Marie Crandall · Stephanie Bonne
Jennifer Bronson · Woodie Kessel *Editors*

Why We Are Losing the War on Gun Violence in the United States

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Dedication

The sun is up, but not shining…our aching hearts have blocked its life giving rays…our brains and our whole being are aggrieved… our dear friend Jeremy Richman—a scientist, an educator, a true champion for good, a hero in a world replete with evil…has fallen.

Jeremy and Jennifer Richman created the Avielle Foundation to prevent violence and improve compassion following the tragic death of their daughter Avielle at Sandy Hook Elementary School, Newtown, Connecticut. It is evident that the nightmare of gun violence does not end with an empty clip. Trauma may reemerge any time, giving new meaning to the adage, "See something. Say something!"

Preface

Gun Violence Is a Public Health Crisis

In 2018 nearly 40,000 people died from gun violence. In fact, more Americans have died of civilian firearm injuries since 1960 than all deaths from all wars that the United States has fought since its founding. Given the loss of life and tremendous, tragic toll on our collective consciousness, gun violence earns the term "public health crisis." As such, the problem is multifaceted and so must be our solutions.

In 2020, we recognize that America has become increasingly polarized with regards to firearms. We must understand and address concerns of privacy, second amendment rights, and the psychology of personal safety and fear to better communicate with those of differing opinions.

Moving Toward Consensus

Comparing the United States with other similarly resourced nations, it becomes clear that we are unique in our violence and apathy toward a comprehensive solution. Some of this lies in the national identity and passions about personal liberties. However, those of us who have lost friends, family members, and colleagues to gun violence feel that we are engaged in a war that we are losing, due to restrictions on research funding, entrenched historical perspectives, structural violence, and perhaps differing priorities or views on what is right or wrong.

Our goal in publishing this book was to assemble a collection of data and viewpoints to address the question, "why are we losing the war on gun violence in America?" Our experts discuss the psychology of fear, politics of gun violence policy, mental health and firearm violence, law enforcement based strategies to combat gun violence, and medical and public health solutions, among other topics. The authors highlight the current research in all of these critical areas.

With this compendium, we hope to bridge the growing gap between groups or ideologies, and create common ground to discuss workable solutions, as really no one ever wants to see 40,000 people per year dying from firearm violence. Strategies may include the study of effective policies for licensing and possession of firearms, "smart gun" technology, mental health and trauma-informed care approaches, targeted policing, community-based violence reduction programs, and addressing issues that contribute to structural inequalities and overexpression of violence in disadvantaged communities, such as poverty and racism.

Translate Findings into Action

It is all too painful to read the daily headlines about firearm injuries and deaths occurring all across our nation, and unequivocal data may take years to obtain. In the absence of perfect information, what are appropriate policy options? There is a complex balance between the discoveries of science and the setting of policy, especially when there is uncertainty, particularly related to protecting human health. In 1854, John Snow used public health data to isolate the source of the Cholera epidemic to a single contaminated well in SoHo, London. He appealed to the city, who removed the handle from the pump of the well, effectively ending the outbreak. In 2020 in the United States, it is time to expeditiously "remove the gun handle" to save lives now.

College Park, MD, USA Woodie Kessel

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About the Editors

Marie Crandall, MD, MPH, FACS is Professor of Surgery at the University of Florida (UF) College of Medicine Jacksonville, Associate Chair for Research for the Department of Surgery, and Program Director for the General Surgery residency. She is originally from Detroit, Michigan, a product of Head Start and local public schools. Dr. Crandall obtained a Bachelor's Degree in Neurobiology from the University of California, Berkeley, and attended medical school at the Charles R. Drew/UCLA program in Los Angeles. She finished her General Surgery residency at Rush University and Cook County Hospital in Chicago, Illinois, in 2001. In 2003, Dr. Crandall completed a Trauma and Surgical Critical Care Fellowship at Harborview Medical Center in Seattle, Washington, where she also obtained a Master's in Public Health from the University of Washington. She spent 12 years at Northwestern University in Chicago, where she held faculty appointments in both Surgery and Preventive Medicine. She is currently a member of the Division of Acute Care Surgery at UF-Jacksonville. Dr. Crandall performs emergency general and trauma surgery, staffs the SICU, and is an active health services researcher. She has nearly 200 peer-reviewed research publications and more than 200 other publications in the areas of gun violence, injury risk factors and outcomes, disparities, geographic information systems in trauma research, and violence prevention. Her research has been funded internally and externally with almost no gaps since 2006 and now totals more than $2 million. Dr. Crandall is nationally known as a traumatic injury and gun violence expert.

Stephanie Bonne, MD, FACS is an Assistant Professor of Surgery in the Division of Trauma and Surgical Critical Care at Rutgers New Jersey Medical School in Newark and practices trauma and critical care surgery at the University Hospital. She is the Medical Director of the center's Hospital Violence Intervention Program and the Surveillance Core Director of the New Jersey Center on Gun Violence Research at Rutgers University.

Dr. Bonne serves on multiple violence working groups in her role as a State Vice Chair for the American College of Surgeons Committee on Trauma. She serves as the Co-chair of the American Medical Women's Association Gun Violence Prevention Task Force, Co-chair of the APHA's Public Health Partnership for the Prevention of Firearm Violence, and is on the Research Advisory Board of the American Foundation for Firearm Reduction in Medicine (AFFIRM). Dr. Bonne is currently a Robert Wood Johnson Clinical Scholar, has been awarded the Claude Organ Traveling Fellowship of the American College of Surgeons, is a graduate of the Future Leaders in Trauma Program, and has been awarded the Eastern Association for the Surgery of Trauma's John M. Templeton, Jr., MD, Injury Prevention Research Scholarship and multicenter research scholarship.

Dr. Bonne holds a BA in Psychology and Biochemistry from Kalamazoo College in Michigan; an MD from Rosalind Franklin University of Medicine and Science in North Chicago, Illinois; completed General Surgery residency at the University of Illinois Metropolitan Group in Chicago; and completed fellowships in surgical critical care and trauma at Washington University in St. Louis, Missouri. She is board certified in general surgery and surgical critical care and is a Fellow of the American College of Surgeons and the American Medical Women's Association.

Jennifer Bronson, PhD is a Founding Member and Co-chair of American Public Health Association's (APHA) Maternal and Child Health (MCH) Gun Violence Prevention Workgroup, formed in 2013. She has over 8 years of experience researching exposure to violence, including maternal mortality due to violence, exposure to violence among African American young adults, and the National Survey of Children's Exposure to Violence. She has additional expertise in behavioral health and incarceration. Over her career, Dr. Bronson has worked for a community-based re-entry services center, two HBCUs, and the U.S. Department of Justice, where she was a Correctional Health Statistician for 5 years. Currently, she is Senior Director of Research for a national non-profit research firm focused on reducing the number of people with mental illness and substance use disorders from criminal justice involvement. Dr. Bronson has a PhD in Sociology from Howard University in Washington, DC, and a BS and MS in Sociology from Virginia Commonwealth University in Richmond.

Woodie Kessel, MD, MPH is a Pediatrician and advocate for children and families, public-private enterprise, diversity, and achieving human potential. He is an experienced educator, investigator, and practitioner in medicine, public health, bioengineering, community-based initiatives, and public policy for over four decades. Dr. Kessel is Professor of the Practice at the University of Maryland's School of Public Health and the C. Everett Koop Institute Senior Child Health Scholar and Professor of Pediatrics, Geisel School of Medicine, Dartmouth College, Hanover, New Hampshire. Dr. Kessel served in the U.S. Public Health Service as an Assistant Surgeon General and Senior Advisor to the White House, Cabinet Secretaries, Surgeons General, and Health and Human Services officials spanning eight administrations. His career has focused on applying public health science to the

development and implementation of community-based strategies to improve the health of children and families—Bright Futures and PROS and Military Children's Initiative; assure health insurance coverage for all children—CHIP; reduce low birthweight and infant mortality—Healthy Start; eliminate racial health disparities—Black & Minority Health Taskforce and HBCU Student Mentor Program; prevent gun violence—GVP National Research Collaboration Summit; eliminate child poverty—State Child Poverty Prevention Boards; stop e-cigarette use among teens—Grandparents Helping Teens; reduce childhood obesity—Healthy Grand Families and Sesame Workshop Healthy Habits for Life™; and advance the science related to the care and cure of rare diseases—Healthy Hearts and MD Advocacy. He is engaged in teaching public health policy and advocacy, improving maternal and child health, advancing prevention teaching and research, mentoring students in translating science into action, and improving community data systems to solve public health problems in the community. Dr. Kessel is the recipient of several honors including the C. Everett Koop Courage Award, Vince Hutchins Leadership Award, Ambrose Scholars Award, Albert Einstein College of Medicine Lifetime Achievement Award, USPHS Surgeon General's Medallion, and USPHS Distinguished Service Medal.

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Part I
Overview

Chapter 1
Scope of Firearm Injuries in the United States

Astrid Botty van den Bruele and Marie Crandall

Firearm Injury Deaths

Firearm injury is one of the leading causes of death in the United States (US) [5]. In an average week, 645 people die due to firearm violence and 1565 more are treated in an emergency department (ED) for a firearm-related injury [18]. According to the Centers for Disease Control and Prevention (CDC), there were 38,658 recorded deaths from firearm-related injury in 2016 [13]. Even more shocking, this figure translates to an increase of 10,000 in comparison to the 28,874 recorded in 1999. To better eludicate this problem, this sobering statistic accounted for 16.7% of all injury deaths that year alone. Gun violence in the US is a public health problem that is both understudied and underfunded [1–4]. It is often described as an epidemic due to its alarmingly high levels in certain populations in the United States. The two major component causes of firearm injury deaths in 2016 were suicide (59.3%) and homicide (37.3%) [13]. The nature and frequency of firearm violence, combined with its substantial impact on the health and safety of Americans, make it an especially significant and important public health concern. It is crucial to note that it is not just the finite loss of life which needs to be acknowledged as not all firearm-related injuries are fatal. The nonfatal injuries in survivors can have a detrimental impact on the quality of life of the individual, leaving victims unable to recover in a substantial and meaningful manner, as they often suffer lasting physical and psychological distress years after the triggering event.

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Nonfatal Firearm Injuries

Many Americans are nonfatally injured in firearm-related violent acts each year. These include interpersonal violence, self-directed violence, legal intervention, unintentional injuries involving a firearm (such as hunting accidents or inadvertent injury while cleaning a gun or putting it away), and acts where the intent cannot be accurately determined [15]. The CDC has a web-based Injury Statistics Query and Reporting System (WISQARS) which is an online database that provides fatal and nonfatal injury, violent death, and cost of injury data from a variety of trusted sources [17]. It is used to help calculate accurate statistics and demographics of the individuals affected. According to WISQARS, there were 133,895 nonfatal firearm-related injuries recorded in 2016. These nonfatal gunshot wounds can have severe lasting consequences with negative impacts on the quality of life of the victims, not just due to the physical ramifications of the injury itself but the mental anguish that follows the victim as well.

For both firearm assaults and unintentional firearm injuries, rates for males were about nine times higher than those for females (27.9 vs. 3.2, for firearm assaults, and 6.6 vs. 0.7 for unintentional firearm injuries) [15]. Young people (which were classified as those individuals under the age of 35) accounted for roughly 72% of all nonfatal firearm injuries treated in US ED's each year from 2010 to 2012 [15]. Most of these injuries resulted from a firearm-related assault and disproportionately impacted young people aged 15–34 years. The overall average annual rate of nonfatal firearm injuries was 65.6 per 100,000 among persons 15–24 years of age, and 44.2 among young adults 25–34 years of age [15]. These age groups also had the highest rates of nonfatal unintentional firearm injury [15]. Gun violence is a substantial public health problem accounting for significant physical, psychological, and financial costs.

Medical Burden of Firearm Injuries

According to Fowler et al. (2015), patients arriving for medical treatment for a firearm injury due to unintentional circumstances frequently had leg and foot injuries (43%), followed by injuries to their arm or hand (34%) [15]. Individuals arriving for emergency department treatment following a firearm assault also frequently had leg and foot injuries (35%) [15]. Additionally, previous studies have shown that nonfatal firearm injury is a leading cause of spinal cord injuries in the United States [19] and that these injuries are more likely to result in paraplegia than other types of spinal cord injuries [20]. Moreover, even if the victim is fortunate enough to bypass death or SCI, there is also the possibility of such severe vascular or soft tissue injury to warrant amputation, this resulting in diminished quality of life and need for disability. Gunshot victims can also suffer from injuries to the abdomen resulting in hypovolemia warranting an operation, alimentary tract injuries resulting in stoma

placement, or the need for surgical removal of certain organs (such as the spleen) thus warranting lifetime precautions and vaccinations. The alimentary tract injuries that result in need for ostomy placement could result in decreased quality of life as well as depression and diminished self-image.

Gunshot wounds to the upper and lower trunk, however, remain the more common among assault cases than they were from unintentional firearm injury cases (20% vs. 6% for upper trunk injuries; 19% vs. 7% for lower trunk injuries) [15]. The percentage of assault or unintentional cases with GSWs to the head or neck were roughly 11% and 10%, respectively [15]. Penetrating spine injury (PSI) due to GSWs accounts for approximately 13–17% of injuries [22–25]. According to the National Spinal Cord Injury Statistical Center (NSCSC), acts of violence (primary GSWs) accounting for approximately 13.8% are a leading cause of injury as of 2015 [26]. The percentage of assault or unintentional cases with gunshot wounds to the head or neck was very similar as well (11% and 10%, respectively) [15]. Not surprisingly, due to the important anatomical structures residing within the head and neck, GSWs to these areas are often fatal, and only about one-third of patients with these injuries survive long enough to arrive at the hospital for treatment [16]. If victims experience a GSW to the head and are fortunate enough to survive, they may still suffer the consequences of a traumatic brain injury (TBI). A proportion of severe TBI survivors, after prolonged hospital care, require long rehabilitation and may have long-term physical, cognitive, and psychological disorders. Such disorders may disrupt previous relationships and preclude return to work, with severe economic and social impacts. The global burden is such that TBI survivors have a lower life expectancy than the general population [31]. Similar to fatal firearm injuries, males represent the majority of nonfatal firearm injuries accounting for a staggering 90% of all nonfatal firearm injuries medically treated each year [15]. From 2010 to 2012, the average annual rate of nonfatal firearm injuries for males was 38.4 per 100,000—or about 8.3 times the rate for females [15]. Most of these injuries were from a firearm-related assault or were unintentional. This is largely due to the high case fatality rate for self-harm injuries involving a firearm [15].

Firearm Injuries in Children

Similar to firearm deaths, children under the age of 15 had the lowest rate of unintentional firearm injury across all age groups [15]. Firearm-related injuries and fatalities among children are an important public health problem and remain to be the second leading cause of pediatric death in the US [9]. Nearly 1300 children die and 5790 are treated for gunshot wounds each year [9]. Males, older children, and minorities are disproportionately affected. Although unintentional firearm deaths among children declined from 2002 to 2014 and firearm homicides declined from 2007 to 2014, firearm suicides decreased between 2002 and 2007 and then showed a significant upward trend from 2007 to 2014 [9]. A study by DiScala et al. (2004) compared the outcomes by intent of nonfatal firearm injuries in ages 0–19. They

found that the unintentionally injured had a higher rate of surgical intervention (66.8% vs. 50.8%) and stayed in the hospital longer than the assaulted ones (median: 5 days vs. 3 days). Almost half of the children in both groups were discharged with disability, and approximately 87% returned to their home. Thus, they concluded that approximately 3200 children nationwide develop disability from firearms-related injuries annually [21]. Rates of firearm homicide among children are higher in many Southern states and parts of the Midwest relative to other parts of the country. Whether this is due to a cultural or economic component remains to be determined. Firearm suicides are more dispersed across the US with some of the highest rates occurring in Western states [10]. Firearm homicides of younger children often occurred in multi-victim events and involved intimate partner or family conflict; and unfortunately, older children more often died in the context of crime and violence [10]. Not surprisingly, firearm suicides were often precipitated by situational and relationship problems. The shooter "playing with a gun" was the most commonly cited circumstance surrounding unintentional firearm deaths of both younger and older children [10]. Not surprisingly, and further substantiated by numerous case-control studies, the presence of firearms in the home substantially increases the risk of adolescent suicide [27–29]. The ease of access to firearms in these situations needs to be addressed on a more personal level and it remains obvious that something needs to be done about this sooner than later, as we are losing our own children at an alarming rate for completely preventable reasons.

A study by Grossman et al. (2005) involving a separate case-control study showed that that safe gun storage practices are associated with a decreased risk of teen suicide and unintentional firearm injuries [30]. A study by Madhaven et al. (2019) found that many socioeconomic variables, including unemployment rates, percent urbanization, poverty rates, and teen tobacco use, were associated with firearm homicide rates in unadjusted analysis [9]. Children exposed to violence, crime, and abuse are more likely to abuse drugs and alcohol; suffer from depression, anxiety, and post-traumatic stress disorder; fail or have difficulties in school; and engage in criminal activity [32, 33].Firearm-related homicide in children remains a complex, multifaceted problem. Given the recent trends, more research is needed to identify meaningful ways to reduce firearm-related homicides among children.

Racial and Socioeconomic Disparities

Most gun-related violence occurs within socially and economically disadvantaged minority urban communities, where the rates of gun violence far exceed the national average [7]. The race with the highest gun-related violence remains African Americans. The age-adjusted death rate for non-Hispanic white males was 55.7% lower than for non-Hispanic black males and 67.0% higher than for Hispanic males [13]. Additionally, among the major race, ethnicity, and gender groups, the age-adjusted death rates for firearm-related injuries increased significantly in 2016 for non-Hispanic white males (3.9%), non-Hispanic white females (5.6%),

non-Hispanic black males (9.3%), non-Hispanic black females (26.3%), and Hispanic males (10.9%) compared to 2015 [13]. Homicide deaths by firearm affected black males the most, with an age-adjusted rate at 33 deaths per 100,000 people in 2017. Unfortunately, with the plethora of mass shooting events such as infamous Las Vegas Concert Shooting, church shootings, and school shootings, the emerging data from the CDC continues to see an upward trend in both firearm-related injury and death for the 2018 data. Gun violence has disturbingly high levels in certain populations in the United States. The state with the highest firearm-related death in was Texas, with an astonishing 3513 in 2017 [14]. The state with the lowest rate was Hawaii with just 39 mortalities linked to gun violence in that same year [14]. Counties classified as extremly violent were mostly rural, poor, predominantly minority, with high unemployment and homicide rates. According to Kalesam et al., overall, homicide rate was significantly associated with gun deaths (incidence rate ratios = 1.08, 95% CI = 1.06–1.09). In relatively safe counties, this risk was 1.09 (95% CI = 1.05–1.13), and in extremely violent gun counties this risk was 1.03 (95% CI = 1.03–1.04) [11]. Most states had at least one violent or extremely violent county and no state is free of gun violence all together. The US's proclivity towards guns has affected more than just our own generation, but our youth as well.

Cost of Firearm Injuries in America

In 1999, Cook et al. published a revealing study estimating the substantial medical expense of the consequences of firearm injury in the United States. At a mean medical cost per injury of about $17,000 per individual, the 134,445 (95% confidence interval [CI], 109,465–159,425) gunshot injuries in the United States in 1994 produced a staggering $2.3 billion (95% CI, $2.1 billion-$2.5 billion) in lifetime medical costs [12]. Of that $2.3 billion, almost half, or $1.1 billion (49%), was paid by US taxpayers [12]. Gunshot injuries due to assaults accounted for the majority (roughly 74%) of these total costs [12]. Firearm injury expenses represent a substantial burden to the medical care system and nearly half this cost is absorbed by US taxpayers in some form [12]. Recent data have shown an increase in firearm-related injuries accounting for $229 billion spent on costs associated with health care, criminal justice, loss of income, pain, suffering, and loss of quality of life for these patients in 2013 [6]. As the number of firearm-related injuries continues to grow, so will the exorbitant financial burden, not just to the victims, but to the economy as well.

The financial burden from the loss work wages associated with firearm injuries is substantial. Using average annual frequencies between 2010 and 2012, firearm deaths and injuries resulted in over $48 billion in combined lifetime medical and work loss costs (estimate: $48,292,384,000) [15]. An astonishing 91% of these costs were attributed to fatal firearm injuries ($44,041,023,000) [15]. The majority of costs for each of the three dispositions (deceased, hospitalized, treated, and released from the hospital) were from the loss of work; however, the percentages

differed for each. Ninety-nine percent of fatal firearm injury costs were attributed to work loss, while 79% (hospitalized) and 61% (treated and released) were attributed to work loss for the nonfatal firearm injury groups [15]. The composition of costs varied by intent within each disposition as well, with self-harm/suicide resulting in the greatest costs for fatal firearm injuries and assault/homicide resulting in the greatest costs for nonfatal firearm injuries [15]. These statistics emphasize the importance of addressing gun violence injury in the United States as well as its ramifications. It cannot be overemphasized that this is truly a public health concern as certain locations within the United States receive the majority of the violence.

Summary

Gun violence in the United States remains one of the leading causes of preventable death in both our older and younger populations. Every week in the United States, an average of 645 people lose their lives to firearm violence and 1565 more are treated in an emergency department for a firearm-related injury. This sobering statistic accounts for about 7% of the premature deaths before age 65 in the United States [8]. With the overwhelming number of mass shootings in public areas, schools, and churches, it is almost as if we have become jaded to the news of anther public "mass shooting" or "another man/woman or child killed" because of preventable gun violence. As emphasized here, the consequences of gun violence extend far beyond death for those victims lucky enough to survive. Surgical or medical treatments (amputation, stoma formation, and their long-lasting sequelae) are just a few of the ailments that leave the victim unable to feel "normal" again. Beyond this, there is the concern for substance abuse (alcohol, narcotics), PTSD, and overwhelming depression that also contributes to the overall decrease in the quality of life to those individuals affected. And, as the individuals make up the whole, the substantial economic burden to the United States cannot go unnoticed.

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Chapter 2
Gun Violence, Structural Violence, and Social Justice

Tanya Zakrison, Brian Williams, and Marie Crandall

Gun Violence and Race

The rate of firearm homicides in the United States is 25 times higher than that for other high-income countries [1]. Nearly 15,000 people are murdered by gun violence every year, and this tragedy is marked by severe racial disparities. Despite comprising only 13% of the US population, our African American communities suffer more than half of these deaths [2, 3]. Homicide is the leading cause of death for African American males aged 15–25, and firearms are the leading cause of death for young African American children. Nonfatal firearm injury rates follow a similar pattern, disproportionately affecting African Americans and other racial and ethnic minorities. It is clear that gun violence in the United States discriminates on the basis of race.

These disparities have profound social, psychological, and economic effects. Strict law enforcement-based strategies to combat gun crime have led to the intended consequence of a bloated prison population, the majority of whom are people of color, due to the "war on drugs." This sociological construct created by the Nixon administration in 1971 provided the legal framework to simultaneously disrupt the anti-war and civil rights movements by flooding both with marijuana and heroin, respectively, and criminalizing both heavily [4]. This led to the current 2.2 million incarcerated individuals, the largest incarcerated population in the world, with inmates legally used for slave labor given the 13th amendment to the US Constitution [5, 6]. The downstream effects of this include challenges in workforce entry or re-entry, felony disenfranchisement, entrenchment of poverty, healthcare expenditures,

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business losses, family dissolution, and other costs to society (over $200 billion per year, in some studies) [7]. It is not a coincidence that the heaviest burden of gun violence in the United States is borne by our communities that also suffer failing schools, food deserts, and other health disparities. To presume that African Americans are solely responsible for gun violence in their communities is to ignore the history of slavery in the United States, Jim Crow-era legislation, legal segregation, voter discrimination, racial violence, and profiling, to name just a few issues. These disparities and injustices exist because the United States created durable structures and institutions intended to exclude African Americans from mainstream society.

Structural Violence

While violence is generally defined as an intentional act of aggression committed by one or more persons, "structural violence" is instead the ways that our social constructs, such as government, religion, or businesses, may put individuals or communities at risk of violence. In contrast to our traditional notion of violence, structural violence does not have a person to "blame" and may not always be intentional. The concept of structural violence was first posited by Johan Galtung in 1969, to describe the violence of social structures that cause the avoidable impairment of fundamental human needs, such as safety, health, and autonomy [8–10]. Discrimination of any form, such as structural racism, is another way of understanding structural violence. These structures may be in the form of legislation (such as Apartheid or Plessy vs. Ferguson), policies (gerrymandering of voter districts), policing (racial profiling), or other overt or covert actions and attitudes.

A simple example of the mechanisms of structural violence would be public school funding [11]. Public schools should, in theory, lead to equivalent educational opportunities. But funding for schools is highly variable and dependent on local-income base and willingness to support public schools. Most public school funding is based on property taxes; and, of course, property taxes are dependent on property values and income level. Therefore, more wealthy communities can spend more resources on public schools [12]. These systems are maintained by school boards, county commissioners, and local elected officials. Because we all want what's best for "our" children, often poorer communities are not included in the collective "us" if resources are limited, or if we underestimate the advantages afforded by better schools. However, it is not simply better schools; it is availability and resources for quality tutoring, Advanced Placement classes, comprehensive after-school activities, and the time and personal safety required for scholarship. These constructs all contribute to the wide disparities in graduation rates and post-secondary opportunities for children.

If education can be seen as one aspect of a multitude of complex, interdependent structures, then something more ominous, such as gun violence, can also be viewed through this lens. We currently have a system of racial and economic inequality that

is self-sustaining through ineffectual schools, entrenched poverty, mass incarceration, and the scars of slavery and segregation. It is not as simple as saying, “there is a ‘bad guy with a gun’, and if we arrest him, we’ll be safe,” because the structures in place that create monetary disadvantage, few opportunities for educational success or gainful employment, and a culture of racially divided anger and bias will produce more of the same. Not “bad guys,” but bad systems. In that context, sustainable solutions must focus on social justice.

Social Justice

Social justice solutions to structural violence must focus on changing underlying institutions and processes. Examples that have been used successfully in the United States and around the world include limiting the commodification of basic citizen needs, such as health care, access to healthy foods, and tackling critical issues such as racism, implicit bias, public education, and population health [13–15].

With respect to gun violence, a social justice approach may include strategies such as alternative sentencing to reduce the impact of profiling and poverty-related crime on lower-income communities [16], restorative justice instead of punishment [17], comprehensive re-entry pathways for ex-offenders [18], and investment in community-based violence prevention programs such as Cure Violence, whose focus is to decrease violent responses to interpersonal conflicts using a “credible messenger” model [19]. Finally, if these efforts are to be successful, they must be continuously funded and supported by wrap-around services for preventive initiatives such as mental health treatment, substance abuse counseling, parenting skills classes, affordable housing programs, and early childhood education and support services. Focusing on strengthening and empowering at-risk communities has been shown to decrease violent crime and can help mitigate some of the harm perpetrated by the structural violence pillars of racism and privilege [19–21].

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Chapter 3
Data on Gun Violence: What Do We Know and How Do We Know It?

Edward J. Sondik

Introduction

Compared to many aspects of public health research, we know significantly less about gun violence and how to prevent it compared to other health and safety problems. From analyzing trends in instances of gun violence to identifying how to reduce the death and injury toll, data provide the foundation of our knowledge. Research depends on accurate data to formulate and conduct the research and leads, as well, to the development of new data sources. Accurately assessing changes in of measures describing guns and gun violence is essential to enable evaluation of the effectiveness of policies and practices and whether the impact of gun violence is increasing or decreasing.

The Institute of Medicine has said that a lack of adequate firearm research design and data, "if not addressed, will limit the ability of researchers to perform rigorous studies, as well as the ability of policy makers to use research to inform the development and evaluation of future policies" [1]. More specifically with respect to firearm-related data, a panel convened by the National Research Council stated the following:

> High-quality data that are usable, credible and accessible are fundamental to both the advancement of research and the development of sound policies. … Basic information about gun possession, distribution, ownership, acquisition and storage is lacking. No single database captures the number, locations, and types of firearms and firearm owners in the United States. Because different forms of firearm violence respond to different strategies, without good data it is virtually impossible to answer fundamental questions about occurrence and risk factors or to effectively evaluate programs intended to reduce violence and harm. [1]

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This was not the first such conclusion. In 2004 an earlier National Research Council panel concluded, "If policy makers are to have a solid empirical and research base for decisions about firearms and violence, the federal government needs to support a systematic program of data collection and research that specifically addresses that issue" [2].

The great majority of data on guns and the impact of guns on the health and well-being of the American people is produced by a relatively few federal government agencies and some cooperating agencies at the state and local levels. However, federal data sources were not developed under a coordinated strategy and lack a multi-agency guiding strategy. There is some cooperation and guidance within agencies that have several relevant data sources, but the statistical system of the United States is decentralized into 13 principal statistical agencies with overall agency coordination by the U.S. Chief Statistician, housed in the President's Office of Management and Budget (OMB).

In addition to limited interagency-level cooperation, there is no overall advice and funding to identify gaps in the data, quality issues, and the support of the research necessary to assess the adequacy of the data. Federal statistical agencies have advisory bodies but there is little cooperative activities across these bodies. The current statistical agencies that relate to guns and gun violence each have their separate missions and, in general, have not expanded their missions to delve into exploration of the areas of prevention and the fundamental causes of gun violence.

We are, then, faced with a situation in which some aspects of gun violence have little or no data collection, and other aspects have redundant data sources. If the sources are of good quality, we should be able to assess the reasons for differences in data, such as the sample design. In one instance two data sources suggested the number of injuries is falling at about the same rate, while a third source showed the number of injuries rising [3]. Ongoing analysis of such differences, and perhaps the development of another source, combining reliable estimates agreed to by experts, may be a better solution to this problem.

