shootings in El Paso and Dayton*, BUSINESS INSIDER (Aug. 5, 2019), <https://www.businessinsider.com/nra-statement-backing-trump-el-paso-dayton-shootings-mental-illness-2019-8>.

⁴⁶ See NRA-ILA, *Mental Health and Firearms*, NRA (Jan. 24, 2013), <https://www.nraila.org/articles/20130124/mental-health-and-firearms>.

⁴⁷ *Id.*

⁴⁸ Norman Ghiasi & Jasbir Singh, *Psychiatric Illness and Criminality*, STATPEARLS [INTERNET] (Feb. 3, 2020), <https://www.ncbi.nlm.nih.gov/books/NBK537064/>.

⁴⁹ *Id.*

⁵⁰ *Id.*

are more likely to have been victims of a violent crime.⁵¹ The MacArthur Community Violence Study concluded that people suffering from mental illness are no more prone to violence than the general population unless substance abuse is involved.⁵² Despite these findings, gun control efforts have classically centered around the mentally ill: For example, the Gun Control Act of 1968 prohibits gun ownership by any person who has been “adjudicated as a mental defective or committed to a mental institution.”⁵³

The tying of mental health records to gun purchases has been a subject of frequent debate. The National Instant Criminal Background Check System (NICS), according to the FBI website, ensures the timely transfer of firearms to eligible gun buyers.⁵⁴ NICS is used by Federal Firearms Licensees (FFLs) to instantly determine whether a prospective buyer is eligible to buy firearms.⁵⁵ The proposed NICS Reporting Improvement Act of 2013 expands the criteria to individuals in outpatient and inpatient settings, meaning states will be compelled to submit patients’ mental health records to NICS.⁵⁶

In contrast, the National Alliance on Mental Illness (NAMI), the nation’s largest mental health advocacy group, issued the following statement:

NAMI shares the goal of reducing gun violence in America and believes that firearms and ammunition should not be easier to obtain than mental health care. At the same time, NAMI strongly advocates that people should not be treated differently with respect to firearms regulations based on stereotypical assumptions about mental illness and its relationship to violence. We believe that the current NICS law is based on faulty assumptions about the relationships between mental illness and violence, not grounded in science.⁵⁷

⁵¹ *Id.*

⁵² Jessica Rosenberg, *Mass Shootings and Mental Health Policy*, J. SOC. POL’Y & SOC. WELFARE 107, 111 (2014).

⁵³ Gun Control Act of 1968, Pub. Law No. 90-618.

⁵⁴ Dep’t Health and Hum. Serv., *HIPAA Privacy Rule and the National Instant Criminal Background Check System (NICS)*, FED. REG., Apr. 23, 2013, <https://www.federalregister.gov/documents/2013/04/23/2013-09602/hipaa-privacy-rule-and-the-national-instant-criminal-background-check-system-nics>.

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ Michael J. Fitzpatrick, ANPRM on HIPAA Privacy Rule and the National Instant Criminal Background Check System (NICS), NAMI (June 7, 2013), <https://www.nami.org/getattachment/90a65e55-7094-4c26-bc5d-a9023908c79d/HIPPA-NICS-comments.pdf>.

In view of this, NAMI opposes amending the HIPAA Privacy Rule to create a special exception for reporting of mental health records to the NICS database.

IV. THE NEED FOR FIREARM SAFETY

Lastly, firearm safety presents another layer of danger to firearm ownership: proper storage in a lock box or gun safe should ideally keep weapons secure from unwanted access, yet readily available in the event of an emergency. Studies have shown that even young children are capable of finding unlocked guns in the home, and are often strong enough to pull the trigger, thereby becoming victims of unintentional shootings.⁵⁸

Some believe that “smart guns” might be a smart solution. These personalized guns, however, are still in development.⁵⁹ Such weapons are designed so that only an authorized user (e.g., the owner of the gun) can fire them.⁶⁰ Token-based technologies require an additional physical item to allow for operation of the system, such as a ring, watch, card, or bracelet.⁶¹ Similarly, biometric technologies utilize a unique feature such as a fingerprint, palm print, voice/face recognition, etc. to identify authorized users.⁶²

CONCLUSION

A total of 39,740 people was killed by guns in the U.S. in 2018—an average of 109 people per day.⁶³ This figure includes 24,432 deaths by suicide and 13,958 by homicide.⁶⁴

Areas in the U.S. with higher levels of firearm ownership have higher rates of firearm violence,⁶⁵ and dangerously, guns are more common in the households of battered women and their partners than among the general population. Though gun owners continue to buy guns primarily for protection, young children continue to play with unlocked guns.