Perhaps the key characteristic that data on gun violence—or for that matter any data used to inform public policy decision-making—is public trust; trust that the data are an accurate representation of what it purports to be. In the case of information on firearms, accurate data are essential to both the public health and public safety sectors in order to realize the full scale and scope of gun violence. This in turn informs prevention, interventions, policy and legislature that can improve the lives of all Americans by creating a safer and less violent country.

Summary of Federal Data Sources Relating to Gun Violence

There are several different types of federal data sources, each with its own purpose, characteristics, values, and limitations on illuminating the extent of gun violence in the nation. These datasets include, but are not limited to, administrative data (i.e., National Center for Health Statistics' data on causes of death involving guns), population-based surveys such as the Bureau of Justice Statistics' (BJS) National

Crime Victimization Survey (NCVS), and the Consumer Products Safety Commission's survey of hospitals used to identify injuries from firearms.

U.S. Department of Justice (DOJ)

The DOJ includes three component agencies that provide key data for the study of gun violence. The first one is the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), which houses several data collections and produces reports directly related to firearms manufacturing and commerce. The Listing of Federal Firearms Licensees lists all the federally licensed manufacturers, dealers, collectors, and importers of firearms and destructive devices, by state, for each month of the calendar year [4]. The Firearms Trace Data are used by the ATF to trace firearms on behalf of thousands of local, state, federal and international law enforcement agencies. The ATF uses the trace data to prepare a variety of state-level reports intended to provide the public with insight into firearms recoveries [5]. The ATF also collects production and exports information from federally licensed manufacturers of firearms and publishes it in its Annual Firearms Manufacturers and Export Report [6]. Trends and comparative data from 1975 on firearm commerce activity are available in the ATF's Firearms Commerce Report in the United States. This report presents data drawn from several ATF reports and records in one comprehensive document [7]. Lastly, the ATF collects information on missing, lost, or stolen firearms within 48 hours of discovery of the loss or theft through its Federal Firearms Licensee Statistics Theft/Loss Reports program [8].

The BJS is the statistical agency of the DOJ with a mission to collect and disseminate data and statistics on crime, criminal offenders, victims of crime, and the operation of justice systems at all levels of government [9]. The BJS operates the Firearm Inquiry Statistics (FIST) program, which collects annual data from agencies conducting background checks, the number of inquiries made in connection with presale handgun checks, and the number and basis for rejection of such inquiries [10].

The BJS also collects information from adults serving time in prison on any firearms used in the offense for which they are currently incarcerated through the Survey of Prison Inmates (SPI). Although the SPI is a robust omnibus survey, it is produced on an irregular basis, with a 12-year gap between its most recent collections (2004 and 2016) [11]. From the 2016 SPI, the BJS produced a report on the source and use of firearms used in a crime, which showed that 21% of prisoners carried or possessed a gun during the offense for which they were incarcerated [12].

Data on victims of gun crime also come from the BJS and their National Crime Victimization Survey (NCVS), which is the nation's primary source of information from victims of nonfatal violent and property crime, reported and not reported to the police [13].

The Federal Bureau of Investigation (FBI) also conducts substantial statistical activities on crime. The FBI's Uniform Crime Reporting (UCR) Program's primary

objective is to generate reliable information for use in law enforcement administration, operation, and management. The data are received from more than 18,000 law enforcement agencies at all administrative levels [14]. The UCR program consists of four data collections: The National Incident-Based Reporting System (NIBRS), the Summary Reporting System (SRS), the Law Enforcement Officers Killed and Assaulted (LEOKA) Program, and the Hate Crime Statistics Program [14]. These data collections have information on various incidents identified by law enforcement authorities with data collected at the time of the incident.

The UCR is perhaps the most authoritative data on firearms used during a crime. Data are available on firearms used in all categories of crime, such as property crime, violent crime, or drug-related crime. The NIBRS is particularly useful for gun violence research because it can be used to identify the number of persons killed or injured in a shooting incident; as such, it is one of the key data sources on mass shootings. With respect to homicide, UCR data show that in 2017, 10,982 people were intentionally shot and killed, representing about 73% of all murders that year (15,129). Of the murders committed with a firearm, a total of 7032 involved a handgun. This figure however could be higher, given that over 3000 murders involving a firearm stated that the type of firearm was unknown. The fact that nearly one-quarter of firearm-related homicides were unable to classify the type of gun represents a limitation of administrative data, which generally lacks the quality controls and safeguards that can be built into surveys to estimate a particular variable [15].

U.S. Department of Health and Human Services (DHHS)

The DHHS serves a vital role in producing data, statistics, and research that are essential to informing the health and well-being of the nation and individuals. Component agencies of the DHHS include the Centers for Disease Control and Prevention (CDC), which houses the National Center for Health Statistics (NCHS) (a principal federal statistical agency) and the Agency for Healthcare Research and Quality (AHRQ). These agencies collect and disseminate information that is crucial to understanding the impact of firearms on health, to include the magnitude and impact of gun violence in the forms of fatal and nonfatal gunshot injuries [16].

The NCHS is responsible for the National Vital Statistics System (NVSS) the vehicle through which data on births and deaths, to include cause of death, are collected and disseminated [17]. The most accurate data on mortality are derived from death certificates, the monitoring of which is a state responsibility. Death certificates are supplied to the NCHS by the states with the cause of death determined by a state-designated individual, such as a coroner or medical examiner. Causes of death data include fatal firearm injury, which can be used to assess trends in deaths from firearm-related homicides, unintentional fatal accidents or injuries, and suicides [17]. The death certificate data are evaluated, coded, and collated by NVSS program staff and reviewed by each state's vital statistics registrar to assure data quality. A limitation of the mortality data is that deaths for which firearm injuries

had a contributing role, but were not the determined cause of death, are not captured. In 2017, the most recent data available at this time, 39,773 people died from gun-related injuries [17]. This amounts to more than 16%, or one in six, of all the deaths in the United States (243,039) in 2017. Further, firearm-related suicides accounted for an additional 10% of all deaths in the United States during 2017 [17].

The utility of CDC's mortality data can be enhanced when linked to other data collections. For example, the National Health Interview Survey (NHIS) provides critical information on the amount, distribution, and effects of illness and disability among the civilian non-institutionalized population of the United States [18]. The NHIS data can be linked to mortality data to more fully understand the association of a wide variety of health factors that may relate to gun violence and death. Other datasets that can be linked to mortality data include ambulatory health care data from the CDC's National Medical Care Survey (NAMC), National Hospital Ambulatory Medical Care Survey (NHAMCS), and National Hospital Care Survey which provide information on community health centers, emergency departments, and inpatient hospitals [19]. When linked to mortality data, these data can be used to assess the likelihood of subsequent deaths related to a firearm injury as a function of admitting diagnosis.

In addition to the NVSS, the CDC also maintains the National Violent Death Reporting System (NVDRS). The NVDRS program collects facts from death certificates, coroner/medical examiner reports, law enforcement reports, and toxicology reports into a single anonymized database [20]. Contextual variables such as relationship problems, mental health conditions and treatment, and recent money problems are also collected. The data are readily accessible through CDC's Web-based Injury Statistics Query and Reporting System (WISQARS) [21]. Indeed, WISQARS provides a wealth of free, publicly available information useful for understanding gun violence research. Also available through the WISQARS platform are cost of injury data, which consist of lifetime medical and work-loss costs for injuries as well as estimates of the cost of fatal injuries by state; and nonfatal injury data from a representative sample of U.S. hospital emergency departments from the Consumer Products Safety Commission's National Electronic Injury Surveillance System (NEISS) [22]. The NVDRS has recently expanded to all 50 states, but its funding is incumbent upon the state health departments to reapply for the funding to support the program at regular intervals. Additionally, NVDRS data is limited in public access, although a restricted access database with additional identifiers exists for researchers with appropriate data use agreements.

Other DHHS federal data that can inform gun violence prevention are collected by the Agency for Healthcare Research and Quality (AHRQ), which conducts the Healthcare Cost and Utilization Project (HCUP) [23]. The HCUP is a comprehensive source of hospital care data, including information on in-patient stays, ambulatory surgery and services visits, and emergency department encounters. Firearm injuries are one of the HCUP foci. The HCUP consists of several surveys, such as the Nationwide Emergency Department Sample (NEDS) [24] that focuses on visits to the ED that do not result in an admission, and the State Ambulatory Surgery and

Services Databases (SASD) which collects encounter-level data for ambulatory and outpatient services [25].

Although there is a single federal source of data on mortality and cause of death, as illustrated by the discussion above, this is not the case for data on nonfatal injuries or accidents. Simply put, if one wanted to pinpoint the number of individuals each year who sustain a firearm injury and survive, or to accurately characterize this population, it is not currently possible to do so. All measures to answer that simple question must come from estimates, samples, or extrapolations of data sources of variable completeness, timeliness, and quality. These sources vary in terms of their sample size and composition and measurement. The choice of data source depends on the use and the detail desired. For example, the most recent iteration of the NEDS contained discharge data from 984 hospitals, across 36 states and Washington DC, approximating a 20% stratified sample of U.S. hospital-owned emergency departments [24]. By comparison, the NEISS sample included about 100 hospitals, which limits some detailed analyses [22].

In addition to multiple sources of administrative data on gun violence, there are multiple sources of household survey data that can be used to assess firearm-related nonfatal injuries, such as the NHIS and the NCVS. The NHIS has a sample of 35,000 households and conducts interviews with about 85,000 persons annually to estimate visits to emergency rooms and the causes [18]. By comparison, the NCVS is designed to estimate victimization from crime and its consequences and interviews about 160,000 unique persons in 95,000 households annually [13].

Some organizations, hospitals, and even nonprofit organizations also maintain datasets related to firearm violence, with varying inputs, levels of completion, and data fields. Individual hospitals, municipalities, and large medical organizations often compile data based on administrative, or billing, data. These data access the codes placed on hospital and physician bills, in order to identify patient conditions. This works well for conditions like diabetes, heart disease, or infectious diseases, in which the treatment is tied to the primary cause. Injuries are coded, however, by primary diagnosis (e.g., splenic laceration or pelvic fracture) and external cause (e.g., gunshot wound). External cause codes are optional for coders to place on bills, there is a wide variety of descriptive codes that can be onerous and confusing, and the input relies on coding, which is variable across practices. Administrative hospital data is, therefore, inherently flawed.

Still, some hospital datasets are valuable, most notably those that are registrar-inputted. This includes many of the datasets dedicated to trauma care in the United States. The American College of Surgeons Committee on Trauma is the verifying body for man trauma centers nationally, along with individual state designations. Datasets that include firearm injury include the National Trauma Databank, Trauma Quality Improvement Project, and the National Surgical Quality Improvement Project. These data are registrar-inputted and therefore have higher fidelity as individual registrars review individual patient records and abstract specific data fields. These data are limited, however, in that they are rich in outcomes and medical data but have little circumstantial data about the injury itself.

What's Missing at the Federal Level?

The most glaring gap is an absence of a single federal data source on gun ownership. Estimates of gun ownership come from a variety of sources; none of which are derived from a federal agency's data collection efforts. Due to the glaring data gap, NVSS firearm-related suicide data are sometimes used as a proxy measure to estimate gun ownership by state [26]. In addition, a number of nongovernmental organizations (NGOs) have stepped up to collect data on gun ownership in the United States. From a telephone survey conducted by Pew Research Center, we know that about 42% of respondents owned a gun. Seven out of ten gun owners said they owned a handgun or pistol (72%), 62% owned a rifle, and 54% owned a shotgun [27]. Among those who owned a single gun, most respondents (62%) said that gun was a handgun or pistol, while far fewer said they owned a rifle (22%) or a shotgun (16%).

Data on gun ownership is also available from a Gallup survey that asked whether respondents had a gun in their home. In 2018, 43% of respondents said they had at least one gun in their home [28]. This estimate matches the one obtained by Pew in 2017 [27]. The General Social Survey (GSS) [29] found that in 2016, 32% of Americans said they lived in a household with at least one gun. The methodology used by the surveys was different with the GSS using in person interviews and Gallup and Pew using telephone surveys.

The Small Arms Survey (SAS) provides information on gun ownership in the United States and other countries allowing for international comparisons [30]. The Small Arms Survey is a project of the Graduate Institute of International and Development Studies in Geneva. The survey states that the estimates are derived from a variety of sources and methods employed. A 2018 SAS report found that there are more than 393 million civilian-owned firearms in the United States, a country with a population of 326 million. This is enough guns for every adult and child to own a gun and still have a surplus of 67 million guns. The overwhelming majority of these guns, 392 million, are not registered.

Next Steps and Recommendations

Recognizing that significant political barriers still exist that prevent robust gun violence prevention research from occurring at the federal level, below is a list of tangible recommendations for the current climate. Ideally these actions would be undertaken by the federal government, whether at the agency-level or through an interagency workgroup structure, but nongovernment organizations and foundations could also fulfill the recommendations.

(a) Create a dynamic federal data compendium of key indicators related to firearm manufacturing, commerce, and licensure; gun-related crime; health costs from

firearm injury and prevalence of firearm-related deaths and morbidity. The compendium might include a graph or chart of the indicator, list the data source(s) and the associated methods. An existing model that could be replicated for federal data on guns and gun violence is the *America's Children: Key National Indicators of Well-Being* annual report series. The most recent 2019 report is the 23rd in the series and presents 41 key indicators on important aspects of children's lives. These indicators come from reliable federal statistics, are easily understood by broad audiences, are objectively based on substantial research, are balanced so that no single area of children's lives is overrepresented, are measured often to show trends over time, and are representative of large segments of the population rather than one particular group [31]. The compendium would also serve as a clearing house of publicly available federal data that can be used to research gun violence.

(b) Related to the creation and dissemination of a data compendium is the need for coordination of research and data collection activities across federal agencies with a multiagency advisory body to provide priorities for data and research aimed at prevention. This interagency forum or workgroup could also function as an information-sharing resource for federal partners and means to foster collaboration by disseminating news about solicitations in development, funded research, project priorities, report publications, and agency strategic planning. There are numerous interagency workgroups that operate in this capacity, such as the Federal Interagency Reentry Council (formed in January 2011) that consists of representatives from 20 federal agencies working toward a common goal of reducing recidivism [32].

(c) We note that all the existing federal sources related to firearms are designed to collect a variety of other data. In other words, the purpose of the data collections (i.e., NCVS) is not solely to understand firearms and firearm-related injuries. As such, there are often limitations to how many and what indicators and measures of gun violence can be collected. For example, available "real estate" on a survey will determine how many questions can be devoted to a particular topic and what information can be collected without lengthy follow-up details.

It would be helpful if there was a joint paper that discussed the various choices and the pros and cons of the existing federal data sources. This could be a technical paper, academic journal article, or white paper. As part of this exercise, or in a related effort, this could include the conceptualization of a data collection program dedicated solely to firearm and firearm-related injuries, to include fatalities. What would such a data collection look like? How could the data be collected? How could it be designed to maximize existing information in other data sources? This exercise would enable a comparison on exiting data sources to an ideal design.

(d) Encourage the collection of data structured toward identification of the antecedent ("upstream") factors that lead to gun violence and encourage research on prevention of gun violence. This could include providing funding for data collection and research, working collaboratively to identify opportunities for dataset linkage, and aligning the measurement of key indicators across datasets to

expand analysis and modeling capabilities to identify the determinants of health that are associated with gun violence.

(e) Develop a more accurate measure of the prevalence of gun ownership among U.S. civilians, as current estimates largely depend on the ratio of firearm suicides to suicides. The lack of research data on gun ownership, gun availability, and guns in legal and illegal markets severely limits the quality of existing research. There have been no regularly collected data series that describe gun ownership or use at the state level since the CDC suspended its collection of this information in the Behavioral Risk Factor Surveillance System surveys more than a decade ago [33]. These data would help inform several important questions and relationships between variables, such as the association between risk for intimate partner violence homicide and having a gun in the household. Such data would also help us make important advances in understanding the effects of gun laws on gun ownership and use.

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Part II
Special Populations

Chapter 4
Unintentional Firearm Injuries in Children

Peter Bendix

Introduction

Unintentional firearm injuries and death in children are sad American realities. According to the Brady project, 86 children are killed unintentionally by gunfire each year, and 2893 are shot unintentionally [1]. With gun-related injuries as the second leading cause of traumatic injury in American children, and approximately 5–10% of American children living in homes with a loaded and unlocked firearm, this is a very significant public health problem [2].

In this chapter we will explore the epidemiology of unintentional firearm injury and death in children. We will explore the cost to children and society. And, we will explore ways to address this public health crisis, through changes in policy, gun manufacture, personal gun use and storage, and avenues for healthcare provider–based intervention.

Epidemiology

Unfortunately, large gaps exist in the literature surrounding gun injuries and death in children. What is known is that between 1991 and 2010, firearms were responsible for 12.6% of all deaths in children in the United States [3]. This prevalence represents 19 children or adolescents injured or killed by firearms every day. The incidence of nonfatal gunshot wounds has been estimated to be between 15 and 20 per 100,000 per year, with death rates at 3–3.44 per 100,000 per year [4]. The American rate of

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unintentional firearm deaths is much higher than in all other high-income countries. In review of 23 high-income countries, it was found that close to 90% of all children aged 0–14 unintentionally killed by firearms resided in the United States [5].

A large proportion of the gun injuries and death in children have been found to be unintentional in nature. Population-based estimates suggest that between one- and two-thirds of all gunshot wounds were unintentional in children [4, 6]. Unintentional gunshot injuries and deaths can be grouped into two categories; those where the gunshot injury was self-inflicted, but unintentional, and those where the gunshot injury was inflicted by another, but unintentional. A recent exploration of this other versus self-inflicted unintentional injury categorization by Hemenway et al. revealed that two-thirds of unintentional injuries in children were other inflicted, with one-third self-inflicted injuries [7]. This is in line with previous work showing that in more than 50% of unintentional fatalities somebody besides the victim fired the shot [8].

Deep explorations in this field have revealed that most unintentional firearm deaths and injuries happen in the context of playing with the gun, hunting, cleaning, or loading the gun [8]. Often these injuries occur when children are playing together, and one thinks that the gun is a toy. These injuries and deaths occur most often in the home [9]. It has been found that a high percentage of the shooters in unintentional injury and death in children are male, a family member, or a friend or acquaintance. Most often the guns used in unintentional shootings were owned by family members (68%) [10].

Unintentional firearm injuries and death span both urban and rural communities, and are not specifically concentrated in any racial or socioeconomic demographic [3]. When considering all age unintentional firearm injury deaths, those in more rural counties more likely to die from unintentional firearm deaths than urban counties [11].

The injuries caused by unintentional gunshots are more likely to lead to death in the youngest children, with case fatality rates higher in younger patients [3]. Case fatality rates from gunshot wounds are almost five times higher in younger versus older children [4]. It is known that children under the age of 10 rarely commit suicide, but unintentional firearm deaths are within the top 10 causes of injury deaths in this population [12]. Lack of danger awareness, inability to understand cause-and-effect consequence, failures of supervision, and popular media showing frequent use of guns all make young children at the highest risk for unintentional firearm injury and death [13].

Cost estimates of firearm-related unintentional injury and death in children are difficult, but one paper from 2002 by Cook and Ludwig estimated that the cost of gun suicides and accidents (unintentional injury and death) range between $10 and $20 billion per year [14].

Gun Laws

In 2019 the American Pediatric Surgical Association issued a position statement on firearm injuries in children. This consensus statement detailed multiple policy recommendations, and echoed similar recommendations from a consensus statement

of eight health professional organizations and the American Bar Association [15]. One major focus of the policy recommendations was on the creation of strong childhood access prevention laws (CAPs) [16]. CAPs are state-imposed regulations that place liability on those who improperly store firearms. There is significant variability in the strength of individual state CAP laws. Some states have elected for strong CAP laws that impose felony charges on those whose guns are used by children in injuries or deaths.

Efficacy of CAP laws has been questioned, but their intent in reducing unintentional injury and death from in-home gun use by children is clear. CAP laws have been shown to be associated with lower rates of unintentional firearm fatalities in adults, and states with felony CAP laws had lower unintentional firearm death rates than those with misdemeanor CAP laws [12, 17, 18]. Although the data is of variable quality regarding the efficacy of CAP laws, there appears to be a trend toward their effectiveness.

Other gun laws are less specific to the prevention of child unintentional injury. Those related to minimum age for purchase, permit to purchase, background checks, assault weapons bans, and junk gun bands to limit the sale of inexpensive poor-quality firearms have been proposed as generalized preventative strategies for all ages and for unintentional and interpersonal violence-related injury and death.

Gun Manufacture and Storage

The most frequently reported guns found in homes with children are shotguns, rifles, and handguns. Several gun manufacturers build and market hunting rifles in child-friendly colors [19]. Historical data suggests that handguns were responsible for the majority of unintentional injuries and deaths [20]. Unfortunately, the Consumer Product Safety Commission (CPSC) is not allowed to regulate firearms or ammunition [21].

All manufactured safety devices on firearms are electively placed there by the manufacturer, and are not required by law. Several of these manufactured mechanical safety devices have been available since the nineteenth century [21]. Mechanical loaded chamber indicators show when a handgun with a clip has a bullet in the chamber. Magazine safeties operate in a similar fashion to prevent the discharge of bullets not recognized to be present within the gun after the magazine has been removed. Further mechanical innovations such as fingerprint detection, heavier trigger pulls to prevent child, combination squeeze and trigger mechanisms use (a technology available since the 1880s), and integrated locking mechanisms are all available and may prevent child use and inadvertent discharge of weapons in homes [22]. Decreasing the lethality of the weapon is also a potential avenue for safety.

The least safe manner for gun storage is loaded and unlocked. The safest manner for gun storage is unloaded and locked. Multiple methods are available for locking guns, from trigger and barrel locks to safes. Unfortunately, surveys have shown that

a high percentage of gun owners store at least one of their firearms in the least safe manner. There is a high prevalence of poor storage, with the literature finding close to 50% of respondents to in some surveys reporting an unlocked firearm [23].

Other Interventions

Multiple avenues are potentially available to impact the primary prevention of unintentional gun injury and death in children. From community-based interventions for safe firearm storage, to school-based interventions that include behavioral skills, to clinician-driven informational interviewing in the pediatrician's office, to legislative efforts such as buyback programs. Unfortunately, current research is not sufficient to evaluate the strengths or weaknesses of any one specific interventional strategy on unintentional firearm injury and mortality in children [24]. Some research has shown that community-based firearm safety counseling and unlocked distribution have changed the way parents have stored and kept guns in the home, although the quality of such work is inconsistent [25].

The American Pediatric Surgical Association advocates for clinicians to discuss firearm safety with patients and their family members, free of legislative restriction [16]. Unfortunately, it has been shown that screening rate for firearm safety by clinicians is low. It is unclear whether or not this screening practice actually impacts high risk population injury and mortality [26]. There appears to be a lack of knowledge and practice on the part of individual clinicians with respect to obtaining and applying screening and counseling for firearm risk.

Conclusion

The United States unfortunately has the world's highest rate of unintentional firearm injury and death in children. Changing this state of affairs will require a combination of approaches to address the inherent lack of safety of how many guns are stored in the United States, their accessibility to children in homes across the nation, and the overall prevalence of firearms in our society. The youngest children are most vulnerable to death from gunshot injury, and have the least inherent fear of the weapon. From legislative strategies to enforce the safe-keeping and storage of firearms away from children, to the reduction in overall volume of guns in homes through by back programs to the improved engineering for safety of firearms, and through the advocacy, screening, and clinical intervention of pediatricians and other healthcare providers, there may be a way to decrease the frequency of these tragedies.

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Chapter 5
School Shootings: Creating Safer Schools

Michele Kiely

Introduction

For most who live in America, schools are considered places that should be a safe haven. School should be a place for children to grow, learn, and explore. The scariest thing a child should experience in school is a spelling test or how they are going to do in Advanced Placement (AP) Chemistry. For hundreds of years, education has been happening, and it has mostly been a place where students are safe.

More than 30 years before the Columbine High School shooting in 1999, Charles Whitman climbed the tower at the University of Texas and shot 15 people before the police shot him. (He had killed his wife and mother before going to campus, giving a total count of 18 people dead.) It was the first mass murder in the twentieth century in a school setting. But it was the Columbine High School shooting that ushered in a trajectory that continues. Since then, law enforcement, psychologists, and others have tried to understand who and why individuals are at risk to commit violence and to identify ways to intervene before they become violent.

Identifying Possible School Shooters

Experts point to numerous causes for school shootings, yet the profile and motivation of shooters who target educational institutions vary widely, creating a spectrum of events. Langman [1] analyzed 62 shooting incidents that occurred from 1966 through 2015. He limited his review to premeditated events where three or more people were killed or wounded. More than half the perpetrators were adolescents, and 95.3% were

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male. More than half were Caucasian. Sometimes the shooters apparently planned to either kill themselves as part of the event or to have the police shoot them. The overall suicide rate was 42.2%, but more shooters had expressed suicidal intent [1].

Many perpetrators have been the victims of school bullying, making them possibly feel justified in turning their wrath to classmates and against teachers and administrators for not protecting them. Levin and Madfis [2] believe that some individuals view school violence as a solution to the shooters' damaged sense of self-worth. The act of being a school shooter is a way to assert their masculinity and gain notoriety [2]. Finding no other way to be noticed, they use attacking a school as a way to gain attention.

Often in the media reports surrounding school shootings, there is a suggestion that mental health problems are the major cause of gun violence, and that psychiatric illness can predict gun crimes. Evidence strongly indicates that individuals who perpetrate mass killings are often mentally ill and socially marginalized [3]. However, there also exist a number of stereotypical assumptions about guns, violence, and mental illness in general, thus oversimplifying the connection between violence and mental illness in public discourse [3]. While many school shooters were mentally ill or showed symptoms of mental health problems, most people with mental health problems do not resort to shooting classmates.

Cultural Violence

It has been suggested that violence in our culture also contributes to the common settings around school shootings. Many video games, movies, music, and comic books are filled with and glorify violence. The American Psychological Association (APA) has suggested that this may play a role in the violence we see in schools and in school shootings. Studies supported by the APA suggest that violent video game exposure is associated with an increased composite aggression score; increased aggressive behavior; increased aggressive cognitions; increased aggressive affect, increased desensitization and decreased empathy; and increased physiological arousal. Others strongly opposed the idea that violent video games leads to actual violence, focusing on the methodological problems in other studies [4, 5]. A recent meta-analysis reviewed 24 studies with over 17,000 participants, and concluded that there was an association of playing violent video games with greater levels of overt physical aggression over time, even after accounting for prior aggression [6]. An earlier study found that children diagnosed with disruptive behavior, as demonstrated by attention-deficit-hyperactivity disorder, oppositional defiant disorder, or conduct disorder, processed movies with antisocial messages differently than comparable children without such diagnoses [7].

Does violent media have enough of an influence that it is a public health threat? Huesmann argues that it does [8]. Based on two earlier (1994 and 2002) meta-analyses, there was a large effect size of exposure of media violence in childhood to latter aggressive or violent behavior [9, 10]. Indeed, the effect size found for media

violence is larger than other public health threats, such as condom use and sexually transmitted HIV, passive smoking and lung cancer at work, and exposure to lead and children's IQ scores, among others [8]. The U.S. owns almost half of the civilian-owned guns in the world. Forty percent of people in the U.S. own or live in a house with guns, with most gun owners having more than one gun [11]. In 2019 there were about 63,000 gun dealers in the U.S., which does not include other than legal sources [12]. These statistics help explain how school shooters have access to multiple firearms.

Guns in Schools

There are, as of this writing, two federal laws in the United States governing guns in kindergarten through 12th grade. One is the Gun-Free Schools Act of 1994, which requires each state has a law that schools must expel for 1 year any student who has a firearm on campus. A local administrator, however, may modify the expulsion requirements on a case-by-case basis [13]. The other is Gun-Free School Zones Act, which states that it is unlawful to knowingly "possess a firearm that has moved in or that otherwise affects interstate or foreign commerce at a place that the individual knows, or has reasonable cause to believe, is a school zone." [14] The exception to this law is that it exempts individuals licensed to possess a gun or carry a concealed weapon. The law also allows weapons in school zones if the gun in not loaded and is either in a locked container or a locked vehicular firearms rack. It is also lawful to have a weapon for use in a school-approved program, or when there is a contract between the school and the person with the gun [15].

As a general rule, most states prohibit guns in public schools. Many schools, however, provide exceptions to these laws, including those with concealed carry licenses, anyone with permission of school, and law enforcement. Many states also have exceptions to the law (Table 5.1). A more detailed explanation of individual state laws may be found at the Giffords Law Center website [16].

Higher Education

States typically have more lax laws regarding guns on college campuses. In 2013 and 2014, 33 states introduced legislation to allow concealed carry on campuses (Table 5.2). In 2015, Texas passed a law allowing individuals to carry concealed weapons. In 2016, Tennessee passed a law allowing faculty to carry handguns, and a year later, Arkansas and Georgia passed laws allowing both faculty and students to carry guns on campus. Ohio passed a law in 2016, leaving the decision to individual colleges [18]. In the wake of school shootings, five states introduced legislation to prohibit concealed carry weapons on college and university campuses. In all five states, the bills were defeated. There are no federal laws governing guns on college campuses.

Table 5.1 State policies on carrying guns in primary and secondary schools [17]

Policy	States
Requires permission of school authorities	Alaska, Arizona, Connecticut, Georgia, Iowa, Kansas, Louisiana, Massachusetts, Michigan, Montana, New Jersey, New York, Nevada, Ohio, Oklahoma, Oregon, Texas, Utah, Vermont
Requires concealed carry license	Alabama, Oregon, Rhode Island, Utah
Requires concealed carry license and permission of authorities	Idaho, Indiana, Missouri
School employees (other than security, requires concealed carry license and permission of authorities)	Idaho, Kansas, Wyoming
School employees (other than security, requires permission of authorities and completion of specified training)	Florida, Missouri, Oklahoma, Tennessee (only in qualifying districts), Texas, South Dakota
School security	Alabama, California, Colorado, Delaware, Georgia, Idaho, Illinois, Indiana, Maryland, Michigan, Mississippi, North Dakota, New Mexico, Nevada, Ohio, Oklahoma, South Dakota, Tennessee, Texas, Washington, West Virginia
Only students prohibited	New Hampshire
No relevant statute	Hawaii
Law enforcement	Alaska, Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Massachusetts, Maryland, Maine, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, North Carolina, New Mexico, Nevada, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin

The Scope of School Shootings

There is no official count of school shootings or victims, in part because no standard definition exists. Sometimes the shooter is included in the death toll if the person commits suicide. Some reports include unintentional injury on school property. Other reports focus on mass attacks rather than those that occur in schools (Table 5.3). There were also a number of incidents where shootings were intentional, but the fact that it occurred on a school campus appears to be irrelevant, as

Table 5.2 State policies on carrying guns on college campuses [18]

Policy	States
Prohibit carrying a concealed weapon on campus	California, Florida, Illinois, Louisiana, Massachusetts, Michigan, Missouri, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, North Dakota, South Carolina, Wyoming
Decision to ban or allow concealed carry weapons is made by individual college or university	Alabama, Alaska, Arizona, Connecticut, Delaware, Hawaii, Indiana, Iowa, Kentucky, Maine, Maryland, Minnesota, Montana, New Hampshire, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Vermont, Virginia, Washington, West Virginia
Allow carrying of concealed weapons	Arkansas, Colorado, Georgia, Idaho, Kansas, Mississippi, Oregon, Texas, Utah, Wisconsin
Allow licensed faculty members to carry concealed weapons, but not students or the general public	Tennessee

best can be determined, as opposed to shootings that specifically target students or others on a campus. Many estimates of shooting exclude the perpetrator. But whether the perpetrator's death is self-inflicted or by law enforcement, we have chosen to include their deaths in the count in Table 5.3 [19].

This table reviews shootings from the 1950s to the present. The data are presented in decades from 1950 to 2009; 2010 through 2012 are grouped, and then these are single years. At least two sources verified every incident listed in the table [19].

In 2014 and 2015, there were 61 shooting incidents each year. In all of the 1990s and 2000s, there were 61 shootings in each decade. After a drop in the number in 2016, the numbers increased again. Although there were no mass school shootings in 2019, there were 101 shooting incidents at schools. The COVID-19 pandemic of 2020 is the likely cause in the drop of incidents seen in the first 4 months of the year.

As previously noted, many people believe the 1999 Columbine High School massacre initiated the modern era of school shootings. Actually, it began in 1966. After killing his mother and wife, Charles Whitman climbed the tower at the University of Texas at Austin and killed 15 people and injured another 31. It ended when the Austin police killed him. On autopsy, he was found to have a brain tumor. Whether the tumor was responsible for his inability to control his behavior was not conclusive [20]. The mass shootings at schools in the United States are listed in Table 5.4.

As shown in Table 5.4, there were 33 years between the University of Texas tower shooting and Columbine. Although there were six mass shootings, defined as four or more deaths, in between those two events, the information level and the speed of dissemination of that information have increased significantly. If notoriety is something an individual is seeking, it is certainly more accessible now than in the past.

Table 5.3 Shootings on school property [19]

Year(s)	Number of incidents	Number of deaths	Average number of deaths/year	Number of injuries	Number of school shooting by type of school*				
					College	High school	Junior high/ middle school	Elementary school	Preschool
1950s	17	13	1.3	8	3	11	3	–	–
1960s	18	44	4.4	64	4	9	3	2	–
1970s	27	30	3.0	75	4	12	6	5	–
1980s	38	48	4.8	164	5	18	8	7	–
1990s	61	86	8.6	145	8	37	14	2	–
2000s	61	106	10.6	137	15	34	10	3	–
2010–2012	22	54	18	39	7	14	4	2	–
2013	38	28	28	36	13	17	5	3	–
2014	61	27	27	49	26	25	1	7	2
2015	61	35	35	56	27	17	5	9	2
2016	38	17	17	42	13	21	2	1	–
2017	49	22	22	37	19	20	–	8	–
2018	85	63	63	64	17	47	7	14	–
2019	101	35	35	61	36	37	7	18	1
2020 (January–April)	25	9	27	11	14	7	1	3	–

*School level not included when shooting was either into/on a school bus or in a K-12 school

Table 5.4 Mass shootings at the US schools

Date	School	Location	Deaths	Injuries
August 1, 1966	University of Texas	Austin, TX	16	31
May 4, 1970	Kent State University	Kent, OH	4	9
July 12, 1976	California State University	Fullerton, CA	7	2
January 17, 1989	Cleveland Elementary School	Stockton, CA	6	32
November 1, 1991	University of Iowa	Iowa City, IA	6	1
May 1, 1992	Lindhurst High School	Olivehurst, OH	4	10
March 24, 1998	Westside Middle School	Jonesboro, AR	5	10
April 20, 1999	Columbine High School	Columbine, CO	15	21
October 28, 2002	University of Arizona	Tucson, AZ	4	0
March 21, 2005	Red Lake Senior High School	Red Lake, MN	10	5
Oct0ber 2, 2006	West Nickel Mines School	Bart Township, PA	6	5
April 16, 2007	Virginia Tech University	Blacksburg, VA	33	23
February 14, 2008	Northern Illinois University	DeKalb, IL	6	17
April 2, 2012	Oikos University	Oakland, CA	7	3
December 14, 2012	Sandy Hook Elementary School	Newtown, CT	27	2
June 7, 2013	Santa Monica College	Santa Monica, CA	6	2
October 24, 2014	Marysville Pilchuck High School	Marysville, WA	5	1
October 1, 2015	Umpqua Community College	Roseburg, OR	10	8
February 14, 2018	Marjory Stoneman High School	Parkland, FL	17	17
May 18, 2018	Santa Fe High School	Santa Fe, TX	10	13

Table 5.5 African school shootings

Year	Country	Deaths	Injuries	School type
1997	Yemen	6	12	Unknown
1999	South Africa	3	0	High school
2009	South Africa	2	0	High school
2010	South Africa	1	1	Middle school
2013	South Africa	1	0	High school
2013	Nigeria (multiple incidents by Boko Haram)[a]	133	10	Elementary to college
2015	Kenya[b]	148	79	College

[a]These incidents occurred within the context of religious violence between Nigeria's Muslim and Christian communities, and Boko Haram's aim is to establish an Islamic State
[b]Al-Shabaab is a jihadist fundamentalist group in East Africa. The organization pledged allegiance to Al-Qaeda. Al-Shabaab imposes a strict version of Sharia in areas under its control. This was an attack on Christians

School Shootings Outside of the United States

Unfortunately, the United States is not alone in the problem of school shootings. Tables 5.5, 5.6, 5.7, 5.8, 5.9, 5.10, 5.11, and 5.12 show the shootings at schools in Africa, Asia, Canada, Central America, Europe, Mexico, Oceania, and South America from 1990 to the present.

Table 5.6 Asian school shootings

Year	Country	Deaths	Injuries	School type
1990	Sri Lanka	158	unknown	College
1994/1999/2000[a]	Philippines	3	0	College
1999	Yemen	6	12	High school
2000	Indonesia	165[b]–191[c]	100s	Unknown
2002	China	2	2	Middle school
2003	Thailand	2	4	High school
2005	China	0	16	Elementary school
2008	Israel	8	11	High school
2009	Azerbaijan	13	13	College
2011	China	1	0	Middle school
2014	Pakistan	150[d]	100+	K-12

Unverified: 1999, China, two deaths, seven injuries middle school
[a]Three individual incidents involving fraternity gang fights [21]
[b]Official count
[c]News reports considered more valid
[d]Taliban attack

Table 5.7 Canadian school shootings

Year	Country	Deaths	Injuries	School type
1992	Canada	4	1	College
1999	Canada	1	1	High school
2004	Canada	1	0	High school
2006	Canada	2	19	College
2007	Canada	1	0	High school
2007	Canada	1	0	High school
2010	Canada	0	0	High school
2013	Canada	2	0	Preschool
2016	Canada	4	7	Secondary school

Table 5.8 Central American school shootings [22]

Year	Country	Deaths	Injuries	School type
2009	El Salvador	1	1	High school
2009	Honduras	0	4	High school
2010	Costa Rica	1	0	High school
2017	Costa Rica	2	1	K-12
2019	Belize	0	1	High school

Table 5.9 European school shootings

Year	Country	Deaths	Injuries	School type
1994	Denmark	3	2	College
1996	United Kingdom (Scotland)	18	16	Primary school
1999	Netherlands	0	5	High school
2000	Germany	1	1	High school
2001	Sweden	1	0	High school
2002	Germany	17	1	High school
2002	Germany	2	1	High school
2002	Bosnia-Herzegovina	2	1	High school
2003	Germany	0	1	High school
2004	The Netherlands	1	0	High school
2006	Germany	1	5	High school
2007	Finland	9	1	High school
2008	Finland	11	1	College
2009	Germany	16	9	High school
2009	Greece	1	3	College
2009	Norway	0	0	Elementary school
2009	Hungary	1	3	College
2012	France	4	1	Primary school
2014	Russia	2	1	High school
2014	Estonia	1	0	High school
2017	France	0	4	High school
2018	Russia	0	7	Middle school
2018	Russia	1	1	College
2018	Crimea	21	70	College
2019	Poland	0	2	Elementary school

Table 5.10 Mexican school shootings

Year	Country	Deaths	Injuries	School type
2004	Mexico	1	0	Middle school
2007	Mexico	1	0	Preschool
2010	Mexico	2	0	Elementary school
2011	Mexico	1	5	Elementary school
2012	Mexico	1	0	Elementary school
2014	Mexico	1	0	Middle school
2017	Mexico	4	1	Middle school
2018	Mexico	2	0	College
2018	Mexico	1	1	High school
2018	Mexico	1	4	High school
2018	Mexico	1	0	Middle school
2019	Mexico	1	0	Elementary school
2019	Mexico	1	0	College
2020	Mexico	2	6	Elementary school

Unverified: 2018, Mexico two deaths (not included in table)

Table 5.11 Oceanian school shootings

Year	Country	Deaths	Injuries	School type
1991	Australia	0	3	High school
1993	Australia	0	0	High school
1999	Australia	1	0	College
2001	Australia	1	0	High school
2002	Australia	2	5	College
2012	Australia	0	0	High school

Table 5.12 South American school shootings [22]

Year	Country	Deaths	Injuries	School type
2000	Brazil	1	1	High school
2001	Brazil	1	2	High school
2004	Argentina	4	5	Middle school
2008	Brazil	1	0	Unknown
2009	Argentina	1	0	Middle school
2011	Brazil	13	22	Middle school
2017	Brazil	2	4	High school
2018	Brazil	0	2	High school
2019	Brazil	10	11	High school

These tables should be considered as a minimum count. As with the shootings in the United States, unintentional discharge was not included in the count. Notably, there were more than six times as many school shootings in the United States as the rest of the world. However, because of the sectarian violence in Indonesia (2000), Nigeria (2013), and Kenya (2015), with more than 100 victims in a single incident, there were more killings in Africa and Asia than in the United States.

Creating Safer Schools

Parents around the world, including those in the United States, want their children to be safe. Price and Khubchandani [23] review the literature with the traditional public health approach of primary, secondary, and tertiary prevention. As with other diseases/conditions, primary prevention is the most effective strategy. In this instance, primary prevention would be to prevent students and others from accessing guns. In their model, Price and Khubchandani [23] describe secondary prevention as preventing those with gun access from bringing firearms into a school. Finally, tertiary prevention would have armed personnel intercede during a school shooting. To be clear, the goal is that no one should ever be at the point of needing tertiary prevention. Ideally, neither students nor adults should have guns in school settings, particularly in primary and secondary schools. Using nationally representative data, Schuster and colleagues found that 35% of homes with children younger

than 18 had at least one gun, and almost half of those guns were neither in a locked cabinet nor had a trigger lock [24]. Other studies corroborated youths' access to guns [25, 26]. Particularly disturbing findings were that having children in the home, was not significantly associated with higher rates of safe gun storage [26] and that students who were bullied compared to those who were not had access to a loaded gun without adult permission [27]. Vossekuil and colleagues found that 68% of students got their weapons from their own or a relative's homes [28].

There is an association between stricter firearm legislation at the state level and lower pediatric firearm-related mortality. These state laws include universal background checks for firearm purchases, universal background checks for ammunition purchases, identification requirement for firearms, and child access prevention laws [29, 30]. Goyal and colleagues used state-level data to control for population-based race and ethnicity proportions, percent of the population with a college education, and percent of the population living below the poverty threshold. Their study supports the hypothesis that states with stricter firearm-related legislation have lower rates of pediatric firearm-related deaths compared with states with less strict firearm legislation [29]. Madhavan found that the association between child access prevention laws and firearm suicide remained significant after controlling for relevant characteristics (socioeconomic factors, registered firearms, and other firearm legislation) [30].

While limiting access to guns is one approach, metal detectors in schools, school resource police officers, and threat assessments form other methods to prevent school shootings. The goal of threat assessments is to identify students before they actively pose a threat to others. Many programs exist that could help prevent a tragedy. Such programs include conflict-resolution curricula, bullying prevention, deterring aggression, and others that encourage positive and helpful behaviors [31]. Clinicians should establish student's motives and objectives to determine if a student had the means and were likely to act on a threat of violence [32]. Students tend to share their plans with others. Vossekuil and colleagues in their report found that 81% of school shooters had told at least one other person about their plan [28]. In a study of middle and secondary school students reviewing who would inform others found that while 40% said they would tell another student, only 20% would share that information with an adult. Boys were less likely than girls to report, and the likelihood of reporting decreased with age [23].

Secondary prevention accepts that students will have access to guns, and the goal is to prevent them from bringing them to school. Schools engage in practices and procedures to keep their students, faculty, and staff safe. Some practices limit and control access to school by locking or monitoring entrance to the building. Other methods restrict what students or visitors can bring into the school, such as use of metal detectors and security cameras. In one 2017 study, the National Center for Education Statistics surveyed students age 12–18 years on safety measures in their schools. Most schools (99.4%) had at least one security measure. Other measures included security cameras to monitor the school (83.4%), a requirement that students wear badges or picture IDs (24.4%), metal detectors (10.4%), locker checks (47.8%), security guards and/or assigned police officers (70.9%), other school staff

or adults supervising the hallway (88.2%), a written code of student conduct (94.7%), locked entrance or exit doors during the day (78.8%), and a requirement that visitors sign in and wear badges or stickers (90.4%) [33]. Other security measures included a requirement that faculty and staff wear badges or picture IDs, a strict dress code or uniforms for students, and random dog sniffs to check for drugs. The percentage of schools varied by school level. For example, security camera use and drug-sniffing dogs increased with increasing age of the students. Conversely, controlled access to school buildings during class time was highest for elementary school students and lowest for high school students [34].

In the wake of mass school shooting, schools have renewed interest in a resource officer. Anderson evaluated a bill to help school districts support student resource officers for elementary and middle schools [35]. The theory behind a school resource officer is that students will gain trust in law enforcement, schools will be safer, and an officer would be present if needed. Among middle-schoolers, boys, students who felt connected to school, and those with positive attitudes towards resource officers believed resource officers' presence made them safer. Girls, African-American students, and students who experienced violence reported that the resource officer did not make them feel safe at school. There was no association between the presence of a school resource officer and any reduction in school shooting severity [35, 36].

The Gun-Free Schools Act led to zero-tolerance policies. While expelling students for bringing a gun to school is logical, the policy was taken to the extreme, including expulsion for bringing butter knives or toy swords, over-the-counter medication like aspirin, talking back to a teacher, or being disruptive [37]. This expansion of zero-tolerance policies has created a school to prison pipeline that targets low socioeconomic and racial minorities [23, 37].

The secondary prevention of random locker searches enters the area of Fourth Amendment rights to be free from unreasonable searches. While there is a need to strike a balance between the school's and student's rights, that balance will likely depend on the student population, and the history of violence at the school.

Tertiary prevention would have armed personnel, be it teacher, school resource officers or others, intercede during a school shooting. Such person would shoot, and presumably kill the shooter. If the shooter has a semiautomatic weapon, armed personnel would need to be in exactly the same place as the shooter to minimize the number of victims. A 2011 study found a correlation between armed guards in schools and higher rather than lower rates of school violence [38]. Two of the deadliest shootings occurred in schools with armed security personnel [39].

Conclusion

Gun violence is a public health crisis. In the United States, firearms have caused an increasing number of deaths over time, reaching almost 40,000 in 2018.

Firearm-related violence includes homicide, suicide, accidental deaths, and injuries. Although not limited to occurring in schools, all of these firearm-related incidents have happened in schools, from preschools through colleges.

Preventing school violence needs to be a priority. It requires a focus on programs that develop the positive aspects of development and reduces violence. It may not be easy, but we need to develop programs and train individuals to recognize warning signs. It requires training staff to defuse a volatile situation. It requires teaching students about healthy relationships, about not bullying others, about the importance of self-esteem, and about conflict resolution. It may not be easy to pay attention and to care, but our children's very lives may depend upon it.

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Chapter 6
Intimate Partner Violence, Firearm Violence, and Human Rights in the United States

Jennifer Bronson

Introduction

Intimate partner violence (IPV) is a global phenomenon that negatively impacts the lives, safety, health, and well-being of millions of people each year. The World Health Organization (WHO) defines IPV as any behavior within an intimate relationship that causes physical, psychological, or sexual harm to those in the relationship [1]. Although IPV is often used interchangeably with "domestic violence," domestic violence is a wider term that captures other forms of familial violence, such as child abuse [1]. The overwhelming majority of intimate partner homicides occur between heterosexual couples, most frequently involving a male perpetrator and a female partner. Indeed, gender-based violence is most likely to be domestic or interpersonal violence, which includes, but is not limited to (1) abuse inflicted on someone by someone they live with or are intimate with, (2) the actions and nonactions of organizations and institutions that respond to intimate partner violence in the context of a socially created public/private dichotomy, and (3) structural forces of inequality and privilege that shape and influence patterns of violence and resilience [2].

Worldwide, about 82% of intimate partner homicide victims were females and 18% were males [3]. The United Nations estimates that at least 87,000 women are intentionally killed each year, more than half of whom (58% or 50,000) are murdered by an intimate partner or family member [3]. In the United States, between 2003 and 2012, 34% of all women murdered were killed by a male intimate

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partner, compared to only 2.5% of male murder victims killed by a female intimate partner [4]. In 2008, females age 12 or older experienced about 552,000 nonfatal violent victimizations (e.g., rape/sexual assault, robbery, or aggravated or simple assault) by an intimate partner in the US [5]. Meanwhile, in the same year, men experienced 101,000 nonfatal violent victimizations by an intimate partner. Data from the FBI's Supplementary Homicide Report show that although the majority of homicides involved male victims, ten times the percentage of females (39%) than males (3%) were murdered by an intimate partner in 2010 [6]. Recent research on homicide trends indicate that IPV-related femicides may be increasing, with a 16% rise observed from 2014 (1,875 deaths) to 2017 (2,237 deaths) [7].

Access to firearms in a conflict-ridden home environment can quickly change a heated argument into a deadly confrontation [8]. Perhaps then it is not surprising that firearms are the principal mechanism of intimate partner killings in countries with high rates of firearm ownership [9] and that access to firearms is generally associated with increased IPV severity and lethality [10]. Intimate partner violence accounts for more than half of female homicides in the United States, and a firearm is the fatal agency in 54% of these deaths [11, 12]. From 2003 to 2012, supplemental homicide data from the FBI reported that firearms were used in 61% of domestic violence homicides of women in Arizona, 73% of those in Kentucky, and 71% of those in Montana [13].

When compared to women in similar nations, females in the United States have a higher chance of being killed with a firearm [14, 15]. Women in the US are more than twice as likely to be shot and killed by a male intimate partner than they are to be fatally shot, stabbed, bludgeoned, strangled, or killed in any other way by a stranger [16, 17]. Research estimates that women in the US are 21 times more likely to be killed with a firearm than women in comparable high-income countries [18]. For example, firearms were used more frequently in intimate partner homicides in the US (54%), than in South Africa (30%), Sweden (20%), and Portugal (45%), among others [13].

Domestic violence assaults involving a firearm were 12 times more likely to result in death than those involving other weapons or bodily force [19]. A case-control study that examined female victims of fatal and nonfatal IPV found that perpetrator access to firearms increased the risk of IPV homicide by five times [20]. Other research shows that a firearm in the home increased the risk of intimate partner homicide by eight times, compared to households without a firearm. Firearm access further increased the chance of homicide by 20 times when there was a history of domestic violence in the family [21]. Furthermore, data point to an increase in intimate partner homicides by firearm. Fridel and Fox's research shows that since 2010, firearm-related murders of intimate partners have significantly increased by 26%; meanwhile, IPV-related homicides involving weapons other than firearms have declined [7].

Intimate Partner Violence and Subpopulations of Interest

Pregnant Women

Evidence suggests that a woman's risk of violence may be greatest during her reproductive years [5, 22, 23] and that pregnancy and the postpartum period may be especially vulnerable times for women to experience IPV [24–27]. In one study of female homicide victims, the majority of the victims were in her prime reproductive years (i.e., under the age of 40) and 15% were pregnant or early postpartum when murdered [12]. In a cohort sample of pregnant women who experienced abuse, an intimate partner's firearm access was significantly correlated with his inflicting more severe violence [27]. About 41% of the pregnant women in the cohort sample ($n = 199$) reported that their male partner had firearm access, 17% of whom reported he kept the firearm on his person [27]. Pregnancy-associated death data from Virginia showed that 46 of the 309 decedents were murdered (15%), larger than any single cause of death [28]. Of the pregnant and postpartum women who were murdered, and for whom perpetrator-victim relationship was available, 83% of the women knew their attacker [28]. Available data showed that more than half of the women who were murdered were known to have had recent conflict between herself and the perpetrator at the time of her death; among these women, 60% were shot to death [29].

Racial and Ethnic Minorities

Some evidence suggests that IPV may be higher among racial and ethnic minority groups. Data from a national survey conducted by the Centers for Disease Control and Prevention (CDC) show that physical IPV (excluding sexual violence) is approximately 35% higher among Black women than White women [30]. The CDC estimates that 52% of American Indian/Alaska Native women, 51% of biracial or multiracial women, 41% of non-Hispanic Black women, 30% of non-Hispanic White women, 30% of Hispanic women, and 15% of Asian or Pacific Islander women experienced physical violence by an intimate partner during their lifetime, to include nonfatal firearm violence [30].

Additionally, Black women are most likely to die by homicide overall, at 4.4 deaths per 100,000 people, followed closely by Native American and Alaska Native women (4.3), then Hispanics (1.8), Whites (1.5), and Asian/Pacific Islander women (1.2) [12]. More than half of these deaths (55%) were intimate partner related. In a study of pregnancy-associated deaths due to violence, the ratio of Black women who died from pregnancy-associated homicide was 4.5 times that of White women, 17.5 deaths compared with 3.9 deaths [28]. And research on race, firearm use, and

IPV found that the use of a firearm was more common when the victim was non-Hispanic Black or Hispanic [31]. Indeed, firearm-related homicides account for 58% of all homicides that occur among Black women [12].

Sexual Orientation and Gender Identity Minorities

Intimate partner homicide among same-sex couples, bisexual, and transgender couples also occurs, although much less frequently than among heterosexual partners; however, research on this is scarce or nonexistent [3]. One study from the US on same-sex IPV found that male same-sex intimate partner homicide occurs about 12 times more often than female same-sex homicides [32].

Known intimate partner homicides among LGBTQ individuals are tracked by the National Coalition of Anti-Violence Programs (NCAVP), a nonprofit organization that seeks to empower and support the LGBTQ community. IPV homicides among LGBTQ partners peaked at 21 in 2012, their highest recorded level but have since fallen to 15 in 2016 [33, 34]. Of the 15 reported homicides, 60% were among people of color (NCAVP 2017) [34].

However, the 2016 IPV and LGBTQ homicide data do not capture the IPV-related violence that occurred on June 12, 2016 when a male entered Pulse Nightclub—a predominately gay nightclub in Orlando, Florida—and killed 49 people and wounded 53 others with a firearm. Almost all of the victims were young, LGBTQ, and Latinx [34]. The perpetrator of this horrific massacre had a history of abusing his ex-wife, who told reporters that he started physically abusing her and isolating her from her family within a few months of the relationship [35]. The link between IPV and mass shootings is discussed in more detail later in this chapter.

Regarding people who are transgender, findings from the 2015 Transgender Survey showed that nearly one-quarter (24%) have experienced severe physical violence by an intimate partner, compared to 18% in the US population [36]. More than half (54%) experienced some form of intimate partner violence, including acts involving coercive control and physical harm. About 3% of transgender respondents who were physically attacked in the past year reported being attacked with a firearm. Transgender women of color, particularly Black (11%) and Latina (11%) women, were nearly four times as likely as White women (3%) to report that they were attacked with a firearm [36].

Intimate Partner Violence and Mass Shootings

Mass shootings represent a very small proportion of firearm violence and are relatively rare events, yet their effects on survivors, victims, and society are profound. A mass shooting is typically defined as a single event in which four or more people, excluding the shooter, die as a result of being shot. The link between IPV and mass

shootings is impossible to ignore, yet the trend receives minimal or insufficient attention from the media, in lieu of firearm control arguments and debates on mental health. Data from Everytown for Gun Safety estimate that more than half (54%) of mass shootings from 2009 to 2018 involved the shooter killing an intimate partner [37]. More than 60% of mass shootings occurred entirely in the home and another 10% occurred partially in the home and partially in a public location. Additionally, 80% of children killed in mass shootings between 2009 and 2018 were shot in domestic or IPV-related incidents [37].

A 2013 study on multiple family homicides (a homicide in which multiple relatives are killed) identified 238 multiple family homicides that occurred between 2000 and 2009 in the United States [8]. The majority of the familicides were committed by White men in their 30s or 40s, who killed their family members with a firearm. Data showed that 70% of these murders showed signs of premeditation and domestic problems were common, ranging from intimate partner problems (80%)—at times resulting in a restraining order (29%)—to conflicts related to child custody (23%) [8]. The results from this study align with previous US-based studies that found that virtually all familicides are committed with a firearm [38].

A review of case documents, media reports, and interviews conducted by Mother Jones uncovered similar findings on the link between mass shootings and male-perpetrated IPV. In at least 22 mass shootings that occurred since 2011, representing a third of all mass murders during this time, the male perpetrator had a known history of violence against women [39]. Specifically, 86% of the 22 mass shooters had a known history of domestic violence, 32% had a history of stalking and harassment, and 50% specifically targeted women. In total, these mass shootings claimed the lives of 175 people and injured 158 [39].

The Department of Homeland Security examined incidents of mass attacks, during which three or more persons were harmed, that occurred in public places between January and December 2017. During this time frame, 28 such attacks occurred, claiming the lives of 147 and injuring 700. All of these attacks were committed by a male, a firearm was used in 82% of the attacks, and one-third ($n = 9$) of the perpetrators were known to have committed domestic violence [40].

Intimate Partner Violence, Firearm-Related Laws, and Other Prevention Approaches

Federal Laws

It is critical to enact laws that prevent violent intimate partners from having easy access to firearms in order to protect lives and improve public safety. Current federal law prohibits the purchase and possession of firearms and ammunition by people who have been convicted in any court of a "misdemeanor crime of domestic violence," and/or who are subject to certain domestic violence protective orders. Knows

at the Lautenberg Amendment (18 U.S.C. § 921(a) [33]) (1996), it defines a misdemeanor crime of domestic violence as an offense that is a federal, state, or tribal law misdemeanor and has the use or attempted use of physical force or threatened use of a deadly weapon as an element. The bill passed with almost unanimous Congressional support and represents Congress' recognition that "anyone who attempts or threatens violence against a loved one has demonstrated that he or she poses an unacceptable risk, and should be prohibited from possessing firearms." [41]. Under the Lautenberg Amendment, the offender must also fit one of the following criteria: (1) be a current or former spouse, parent, or guardian of the victim; (2) share a child in common with the victim; (3) be a current or former cohabitant with the victim as a spouse, parent, or guardian; (4) be similarly situated to a spouse, parent, or guardian of the victim.

The 1994 Violence Against Women Act (VAWA) is another piece of federal legislature designed to protect domestic violence victims by banning firearm possession by persons subject to permanent IPV-related restraining orders. As part of VAWA, states and local governments, as a condition of certain funding, must certify that their judicial administrative policies and practices included notification to domestic violence offenders of both of the federal firearm prohibitions mentioned above and any applicable related federal, state, or local laws. When reauthorized in 2005, VAWA did not, however, require states or local governments to establish a procedure for the surrender of firearms by abusers [46]. This gap in firearm violence prevention has yet to be closed and is addressed further below.

According to data collected by the Justice Department, there has been an 80% increase in the past two years in the number of people charged under 18 U.S.C. 922(g)(9), the federal law that bans many convicted domestic violence abusers from possessing firearms. In fiscal year (FY) 2018, 197 defendants were prosecuted, up from 110 in FY 2016 [42]. Just 4 years earlier, in FY 2014, only 23 people in the entire nation were prosecuted under the federal statute banning people convicted of a domestic violence misdemeanor from possessing firearms [43]. These efforts are part of a nationwide uptick in federal firearm prosecutions that began in 2014 during the Obama administration and were strengthened by former Attorney General Jeff Sessions. One latent outcome of trying more firearm crimes is that federal prosecutors caught domestic abusers in their net [42].