⁵⁸ Guohua Li et al., *Factors Associated with the Intent of Firearm-Related Injuries in Pediatric Trauma Patients*, 150 ARCHIVES PEDIATRICS & ADOLESCENT MED. 1160, 1160–65 (1996).

⁵⁹ Nicole Nguyen, *Here’s What’s Up with “Smart Guns”—And Why You Can’t Buy One in the US*, BUZZFEED NEWS (Mar. 13, 2018), <https://www.buzzfeednews.com/article/nicolenguyen/what-is-smart-gun-technology>.

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² *Id.*

⁶³ The Educational Fund to Stop Gun Violence, *Gun Violence in America: 2018 Data Brief* (2020), http://efsgv.org/wp-content/uploads/2020/01/Gun-Violence-in-America-2018-Data-Brief_January-2020.pdf.

⁶⁴ *Id.*

⁶⁵ Hepburn & Hemenway, *supra* note 9, at 417.

In 2018, a total of 458 people died by unintentional firearm injuries—more than one person per day.⁶⁶

The public's attention has been misled by the media and lobbyists honing in on mental illness: people with mental illness are commonly portrayed as dangerous and out of control. Yet epidemiologic studies show the opposite: a large majority of people with serious mental illnesses are never violent.⁶⁷ Mental illness, however, is a strong factor in suicide, which accounts for over half of U.S. firearms-related fatalities.⁶⁸

Fortunately, after over two unfunded decades, gun violence research may finally get \$25 million in federal funding. The House has passed a spending bill which allocates half of that money to the CDC and half to the National Institutes of Health (NIH).⁶⁹ Not since the Dickey Amendment have federal funds been allocated to study firearm violence.⁷⁰ However, the spending bill needs to be approved by the Senate before it can go to President Donald Trump for his signature.

Hopefully, scientific research can figure out strategies and policies to prevent more gun deaths. Still-developing personalized gun technology can help mitigate the risks associated with unsecured guns, preventing crimes or suicides with weapons owned by somebody else and cutting down on accidental shootings. However, despite these obvious benefits, people aren't lining up to buy smart guns because they worry technology might fail when they need it most, such as during a home invasion. Luckily, support for smart guns could be building: A 2016 study from Johns Hopkins University found that almost 60 percent of Americans considering purchasing a new handgun would be willing to make it a smart gun.⁷¹

As doctors, we have seen first-hand how a single bullet can end a life and forever change families and entire communities. We can also play a key role in educating families about gun safety.

⁶⁶ The Educational Fund to Stop Gun Violence, *Gun Violence in America: 2018 Data Brief* (2020), http://efsgv.org/wp-content/uploads/2020/01/Gun-Violence-in-America-2018-Data-Brief_January-2020.pdf.

⁶⁷ Jeffrey W. Swanson et al., *Mental Illness and Reduction of Gun Violence and Suicide: Bringing Epidemiologic Research to Policy*, 25 ANNALS EPIDEMIOLOGY 366 (2015).

⁶⁸ *Id.*

⁶⁹ Nicole Wetsman, *After a 20-Year Drought, US Lawmakers Fund Gun Violence Research*, THE VERGE (Dec. 19, 2019), <https://www.theverge.com/2019/12/19/21028779/gun-violence-research-funding-20-year-freeze-congress-bill-cdc-nih-dickey>.

⁷⁰ *Id.*

⁷¹ Sean Gregory & Chris Wilson, *Gun Violence in the U.S.: 6 Real Ways We Can Help Reduce It*, TIME (Mar. 22, 2018), <https://time.com/5209901/gun-violence-america-reduction/>.