Despite these efforts, current federal law on the prohibition of firearm possession by convicted domestic abusers suffer from two key weaknesses. First, they do not include individuals convicted of misdemeanor-level stalking crimes. Although stalking is sometimes thought of as separate from other forms of violence, prior research on the association between stalking and femicide found that 76% of women killed by their intimate partners were stalked prior to their deaths [44]. And second is the so-called "boyfriend/girlfriend loophole" whereby violent abusers in noncohabitating dating relationships are excluded. These are significant gaps that potentially leave tens of thousands of people vulnerable to firearm violence [13, 45, 46].

Another problem is that, although federal law prohibits certain IPV offenders from purchasing or possessing firearms, it does not explicitly require them to

surrender firearms already in their possession or specify how relinquishment is to occur [46]. Instead, states have leeway to determine relinquishment policies, which means that in some areas, it is up to the convicted offender to go to a police station to relinquish the weapon. Without statutory authorization, law enforcement cannot confiscate the firearms. This is yet another loophole that has been termed the "relinquishment gap" by the Law Center to Prevent Gun Violence [46].

Despite federal legislature designed to prevent violent people from obtaining firearms, too many can easily access a firearm. To illustrate this, in 34% of mass shootings (between January 2009 and December 2016), the shooter was prohibited from owning firearms at the time of the shooting, yet they were still able to access a firearm [45]. In fact, perpetrators of domestic violence are often able to obtain a firearm from a gun show or private dealer, entities that are not required to conduct background checks, unlike licensed dealers who are often required by law to conduct background checks [45].

State Laws

Some states augment federal firearm policy by creating stricter firearm violence prevention laws and/or engaging law enforcement officers to remove firearm from domestic violence scenes. Many states have closed the gaps in federal law pertaining to the prohibition of firearm possession by people who commit misdemeanor crimes of domestic violence. The scope of these state laws varies substantially—some require removal, some allow it, some are specific to firearms used in the incident, and some are for all firearms. As of 2019, 30 states and DC prohibit purchase of firearms or ammunition by at least some people convicted of misdemeanor domestic violence offenses that are not covered under federal law; 15 states prohibit people convicted of a domestic violence misdemeanor from possessing firearms and authorize or require surrender of firearms and/or ammunition after conviction of a domestic violence misdemeanor; and four states have enacted laws to strengthen reporting across databases used for firearm purchaser background checks [46]. Despite this progress, too many states allow misdemeanor domestic-violence offenders to have firearms, including abusive partners who are not spouses [39].

It should be noted that studies on the risk of intimate partner violence posed by firearm access are mostly cross-sectional, making it difficult to conclude whether firearm access led to abuse. Measurement of firearm access by the perpetrator also pose challenges. Despite these challenges, existing evidence points to a clear correlation between a domestic abuser's firearm access and an increased likelihood of a woman experiencing severe or fatal IPV [20, 21, 47–49]. A study on state laws and IPV-related homicides (IPH) found that laws that prohibited firearm possession by persons with an IPV-related restraining order and required them to surrender firearms they already had were associated with 11% lower total IPH rates and 15% lower firearm-related IPH rates, compared with the absence of both laws [50]. States with laws that did not explicitly require relinquishment of firearms were associated with a

nonstatistically significant 7% reduction in IPH rates. Laws requiring at-risk persons to surrender firearms already in their possession were associated with lower IPH rates [50].

Police Interventions

Police are the most common first responders to incidents of intimate partner or domestic violence. Victims typically call the police, and often call repeatedly, in an attempt to stop their violent partner [31]. Research on IPV cases where law enforcement was called showed that the use of a firearm (vs. no weapon) was more common when the offender was male, had a history of substance abuse, and was on probation [31]. About 1.2 million incidents of IPV against women are reported to police annually, comprising one-fourth to one-half of physical IPV against women and less than one-fifth of intimate partner rape [22]. One type of police intervention are policies or laws whereby the officer is required to remove the firearm at the scene of an IPV incident in which law enforcement is involved. While the immediate removal of a firearm from a domestic violence event offers obvious benefits, research has found that most individuals who had a firearm seized from them did not seek return of their weapons, effectively creating a longer cooling-off period [51]. There is overwhelmingly public support for policies where the officer removes firearms at the scene of IPV incidents with law enforcement involvement [52]. A 2017 survey found that eight in ten Americans (81%) support laws prohibiting a person subject to a domestic violence restraining order from having a firearm for the duration of the order [53].

State-Based Domestic Violence Fatality Review Teams

Domestic violence fatality reviews provide a promising yet underutilized data source to understand the links between firearms and intimate partner violence-related deaths. These findings can help inform policy and laws that are designed to reduce firearm related domestic and intimate partner violence deaths. In addition, fatality data are critical not only for establishing the scope and scale of the problem, but also to justify a need for funding programs that serve victims of IPV or are designed to reduce violence. As of 2019, 43 states had active review teams [54]. States that conduct extensive reviews of all their domestic violence fatalities tend to find even higher portions of domestic violence-related fatalities than are indicated in the FBI data. For example, according to the Arizona State Domestic Violence Fatality Report, 41% of all homicides involved domestic violence, compared with the FBI reported number of 12% in 2011 [13]. Similarly, FBI data from 2011 showed that in Wisconsin, 7% of all homicides involved domestic violence, while the state fatality review board reported 29% that year [13].

Human Rights Framework for Change

Some scholars and activists have proposed that firearm violence in the United States is "gendered" in the form of IPV and domestic violence, this in turn shapes how the problem and its solution are perceived [55]. This idea draws from feminist studies that have framed domestic and intimate partner violence as gender-based violence [56]. The framing of a problem is important because it shapes the approach and solution. In this case, the problem is that men keep shooting women to death.

Health outcomes, to include death, have long been connected to social patterns of inequality [57] and morbidity and mortality from intimate partner violence are no different. Levy and Sidel define social injustice as the denial or violation of economic, sociocultural, civic, political, or human rights of specific groups in a population based on power dynamics and resulting stereotypes [58]. A major source of social injustice that affects the health and well-being of women everywhere is exposure to violence, particularly gender-based violence perpetrated by an intimate partner.

The 1948 Universal Declaration of Human Rights (UDHR) is generally regarded as the cornerstone document of modern human rights and it affirms universal dignity and rights of all persons. But it was not until 1995 that the idea of "women's rights as human rights" fully emerged on the world state [56]. Despite various international human rights declarations and treaties, the idea that violence against women is a human rights violation has been a difficult idea to establish [59]. A particular stumbling block has been the continuing public-private dichotomy in which these acts are framed as a family issue in which state actors should not intervene [60]. A United Nations report acknowledges the historical ambivalence of governments toward regulating gender relations in the private domain is exemplified by the lack of domestic violence legislation [61], such as the various firearm loopholes that fail to protect women in the US from armed and violent men.

As expressed in the UDHR and other United Nations-led international human rights treaties, human rights are rights inherent to all individuals [62]. Human rights include civil and political rights, economic, and social and cultural rights. By their nature, human rights are inalienable in that on right cannot be taken away from an individual and only then according to due process; they are indivisible and interdependent because the denial of one right compromises the expression of another. Likewise, an improvement in the expression of one human right facilitates the advancement and protection of other rights [29]. The interdependent nature of human rights is one reason why we can frame preventable firearm-related intimate partner violence. For example, the right to vote is of no use to a woman whose husband has killed her.

In addition, human rights are cyclical, much like poverty and violence, and show evidence of intergenerational transmission that may leave some more at risk for committing future violent and aggressive acts [2]. Social forces shape not only the victim's life but also the perpetrator, who, research shows, is often a past victim themselves of violence or trauma. Indeed, some scholars say that we are all victims and perpetrators of violence and nonviolence [2].

Although civil and political right are generally recognized in the United States, human rights are not afforded, realized, or supported by the American government. These include, but are not limited to, the right to a standard of adequate health care and housing for the well-being of self and family and the right to life, liberty, and security of person [62]. As such, America continues to be a place in which women are far more likely than men to be shot and murdered by people who were supposed to love them. As a whole then, in the US, violence against women looks very different than violence against men. One key difference is that women are much more likely to be victimized by someone she knows, while men are more likely to be victimized by a stranger [13]. This enduring pattern of male-based intimate partner violence committed against women each year in the United States, and the early age at which violence starts for many girls, strongly suggest that violence against women is endemic [22].

Ultimately, the solution to ending firearm related intimate partner violence will likely require a fundamental paradigm shift wherein the United States recognizes universal dignity and human rights. A human rights framework toward firearm-related intimate partner violence contextualizes the individual factors that leave some at greater risk for violence or perpetration; connects the struggle of US women to the greater global struggle of all women to be free from male violence; grounds firearm-related IPV in the larger context of US firearm violence; holds the state accountable for perpetuating or ameliorating the problem; illustrates the limits of civil and political rights to ensure a just and equitable society in the absence of economic, social, and cultural rights; and locates the perpetrator and the victim in a web of social inequality that proscribes gender norms, assumptions, and expectations.

These changes will require a political and social commitment to keep women and girls safe from violent people with firearms. Such a transformation would likely require a radical shift away from a capitalist political economy that only thrives by devaluing labor and human beings. Capitalism's contradictions and profit motive have yet to create a just and equitable world; instead, interpersonal and structural violence continue to occur at alarming rates. To be sure, organizing society around shared vulnerability, dependence, and universal dignity is a mammoth undertaking that will require a widespread, bottom-up social movement. But such a world is worth working toward and envisioning the change we want to see is the first step.

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Chapter 7
Mental Illness and Gun Violence

Michael Jellinek

The Toll

In 2017, an estimated 173,668 people, including 21,671 children, in America sustained gunshot wound trauma from the discharge of a firearm used in criminal activity, murders, assaults, suicides, suicide attempts, unintentional shootings, and/or by police intervention. Approximately 39,773 (23%) people died from gun injuries including 3443 (9%) are kids. The greatest number of deaths—23,854 (63%) are deaths by suicide including 1296 (38%) of child dying by suicide. Approximately 4015 (17%) are deaths by suicide by veterans. Gun violence related to suicide is almost twice the number of deaths from homicide.

Suicide Risk

While there have been specific and unfortunate limitations on researching interpersonal gun violence, there is a larger literature on suicide. There are descriptive studies looking at risk factors such as age, gender, geography, circumstances, previous history of attempts and methods. Further, we know from psychological postmortems that mental illness, specifically depression, impulsivity, substance use, sense of isolation, and a history of previous attempts all add to the level of risk. However, this relatively well studied and too frequent cause of death has been stunningly resistant to population level mental health approaches as reflected by both the efforts with veterans and the rising suicide rate. Although most people killing themselves

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are depressed, many are not. Some are dealing with overwhelming anxiety, childhood or adult trauma, or repeating a pattern of suicide in the family. Others have suffered a sudden loss such as the death of a parent, rejection by someone they love, or failure to achieve what they saw as a critical goal. Some have practiced suicide with increasing risk often in complete privacy, unbeknownst to anyone. Most attempt suicide impulsively, are grateful for being rescued, and do not attempt again. Many may have additional risk factors and be more vulnerable to a variety of circumstances for historical, social, and genetic reasons. For example, underlying habits such as substance use, especially alcohol, or a neurological trait such as impulsivity increase the risk [1].

Suicide Screening

Suicide would seem to be the easier challenge to impact from a gun violence/prevention perspective. However, mental health approaches to suicide prevention are crude. Screening questionnaires list risk factors, but are not adequately predictive. There are too many factors—personal, situational, historical, genetic—that are difficult qualify or quantify. If the police or a psychiatrist knows of a person who acknowledges suicidal thoughts, has a specific plan and means to carry out that plan, committing them, even against their will, to a hospital is a required intervention. If they are "acutely suicidal," a mental health professional will interview them and decide if they need to be committed, if they agree to be admitted voluntarily, or if predicted to be "safe," release them for outpatient care. These decisions are based on interviews, history, and brief periods of commitment often against the individual's wishes until there is an easing of suicidal intent. The limitation of this mental health approach to suicide prevention is evident from the inability to predict an individual's behavior, the many factors that influence behavior from the past, and predicting what stress might be about to happen [1].

Many people are depressed, suffer rejection, have been traumatized in their lives, are impulsive, or not attained a key goal, yet we cannot know who will respond with suicidal ideation, who are the subset that go on to make a plan, who of those with a plan will attempt, and the very small percentage—but tragically large number—who will actually choose a highly lethal method to complete the act. The long-term effectiveness of our interventions is unknown. Some will consciously try to hide their intent and plan until the complete suicide; some will be "chronically suicidal" with repeated attempts. Those benefitted by therapy, medication, or who were saved mechanically such as being caught by a net when they go off a bridge, are often grateful to be alive [2].

Since so many people have a number of risk factors and our ability to predict suicidal actions is so limited, it is impossible to rely on one by one mental health interventions. For 10–20 individuals out of every 100,000, suicide is an endpoint for a risk filled journey; however, that indistinguishable risk filled journey applies to 10,000 or more of the 100,000. Given unpredictability and scale, only public health measures can make a difference.

Limiting Risk

From a public health viewpoint, limiting the most lethal and accessible means of committing suicide makes a difference. For example, in England, patients were committing suicide by breathing carbon monoxide readily available in their kitchen stoves that were heated with coal gas. Similar to a car exhaust, carbon monoxide induces a coma and then death for lack of oxygen. The method was available in every kitchen stove so that in a moment of depression, emotional vulnerability, while drinking, after domestic conflict, etc., suicidal thoughts could evolve rapidly and impulsively into highly lethal suicidal actions. Removing the carbon monoxide from the coal gas meant this very common means for suicide was less accessible. The means was less accessible and a pause, more thought, was needed before acting. Both the rate of suicide and the use of carbon monoxide as a method both fell dramatically [3].

Another public health effort to limit the access to suicide is the construction of nets that extend 20 feet out from walkways of the Golden Gate Bridge. Over 1700 people have jumped to their death from this bridge and it is the hope that the $200 million dollar net system will save lives by giving people a second chance to consider this choice. Of note, those that are rescued are commonly grateful [4].

Psychiatric commitment, eliminating carbon monoxide, nets to catch jumpers, prescriptions scaled to a sublethal volume of pills are all approaches to decreasing suicide by limiting rapid access and lethality. The success and investment in these methods acknowledge that we do not know with enough specificity who or when an individual will decide to kill themselves.

Lethal Gun Violence

In 2017, nearly 24,000 individuals suffered death by suicide using a gun. Paralleling the experience in England with access to carbon monoxide, states with easiest access to guns had many more suicides by firearm and an overall higher rate of suicide than states that has limited access to guns. Specifically, Miller and Hemenway compared the 15 states with the highest gun ownership rates to the 15 states with the lowest rate. Suicide by means other than firearms showed no difference, male and female, between the groups of states. However, states with more ownership and presumably access to guns, for the same number of people over the same time period, had approximate 16,500 suicides by gun as compared to approximately 4200 for those with lower levels of gun ownership. No mental health service has or could impact the suicide rate with the effectiveness a public health approach that limits access to lethal means. Men are impacted more than women because they choose firearms by temperament and access that drive their "success" rate per attempt much higher than women who tend to choose medication overdoes [5].

For one identified individual, mental health services may well have an impact on acute suicidal intent. For millions of unidentified individuals indistinguishable from their neighbors, who might be depressed, rejected by a loved one, using substances, angry at themselves, or having hopes dashed, the only option to save some of the 22,000 who die each year by gunshot requires limiting access to guns. No immediately accessible gun results in more time to think, reach out to others, choose a less lethal means, or access mental health services.

Although gun violence is a very loud and public act, the decision-making process prior to the action is private and intra-psychic, much like suicidal intent, originating within a person's feelings. Some of the relevant feelings may be conscious such as wishing to attack a group or an act of revenge against an individual. Other feelings may be unconscious such as triggers for post-traumatic stress and childhood angers related to abuse or neglect. Lastly there may be built-in neurologic factors such as impulsivity or disinhibition secondary to alcohol intake. All of these factors are not visible or obvious prior to the gun violence. Further, some conscious and unconscious feelings may be quite sudden as in gang confrontation or a bar fight where an insult cuts especially deep or as an impulse difficult to control after several drinks. Other feelings may build over months or years as is a hostile marriage or growing acceptance of violence in a political or religious movement.

Suicide Prevention

The task of prevention and recognition is further complicated because the intra-psychic mental states are very difficult to measure, subject to ebb and flow, and subject to broad range of risk in a large population. Finally, we do not understand and for many individuals do not know the impact of a family history of violence or medical history such as head injuries that impact judgment or impulsivity. Previous acts of violence are among the most meaningful risk factors. Essentially, we can focus our limited ability to predict violence on an individual, try to estimate subjectively the risk of imminent violence, and intervene much like restricting the freedom of someone acutely suicidal. However, there are no set of mental health services that can be applied to a population that will substantially impact the rate of gun violence.

Mental Illness Risk

When focusing on individual patients and diagnoses, there are a few examples of a discernable and causal links between an individual's metal state and gun violence. These examples are both obvious and relatively rare, which make them more misleading than helpful when thinking about populations. For example, someone suffering from paranoid schizophrenia have command hallucinations ordering them to harm someone as part of a delusion of revenge or self-defense. If they are taken to

an emergency room, they would be committed involuntarily to a hospital based on being an imminent threat. However, these clear cases with this specific form of psychosis are a very small percentage of violent acts. More difficult is that someone would need to be aware of the individual and bring them often against their will to treatment before anyone else's safety was protected or access to guns limited. Even this simplistic example is more complex then it seems. Was the individual on medication? Were they taking the medication? Does this concern for violence occur in all patients diagnosed with psychosis (no)? And even if all of this information is known, unless the person has command hallucinations while being examined by a psychiatrist, could that psychiatrist validly predict gun violence?

Paranoid schizophrenia is a fraction of the 1% of the population with schizophrenia and even within this broader category of mental illness any increased statistical likelihood of violence is controversial. Predicting violence even in these severely mentally patients has not been shown to be very different from predicting violence for all individuals. The best predictors are a history of violent acts and active substance use. Other less determinative factors include age, history of child abuse or neglect, propensity to violence in the family, and financial stresses. A history of head trauma may act like a substance as centers of the brain that inhibit impulsivity or behavioral actions may have been damaged.

Contextual Factors

Up until now, we have focused on diagnostic, neurological, and historical factors contributing to an individual perpetrating gun violence. We have not yet added situational circumstances that in the moment likely contribute. Was the individual having an argument with a spouse or parent? Were they threatened and how real did they judge the threat? Were there underlying stresses such as loss or someone important, getting fired or laid off from work, feeling insulted, or major financial stress—all factors that in the moment may raise the risk of violence.

Lastly, many of the most deadly, dramatic, and tragic acts of gun violence are motivated by long-standing political or philosophical beliefs. While many of these shooters or murderers will have childhood histories marked by conflict, poverty, loss, or trauma, they are acting based on a view that violence is an appropriate, rational act supported by beliefs, not a manifestation of a psychiatric disorder. It is hard to imagine the treatment plan or path that would be appropriate, legal, or effective for a White or Muslim extremist planning to murder others justified by a religious belief system.

When we look at the many factors contributing to gun violence, such as substance abuse, mental illness, stresses of poverty, gender, age, and more, it is evident that there are too many factors and they are too common to either treat as a function of mental health or too predict which of these factors will combine in what situation to result in a suicide or homicide, especially when there is easy access to a gun.

Potential Impact

Beyond limiting access to guns, the programs and public health interventions to limit the impact of these risk factors is long and the outcomes gradual but would advance the goal of decreasing gun violence. A partial list of programs that have a potential impact on gun violence include the following:

- Access to health care especially birth control, prenatal, and pediatric
- Abuse and neglect prevention, home visiting
- Prevention and awareness of domestic violence, parent training
- Access to child care, pre-school education
- Child-centered foster care and protection programs
- Substance use prevention/education/treatment
- Vocational training and job programs
- Access to mental health services as needed for all family members
- Jail diversion programs
- Gang prevention programs—after-school, academic support, housing, community policing
- Gun safety given community access to firearms

Wishful Thinking

When faced with over a 170,000 injuries from guns each year, we are in a difficult and untenable position. We have a wish that mental health services would make a substantial difference in this number. We have this wish while knowing that it is not rational: our current mental system is not adequate to meet the needs of the population given the rate of depression, substance use, abuse and neglect, and serious, psychotic, mental disorders. Our society has not made the investments in training and programs to have the professionals necessary to address comprehensively the measures needed to reduce gun violence. What's more, the nature of gun violence is at its inception is private, in a person's thoughts and feelings, and, except in rare circumstances, unpredictable. Whether suicide or homicide, we cannot predict who or when someone will use a gun to harm themselves or others.

We certainly should increase mental health services, training, and research. For individuals and over the long term, improving mental health care is a critical goal. However, since we do not have the trained professionals, programs, or knowledge, looking to mental health services as the answer to gun violence is not a currently relevant solution and serves as a welcome distraction to what would be immediately effective—limiting the access to guns.

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Part III
History – How Did We Get Here?

Chapter 8
The Need for Safety and Beliefs About Guns

Gabrielle Pogge, Nikolette P. Lipsey, Joy E. Losee, and James A. Shepperd

Introduction

High-profile shootings, such as the incident at Virginia Tech in 2007, have created a perception of rampant gun violence on college campuses in the United States [1]. This perception is inconsistent with the reality that college campuses are safe places. According to data collected by Everytown for Gun Safety (2019) [2], which tracks gunfire on school grounds, between January 2013 and June 2019, 46 gun-related incidents that resulted in at least one death (including six suicide completions) and 64 incidents that resulted in injuries (including two suicide attempts and 15 unintentional discharges) occurred on college campuses. Campuses are especially safe compared with the cities and communities that surround them [3]. In 2016 alone, 38,658 people died from firearm-related injuries in the United States. Approximately 60% of those deaths resulted from suicide and 37% resulted from homicide [4]. The simple fact is that the chance of being killed by a gun on a college campus (versus not on a college campus) is exceedingly rare.

The 50 states vary in their laws regarding *campus carry*, that is, legislation that allows people with a concealed carry license to carry guns on campus. Legislators in a number of states have proposed, and sometimes have passed, campus carry

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legislation. As of summer 2019, 12 states allow some concealed carry license holders to carry concealed weapons on public college and university campuses. The most recent states to join this group were Georgia and Arkansas, who passed campus carry legislation in 2017. Fourteen additional states considered but did not pass campus carry bills during the 2017 legislative session [5]. Eighteen states and the District of Columbia currently have policies in place that prohibit the carry of concealed guns on university property. The remaining 20 states allow individual colleges and universities to set policies on campus carry. It is noteworthy that legislators continue to introduce campus carry legislation even though the vast majority of people who represent campus communities oppose such efforts [6–12].

In this chapter, we address the question of why Americans are so divided on the issue of guns. Although this question likely has many answers, we take a decidedly psychological approach to understanding opposing views on guns. We examine the question within the context of campus carry, which can be thought of as the front line of the battle between proponents and opponents of gun rights and restrictions because of the number of state legislatures that have debated legalizing campus carry in the last decade. In fact, the divided opinion on campus carry is emblematic of the larger divide regarding gun rights and gun control in the United States.

We begin the chapter by discussing a common need—the need to feel safe—shared by both proponents and opponents to gun restrictions. Although everyone needs to feel safe, people differ in their perceptions of the role of guns in feelings of safety. Whereas some people perceive guns as a source of safety, others perceive guns as a threat to safety. Next, we discuss how the opposing perceptions about guns and safety correspond with support for campus carry legislation and with a variety of other attitudes, beliefs, and expectations about safety if campus carry were legal. Finally, we discuss how examining opposing views on guns in terms of the need for safety reframes the gun debate and suggests new approaches to building understanding and compromise across the gun divide and, ultimately, to designing policies to reduce gun violence in the United States. Although we discuss the gun divide in terms of campus carry, the perceptions, concerns, and expectations we identify are relevant to other contentious gun topics. We touch on the larger implications at the end of this chapter.

Beyond Gun Ownership: Safety Needs as the Source of Campus Carry Support/Opposition

Although other researchers have examined support versus opposition to gun rights and restrictions, our decidedly psychological approach moves the examination beyond demographic predictors. Past researchers typically have focused on gun ownership as the central determinant of people's views on gun issues, and for good reason. Gun owners are more likely than nonowners to support legislation that protects gun rights and reduces gun restrictions [8, 13, 14]. The focus on gun ownership has led to researchers to examine who does versus does not own a gun. The evidence reveals that gun owners are more likely than nonowners to be male, white, married, Protestant, conservative, and to live in rural areas [15]. Importantly, a focus on

identifying the characteristics of gun owners, or more broadly, on distinguishing whether a person is or is not a gun owner has limited value. None of these predictors tell us why people own a gun or why they support legislation that preserves gun rights. As such, they offer little direction into how we might address the gun divide and ultimately reduce gun violence in the United States.

In our view, a more useful approach to understanding the gun debate arises from the needs and motivations that influence thinking and behavior. More than 75 years ago, Abraham Maslow proposed a hierarchy of needs that underlies much of human behavior [16]. The most basic needs were physiological needs such as the need to breathe, eat, drink, and reproduce. Next on the list was the need for safety. Maslow proposed that all people share a fundamental need to be safe from harm. Subsequent research has shown that safety is crucial for psychological well-being [17] and influences thoughts, feelings, and behavior [18]. As with many psychological experiences, perceptions are just as important, if not more important, than reality. That is, whether people feel safe or not and what they expect might or might not happen influences their behavior (e.g., whether they walk by themselves at night, buy an alarm system for their house, or travel overseas) far more than whether they are actually safe [19]. Thus, the need for safety is satisfied when people *feel* safe, not necessarily when they actually are safe. This understanding has important implications for the safety needs of people who do and do not own guns.

All people share the need for safety. Yet, people differ in how they achieve this need. We propose that opponents to gun restrictions perceive guns as a means to safety. They feel safe when they are armed and regard gun restrictions as a threat to their safety. In contrast, supporters of gun restrictions perceive guns as a threat to safety. They feel unsafe when people around them are armed and regard gun restrictions as essential to their safety [12, 20].

Preliminary support for our argument comes from research examining the safety perceptions of people who do and do not own guns. All other things being equal, it is reasonable to assume that people who own guns are more likely to perceive guns as a source of safety, whereas people who do not own guns are more likely to perceive guns as a threat to safety. Consistent with this assumption is the finding that Americans who own guns view gun restrictions as a threat to their safety [14], but that Americans who do not own guns generally regard gun restrictions as necessary for safety [8, 13]. In addition, many nonowners believe people who carry guns create danger—even when the people carry guns legally—and feel less safe when there are more guns in the community [6]. Conversely, gun owners in general believe that they and others feel safer if they are armed [21].

People own guns for different reasons, and whether someone does or does not own a gun is an imprecise indicator of whether they perceive guns as a means versus threat to safety. Surveys reveal that roughly two-thirds of new gun owners reported purchasing their firearm for protection [22] and that two-thirds of gun owners own a gun for personal protection [23]. The flipside is that fully one-third of gun owners do not own guns for protection reasons. Instead, they own guns exclusively for other reasons such as collecting, recreation (e.g., sports, hunting, or target shooting), or inheritance. Presumably, these *nonprotection gun owners* are less inclined to see guns as a source of safety and more inclined to see guns as neutral or even a threat to safety. By extension, they presumably would also be less inclined than

protection-gun owners to perceive gun restrictions as a threat to safety, and less inclined to support expanding gun rights. The fact that not all gun owners own a gun for protection illustrates the importance of moving beyond asking people whether they own a gun. We must also ask gun owners why they own a gun, which can help us better understand the role that safety needs play in gun attitudes and support for gun legislation.

The Reasons for Owning a Gun and Its Consequences

We examined perceptions of guns as a means versus a threat to safety among over 11,000 members of a large, public, US campus community that currently prohibits guns on campus [12, 20]. We first informed participants about efforts in their state's legislature to legalize campus carry, which would allow people with a state-issued concealed carry license to carry their guns on the campuses of public colleges and universities in the state. We classified participants into three groups based on their reports of whether or not they owned a gun and, among gun owners, why they owned a gun. The first group comprised nonowners—participants who reported that they did not own a gun. The second group comprised protection owners—participants who reported owning a gun and included protection of themselves or others among their ownership reasons. The third group were nonprotection owners—participants who reported owning a gun exclusively for nonprotection reasons. Finally, we asked participants a variety of questions regarding their attitudes (e.g., whether they support or opposed legislation legalizing campus carry), feelings of safety, and estimates of crime currently and should campus carry become legal on their campus.

Support for Legislation

Figure 8.1 presents the percent of participants by group that reported support for legislation to legalize campus carry. Not surprisingly, nonowners strongly opposed legalizing campus carry. The more important finding, however, is how gun owners felt about the legislation. Protection owners, who we argue perceive guns as a source of safety, strongly supported legislation allowing concealed carry of guns on campus. Nonprotection owners, who we argue do not perceive guns as a source of safety and may even perceive guns as a threat to safety, opposed the legislation. In fact, the nonprotection owners resembled the nonowners in their position on campus carry legislation. These findings provide evidence that how people think about guns—as a means versus threat to safety—affects their support for gun policy.

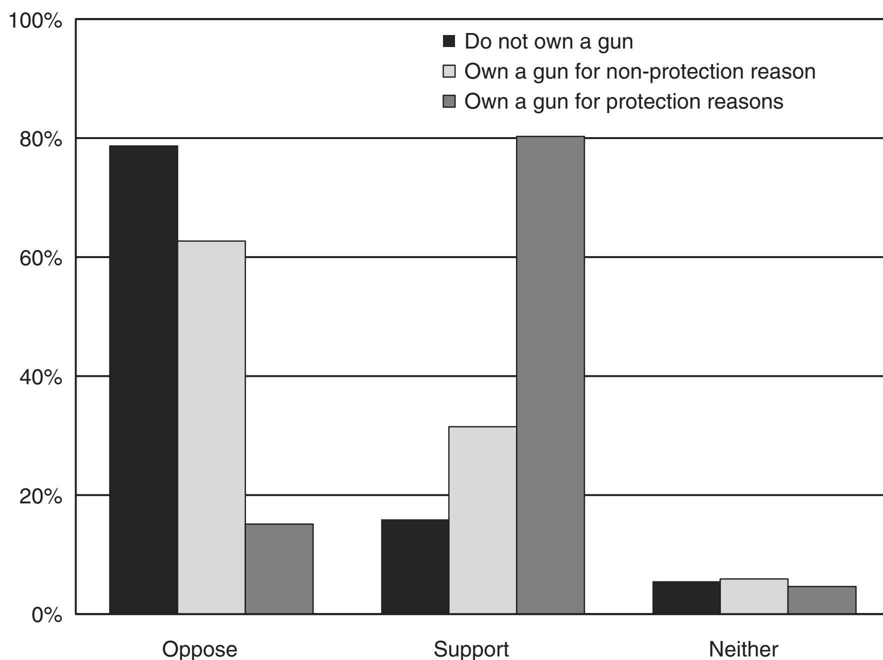

Fig. 8.1 Support for legislation allowing concealed carry on college campuses

Perceptions of Safety

We asked participants two central questions about safety. First, we asked participants how safe they currently feel on their campus. Second, we asked participants how safe they would feel if they legally carried a concealed gun on their campus. Both questions used the same, five-step response format (1 = *not at all safe*; 3 = *neither safe nor unsafe*; 5 = *very safe*).

Regarding the first question, Fig. 8.2 reveals that protection owners reported feeling less safe currently than did nonowners and nonprotection owners on their campus. But, importantly, all three groups reported they currently felt safe on their campus in that their mean ratings were greater than the midpoint. Regarding the second question, protection owners reported they would feel safer than they currently feel if they carried a gun on campus. This finding is consistent with our argument that protection owners perceive guns as a source of safety, at least when they personally carry one. In contrast, both nonowners and nonprotection owners reported they would feel less safe than they do currently if they personally carried a gun on campus. This finding is consistent with our argument that nonowners and nonprotection owners—compared with protection owners—are more inclined to perceived guns as a threat to safety.

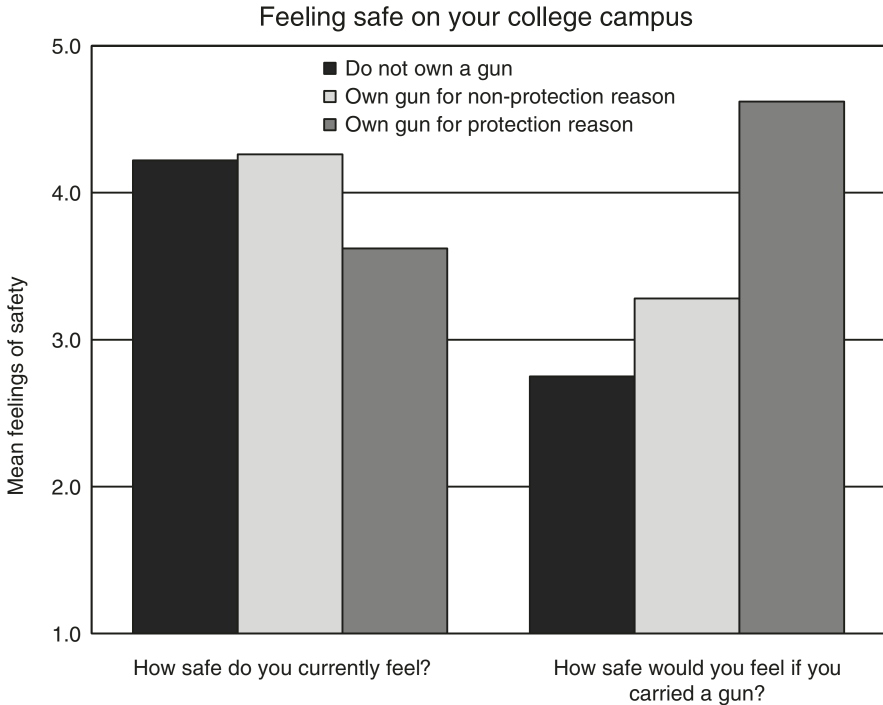

Fig. 8.2 General safety

Safety Having Heated Interactions

Sometimes interactions with others become unpleasant or heated. We asked our participants if they ever had heated interactions with others on their college campus. We asked two questions to people who responded "yes." First, we asked how safe they felt having heated interactions with others on their college campus. Second, we asked how safe they would feel having a heated interaction on their college campus if licensed people were legally allowed to carry a concealed gun on campus. As with the prior safety questions, participants responded to both questions using the same, five-step response format (1 = *not at all safe*; 3 = *neither safe nor unsafe*; 5 = *very safe*).

As evident in Fig. 8.3, everyone reported they currently felt relatively safe having heated interactions on their campus. The mean responses for the three groups were almost identical and just below a 4 on the 5-point scale (with 5 representing the "safest" response). In contrast, all three groups reported they would feel significantly less safe having a heated interaction on campus if campus carry was legal. Nonowners and nonprotection owners, who both averaged less than 2 on the 5-step

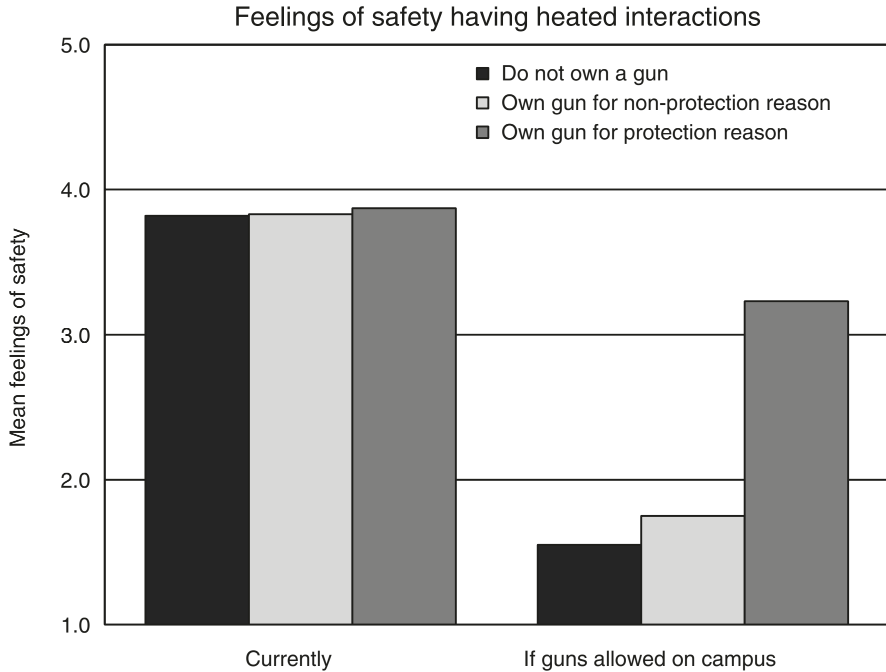

Fig. 8.3 Safety having heated interactions

scale, reported the most dramatic decreases in their feelings of safety having heated interactions. However, it is noteworthy that protection owners also reported they would feel less safe having heated interactions if campus carry were legal. This finding is striking because it reveals that, although protection owners view guns as a source of safety, they nevertheless felt that legalizing guns on campus will decrease their safety in certain situations.

Safety Evaluating Students

We directed our last set of safety questions to the 2284 university personnel (e.g., faculty and graduate student instructors) responsible for evaluating students. We asked them how safe they currently felt evaluating student academic outcomes (e.g., examinations and term papers), and how safe they would feel evaluating students if guns were allowed on campus.

As evident in Fig. 8.4, participants in all three groups reported that they currently felt very safe evaluating student outcomes (means falling around 4.5, with 5 representing the "safest" response), and we observed no differences across groups in reports of current safety. In contrast, and consistent with our other findings,

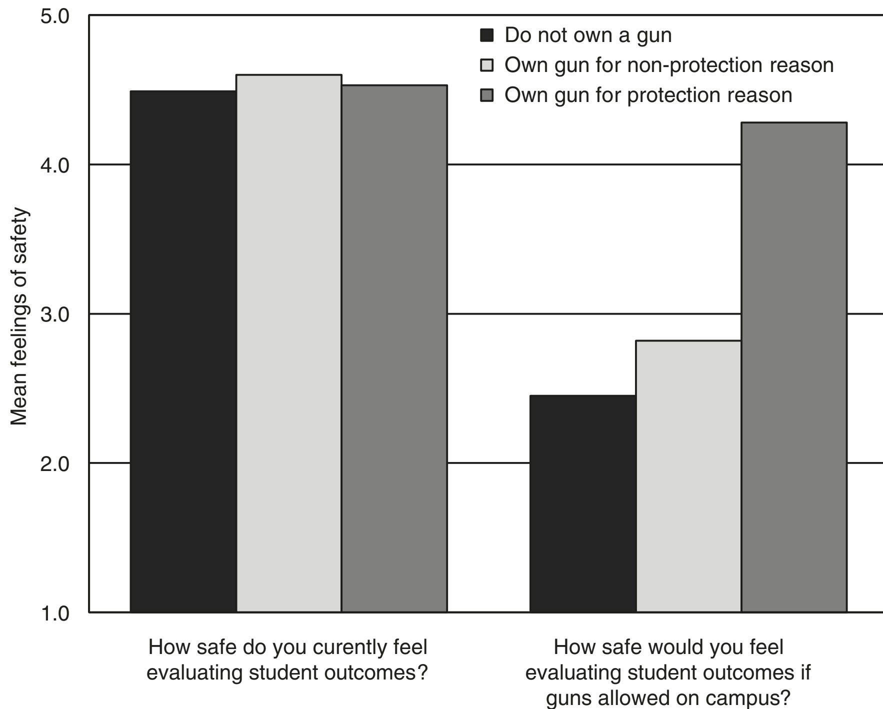

Fig. 8.4 Feeling safe evaluating students

nonowners and nonprotection owners reported they would feel dramatically less safe evaluating student outcomes if guns were allowed on campus. It is noteworthy that protection owners also reported they would feel significantly less safe evaluating student outcomes if guns were allowed on campus. However, the decrease in safety, while statistically significant, was smaller than the decrease observed for nonowners and nonprotection owners. Nevertheless, this finding reveals that protection owners believe that legislation that removes gun restrictions, such as prohibition against campus carry, do not increase safety in all contexts. Presumably, instructors who were protection owners anticipated that such legislation might jeopardize—albeit, modestly—their safety in providing students with unfavorable evaluative feedback.

Crime Estimates

Participants estimated how many gun crimes occurred on their campus in the previous 12 months, and how many gun crimes would occur in a 12-month period if

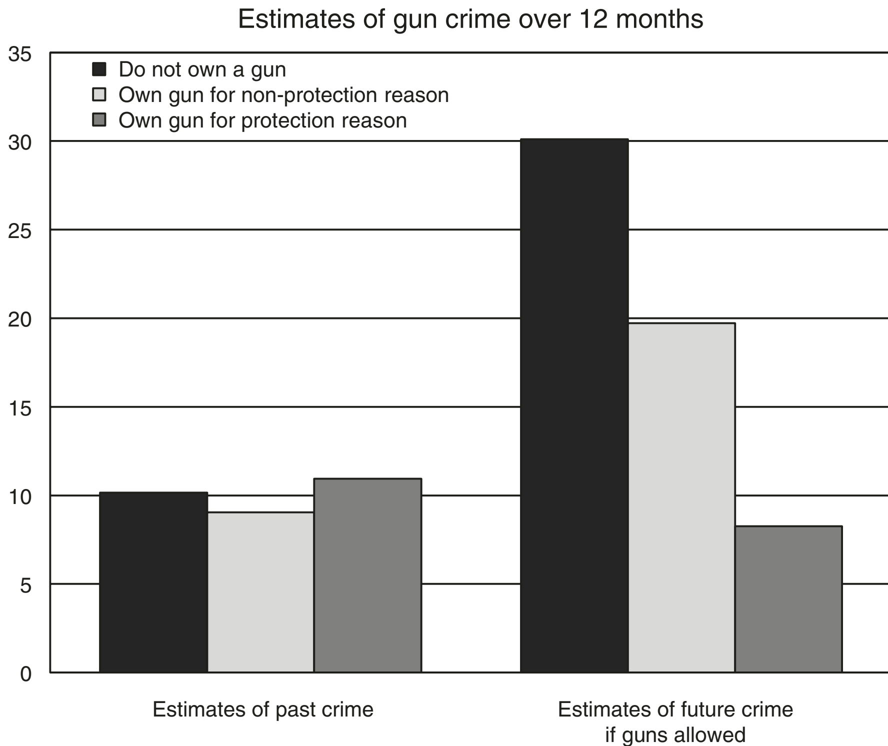

Fig. 8.5 Gun crime estimates

people were allowed to carry concealed guns on campus. As evident in Fig. 8.5, we observed no differences in estimates of gun crimes on campus in the prior 12 months, with everyone estimating roughly 10 gun crimes. As an aside, the campus police reported only one gun crime that occurred in the 12 months prior to data collection. Thus, all three groups overestimated the prevalence of gun crime on campus. The more important finding is the three groups' estimates of the number of gun crimes that would occur if campus carry was legalized. Nonowners and nonprotection owners estimated a significant increase in gun crimes on campus if campus carry was legalized, whereas protection owners estimated a significant decrease in gun crimes. Viewed through the lens of perceiving guns as a threat to safety versus means to safety, these findings make sense. Nonowners and nonprotection owners, who are more likely to perceive guns as a threat to safety, believe that even concealed and legally carried guns on campus will result in an increase in gun crime. In contrast, protection owners, who are more likely to perceive guns as a means to safety, believe that allowing concealed guns on campus will reduce gun crime on campus.

Summary

The findings are consistent with our proposal that protection owners view guns as a means to safety whereas nonprotection and nonowners view guns as a threat to safety. Our findings reveal that the primary proponents of allowing licensed people to carry concealed guns on campus are people who own guns for protection reasons (i.e., protection owners). People who own guns exclusively for reasons other than protection (i.e., nonprotection owners) resembled nonowners in their opposition to campus carry. All three groups reported feeling safe on campus currently, including when having heated interactions and when evaluating students.

When it comes to carrying a gun on campus, protection owners reported that carrying a gun would make them feel safer than they currently feel, whereas nonprotection and nonowners reported that carrying a gun would make them feel less safe. Yet recall that our sample reported that they already felt safe on campus. In addition, it is noteworthy that protection owners represented only 21.3% of our sample. Put another way, a relatively small percent of our sample reported they would feel safer if they carried a gun on campus.

When viewed in this light, our findings take on additional meaning. The anticipated benefit to safety accrued by protection owners from legalizing campus carry was quite small when compared with the anticipated costs to safety accrued by everyone else. Protection owners reported they would experience a small increase in their perceived safety if campus carry was legal; everyone else reported they would experience a dramatic decrease in their perceived safety. Additionally, whereas nonprotection and nonowners anticipated campus carry would increase gun crime on campus, protection owners anticipated campus carry would decrease gun crime on campus. Nevertheless, protection owners anticipated feeling less safe having heated interactions and evaluating students if guns were allowed on campus.

The Effect of Guns on Thinking and Behavior

Thus far we have discussed how the basic need for safety can lead people to perceive guns as both a means to safety and a threat to safety. A limitation of this research is that it explored perceptions and expectations rather than actual outcomes. Almost no research has examined the consequences of legalizing campus carry on important outcomes on college campuses. Nevertheless, we can infer potential consequences by examining how the presence of guns affects thinking and behavior. Unfortunately, the effect of guns on thinking and behavior is not always clear. For example, the link between the presence of a gun in a situation and aggressive behavior is mixed. Over 50 years ago researchers documented that the mere presence of guns can increase aggressive behavior [24]. However, other studies have failed to replicate this initial finding [25]. A recent meta-analysis of 78 studies suggests that guns have a small effect at most on aggressive behavior [26].

Although the link to aggressive behavior is weak, research shows that guns can increase aggressive cognitions and appraisals. For example, research on the "weapons priming" effect shows that viewing guns or images of guns prompts an increase in aggressive thoughts [26]. Presumably, carrying a weapon—even a concealed one—may prompt the same aggressive thoughts that are cued when people view guns or images of guns. Once activated, aggressive thoughts can prime people to interpret the behavior of others as aggressive and to respond aggressively [27, 28]. The implications for people who carry guns (concealed or otherwise) is clear. Merely carrying a concealed weapon may cause the carrier to interpret others' behavior as aggressive and to respond aggressively, perhaps even using the weapon. The presence of guns may also escalate aggression during conflicts: heated interactions may be more likely to turn violent when one of the adversaries has a gun, even if the gun is concealed.

Although this unwelcomed possibility is speculative, our findings showed that all three groups in our research—protection owners, nonprotection owners, and nonowners—reported that they would feel less safe having a heated interaction if concealed carry was legal on their college campus, suggesting that people may fear this very possibility. It is also noteworthy that research on the effect of concealed gun laws on violent crimes is inconclusive, with researchers reaching different conclusions depending on what data they examine and how they conduct their analyses [29, 30]. Yet, we know that the presence of guns can change the way people think, and the way people think ultimately affects their behavior. Needed is more research that examines whether merely carrying a gun increases aggressive thoughts and appraisals, and whether (or when) these thoughts and appraisals culminate in violence.

The Implementation of Campus Carry Legislation

Although campus carry is not legal in Florida, where we conducted our research, it is legal in 12 states. Interestingly, the states vary dramatically in their rules regarding campus carry and the steps they have taken to address the concerns of protection owners, who view guns as a source of safety, and everyone else who views guns as a threat to safety. Some states restrict who may carry concealed weapons. For example, in Tennessee only full-time university employees who have notified law enforcement of their intention to carry may carry concealed guns on college campuses; students and the general public may not, even if they possess a permit (Tennessee Code § 39-17-1309 (2016)). Conversely, individual universities in Minnesota may forbid their employees and students—but not the general public—from carrying concealed guns on college campuses (Minnesota Statutes § 624.714, subd. 18 (2018)). Kansas is unique as the only state to allow people 21 years and older without a license (as long as they are not prohibited from possessing a firearm) to carry concealed guns on campus (Kansas Board of Regents, Chap. II, section (e) (14)). Colorado (Colorado Rev. Stat § 18-12-203 (2016)), Texas (Texas GC

§411.172), Tennessee (Tennessee Code Ann. § 39-17-1351 (2019), and Wisconsin (Wisconsin Code 175.60 (2019)) require that concealed carry applicants be at least 21 years old, which excludes most typical undergraduates. Finally, Idaho (Idaho Code § 18-3302 K (2014)), Arkansas (Arkansas Code § 5-73-322 (2017)), and Mississippi (Mississippi Code § 97-37-7 (2013)) allow only people with an "enhanced" concealed carry license to carry a concealed firearm on campus. Enhanced licenses typically require additional training or certification. For example, enhanced licenses in Idaho require completion of one of six training courses and live fire of at least 98 rounds. All remaining states that allow concealed carry on college campuses (Georgia, Oregon, Utah, Wisconsin), have no restrictions on who may carry a concealed gun on campus provided the carrier has a concealed carry license.

Nearly all states with campus carry policies have some restrictions where people may carry concealed guns on college campuses (e.g., not in campus buildings, medical facilities, classrooms, resident halls, and events venues). For example, Tennessee bans firearms from school-sponsored events, hospitals and mental-health service centers, and meetings regarding disciplinary and job performance/tenure issues (Tennessee Code § 39-17-1309 (2016)). Michigan bans firearms from residence halls and classrooms (Michigan Comp. Laws § 28.425, Sec. 5o (1).(h)). Texas prohibits universities from banning guns in classrooms but allows universities to designate certain areas (e.g., residential facilities) as "gun free zones" (Texas GC §411.2031).

Several states allow campuses to ban firearms under specific conditions. Kansas allows campuses to ban firearms when they provide "adequate security measures" such as metal detectors and armed personnel [31]. Arkansas allows campuses to ban firearms from locations with posted signs stating that firearms are banned from the location (Arkansas Code § 5-73-322 (2017)). On the flipside, Minnesota (Minnesota Statutes § 624.714, subd. 18 (2018)) is unique in that the state statutes do not explicitly address restrictions on where on campuses institutions may prohibit firearms.

Evaluations of the effects of campus carry on campus safety are limited (see Webster, Crifasi, Vernick, & McCourt, 2017, for a review of research [32]). The few studies that have evaluated the effects suggest that campus carry has few positive or negative effects. For example, legalizing campus carry does not appear to appreciably increase crimes or weapons-related incidents on campuses. It also has not appreciably decreased crime or weapons-related incidents. But then again, gun crime on college campuses is already so low that one would hardly expect to see significant decreases. In fact, one could argue that because gun crimes on campus are so rare, campus carry is a solution to a problem that does not exist in reality, but only in the perceptions of protection owners who feel unsafe when unarmed. By restricting who, where, and under what circumstances people may carry concealed firearms on college campuses, legislators may appease some of the concerns of nonprotection and nonowners while still allowing protection owners the comfort of their guns in limited settings.

Policy Implications

Although our research focused on attitudes and safety perceptions related to campus carry, our findings likely generalize to attitudes about gun policy more generally. The central point of our research on gun ownership reasons is that all people have a basic need for safety but differ in their views of the role that guns play in personal safety. Protection owners generally feel safe when they are armed and view gun restrictions as a threat to their safety. Nonprotection owners and nonowners generally feel unsafe when people around them are armed and view gun restrictions as necessary for safety. Successfully addressing gun violence in the United States requires policies that respect the safety concerns of both groups. Ultimately, such policies require creating circumstances where protection owners feel safe without their firearms, and circumstances where nonowners and nonprotection owners feel safe if (some) others around them have concealed firearms.

Satisfying the safety concerns of nonowners and nonprotection owners entails policies that restrict who is allowed to own or carry a concealed weapon (e.g., people who are deemed eligible by the appropriate licensing agency and have completed suitable training) and where people may store or carry a concealed weapon on campus. Satisfying the safety concerns of protection owners entails maintaining the right of people who are licensed to carry a concealed weapon. Policies that restrict access to guns must do so in a way that allows people (who are not deemed a potential harm to themselves or others) to keep or acquire guns, thus addressing the safety needs of protection owners. For example, policies that require mental health clearance or require a waiting period may reduce the likelihood of people gaining access to a gun while depressed or angry. Such policies would acknowledge the concerns of people who view guns as a threat to safety by presumably decreasing the risk that the guns will be used inappropriately. Nevertheless, such requirements delay rather than prohibit people from purchasing a gun, which acknowledges the concerns of people who view guns as a source of safety. It is important to note that gun ownership restrictions based on mental health have mixed consequences. On the one hand, one simulation study found that restricting people in New York City with a history of any psychiatric hospitalization or psychiatric treatment reduced the incidence of suicide in these groups. On the other hand, the restrictions did not affect the overall suicide rate in New York City. Moreover, because suicide even among these groups was quite low (15.8% per 100,000 in people with any history of psychiatric hospitalization, and 3.5% per 100,000 among people with any history of psychiatric treatment), the restrictions functionally disqualify from gun ownership an enormous group of people who were at low risk for suicide [33]. These findings demonstrate the difficulty with blanket solutions to the problem of gun violence. They suggest that policy makers examine multiple paths to balancing the needs of people who differ in their views of guns and safety.

Other routes to satisfying the safety needs of people who oppose and support gun restrictions may entail hiring additional security personnel as well as implementing

technological innovations (e.g., increasing security camera presence) that can help ensure the safety of all people. A limitation of greater law-enforcement presence is that marginalized groups (e.g., people of color), because of their history being over-targeted by law enforcement, may feel less safe with these measures [34]. On campuses, as well as elsewhere, developing procedures to respond to potential and real threats as they arise can contribute to satisfying the safety needs of both protection owners and nonprotection and nonowners. For example, universities should establish procedures by which people can report concerning or threatening behavior to university counseling services and campus safety officers. Such procedures should include measures to assuage fear of retaliation and to provide assurance that all reports will be treated seriously [35–37]. Universities can pair these reporting mechanisms with rapid response procedures to address student concerns. In addition, university officials can create specialized teams on campus to identify potential threats, perform safety audits, and address active shooter events. At institutions with campus carry, such active-shooter policies and procedures might include publishing steps that people who legally carry concealed guns on campus can take to avoid being misidentified by law enforcement officers as a perpetrator during the event. Finally, institutions would do well to publicize to the campus community the steps they take to ensure safety from gun violence. Such publicity could go a long way to making all groups feel safer on campus. Together, these policies may decrease stress and anxiety on campus, which in turn may decrease the perceived threat that drives support for campus carry policies among protection owners [38].

Conclusion

The issue of guns remains divisive in the United States. Although gun proponents and opponents alike share a need for safety, we propose that they differ in whether they view guns as a means or a threat to safety. We further propose that knowing the reasons for gun ownership is important for a better understanding people's attitudes, feelings, and beliefs regarding guns. Protection gun owners tend to view guns as a means to safety, and thus generally support fewer gun restrictions. Conversely, both nonprotection owners and nonowners tend to view guns as a threat to safety, and thus generally support more gun restrictions. The need for safety underlies both support for and opposition to gun legislation. Acknowledging this common ground may provide the necessary foundation to develop and implement policies aimed at reducing gun violence.

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Chapter 9
Understanding the Political Divide in Gun Policy Support

Joy E. Losee, Gabrielle Pogge, Nikolette P. Lipsey, and James A. Shepperd

Introduction

Gun violence in the United States is a public health emergency. According to a recent report, almost 40,000 people died in firearm-related injuries in 2017 [1]. Legislative solutions to this emergency tend to fall into two camps—legislation that restricts gun access (e.g., increasing background checks and banning military-style rifles) and legislation that increases gun access (e.g., allowing concealed guns on school campuses or arming teachers). In the United States, legislators are largely divided along party lines in their support for the different solutions. For example, the Bipartisan Background Checks Act (2019) [2] received near unanimous support in the House of Representatives from Democrats, yet received only token support from Republicans. The political divide also appears in the general population. A recent poll showed that support for stricter gun laws was sharply divided among Democrats (85% supporting) and Republicans (24% supporting) [3].

In this chapter, we describe the results from a survey that we conducted to understand why political conservatives and political liberals differ in their attitudes toward gun rights and restrictions. The survey explored several potential explanations for liberal/conservative differences in gun attitudes. We describe each of the explanations then describe which explanations received support in our survey and which did not. We conclude by discussing possible approaches to bridging the gun divide.

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Broad Explanations for the Political Divide on Gun Attitudes

In the United States, people who identify with the Republican Party are generally more conservative and tend to support policies that maintain or expand gun access. In contrast, people who identify with the Democrat Party are generally more liberal and tend to support policies that restrict gun access [4]. Recent evidence suggests that party identification is among the strongest predictors of gun policy attitudes [4] and gun ownership [5]. The differences in attitudes even extend to Republicans and Democrats who own guns; 82% of Republican gun owners favor expanding concealed carry laws compared with 41% of Democrat gun owners.

Why do political conservatives favor solutions to gun violence that entail expanding gun rights, whereas political liberals favor solutions to gun violence that entail expanding gun restrictions? Theorists in psychology and political science have proposed two broad categories of explanations for the relationship between political ideology and policy preferences. The first category represents a *person* approach (much like a "nature" approach [6]) to thought and behavior and rests on the observation that people are fundamentally different in a variety of ways. For example, people differ biochemically in the quantity of various hormones and neurotransmitters produced in their body. They also differ biologically in the activation of brain structures such as the amygdala and hippocampus in response to stimuli [7]. Finally, they differ in the genes they receive from their parents. Over the last several decades, researchers have documented how these person-variables can influence thinking and behavior. They shape various characteristics of people including their personality, intelligence, and how they interpret and respond to situations [6].

Some theorists have argued that these fundamental person-variables account for differences in the beliefs of political liberals and political conservatives. For example, researchers have proposed that liberals and conservatives differ fundamentally on characteristics such as threat sensitivity [8], morality [9], thinking styles [10], and the Big-Five personality traits of openness and conscientiousness [11]. According to the person approach these differences affect psychological responses such as attitudes, values, expectations, beliefs, and behavior. For example, some researchers argue that greater political conservativism corresponds with greater threat sensitivity, and that political conservatives may be more attuned to dangers in their environment and thus more inclined than are political liberals to view even ambiguous stimuli as threatening [8]. According to the person approach, individual differences between political liberals and political conservatives account for the opposing policy preferences of the two groups. For example, greater threat sensitivity among political conservatives corresponds with their placing greater value on issues such as national security [8].

The second category of explanations represents a *situational* approach to thought and behavior (much like a "nurture" approach [6]) and proposes that people differ in the culture, experiences, and situations they encounter. These "situations" shape people's values, which are important determinants of expectations, attitudes, and behavior [12]. For example, differences in media exposure presumably can lead to

different values, which can prompt differences in political ideology and positions on political issues. Of course, it also possible that political ideology can lead people to gravitate toward different media sources, a point we return to later.

Research in social psychology documents the powerful effects that situations exert on thinking and behavior. For example, national security threats (e.g., a terrorist attack) shift people's attitudes toward more conservative values [13], whereas healthcare threats (e.g., learning a child with cancer was denied insurance coverage by the parent's insurer) shift people's attitudes toward more liberal values [14]. This latter finding suggests that both liberals and conservatives are sensitive to threat, which is contrary to the person-based argument that conservatives are particularly threat-sensitive [8]. According to the situation approach, the different experiences and culture of political liberals versus political conservatives result in different values that prompt them to be sensitive to different threats. For example, conservatives in the United States who have more pro-life values are more likely to see Planned Parenthood as a threat because they believe the organization threatens pro-life values. Liberals in the United States tend to be more concerned with the environment and thus are more likely to see climate skeptics as a threat because they the skeptics undermine pro-environmental efforts [15].

Although the person and situation approaches offer broad frameworks for explaining thinking and behavior generally, and political preferences more specifically, the two are not as distinct as they might appear. Instead, they influence both each other and political outcomes (e.g., policy positions) in complex ways. First, researchers have long noted that the two approaches represent complementary rather than competing explanations for thinking and behavior. Put simply, both the person and the situation can influence how people think and behave [16]. Second, the person and the situation can interact to influence thought and behavior, that is, whether a person variable influences thought or behavior depends on the situation. For example, belief in a dangerous world (a person variable) may correspond with a preference for fewer gun restrictions among people with experiences (a situational variable) that have led them adopt more conservative values, but correspond with a preference for more gun restrictions among people with experiences that have led them to adopt more liberal values. Such a finding would demonstrate that the same experience could have opposite effects on people. Alternatively, political conservatives may oppose most gun restrictions regardless of their experiences, whereas political liberals may oppose most gun restrictions only when they personally have experienced violent crime. Such a finding would demonstrate that experience influences some people but not others.

Third, the person and situation factors can have a bidirectional influence: personal factors can influence situational factors and situational factors can influence personal factors [17]. Consider first how personal factors can influence situational factors. Personal factors can influence the situations that people select for themselves. For example, a predisposition to be fearful and/or anxious can lead people to seek environments and media sources that align with their personality (e.g., opting to live in a gated community, preferring news sources that confirm personal views) and to affiliate with other like-minded people (e.g., others who share one's beliefs

or outlook on the world). Now consider how situational factors can influence the person. For example, culture, media exposure, and environment can shape personality (e.g., produce chronic anxiety or fearfulness) and prompt affiliations with others who reinforce some aspects of a person's personality but not others (e.g., friending like-minded acquaintances on Facebook).

This third complexity—the fact that the broad categories of person and situation can influence each other—can make it difficult to determine which is responsible (and to what extent) for how people think and behave when it comes gun rights and restrictions. Thus, although the person and situation explanations have received considerable attention among political psychologists attempting to explain the divergent attitudes of political conservatives and political liberals, their utility in predicting specific policy positions such as positions on gun rights and restrictions, seems limited.

Specific Explanations for the Political Divide in Gun Attitudes

An alternative to the broad explanations for the political divide in gun attitudes are specific explanations that offer single causal mechanisms by which political ideology links to policy positions. We know of at least eight specific explanations for why political liberals and political conservatives differ in their gun attitudes (see Fig. 9.1). Our interest was in examining which of the explanations have merit and which do not. The eight explanations undoubtedly overlap. Importantly, we organize our discussion around the beliefs of political conservatives (i.e., this is what political conservatives believe or may believe, whereas political liberals believe or may believe otherwise). In no way do we wish to imply that the views of

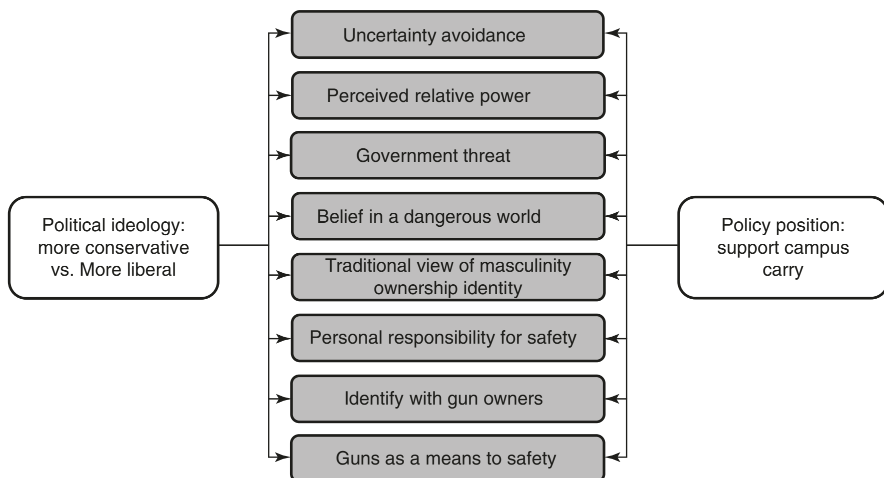

Fig. 9.1 Origins of the link between political ideology and gun policy position

conservatives need explaining, whereas the views of liberals do not. We could have just as easily focused on the views of liberals. Our interest is in understanding why the two groups differ and we merely picked one group as the reference throughout to make the arguments easier for readers to follow.

Uncertainty Avoidance

Life is filled with uncertainty. People face uncertainties about issues such as whether they will remain healthy, whether their children will turn out okay, who will buy the house next door, and whether they will have enough money saved for retirement. Not all people are comfortable with uncertainty; some people find uncertainty more distressing than do others [18]. One explanation for the observed differences between liberals and conservatives asserts that the two groups differ in their tolerance for uncertainty and thus their desire to avoid uncertainty. Theory and research suggest that political conservatives are less tolerant of uncertainty than are political liberals [19–21]. Uncertainty is distressing because it often means change and some people find change unpleasant.

Although the link between political identification and intolerance for uncertainty appears well established, the explanation for why intolerance for uncertainty leads to support for gun rights is tenuous. One possibility is that guns provide a feeling of comfort or security that diminishes the distress associated with uncertainty. However, people can feel uncertain about many things and it is unclear how guns could provide comfort and reduce the distress that many people associate with uncertainty. For example, owning a gun seems unlikely to reduce many types of uncertainty (e.g., climate change, changes in the job market, or changes in legislation regarding same-sex marriage and marijuana). Moreover, reducing gun restrictions may actually increase uncertainty for people who find guns threatening and view their safety as threatened when guns are more readily available in a community.

Perceived Relative Power

Having personal power influences control over events in one's life and allows people to acquire the things they want, including good jobs, nice homes, and desirable mates. A lack of power undermines one's capacity to achieve these outcomes. People vary in their perceived relative power: how much power and control they perceive they have relative to others, relative to the past, and relative to what they believe they deserve. Research links perceptions of low personal power to greater gun ownership [22], and perhaps for good reason. Guns are empowering in many ways, including their utility for self-defense and intimidating others. As such, guns may provide users with a sense of power and control they may feel they otherwise lack [18, 23]. Although the empowering function of guns is largely untested, one study provided

hints that guns can influence personal perceptions of control. Specifically, research participants who imagined holding a gun reported greater perceptions of personal control in their lives (i.e., the perception that one's actions are responsible for personal life outcomes). It is noteworthy that this effect emerged for political conservatives but not for political liberals [24], which suggests that conservatives may be more likely than liberals to experience a power or control boost from having a gun.

Traditionally, political, social, and economic power in the United States has been concentrated among one demographic group: White men [25]. Laws that discriminated against women and minorities in the right to vote and hold certain jobs illustrates this power differential. Although White men today still hold power disproportionate to their numbers in the population, they may very well perceive that their relative power is declining. To take one example, the US Senate was comprised entirely of White men 100 years ago in 1920, and 95% White men 50 years later in 1970. In 2020, that number has fallen to 70% [26, 27]. Further, political conservatives are more likely than are political liberals to be White males [28]. According to the perceived relative power explanation, political conservatives are more likely than are political liberals to favor policies that sustain or expand gun rights because they are more likely to perceive a decline in personal or relative power and view guns as a means of augmenting their declining power.

The perceived power explanation is limited in much the same way that the uncertainty avoidance explanation is limited. Although White men, who make up a large percentage of US conservatives, may be losing actual power or perceive they are losing personal or relative power, they are unlikely to be the only group that feels disempowered. The African American community and the LGBTQ community—all groups that tend to receive unfavorable treatment [29, 30] and tend to vote liberal [31, 32]—while not losing power, likely believe they have little power or less power than they should. Yet contrary to the perceived power explanation, these communities are more likely to support gun restrictions [33, 34]. Finally, this explanation neglects the possibility that liberals, especially when conservatives control the executive or legislative branches of government, also feel a loss of power or lack of control.

Government Threat

A common argument among proponents of gun rights is that gun restrictions infringe on their ability to protect themselves and their country from a tyrannical federal government [35, 36]. Implicit in this argument is a distrust of the government. Consistent with this explanation is the finding that distrust of the federal government predicts owning a gun [37]. However, the evidence is mixed on whether political conservatives, compared with political liberals, are more distrustful of the government, or are more likely to perceive the US government as inclined to become tyrannical. Some research shows that greater political conservatism corresponds with greater system justification—a tendency to justify, defend, and bolster the existing power structure, which would imply that conservatives are generally more

trustful of the government than are liberals [19, 38]. Other studies show that people trust the government more when their political party is in power. Thus, Republicans tend to trust the government more during a Republican presidency, and Democrats trust the government more during a Democratic presidency [39, 40]. However, the effect appears stronger for conservatives: a recent review paper concluded that political conservatives are more distrustful of the government than are liberals when the government is controlled by the opposing party [41]. In sum, it remains unclear whether distrust of the government explains the greater support for gun rights policies among political conservatives than political liberals.

Belief in a Dangerous World

People differ in the extent to which they perceive the world as dangerous [42]. People who believe in a dangerous word are inclined to view the world as competitive and violent [43]. Some research has linked belief in a dangerous world to greater political conservatism [44, 45]. In addition, research finds that the more people believe that the world is dangerous, the more likely they are to own a gun for protection reasons, to perceive guns as effective in protecting themselves from harm, and to favor fewer gun restrictions [44]. When viewed together, this research suggests that political conservatives support fewer gun restrictions because they believe the world is dangerous.

Traditional Views of Masculinity

Masculinity refers to behavior, traits, and people commonly associated with males [46]. The link between having guns and being male has a long history in the United States. Men are more likely than women to serve in the armed forces [47], to be in professions that require having a gun [48], and to own guns [49]. The dolls/action figures that boys play with often involve weapons such as guns, whereas the dolls/action figures that girls play with do not [50]. In short, guns are likely far more central to the identity of boys and men than to the identity of girls and women.

Some theorists have argued masculinity is precarious—it is not innate but rather achieved through stereotypical masculine behavior [51, 52]. Men can also achieve or establish their masculinity by publicly displaying the trappings of masculinity, or expressing attitudes and beliefs that are consistent with masculinity. Consistent with this theorizing is the argument that one appeal among men for carrying a firearm is that carrying a firearm bolsters the masculine self-image of a powerful protector who can inflict violence if necessary [53, 54]. Moreover, gang members acknowledge that guns are a tool for projecting an image of being tough [55]. Given that owning and using a gun are linked to masculinity, holding attitudes in favor of gun rights should also correspond with greater endorsement of traditional masculinity.

In a nutshell, it is possible that the more a person is comfortable with or supports traditional masculinity and traditional sex roles, the more the person will support gun rights over gun restrictions. Political conservatives are more likely than are political liberals to endorse traditional masculinity [56] and it may be the case that their support for gun rights stems from their endorsement of traditional masculinity.

Personal Responsibility for Safety

An underlying theme of many gun rights messages is that safety is one's personal responsibility [57]. Part of the message is that law enforcement can do little to stop or prevent violent crime and, according to a US Supreme Court ruling, is not legally required to protect people from violent crime [58]. To the extent that people believe that their safety and protection is their personal responsibility, they should favor policies that allow them unfettered access to the means for self-protection. Thus, people who endorse this belief presumably support legislation that protects or expands gun rights. Although we know of no evidence that political conservatives are more likely than political liberals to regard safety and protection as their personal responsibility, a few studies have suggested that political conservatives are more likely to believe that they, rather than outside forces, are responsible for their personal outcomes. For example, political conservatives are more likely than political liberals to attribute internal responsibility for personal outcomes such as poverty [59] and health [60]. Accordingly, political conservatives may be more likely than political liberals to oppose gun restrictions because they believe that their personal protection is their responsibility and that gun restrictions threaten their ability to protect themselves.

Gun Ownership Identity

A large part of how people think about themselves—their identity—comes from the groups to which they belong [61]. People, of course, opt to join groups whose members share their attitudes and beliefs. However, it is also true that once they become part of a group, people tend to adopt the beliefs and attitudes of the group. Part of the adoption process can be explained by consistency theory. People seek consistency between their attitudes, beliefs, and behavior; inconsistency creates discomfort [62]. Thus, people conform to the attitudes and beliefs of the members of the groups to which they belong because to do otherwise feels uncomfortable. On the flipside, people seek to differentiate themselves from the groups to which they do not belong, particularly groups they view as standing in opposition to their own group. Thus, they often develop attitudes and beliefs that set them apart from or contrast with members of opposing groups.

For a variety of reasons, the politically conservative Republican Party has come to associate itself with the gun culture, that is, owing gun, using guns for recreation, and affiliating with national gun groups such as the National Rifle Association. In contrast, the politically liberal Democratic Party has not. If anything, over the last two decades people have come to view the Democratic Party as opposing the gun culture. One reason likely reflects the narrow passage of the assault weapons ban by a Democratic-controlled Congress in 1994 [63]. A consequence of this passage was that the NRA dramatically increased its financial contributions to Republican candidates for office and dramatically reduced its financial contributions Democratic candidates for office [64].

The shift to a sharp imbalance in political contributions appears to have set in motion a growing polarization in the attitudes of members of the two parties, one that feeds on itself. Republicans may increasingly identify with gun owners and see gun owners as part of their ingroup and see non-owners as part of the outgroup. Not surprising, 77% of NRA members identify as Republicans (compared to 58% of non-NRA gun owners) [5]. By comparison, Democrats may increasingly identify with non-owners and see gun non-owners as part of their ingroup, and see gun owners as part of the outgroup. And, once people come to view gun owners (or non-owners) as part of their ingroup, they process information about guns in ways that are biased toward protecting and justifying that identity [61]. They also gravitate toward stances that are consistent with their political party and distinguish them from the opposing political party. Thus, according to the identity explanation, political conservatives may oppose gun restrictions because they identify more with gun owners and the gun culture. Political liberals, by contrast, may support gun restrictions because they identify more with non-owners.

Gun as a Source of Safety

All people have basic needs they must satisfy to survive and thrive [65]. Among the most basic needs is the need for safety. Some researchers have argued that this need for safety has an evolutionary basis [66], affects how people think, feel, and behave [67], and is important to psychological well-being [68]. Yet people differ in their views of the role that guns play in achieving safety. Whereas some people perceive guns as a means to safety, others view guns as a threat to safety. Moreover, people who own guns for protection reasons are more likely than people who own guns for other reasons (e.g., for sport or collecting) to favor policies that broaden gun rights [69].

The difference between political conservatives and political liberals in their support for gun rights may arise from group differences in gun safety perceptions. Specifically, political conservatives may be more likely than are political liberals to own guns for protection reasons and to perceive guns as a source of safety rather than a threat to safety. Although we know of no evidence bearing on the issue, the difference in gun perceptions may stem from the two groups relying on different

media sources for news and information. Conservative media sources may be more inclined than liberal media sources to emphasize the safety benefits of guns and gun ownership, such as presenting statistics on how guns save lives, or stories of how people protected themselves from perpetrators with guns. Conversely, liberal media sources may be more inclined to emphasize the safety costs of guns, such as presenting statistics on the number of gun deaths in the country, particularly compared with countries with stricter gun laws, or stories about perpetrators who used guns to harm victims. A quick internet search reveals numerous news editorials and opinion pieces reporting that news outlets are biased toward portraying guns and gun owners unfavorably (i.e., as dangerous). But these editorials and opinion pieces are themselves published in news outlets, many of which are likely biased toward portraying guns and gun owners favorably (i.e., as not dangerous). In short, it seems quite likely that different news outlets are biased toward portraying guns differently—as a means to safety versus a threat to safety—depending on their political tilt.

Testing the Explanations for Political Differences in Gun Policy Positions

We carefully constructed a survey that included items measuring the eight explanations for why political liberals and political conservatives differ in their support for gun policy. We assessed belief in a dangerous world, with items such as, “The world is a dangerous place.” We assessed uncertainty avoidance using items such as, “Uncertainty makes me feel anxious.” We assessed perceived relative power with items such as, “I have less control over what happens in my life than I used to.” We assessed government distrust with items such as, “I need to protect myself against a potentially oppressive government.” We assessed identity as a gun owner with items such as, “Owning a gun is part of who I am.” We assessed traditional views of masculinity with items other researchers have used such as, “Men who don’t like masculine things are not real men” [52, 70]. We assessed the belief that people are personally responsible for their safety with items such as, “It is my responsibility to protect myself.” Finally, we assessed perceptions of guns as a source of safety with items such as, “Carrying a gun makes me feel safe.” For all items, participants indicated how true the statement was for them personally.

Finally, we measured political ideology with a single item that ranged from 1 = extremely liberal to 7 = extremely conservative, and measured support for a single gun policy that was highly relevant to our sample: allowing people with a concealed carry license to carry a concealed gun on college campuses (i.e., “Campus Carry”).

We sent our survey via email to faculty, students, and staff at the University of Florida, a large land-grant university in the southeast United States. Compared with the US population, our sample was younger (our sample mean age = 25.00 years; US median age = 38.2 years in 2018; U.S. Census Bureau, 2019), more educated

(percentage earning a graduate degree in our sample = 26.9%; percentage in the United States as of 2015 = 12% [71]), and more liberal (40.6% liberal compared to 25% liberal in the United States [72].).

We conducted our survey over a 2-week period between October and November 2018 and received responses from almost 17,000 people. Although no major incident of gun violence occurred during our survey, it is noteworthy that our survey occurred 8 months after the February 18, 2018, shooting at Marjory Stoneman Douglas High School in South Florida that left 17 people dead. Major gun violence events tend to deepen, at least temporarily, the divide in gun attitudes, but the effect is small and presumably would strengthen our ability to identify the reasons that political conservatives and political liberals differ in the beliefs about guns [73].

Figure 9.2 presents a scatterplot that crosses political ideology with support for campus carry. The dots represent the number of people falling into each quintile of our measure of support for concealed carry (higher numbers = greater support) at each level of our 7-step measure of political ideology. As is clear from the figure, respondents who were politically conservative reported stronger support for legislation legalizing concealed carry than did respondents who were politically liberal. As evident by the preponderance of dots in the lower left corner of the figure, political liberals strongly opposed legalizing concealed carry.

Next, we examined the eight explanations we offered for why political conservatives and political liberals differ in their support for campus carry legislation. Table 9.1 presents the correlations. Correlations are a measure of the strength and direction of a relationship, and range from −1.00 to +1.00. Irrespective of the

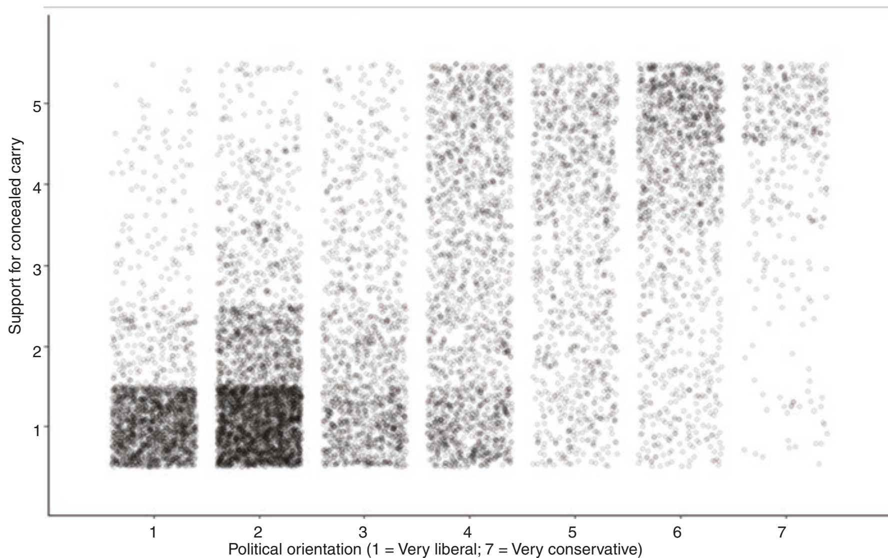

Fig. 9.2 Scatter plot of political ideology and support for campus carry legislation. The dots represent the number of people falling into each quintile of our measure of support for concealed carry (higher numbers = greater support) at each level of our 7-step measure of political ideology

Table 9.1 Correlations between the eight explanations, political ideology, and support for legalizing campus carry

Explanation	Identification as politically conservative	Support for campus carry
Uncertainty avoidance	0.03	0.00
Perceived relative power	−0.06*	−0.06*
Government threat	−0.02	0.12*
Belief in dangerous world	0.14*	0.18*
Traditional view of masculinity	0.33*	0.29*
Personal responsible for safety	0.43*	0.52*
Gun ownership identity	0.43*	0.54*
Guns as a means to safety	0.69*	0.84*

Note. For the first column of numbers, larger correlations indicate that people who were more politically conservative felt the explanation was more true of them. For the second column of numbers, larger correlations indicate that the more that people felt the explanation was true for them, the greater their support for legalizing campus carry
* $p < 0.001$

valence of the correlation (i.e., whether it is negative or positive), the larger the number, the stronger the relationship. Thus, a correlation of 0.50 (or − 0.50) indicates a stronger relationship than a correlation of 0.10 (or − 0.10). A correlation of 0.50 and − 0.50 are equal in strength. The valence of a correlation indicates the direction of the relationship. Thus, positive correlations indicate that people who score higher on one measure in the relationship also score higher on the other measure in the relationship. We worded our measure of political ideology so that higher numbers indicate being more politically conservative. Thus, a positive relationship between an explanation and political ideology indicates that political conservatives were more likely than were political liberals to say the explanation was true of them. A negative relationship indicates that political conservatives were less likely than were political liberals to say the explanation was true of them.

The first column of correlations in Table 9.1 indicates the relationship between political ideology and the extent to which survey participants reported each explanation was true of them. The asterisks indicate the statistical probability that the two variables are related by chance. Traditionally, if that probability is low (in our case, we set the probability at 1 in 1000), then the result is considered statistically significant. However, more important than whether the correlation is significant is the size of the correlation (how far it differs from zero). The first four correlations in the column are quite small (0.14 or less), indicating that political conservatives differed little from political liberals in how much they said that the statements representing the explanations (uncertainty avoidance, perceived relative power, government threat, belief in a dangerous world) were true of them. These correlations indicate that the first four explanations explain little of the difference between political conservatives and political liberals in their support for legalizing campus carry.

The next three correlations in the first column ranged from small to medium. Political conservatives were more likely than were political liberals to hold traditional views of masculinity, to believe that their personal safety is their responsibility, and to view guns as part of their identity. The final correlation in the first column, however, was by far the largest, indicating that political conservatives were far more likely than were political liberals to perceive guns as a source of safety rather than a threat to safety.

The second column of correlations in Table 9.1 indicates the relationship between how much people reported the explanation as true of them and their support for legalizing campus carry. Once again, the first four correlations in the column were quite small (0.18 or less), indicating that people who did and did not support campus carry differed little in the extent to which they said the statements representing the explanations were true of them. The fact that these correlations were so small indicates that uncertainty avoidance, perceived relative power, government threat, and belief in a dangerous world tell us little about why some people favor fewer gun restrictions and other people favor more gun restrictions.

Once again, the next three correlations in the column range from small to moderate. People were more likely to support campus carry legislation if they held traditional views of masculinity, saw their personal safety as their responsibility, and viewed guns as part of their identity. Finally, the last correlation was the largest (huge in fact), indicating that the more our survey respondents supported campus carry, the more likely they were to view guns as a means (rather than threat) to safety.

The correlations reveal how political ideology, support for campus carry, and the eight explanations are interrelated. The correlations can also tell us if some explanations are not viable. In our case, the correlations lead us to dismiss the first four explanations for political differences in support for campus carry. Importantly, although the correlations can provide hints, they do not reveal which explanation or explanations best explain the relationship between political ideology and policy support. To address this question, we need to examine statistically how much of the relationship between political ideology and policy support we can attribute to each of the explanations. Statisticians use the term *indirect effect* to describe the path from the predictor (i.e., political ideology) to the outcome (i.e., policy position) through each explanation. Statisticians use the term *direct effect* to describe the relationship between the predictor (i.e., political ideology) and the outcome (i.e., policy position) after removing the indirect effects. Our interest is in the indirect effects. The larger the indirect effect, the more the explanation accounts for the relationship between political ideology and support for campus carry.

Figure 9.3 shows the magnitude of the indirect effect associated with each of our explanations. Unsurprisingly, given the correlations we observed in Table 9.1, the first four explanations (uncertainty avoidance, perceived relative power, government threat, and belief in a dangerous world) had zero to small indirect effects. The same was true for having a traditional view of masculinity. In short, none of these explanations help much in understanding why political conservatives are more likely to support campus carry. Of the remaining three predictors, viewing gun

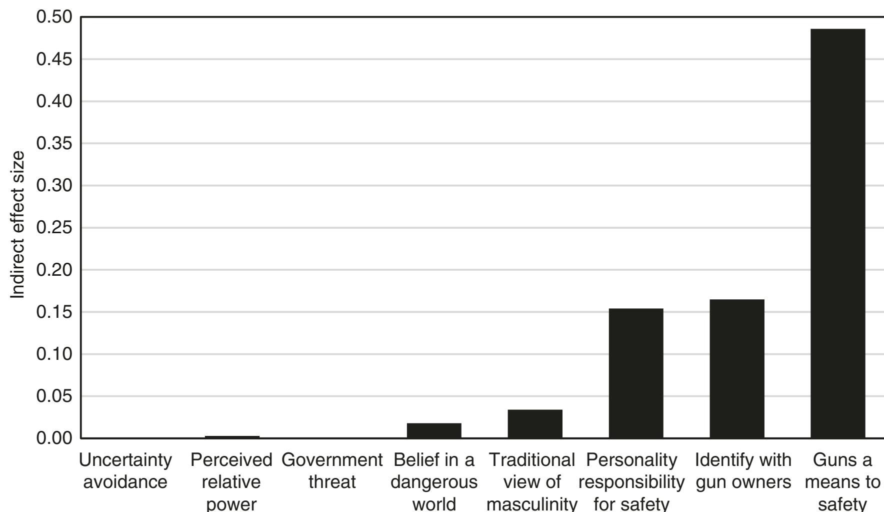

Fig. 9.3 Magnitude of the effects of the explanations for the link between political ideology and support for campus carry

ownership as part of one's identity and viewing personal safety as one's responsibility explain a respectable proportion of the relationship between political ideology and support for campus carry. By far the strongest explanation of the relationship is perceiving guns as a means (rather than a threat) to safety. That is, our findings suggest that political conservatives are more likely than political liberals to support campus carry because they are more inclined to view guns as a means to safety.

Summary

We began with a simple question: why do political conservatives and political liberals differ so markedly in their thinking about how to reduce gun violence in the United States? We discussed eight explanations for the political divide in support for gun policies. Researchers have evoked some of these explanations to explain differences between political conservatives and political liberals in other areas. Our research failed to support some of these explanations with respect to support for campus carry for two reasons: (1) conservatives and liberals did not differ in their responses to our measures of the explanations, and (2) the explanations were unrelated to support for campus carry. We found evidence that viewing personal safety as one's own responsibility and identifying with gun owners explained a respectable portion of the relationship between political ideology and support for campus carry. The strongest explanation, however, was viewing guns as a means (as opposed to a threat) to safety. Our findings suggest that political conservatives were more likely than were political liberals to a support policy (e.g., campus carry) that expanded gun rights because they viewed guns as a source of safety rather than a threat to safety.

In the United States, the sharp political divide between liberals and conservatives has pushed the country to the point of gridlock, undermining the government's ability to address the crisis of gun violence. Our findings indicate that political liberals and conservatives differ in the solutions they support to reduce gun violence because they differ in their perceptions of the role that guns play in safety. Feeling safe is important to everyone. If we are going to reduce gun violence in a politically divided country, legislators need to craft policies that are sensitive to everyone's safety needs and recognize that views on achieving safety differ from person to person. Specifically, policies should be sensitive to differences in the extent to which people believe they are personally responsible for their safety and differences in the extent to which people perceive gun ownership as part of their identity. But perhaps most importantly, lawmakers need to craft policies that do not place one group's needs over the other's, but rather satisfy the safety needs of both groups. Such policy is challenging, but is essential if we are to reduce gun violence in America.

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Chapter 10
The Second Amendment and the War on Guns

Nelson Lund

The Second Amendment of the United States Constitution provides: "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." Although the Bill of Rights was adopted in 1791, the federal courts did not enforce the Second Amendment until 2008. For much of that period, there was no need to do so. The Bill of Rights originally applied only to the federal government, which refrained from enacting statutes that infringed the right to keep and bear arms. The first major federal gun control statute was adopted in response to the gang wars associated with Prohibition,[1] and little more was done until 1968, when violent crime again became a prominent national issue. Even these laws did not put significant restrictions on civilian gun ownership. During the twentieth century, some state and local governments imposed more severe regulations, especially on handguns, but the federal courts rejected every constitutional challenge, and the Supreme Court allowed these decisions to stand.[2] The Second Amendment appeared to be a dead letter.

[1] In *United States v. Miller*, 307 U.S. 174 (1939), the Supreme Court reviewed a provision in this statute that subjected short-barreled shotguns to a registration requirement and a tax. The Court declined to invalidate the provision, but neither did the Justices clearly uphold it. The ambiguous *Miller* opinion could be interpreted to mean either that short-barreled shotguns are not protected by the Second Amendment or that they are protected only if they have military utility. See Nelson Lund [1].

[2] State courts, for their part, generally upheld gun regulations under legal tests that practically gave legislatures a blank check. See Adam Winkler [2].

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In *District of Columbia v. Heller*, the Supreme Court suddenly struck down a federal ban on the possession of handguns by civilians in the nation's capital, a ban that had been in place since 1976.[3] Two years later, in *McDonald v. City of Chicago*, the Court invalidated a similar ban, holding for the first time that the Second Amendment, like most other provisions of the Bill of Rights, should be applied to state and local laws.[4] The opinions in these cases clearly hold that law-abiding civilians have a constitutional right to keep a handgun in their homes for self-protection. At the moment, however, it is impossible to say for sure whether or how far the Supreme Court will recognize an extension of the right beyond that narrow compass.[5]

Several factors contributed to the Court's decision to enforce the Second Amendment after more than two centuries of inaction. During the 1980s, a small group of lawyers began researching the history of the Second Amendment. They concluded that it protects a personal right of individuals, not a right belonging to state governments or their militias [3]. This body of scholarship began developing just as Antonin Scalia and Clarence Thomas began campaigning to make evidence about the original meaning of the Constitution a more prominent feature of the Court's jurisprudence.[6] These factors helped make possible Scalia's 5–4 majority opinion in *Heller*, which relied heavily on the research that had been carried out in recent decades.[7] Perhaps most important, however, public opinion during this same period became more skeptical about the efficacy of gun control regulations [4]. In 1987, Florida became the first state with large urbanized population centers to allow most law-abiding adults to get a license to carry a concealed handgun in public. This experiment was so successful that many other jurisdictions followed Florida's lead. By 2008, the Justices had good reason to assume that recognizing a constitutional right to keep and bear arms would not cause a bloodbath that would embarrass the Court.

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[3] 554 U.S. 570 (2008).

[4] 561 U.S. 742 (2010). Beginning in the early twentieth century, the Supreme Court began holding that the Fourteenth Amendment's Due Process Clause "incorporates" selected provisions of the Bill of Rights, making them applicable to state and local laws. By the time *McDonald* was decided, most provisions of the Bill of Rights had already been "incorporated" for many years.

[5] During the past decade, the lower federal courts have upheld all but a handful of the gun control laws that have been challenged, although there have been dissents from some of these rulings. The Justices recently agreed to review a decision upholding New York City's restrictive rules on transporting guns outside one's home. *New York State Rifle & Pistol Ass'n v. City of New York*, No. 18–280. Like the total handgun bans at issue in *Heller* and *McDonald*, these rules are extreme and anomalous. If the Court invalidates the law, it could issue a narrow ruling that applies only to such unusual regulations, or it could write a broader opinion establishing a meaningful right of civilians to carry a gun in public for self-defense.

[6] Scalia and Thomas joined the Court in 1986 and 1991, respectively.

[7] The four dissenters in *Heller* maintained that the text and history of the Second Amendment show that it protects only "the right of the people of each of the several States to maintain a well-regulated militia." 554 U.S. at 637 (Stevens, J., dissenting). The dissenters also argued that even if the Second Amendment did protect an individual right to arms, D.C.'s handgun ban should be upheld. Ibid., 681–723 (Breyer, J., dissenting).

Philosophic Basis of the Right to Keep and Bear Arms

The technical legal issues raised by the Second Amendment are less significant than the prominence of the right to arms in America's history and constitutional culture.[8] Although the Supreme Court has only recently paid any attention to the Second Amendment, this provision of the Bill of Rights has long served as a powerful rallying cry for opponents of gun control. Just as journalists believe that a free press is an extraordinarily important element in protecting our political freedom, quite apart from whatever protection the First Amendment provides, gun rights activists would champion their cause even if a unanimous Supreme Court declared that the Second Amendment has no meaning in the modern world. Both the journalists and the activists are fully justified in their beliefs.

The right to keep and bear arms is a vital element of the liberal order that our Founders handed down to us. They understood that those who hold political power will almost always strive to reduce the freedom of those they rule, and that many of the ruled will always be tempted to trade their liberty for empty promises of security. The causes of these political phenomena are sown in the nature of man. The US Constitution, including the Second Amendment, is a device designed to frustrate the domineering tendencies of the politically ambitious. The Second Amendment also plays an important role in fostering the kind of civic virtue that resists the cowardly urge to trade liberty for an illusion of safety. Armed citizens take responsibility for their own security, thereby exhibiting and cultivating the self-reliance and vigorous spirit that is ultimately indispensable for genuine self-government.

While much has changed since the eighteenth century, for better and for worse, human nature has not changed. The fundamental principles of our regime, and the understanding of human nature on which those principles are based, can still be grasped today. Once grasped, they can be defended. Such a defense demands an appreciation of the right to arms that goes beyond the legalistic and narrowly political considerations that drive contemporary gun control debates.

The fundamental importance of the right to arms was not an American discovery. Like our own charter of individual liberties, the English Bill of Rights protected the right to keep and bear arms.[9] William Blackstone (1723–1780)—the leading authority on English law for Americans of the founding generation—called it one of the indispensable auxiliary rights "which serve principally as barriers to protect and maintain inviolate the three great and primary rights, of personal security, personal liberty, and private property."[10] This right, he said, is rooted in "the natural right of resistance and self-preservation, when the sanctions of society and laws are found

[8] For discussions of the original meaning of the Second Amendment and the legal arguments in *Heller*, see Nelson Lund [5, 6].

[9] Like other provisions in the English Bill of Rights, the right to arms provision constrained only the executive, not the legislature, but the right it protected was one belonging to individuals. Bill of Rights, 1 Wm. & M., 2d Sess., c. 2 (1689) (Eng).

[10] William Blackstone, *Commentaries on the Laws of England*, vol. 1, *136.

insufficient to restrain the violence of oppression."[11] Blackstone made no distinction between the violence of oppression that results from government's failure to control common criminals and the oppression that government itself may undertake.

John Locke (1632–1704), who is the true father of our Declaration of Independence, provided the crucial philosophic insight that laid the basis for Blackstone's understanding of the English Bill of Rights and for our nation's adoption of the Second Amendment. During Locke's time, British governments could assert absolute power over the citizenry on either of two theories. One was the supposed divine right of kings. An alternative secular theory was offered by Thomas Hobbes (1588–1679). Briefly stated, he argued that in a world of scarce resources and no civil government, human beings would find themselves in a smoldering war of all against all. Reason therefore dictates to everyone an agreement to erect an absolute sovereign (consisting of one or more individuals) whose own interest will be to maintain peace. Any sovereign who prevents a lapse into the state of nature is preferable to such anarchy. It logically follows, according to Hobbes, that rational self-interested obedience is owed to one's sovereign, however that ruler came to power and however arbitrarily he or they may rule.

In his *First Treatise of Government*, Locke attacked the theory that kings have a divine right to rule. In his *Second Treatise of Government*, he accepted Hobbes's fundamental claim that the preeminent human desire to avoid death and sorrows drives us to leave the state of nature by agreeing to the institution of civil society. At the same time, he identified a crucial error in the logic of Hobbes's argument. Because Hobbes plausibly thought that self-interest would prompt the sovereign to promote peaceable relations among its subjects, he concluded that it is always safer to trust the sovereign with absolute power than to risk a descent into anarchy or civil war. Locke acknowledged that sovereigns would endeavor to prevent their subjects from killing one another, as farmers do with their livestock, but he rejected the conclusion drawn by Hobbes and other defenders of absolute sovereignty:

> They are ready to tell you that it deserves death only to ask after safety. Betwixt subject and subject, they will grant, there must be measures, laws, and judges, for their mutual peace and security; but as for the ruler, he ought to be absolute and is above all such circumstances; because he has more power to do hurt and wrong, it is right when he does it. To ask how you may be guarded from harm or injury on that side where the strongest hand is to do it, is presently the voice of faction and rebellion, as if when men, quitting the state of nature, entered into society, they agreed that all of them but one should be under the restraint of laws, but that he should still retain all the liberty of the state of nature, increased with power and made licentious by impunity. This is to think that men are so foolish that they take care to avoid what mischiefs may be done them by polecats or foxes, but are content, nay, think it safety, to be devoured by lions.[12]

Locke laid the theoretical basis for rejecting Hobbes' political conclusions by denying that the exercise of self-interested reason necessarily leads to a war of all against all. On the contrary, he maintained, reason dictates natural laws that include a

[11] Ibid., *139.

[12] *Second Treatise of Government*, Chap. 7, ¶ 93 (1689).

duty to refrain from harming others in their life, health, liberty, or possessions.[13] This duty, in turn, implies a right in everyone to enforce the natural law by punishing those who offend against it.[14] Here is Locke's reasoning in support of what our Declaration of Independence calls the unalienable rights to life, liberty, and the pursuit of happiness:

> He, that, in the state of nature, would take away the freedom that belongs to anyone in that state must necessarily be supposed to have a design to take away everything else, that freedom being the foundation of all the rest; as he that, in a state of society, would take away the freedom belonging to those of that society or commonwealth must be supposed to design to take away from them everything else, and so be looked on as in a state of war….
>
> Thus a thief, whom I cannot harm but by appeal to the [civil] law for having stolen all that I am worth, I may kill when he sets on me to rob me but of my horse or coat; because the law, which was made for my preservation, where it cannot interpose to secure my life from present force, which, if lost, is capable of no reparation, permits me my own defense and the right of war, a liberty to kill the aggressor, because the aggressor allows not time to appeal to our common judge, nor the decision of the law, for remedy in a case where the mischief may be irreparable.[15]

What Locke calls "the right of war" includes both the right to kill a robber and the right to overthrow a predatory ruler. Prudence should no doubt regulate the exercise of both rights, as the Declaration of Independence acknowledges with respect to revolution,[16] but they have exactly the same source. This is the point that Blackstone made when he traced the right to arms to "the natural right of resistance and self-preservation, when the sanctions of society and laws are found insufficient to restrain the violence of oppression."[17] In Locke, as in Blackstone, the violence of oppression may come either from the government or from criminals whom the government fails to deter. The same fundamental right of self-preservation authorizes the use of lethal force against them both.

Consistently with Locke and Blackstone, the Second Amendment links the right of self-defense against criminals with the right of self-defense against the threat of tyranny. The "right of the people to keep and bear Arms" is one that can be exercised by an individual to protect his own life and liberty, or collectively to resist the imposition of despotism. In an echo of Locke's insistence that there are natural duties along with natural rights, the Second Amendment also refers to the well-regulated militia as an institution necessary to the security of a free state. Unlike the armies of the time, which comprised paid volunteers, the Anglo-American militia tradition entailed a legal *duty* of able-bodied men to undergo unpaid militia training and to fight when called upon.[18]

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[13] Ibid., Chap. 2, ¶ 6.

[14] Ibid., ¶ 8.

[15] Ibid., Chap. 3, ¶¶ 18–19.

[16] "Prudence, indeed, will dictate that Governments long established should not be changed for light or transient Causes."

[17] Blackstone, *Commentaries*, vol. 1, *139.

[18] The militias of the founding era were fundamentally different from today's National Guard, which is an all-volunteer organization that constitutes an integrated component of the federal armed forces.

America's organized militias fell into desuetude at an early date, largely from a recognition that effective military readiness requires full-time attention to the arts of war. Today, moreover, state-based militia organizations would be much less capable of providing a credible counterweight to federal military power than they were in the eighteenth century. Still, the spirit that underlay traditional militia institutions, which imposed a duty of armed defense in behalf of one's community, has not been completely effaced from our law. For example, almost all able-bodied men from age 17 to 45 are enrolled by law in the militia.[19] As recently as World War II, members of this "unorganized militia" brought their own weapons when called for home defense in the aftermath of Pearl Harbor [7].

Similarly, modern conscription laws continue to reflect the assumption that those who are capable of fighting in defense of our society have a duty to do so. For several decades now, we have relied entirely on volunteers to meet the nation's military needs, and our professional forces have proved more effective than the conscripts who served in Viet Nam. Something may have been lost from the social fabric when military service became an option rather than a duty, but the unnecessary use of conscription is hard to square with liberal principles or with our traditions. Unless there are momentous and unforeseeable changes in our society, America neither will nor should attempt to restore the eighteenth-century institution of the organized militia or the peacetime service obligations imposed during the Cold War.

Steps could be taken, however, to reinvigorate the militia spirit by encouraging every citizen to become at least minimally proficient in the use of small arms, perhaps as a condition of receiving a high school diploma. The purpose of doing so would not be to prepare everyone for military service, but to foster the sense of self-reliance and personal efficacy that genuinely free citizens require. Such training might also have significant practical benefits, especially in our new age of terrorism. It would certainly be in the spirit of our nation's founding principles.

The Founders on Self-Defense

The founding period saw almost no discussion of what we call gun control today. Before the Revolutionary War, the most prominent controversy arose from efforts to disarm the citizens of Boston during the run-up to Lexington and Concord. This was obviously not crime control in the usual sense, but an effort at political pacification in response to a political conflict. Even during this tumultuous period, however, we can see evidence of the principles governing ordinary civil life. One vivid example occurred after the so-called Boston Massacre.

When an agitated crowd of colonists assaulted a group of British soldiers with death threats, hand-thrown missiles, clubs, and a sword, the soldiers fired their weapons, killing four and wounding six. At the soldiers' trial for unlawful

[19] 10 U.S.C. § 311.

homicide, the only issue was whether the citizens or the soldiers were the aggressors. One of the prosecutors emphasized that Bostonians had every right to arm themselves with lethal weapons as a defense against soldiers who had a record of abusive treatment. As counsel for the defendants, John Adams emphasized the soldiers' own right of self-defense, "the primary Canon of the Law of Nature," but he also acknowledged that the colonists had the right to arm themselves. Significantly, the court's charge to the jury pointed out a *duty* that would also have justified citizens in arming themselves that night:

> It is the duty of all persons (except women, decrepit persons, and infants under fifteen) to aid and assist the peace officers to suppress riots & c. when called upon to do it. They may take with them such weapons as are necessary to enable them effectually to do it. [8]

This duty was not a mere abstraction. American colonies had laws *requiring* citizens to possess firearms and to carry them in certain circumstances (see, e.g., Kates [7], pp. 215–16). Restrictions on the right to arms during the founding period were limited to a few laws directed against distrusted political minorities like blacks, Indians, and British loyalists, and an occasional safety regulation dealing with such matters as the storage of gunpowder and the discharge of firearms in crowded places.[20]

Throughout this period, restrictions on guns were understood as a tool of political control. For that reason, there was intense controversy, at the Constitutional Convention and during the ratification process, about federal versus state authority over the militia, the dangers posed by standing armies, and the usefulness of private arms in deterring tyranny.

The depth of thinking about this issue was reflected in some ways that may seem surprising today. In 1790, for example, the Washington Administration sent Congress a proposal for regulating the militia, which made participation mandatory and provided for the government to arm everyone who was enrolled. The bill went nowhere. Instead, the House took up a different bill that required each male citizen to arm himself and participate in the militia. During the debate, an amendment was offered that would have required the federal government to provide arms to those who could not afford to buy their own. The amendment was defeated. One Congressman was "against giving the general government a power of disarming part of the militia, by ordering the arms and accoutrements by them lent, to be returned" ([8], pp. 302–303). Another interpreted the Constitution to forbid the United States to furnish arms, "which would be improper, as they would then have the power of disarming the militia" ([8], p. 303). In the course of the debate, Roger Sherman drew the same tight link between individual and collective self-defense that Locke had emphasized:

> [Sherman] conceived it to be the privilege of every citizen, and one of his most essential rights, to bear arms, and to resist every attack upon his liberty or property, *by whomsoever made*. The particular states, *like private citizens*, have a right to be armed, and to defend, by force of arms, their rights, when invaded.[21]

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[20] See, e.g., *Heller*, 554 U.S. at 631–34; Adam Winkler [9].

[21] Halbrook [8], p. 305 (quoting *Documentary History of the First Federal Congress*) (emphasis added).

Even when this connection was not expressly articulated, founding era discussions consistently rooted the right to collective self-defense against political oppression in the more fundamental right of individual self-defense. Debates over the organization of armies and the militia treated the underlying right of individuals to possess arms as an unquestioned truth. Statesmen might have different views about whether it was more practical to require militiamen to arm themselves or to have the government provide them with weapons. But no one would have proposed to give any government a monopoly on the control of firearms.

The paucity of gun control regulations during this period is one reflection of the utterly noncontroversial nature of the individual right to keep and bear arms, but it is not the only one. Nine early state constitutions, for example, expressly protected the right of citizens to bear arms in defense of both themselves and the state. Justice James Wilson interpreted Pennsylvania's constitutional guarantee of the right to bear arms as a recognition of "the great natural law of self preservation," which affirmatively enjoins homicide when necessary in defense of one's person or house.[22] Similarly, James Monroe included the right to keep and bear arms in a list of "human rights" that he wished to see protected in the federal Constitution ([7], p. 226 n. 91).

The examples could be multiplied, but perhaps the most telling evidence is this: there is no record from the founding era of *anyone* denying that the Second Amendment protected an individual right, or claiming that Second Amendment rights belonged to state governments or to their militia organizations. Political debates about the best way to organize and distribute military power while preserving political liberty took place against a background assumption that the individual right to self-defense was simply unquestionable. The individual's right to have arms for this purpose was accordingly also unquestioned. When the Supreme Court finally acknowledged that the inherent right of self-defense is central to the Second Amendment,[23] it was merely confirming what every American once understood. Millions still do, even if it is lost on a lot of intellectuals and politicians today.

Gun Control and Political Psychology

Modern proponents of civilian disarmament never tire of reminding us that society has changed since the eighteenth century. One significant development has been the creation of professional police forces. Unlike the professional military that has replaced the traditional militia, however, these bureaucracies have proved unable to secure public safety. Nor should we wish for the kind of ubiquitous and intrusive police presence that could effectively eliminate violent

[22] *Lectures on Law*, pt. 3, Chap. 4 (1790–1791), in Kermit L. Hall and Mark David Hall [10].

[23] *Heller*, 554 U.S. at 628.

crime. Relying on a professional military for national defense is both prudent and consistent with liberal principles, but complete reliance on the police for crime control is neither.

Although gun control in our modern sense was not employed during our early history, the founders were well aware of its use elsewhere. In Great Britain, for example, disarmament of commoners had commonly been justified as a means of enforcing the game laws, which served to protect wealthy aristocrats who enjoyed sport hunting from poachers who were trying to feed their families. Americans rejected such policies, and Blackstone himself had noted that "prevention of popular insurrections and resistance to the government, by disarming the bulk of the people … is a reason oftener meant than avowed."[24] Then, as now, people with political power were prone to worry more about serving the selfish interests of the rulers than about protecting the people from oppression. If disarmament laws left the bulk of the population unable to resist oppression by the criminals in their midst, and indeed by the government itself, the rich and powerful had nothing to lose.

Americans did not agree that government exists primarily to protect the wealthy and the well-born from their social inferiors. They also understood why disarmament laws make no sense at all as a tool for controlling violent crime. The classic statement came from Cesare Beccaria (1738–1794), an Italian political philosopher who had a significant influence on the American Founders:

> False is the idea of utility that sacrifices a thousand real advantages for one imaginary or trifling inconvenience; that would take fire from men because it burns, and water because one may drown in it; that has no remedy for evils, except destruction. The laws that forbid the carrying of arms are laws of such a nature. They disarm those only who are neither inclined nor determined to commit crimes. Can it be supposed that those who have the courage to violate the most sacred laws of humanity, the most important of the code, will respect the less important and arbitrary ones, which can be violated with ease and impunity, and which, if strictly obeyed, would put an end to personal liberty—so dear to men, so dear to the enlightened legislator—and subject innocent persons to all the vexations that the guilty alone ought to suffer? Such laws make things worse for the assaulted and better for the assailants; they serve rather to encourage than to prevent homicides, for an unarmed man may be attacked with greater confidence than an armed man.[25]

The most reliable social science we have today is consistent with the straightforward wisdom offered by Beccaria more than two centuries ago. The literature is large, and controversial with respect to some of the details, but the most important conclusions cannot be seriously disputed. Murders are overwhelmingly committed by men with a history of violent criminal behavior. Convicted felons are legally prohibited from possessing firearms, but criminals ignore this and other gun regulations, just as they ignore the laws against robbery, rape, and murder. In recent decades, the number of legally owned guns has increased substantially, and the

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[24] Blackstone, *Commentaries*, vol. 2, *412.

[25] Cesare Beccaria [11]. On Beccaria's influence in America, see John D. Bessler [12].

number of civilians authorized to carry weapons in public has skyrocketed, while the rate of violent crime has gone *down* very dramatically. Jurisdictions with the most draconian gun controls often have the highest crime rates. Attempts to restrict the use of guns, or particular disfavored guns, by the general population have never been shown to reduce violent crime.[26] Activists and politicians nonetheless persist in their efforts to compromise liberal principles and endanger the lives of law-abiding citizens by restricting their access to an essential means of self-defense. The principal roots of these efforts deserve to be called what they are: cowardice and authoritarianism.

The authoritarian impulse is most conspicuous among elite proponents of gun control. The vast majority of these people are quite well insulated from the threat of criminal violence. They live, work, and vacation with peaceable individuals like themselves. At the pinnacle of the ruling class, gun control proponents like Barack Obama, George W. Bush, and Bill and Hillary Clinton have squads of heavily armed bodyguards who will protect them for the rest of their lives. And most people in the upper middle class can safely advocate the disarmament of their less fortunate fellow citizens without fear that such regulations will have any significant effect on themselves.

When gun control advocates do think they may encounter threats to their own safety, their behavior often does not match up very well with their political rhetoric. Former Chief Justice Warren Burger, for example, who had been known to answer a knock at his door by appearing with a gun in his hand, also said, "If I were writing the Bill of Rights now there wouldn't be any such thing as the Second Amendment."[27] Senator Edward M. Kennedy, for decades a leading supporter of severe restrictions on the private possession of firearms, inadvertently revealed his own reliance on guns when his private bodyguard was charged with carrying illegal weapons in the Capitol.[28] In 1994, Congress enacted a statute, supported by many politically appointed police chiefs, that restricted the sale of certain semi-automatic rifles. Although the advertised rationale was that these arms do not have legitimate civilian purposes, the law created an exception for *retired* police officers, who could hardly have any more need for such weapons than other law-abiding citizens.[29] It is typical rather than exceptional for those who exert political power—whether by holding office themselves or by influencing those who do—to design laws that will not have much adverse impact on themselves, and to get exceptions for themselves if the laws do begin to pinch.

[26] For evidence, see, e.g., [13–17].

[27] MacNeil/Lehrer NewsHour, Dec. 16, 1991, available in LEXIS, Nexis Library, Arcnws File; "Guns and the Law," *Phoenix Gazette*, Feb. 22, 1990, at A10.

[28] "Kennedy Guard Arrested For Guns," *Chicago Tribune*, Jan. 15, 1986, S1, at 9; Elsa Walsh, "Bodyguard's Gun Charges To Stand," *Washington Post*, Oct. 16, 1987, at C2.

[29] Pub. L. 103–322, title XI, subtitle A (1994). The claim that these weapons have no legitimate civilian purposes was a canard. As the draftsmen of the statute were well aware, the disfavored weapons were defined by certain cosmetic features, and a great many functionally indistinguishable rifles were unaffected by the statute.

As a crime-control measure, restricting access to weapons by law-abiding citizens is a proven failure. Many advocates of gun control, including a distressing number of academics, seem to believe that only the benefits of regulations should be considered. The most extreme form of this logical error is the notion that if a regulation saves just one life it is worth it. This is like saying that Prohibition was worthwhile because fewer people developed cirrhosis of the liver, without taking account of other costs imposed on the population in terms of increased violent crime, political corruption, and personal freedom. Or that a universal speed limit of 35 MPH should be adopted because it would lead to a massive reduction in traffic fatalities. Or that accused criminals should be imprisoned without trials in order to prevent dangerous people from being freed on legal technicalities.

Other advocates have openly defended useless gun control laws because they will desensitize the public in order to prepare the way for total confiscation.[30] Many others undoubtedly share the same unstated goal. If the United States ever goes down this path, we will see a lot more of what existing regulations have already accomplished. Violent crime will not be reduced, but the most vulnerable people—especially women and the elderly, as well as those who live in low-rent locales—will increasingly be at the mercy of predatory men who will procure illegal weapons or will not need to use guns against their physically weaker victims. Great Britain gave us a glimpse of that future when she tried to disarm her civilian population. After handgun confiscation was instituted in 1997, handgun crime increased by almost 40% in the following 2 years, and had doubled by 2009, thanks to suppliers in the international black market.[31] In this supposedly tranquil society, moreover, crimes that armed victims might deter occur at very high rates. Assault rates in England and Wales, for example, are more than double the US rates, and about six times higher in Scotland; robbery rates are higher in England and Wales than in the United States, and burglaries of occupied dwellings are much more common.[32]

Great Britain is among the countries that have a lower rate of homicide than the United States, but this is because of cultural and demographic factors, not gun laws. Some very peaceful nations like Canada, Switzerland, and Iceland have large civilian arsenals.[33] And many nations with strict gun control laws experience high levels of violent crime. Just to our south, for example, Mexico has extremely repressive gun control laws along with a murder rate approximately three to four times higher

[30] Charles Krauthammer, "Disarm the Citizenry. But Not Yet," *Washington Post*, April 5, 1996.

[31] Joyce Lee Malcolm, "The Soft-on-Crime Roots of British Disorder," *Wall Street Journal*, Aug. 16, 2011.

[32] David B. Kopel, "The Costs and Consequences of Gun Control," Cato Institute Policy Analysis No. 784 (Dec. 1, 2015), at 15 (citing statistics from the United Nations Office of Drugs and Crime).

[33] See "Iceland—Gun Facts, Figures and the Law," GunPolicy.org, University of Sydney, http://www.gunpolicy.org/firearms/region/iceland; "Global Study on Homicide 2011," United Nations Office on Drugs and Crime, http://www.unodc.org/documents/data-and-analysis/statistics/Homicide/Globa_study_on_homicide_2011_web.pdf; David B. Kopel [18], Chap. 8.

than the United States.[34] As the late James Q. Wilson pointed out, "the rate at which Americans kill each other *without* using guns by relying instead on fists, knives, and blows to the head is three times higher than the non-gun homicide rate in England."[35] Anyone who thinks that guns are at the root of America's crime problems should spend some time reflecting on that fact.

If the authoritarian agenda of the regulatory elite promises more of what has already been a failure at best, the moral effects on the general population are likely to be even worse. Much of the propaganda against guns is calculated to foster cowardice, passivity, and irresponsible reliance on the government. This is the effect that should most worry Americans who are committed to our nation's founding principles.

For many years, the public was warned that firearms are useless for self-defense because criminals will take them away and turn the gun on the victim. No one ever produced evidence to support this theory, and the police obviously disregard it: they carry guns on and off duty, and they lobby for the right to do so after they have retired. Who would actually try to grab a gun that someone was pointing at them? This sort of thing almost never happens outside the movies [22]. In the real world, robbery victims are less likely to be injured if they defend themselves with a gun than if they passively comply with the robber's demand ([22], p. 124).

Even US military leaders have succumbed to the kind of magical thinking that afflicts so many proponents of gun control. Major Nidal Hasan was able to shoot dozens of service members at Fort Hood because the Army had helpfully provided him with a "gun free zone." Rather than treat the incident as a vivid confirmation of Beccaria's irrefutable analysis, the Department of Defense called it an "isolated and tragic case," and classified the massacre as a case of "workplace violence."[36] The Army's Chief of Staff even opined that one thing worse than the massacre would be "if our diversity becomes a casualty."[37] The conduct of the unarmed men who lost their lives trying to stop the rampage stood in sharp contrast to the political correctness and moral cowardice of their leaders.

Six years later, Muhammad Youssef Abdulazeez opened fire at two "gun free" military recruiting stations in Chattanooga, killing four Marines and one sailor, and

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[34] See David B. Kopel [19]; "Crime > Violent Crime > Murder Rate per Million People: Countries Compared," NationMaster, http://www.nationmaster.com/country-info/stats/Crime/Violent-crime/Murder-rate-per-million-people; "Global Study on Homicide 2011."

[35] James Q. Wilson [20]. For additional detail on gun control in Canada and Great Britain, see Joyce Lee Malcolm [21] and Kopel [18], Chaps. 3 and 4.

[36] "Military calls Fort Hood shooting 'isolated' case," *NBC News.com*, Nov. 5, 2009, http://www.nbcnews.com/id/33691553/ns/us_news-military/#.VoQpcFLeI8I; Allen G. Greed & Ramit Plushnick-Masti, "Terror or workplace violence? Hasan trial raises sensitive issue," *Arizona Daily Star*, Aug. 11, 2013, http://tucson.com/news/national/terror-act-or-workplace-violence-hasan-trial-raises-sensitive-issue/article_be513c51-a35d-5b4f-b3a0-13654f019ea6.html

[37] Tabassum Zakaria, "General Casey: diversity shouldn't be casualty of Fort Hood," *Reuters*, Nov. 8, 2009, http://blogs.reuters.com/talesfromthetrail/2009/11/08/general-casey-diversity-shouldnt-be-casualty-of-fort-hood/

wounding several other people. In this case, two of the servicemembers apparently were armed, in violation of regulations, and they provided cover for a number of people who managed to escape. Some recruiters who got away did not just hide in safety, choosing instead to clear a nearby park filled with children.[38] The Marine Corps ruled out arming its recruiters, on the bizarre rationale that their job primarily involves interactions with the public. These incidents, like almost all civilian massacres, took place in designated "gun free zones."[39] Another such incident occurred in a gun free zone in San Bernadino, California, where Syed Rizwan Farook and Tashfeen Malik killed 14 people and seriously injured 22. The police arrived within 4 minutes, but by that time it was over. A better term for gun free zones would be unarmed victim zones.

In recent years, passivity in the face of violence has begun to lose its appeal. One notable milestone was the public outcry that arose after the police loitered around outside while two students carried out a massacre at Columbine High School in 1999. In many places, it is now standard procedure to aggressively confront such threats without waiting for S.W.A.T. teams or armored backup to arrive. After the police in Parkland, Florida failed to follow that protocol during a massacre at the local high school in 2018, the public got another reminder about the danger of relying entirely on the police for protection against violent criminals. Many people have now begun to realize that even unarmed resistance to active shooters is better than cowering in a corner waiting to be murdered. Thanks to this rebirth of common sense, three students at a Colorado high school charged a shooter and put an end to his rampage on May 9, 2019. One of the three, Kendrick Castillo, was killed in the incident, but his sacrifice may have saved many others. Castillo, Joshua Jones (who was wounded in the attack) and Brendan Bialy, as well as the servicemembers who fought back at Fort Hood and Chattanooga, all exhibited the spirit of personal bravery and concern for others on which political freedom ultimately depends. If these events had not taken place in "gun free zones," some of the dead might be alive today.

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[38] David Larter, "Sources: Navy officer, Marine fought to take out Chattanooga gunman," *Navy Times*, July 24, 2015, http://www.navytimes.com/story/military/2015/07/21/sources-navy-officer-marine-shot-chattanooga-gunman/30426817/; Richard Fausset, Richard Pérez-Peña, & Matt Apuzzo, "Slain Troops in Chattanooga Saved Lives Before Giving Their Own," *New York Times*, July 22, 2015, http://www.nytimes.com/2015/07/23/us/chattanooga-tennessee-shooting-investigation-mohammod-abdulazeez.html?_r=0; Gina Harkins, "Chattanooga shooting investigation: Marine shielded his daughter from terrorists rampage," *Marine Corps Times*, Sept. 25, 2015, http://www.marinecorpstimes.com/story/military/2015/09/25/chattanooga-shooting-investigation-marine-recruiter-shielded-daughter-from-muhammad-youssef-abdulazeez-rampage/72586592/

[39] See, e.g., Crime Prevention Research Center, "The Myths about Mass Public Shootings: Analysis, Oct. 9, 2014, http://crimeresearch.org/wp-content/uploads/2014/10/CPRC-Mass-Shooting-Analysis-Bloomberg2.pdf

Conclusion

The war on guns is ultimately rooted in a war on republican virtue. Armed citizens have stopped countless crimes, including mass murders—usually without firing a shot because the mere display of a weapon sufficed.[40] The invisible deterrent effect of armed citizens cannot be measured directly,[41] but whatever its exact magnitude may be, law-abiding citizens who arm themselves are exhibiting the moral temper appropriate to a free people. They do not regard their lives and safety as a gift from the government. Nor do they think they should wait for the government to come along and save them when their lives, or the lives of other innocent people, are threatened. When that spirit is finally squashed, bureaucratic government will continue to expand, violent crime will continue to plague our most vulnerable citizens, and genuine self-government—both personal and political—will become ever more illusory.

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[40] For some examples involving mass shootings, see Kopel, "Costs and Consequences of Gun Control," at 18.

[41] The largest and most sophisticated econometric study of concealed carry laws concluded that liberalizing these regulations produced lower rates of violent crime. See Lott, *More Guns, Less Crime*. Lott's findings have been the subject of a long-running academic debate, but none of his critics has demonstrated that liberalization has caused higher crime rates. Apart from the general deterrent effect that Lott tried to measure, there is no doubt that armed citizens frequently use their guns for self-defense, usually without discharging the weapon. This is notoriously difficult to measure, but credible estimates run as high as 2.5 million defensive uses per year. See Gary Kleck and Marc Kleck [23], at 184 tbl.2 (1995) and Gary Kleck [24].

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Chapter 11
The History of Gun Law and the Second Amendment in the United States

Elisabeth J. Ryan

Constitutional Congress and the Early United States

The Second Amendment to the United States Constitution [12] 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." Virtually no commentary exists specific to the Second Amendment from the time of the Bill of Rights ratification in 1791, aside from some limited records of debate in the new House of Representatives ([1], p. 1037). However, the Second Amendment reflected the influence of the English Bill of Rights, the colonial system of militias, and the fears of a tyrannical government and a standing army. Importantly, "the basic idea that gun possession must be balanced with gun safety laws was one that the founders endorsed" ([2], p. 117). More than 200 years after the fledging United States incorporated it into its Bill of Rights, the U.S. Supreme Court declared in 2008 that the Second Amendment primarily protects a preexisting right to self-defense and an individual right to bear arms (*District of Columbia v. Heller*, 554 U.S. 570 [3]). The Second Amendment's progression from a passage protecting a state militia system to a modern right protecting self-defense traces the country's complicated relationship with guns. Today, the United States has more firearms than it does people and a grossly disproportionate fatality rate from firearms as compared to most of the rest of the world [4, 5]. It is also one of only three countries that recognizes firearm possession as a constitutional right; the others are Mexico and Guatemala [6].

James Madison authored most of the first draft of the Bill of Rights, including what became the Second Amendment ([7], p. 136). Madison almost certainly looked for inspiration in the English Bill of Rights, which declared that "The subjects which are protestant may have arms for their defence suitable to their conditions

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and as allowed by law"[1] ([1], p. 1022; [7], pp. 136, 335; [8], p. 305). Parliament drafted this limited protection after the fall of King James II in 1689 ([2], p. 99). King James II, a Roman Catholic ruling an overwhelmingly Protestant Britain openly hostile to Catholics, represented not just a religious threat, but also a threat to the entire English order ([1], p. 1016; [2], p. 100). He believed that he had absolute and unlimited power and answered solely to God ([2], p. 100). Accordingly, James II refused to adhere to the Magna Carta's centuries-old decree that monarchs had to abide by Parliament ([2], p. 100). One of James II's tactics to prevent a rebellion was to disarm his political opponents ([1], p. 1017; [2], p. 101; [9], p. 59). He did this by invoking the Militia Act of 1664, which authorized the king's men to confiscate the weapons of those determined to be "dangerous to the Peace of the Kingdom" ([2], p. 101). He deemed the Protestants (who made up about 98% of his population) to be "dangerous to the Peace of the Kingdom," so he ordered gunsmiths to turn over lists of customers and invoked the Game Act, which prohibited anyone below a certain wealth level to possess guns ([2], p. 101; [7], pp. 126–127; [8], pp. 302–303). After just a few years of reign, however, James's own daughter and son-in-law toppled him from the throne in the Glorious Revolution of 1689 ([2], pp. 101–102). As a condition of William and Mary of Orange then taking the throne, Parliament required them to abide by the new English Bill of Rights, which included a direct rebuke to James II's disarmament tactics ([1], pp. 1017–18; [2], p. 102; [9], p. 59). The provision that Protestants may have arms for defense, but also be subject to the laws of Parliament, was not necessarily a new right, but only newly codified, and by no means an absolute or unlimited right to arms ([1], p. 1019; [2], p. 102, 115). In particular, "the phrase 'as allowed by law' highlights that what Parliament giveth, Parliament could take away" ([1], p. 1019).

Almost 100 years later, the British crown again tried to utilize disarmament tactics against its subjects in the American colonies ([2], p. 103). In the 1770s, the colonies were hurtling toward rebellion ([7], pp. 248–253). This led King George III to not only stop all firearm and ammunition exports to the colonies, but also to order that any colonists seeking to leave British military-occupied Boston turn over their guns ([2], p. 103; [7], pp. 253–256, 264–266). So while Britain recognized the right to arms for the Protestants in its home territory, it used James II's disarmament tactics to push back against the rebellious colonies ([2], p. 103; [7], pp. 131–132).

Since the early days of the colonies, militias proved to be an essential and central component of life ([7], pp. 225–234; [9], p. 8; [10], p. 14). Without a standing army and without formalized law enforcement, "the national defense depended upon an armed citizenry," capable of providing both local and national defense ([2], p. 113; [10], p. 15). Militias, "provided a necessary pool of manpower from which men could be drawn by volunteering, by calling up units, even by draft if need be" ([10], p. 33). While rules varied, most colonies generally required that free men between

[1] Madison also believed, however, that the English Bill of Rights was merely an act of Parliament and could thus be easily overturned by a later Parliament ([1], p. 1037).

ages 16 and 60 years participate in the militia,[2] which provided both local protection (largely from the Native tribes who occupied the land the colonists had seized and declared their own) and eventually, larger wartime service ([2], pp. 113, 115; [7], p. 225; [10], pp. 14, 16, 19; [11], p. 2). Part of militia service was a requirement that every member provide his own firearm, likely a musket or a rifle that he already kept in his home ([2], p. 113; [7], p. 238). Several times a year, the local government would call for a "muster" and militia members would have to appear with their military-ready firearms for inspection ([2], pp. 113–114). While militias fulfilled many practical purposes, the system also represented "the only form of defense compatible with liberty," especially in contrast to a potentially tyrannical and overpowering standing army ([11], p. 3). Once Britain began to rachet up taxes and punishments on the colonists in the 1770s, the militias became serious undertakings out of necessity ([9], pp. 9–10). Although their actual effectiveness during the Revolution was varied, militias still represented the force of the people, not of the government ([9], pp. 14–15; [10], pp. 39, 43–44).[3] But even after the colonists' victory in the war against Britain, the fear of an oppressive government in the new United States remained acute and entirely within the realm of possibility ([9], pp. 16, 22–23, 89).

When drafting the Constitution for the new American government, the founders recognized that relying on the de-centralized system of state militias would be inadequate and potentially dangerous for the security of the nation as a whole ([7], pp. 304–306). But the fear of a standing army persisted, as did fear that a standing army could take over state militias and disarm them ([1], p. 1022; [2], p. 24). The system that emerged in Article I of the Constitution represented a compromise between the federal and state governments, which also characterized the new government structure as a whole ([7], pp. 304–206; [9], pp. 22–23). The federal government would have a professional standing army, but funding for only 2 years at a time (U.S. Constitution, Art. I § 8; [1], pp. 1022–23). The states would also maintain their militias and have power over training and the choosing of officers (U.S. Constitution, Art. I § 8). "[T]he necessity of providing for the common defense had to be satisfied while guarding against the national government's abuse of power" ([1], p. 1023). If needed, however, the federal government could call the militias into national service (U.S. Constitution, Art I § 8; [2], p. 108; [11], p. 43). This still did not satisfy everyone, particularly those known as "Anti-federalists" who greatly feared that the Constitution ceded too much control of state militias to Congress, which might "disarm the militia or destroy it through neglect" ([7], p. 406).

Although the Constitution was enacted without a Bill of Rights, the fear that a strong federal government would impose on individual rights proved sufficient

[2] The wealthy, however, could often buy their way out of service ([9], p. 9).

[3] Not everyone was allowed to join the militia or to possess arms. This included selective (and often forceful) disarmament of several groups, including "slaves, free blacks, and people of mixed race out of fear that these groups would use guns to revolt against slave maters." In some places, bans extended to Catholics, Loyalists, Native people, and sometimes "anyone deemed untrustworthy" ([2], pp. 115–116; [9], pp. 41–42; [10], p. 32).

enough to add one almost immediately ([2], p. 50; [9], p. 48). James Madison principally authored the first drafts of the Bill of Rights, which then became subject to the approval of the new Congress ([7], p. 334, [9], pp. 50–51). Madison's original proposal for what would become the Second Amendment read, "The right of the people to keep and bear arms shall not be infringed; a well armed and well regulated militia being the best security of a free country; but no person religiously scrupulous of bearing arms shall be compelled to render military service in person" ([7], p. 335). However, Madison never revealed his thinking or intentions behind the amendment, officially or otherwise ([9], p. 52). The inaugural House of Representatives, which reviewed the first versions of the proposed Bill of Rights, only slightly altered Madison's original draft ([9], p. 52). The limited record of debate from that time reflects that some representatives objected to the "religiously scrupulous" clause because of fear that it would allow the federal government to forcibly disarm anyone it deemed religiously scrupulous ([1], p. 1037; [7], pp. 336–37; [9], p. 54). When the House-approved version was sent to the Senate, however, all debate occurred behind closed doors and no records exist detailing the discussion or giving any hints as to why the version that emerged was different from the version that went in ([9], pp. 56–57). The Senate version, soon adopted officially, is the version enshrined in the Constitution today and "reassured wary Americans that Congress would not have the power to destroy state militias by disarming the people" ([2], p. 109). The final amendment may have represented an uneasy compromise between politicians pushing for a stronger central military and citizens who opposed it, but the full intention of the Framers is simply unknown ([9], p. 58). None of the records of the Constitutional Convention, state ratification debates, or U.S. House mention the individual right to a gun for self defense ([9], p. XII).

Nineteenth-Century Second Amendment: Slave Laws and the Wild West

The importance of militias and the fear of a standing army diminished significantly in the nineteenth century ([2], pp. 132–133; [9], p. 67). Indeed, the Second Amendment, which had been so important to protecting the young country against potential tyranny, was virtually ignored until around the Civil War era. By then, many southern militias had transformed into violent slave patrols, "posses of armed whites [that] would hunt down escaped slaves and terrorize free blacks" ([2], pp. 133, 137; [7], p. 406). The "slave patrols" eventually developed into groups like the Ku Klux Klan, created to target freedmen, including by disarming them and leaving them virtually defenseless against such terrorism ([2], pp. 142, 167; [7], p. 429; [9], p. 67). This era saw a rise in gun violence and also the first real arguments that a right to arms meant an individual right to gun ownership ([2], pp. 142, 167; [9], p. 67). Only in the years surrounding the Civil War, when southern states

began to enact firearms regulations (many aimed specifically at preventing black freedmen from possessing weapons[4]) did any courts look to the Second Amendment to evaluate laws ([2], p. 132; [7], p. 404; [9], p. 72). And even then, many courts based decisions on state constitutions, most of which codified some version of a right to bear arms. The 1840 Tennessee case of *Aymette v. State* (21 Tenn. (2 Humph.) 152 [13]), for example, held that both the Second Amendment and the state constitution proclaiming "That the free white men of this State, have a right to keep and bear arms for their common defence," (Aymette, 21 Tenn. at 153) protected "the arms…[which] are usually employed in civilized warfare," (Aymette, 21 Tenn. at 157) but not "weapons [that] would be useless in war" (Aymette, 21 Tenn. at 156). In other words, "bearing arms" was a right inextricably linked to military service ([11], p. 146).

After the Civil War, the drafters of the Fourteenth Amendment intended not just to require "equal protection of the laws" to everyone, but to incorporate the first eight amendments of the Bill of Rights to the states, in addition to the federal government ([2], p. 141; [7], p. 433; [9], p. 74). However, the few state court decisions addressing the Second Amendment found that it only applied to the federal government, not to the states; the U.S. Supreme Court supported that view ([2], pp. 144–45).[5] States, therefore, did not have to concern themselves with what the Second Amendment did and did not protect. The provision became essentially obsolete until well into the twentieth century ([2], pp. 212–13).

The cowboy on the frontier in the late nineteenth century remains one of the prevailing images of American gun culture ([2], pp. 157–60). But contrary to popular Western movies, the cities and towns that developed during the western expansion actually had strict rules against gun carrying within their borders ([2], pp. 160, 163; [9], pp. 77–78). While gun possession was indeed widespread when traveling (in case of an encounter with bears or stagecoach robbers), once a frontiersman entered city limits, the local sheriff often required him to turn over his gun for a token, much like a coat check ([2], p. 165). When Dodge City, Kansas, officially organized a local government, one of its first enacted rules proscribed the carrying of concealed weapons ([2], p. 166). This allowed law enforcement to know that its residents and visitors would not, in fact, resort to the dramatic shoot-outs that characterize the pop culture version of the West ([2], pp. 171–73).

[4] See, e.g., *State v. Newsom*, 27 N.C. (5 Ired.) 250 (1844).

[5] See *United States v. Cruikshank*, 92 U.S. 542 (1875) and *Presser v. Illinois*, 116 US 252 (1886). "As Pulitzer Prize-winning historian Leonard Levy remarked, 'Cruikshank paralyzed the federal government's attempt to protect black citizens by punishing violators of their Civil Rights and, in effect, shaped the Constitution to the advantage of the Ku Klux Klan'" ([2], p. 145).

Twentieth Century: Crime and Public Safety

Until the 1930s, crime and public safety were almost entirely the purview of the states ([2], pp. 144–45; [9], p. 80). The number of guns and accompanying state gun laws had both increased with the Industrial Revolution ([14], p. 49). But with the rise in "gangster" crime due to Prohibition and the spreading infrastructure that allowed criminals to easily travel across state lines, the federal government began to involve itself out of necessity ([2], pp. 187–88,193–94; [9], p. 81; [14], pp. 49, 52). Due at least in part to the likes of Al Capone trading in illegal alcohol and utilizing automatic "Tommy Guns" to publicly slaughter their enemies—like they did at the 1929 Valentine's Day Massacre in Chicago—the federal government enacted the first substantial federal gun legislation with the National Firearms Act of 1934 ([2], pp. 188–93; [9], p. 81; [11], p. 200; [14], p. 55). This law imposed a hefty excise tax on the sale of certain weapons, such as machine guns and sawed-off shotguns, and required all such firearms to be registered ([2], p. 203; [9], p. 81).[6] The NFA was, at least in part, "a ban disguised as a tax, intended to discourage the possession and use of covered firearms" ([15], p. 61). President Franklin Roosevelt's Attorney General Homer Cummings carefully crafted not only the NFA but also its challenge in court ([7], pp. 530–31). In the midst of a larger general expansion of federal power with the New Deal, Cummings knew that the courts were wary of this spreading federal power, so he intentionally crafted a case that would reach the Supreme Court in a form that would make upholding the federal firearms law very easy ([2], pp. 198, 201–02, 213).

Cummings honed in on a small-time bank robber named Jack Miller, who had previously testified readily against his collaborators in exchange for leniency from the FBI ([2], p. 213; [9], p. 82; [15], pp. 55–56). In April 1938, Arkansas law enforcement found him in possession with an unregistered sawed-off shotgun, a violation of the newly enacted National Firearms Act ([2], p. 214; [15], p. 58). The district court judge tossed out the case against Miller by proclaiming that the NFA violated the Second Amendment—a decision that was likely, if not explicitly, in corroboration with Cummings and aimed to get the case to the Supreme Court ([2], p. 214; [9], p. 82; [15], p. 60). When it did, Miller himself had disappeared and his lawyer refused to appear without being paid, so only the federal government presented its case via brief and at oral argument ([2], p. 214; [9], p. 83).[7] Thus, only the federal government presented evidence as to why the NFA should be upheld as constitutional, and no opposing parties argued against it. In 1939, the U.S. Supreme Court issued a convoluted and far from clear decision that nonetheless upheld the NFA as not violating the Second Amendment because there was no evidence that showed a sawed-off shotgun was appropriate for military use ([2], pp. 215–16; [9],

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[6] Full text available at https://archive.org/stream/NationalFirearmsActOf1934/National_Firearms_Act_of_1934_djvu.txt

[7] Mr. Miller was found shot to death a few months after the Supreme Court upheld his conviction ([2], p. 216; [15], pp. 66–67).

p. 83; [15], pp. 67, 69–70; *United States v. Miller*, 307 U.S. 174 [16]). Of course, Mr. Miller presented no case at all and therefore could not have possibly showed his firearm was appropriate for military use and thus protected by the Second Amendment. But until 2008 when the Supreme Court decided the landmark *District of Columbia v. Heller* [3] case, the prevailing Second Amendment case was *United States v. Miller* [16], which seemed to hold that the Second Amendment only protected firearms that were suitable for service in the military (*Miller*, 307 U.S. at 178; [2], pp. 25, 216; [15], p. 75). For the remainder of the twentieth century, federal courts interpreted *Miller* as protecting only the gun rights of militias, not individuals ([2], pp. 34–25, 122).

By the 1960s, the number of guns in American civilian hands had skyrocketed and the number of imported handguns had exploded from 67,000 per year in 1955 to over one million in 1968 ([2], p. 250). States began to increase their restrictions on firearms as well, sparked at least partially by the civil rights movement, the increasingly frequent so-called "race riots" in some cities, and the assassinations of John F. Kennedy, Robert Kennedy, and Martin Luther King Jr. ([2], p. 231; [9], p. 83; [17], p. 85). The Black Panthers, in particular, sparked California to enact its first significant firearm restrictions ([2], p. 231). Huey Newton and Bobby Seale founded the Black Panthers largely to fight back against the white city police wreaking havoc in their Black Oakland neighborhoods ([2], p. 232). Inspired by the teachings of Malcolm X (who had been shot to death in 1965), the Panthers emphasized firearm training for its members and openly carried their guns in public. ([2], pp. 233–36). California law allowed such public arms carrying, requiring a license only for concealed carry ([2], pp. 235–36). The Panthers often stood by when the police pulled over a Black driver, shouting legal advice and keeping watch on potential police harassment ([2], p. 237). A local state legislator introduced a bill aimed at changing the "open carry" law so that the Panthers could no longer legally walk in public holding guns ([2], pp. 239, 244–45). In response, 30 members of the Black Panthers went to the state capitol building on the day of the bill hearing ([2], p. 239). On May 2, 1967, they carried their loaded guns in an "unthreatening manner" into the legislative building, and Bobby Seale called "on the American people in general and the black people in particular to take careful note of the racist California legislature…aimed at keeping black people disarmed and powerless at the very same time that racist police agencies throughout the country are intensifying the terror and repression of black people" ([2], p. 240). After entering the building, the group got lost trying to find the legislative chamber and eventually left because of the attention they were attracting ([2], pp. 240–42). Their visit didn't have much impact on the legislature itself (which likely did not even know what was going on while it was in session), but the press coverage of the event gave the Black Panthers nationwide exposure and their membership soared ([2], pp. 242–43). Minutes after their visit, though, the police arrested many of the participants and then-Governor Ronald Reagan eventually signed the law aimed at disarming them in public ([2], pp. 243–45; [18]). One hundred years after the Civil War and the Reconstruction efforts aimed at preventing the Black population from possessing firearms, American gun regulations still followed the same racialized pattern.

Amidst the tumult of the 1960s—and immediately following the assassination of Robert Kennedy—the federal government passed the Gun Control Act of 1968, which added incrementally onto the NFA by establishing a licensing scheme for people in the business of selling firearms ([2], pp. 251–252; [17], pp. 84, 87–88). It also banned the importation of certain "military-style" weapons and it created a ban on gun sales to "prohibited persons," such as felons, individuals with mental illness, people with substance use disorders, and minors.[8] President Lyndon Johnson had originally intended the law to include a nationwide firearms registry, but the increasingly political National Rifle Association (NRA) and the outsized influence of rural members of Congress ensured that such a measure was not ultimately included ([2], pp. 252–53; [17], pp. 93, 96–97).

The NRA began after two Civil War Union veterans returned to civilian life disheartened by the poor marksmanship skills they had seen in younger soldiers during wartime ([2], pp. 63–64; [18]). Focusing on target shooting competitions and outdoor conservation, the early NRA existed as decidedly nonpolitical ([2], p. 64). The government even provided the organization with surplus guns for its target training and competitions ([2], p. 64; [9], p. 87). The organization waded into politics slightly in the 1930s federal firearm debates, but ultimately did not oppose the new laws because they did not impose upon the ability of hunters and competitive shooters to continue their sports ([2], pp. 64, 210–11; [9], p. 88). Until the 1960s, the NRA rarely even invoked the Second Amendment ([2], p. 8). In the 1970s, however, the larger polarization of the country reflected in the NRA as well—the old guard decided to pull out of political lobbying entirely and planned to move the organization from Washington, DC, to Colorado, where it would focus solely on outdoor activities ([2], p. 65; [9], p. 90; [18]). This angered the growing facet of the organization dedicated to preserving firearm rights for the purpose of self-defense ([2], pp. 65, 256). So at the annual meeting in 1977, the radical faction staged a coup by mounting an unexpected campaign against all existing NRA board members and taking the positions for themselves ([2], pp. 9, 67; [17], p. 81; [18]). That marked the birth of the modern NRA, which has created a massively powerful lobbying and political presence that values firearms above all else ([2], pp. 67–68; [9], p. 92). "Almost any gun control infringes the Constitution, in their view, and nearly every law puts us on the inevitable pathway to civilian disarmament" ([2], p. 9). The NRA succeeded in helping to ensure the federal government did not pass any further firearms laws until 1986. And that law, called the Firearms Owners Protection Act, succeeded in expanding the rights of gun owners, and enacting a prohibition on any nationwide registry of guns or gun owners ([2], pp. 257–58).[9]

[8] Full text available at https://www.govinfo.gov/content/pkg/STATUTE-82/pdf/STATUTE-82-Pg1213-2.pdf

[9] Full text available at https://www.congress.gov/bill/99th-congress/senate-bill/49

The Last 40 Years

In 1981, John Hinckley Jr. attempted to assassinate President Ronald Reagan and, in doing so, also shot Press Secretary James Brady in the head; Brady survived, but ended up permanently paralyzed ([2], p. 69). Sarah Brady, Secretary Brady's wife, became an outspoken advocate of gun control, and particularly of restricting the access of people with mental illness to firearms and of imposing a waiting period for purchasing a handgun ([2], p. 69; [9], p. 93). Although her policies faced opposition from the NRA, she managed to garner strong public and political support in Congress, leading to the enactment of the 1993 "Brady Bill" ([2], pp. 70–71; [19], p. 421).[10] The law's central component was a mandate to create the National Instant Criminal Background Check System (NICS), which all federally licensed firearms dealers must utilize to check a buyer's records for potential disqualifiers in a matter of minutes ([2], p. 71; [19], p. 426).[11] The NRA warned its members that this new law meant that the government would soon "go house to house, kicking in the law-abiding gun owners' doors" ([2], pp. 71–72).[12] But "through this legislation, the United States had clearly crossed a threshold. Gun control supporters had shown that they could defeat the much vaunted NRA" ([19], p. 428).

Even while the federal government was enacting national firearms legislation, however, the Second Amendment was still not at the forefront. The NRA did not embrace the Second Amendment as its mantra until the 1960s ([2], pp. 8, 65). But once it did, the NRA launched a low-key but very clever campaign to elevate the Second Amendment ([2], pp. 96–96; [9], p. 98). It did so by urging academia to examine the Second Amendment via essay contests, paid research, and even endowed professorships ([2], pp. 95–96; [9], p. 98). The goal was to get the academic world to legitimize the so-called "individual rights" theory of the Second Amendment, which held that the right to bear arms was not dependent on militia service, but rather belonged to every American as an individual right ([2], pp. 96–97). Through the flurry of circular academic attention—in which authors all utilized the same pool of material and cited each other back-and-forth—the heretofore minority view that the Second Amendment protected an individual right to arms wholly independent of the militia or military morphed into what became known as the "standard view" ([2], pp. 112–13; [7], p. 900; [9], pp. 97–98). This endowed the "individual rights" view with a historical gravitas that neither the courts nor most historians had actually legitimized ([9], p. 99).

Firearm laws in America entered a new era in 2008, when the U.S. Supreme Court decided *District of Columbia v. Heller* [3], the single most important firearms law decision in American history. In 1976, the District of Columbia city council passed a law that banned handguns from private possession and required long guns

[10] Full text available at https://www.congress.gov/bill/103rd-congress/house-bill/1025/text/rh

[11] Private sales between two private parties do not have to do a NICS check.

[12] In reality, the NICS checks prevented more than 1.5 million gun sales in its first decade ([2], p. 72).

to be disassembled or secured with a trigger lock ([2], p. 17). The regulations aimed to reduce the extraordinarily high crime rates and to keep weapons out of the city ([2], p. 42). Almost 30 years later, litigation carefully orchestrated by a small group of libertarian lawyers moved forward with deliberately selected plaintiff, Dick Heller ([2], pp. 47–48, 59, 90–91; [9], p. 119). He was a security guard who was allowed to have a handgun while on the job, but not at home because of the ban ([2], p. 42). Although he had expressed some antigovernment views, the case framed him as the ultimate "law abiding citizen" who was being denied his Second Amendment right to have a gun in his own home for self-defense. ([2], pp. 90–92). The case's architects intended, from the outset, for the case to go all the way to the U.S. Supreme Court, with the aim of receiving an explicit ruling that the Second Amendment protected an individual right to bear arms, as opposed to a "collective," or militia-only right ([2], pp. 24, 49). Although such a strategy risked getting an adverse decision that could potentially derail the direction of gun rights for the foreseeable future, Justice Antonin Scalia wrote the 5-4 majority opinion strongly in the plaintiff's favor, holding that "the District's ban on handgun possession in the home violates the Second Amendment, as does its prohibition against rendering any lawful firearm in the home operable for the purpose of immediate self-defense" (*Heller*, 554 U.S. at 635). In total, the Court held that "The Second Amendment protects an individual right to possess a firearm unconnected with service in a militia, and to use that arm for traditionally lawful purposes, such as self-defense within the home" (*Heller*, 554 U.S. at 570 (*syllabus*)) [3]. Importantly, however, the decision also contained several qualifiers, such as, "[N]othing in our opinion should be taken to cast doubt on longstanding prohibitions on the possession of firearms by felons and the mentally ill, or laws forbidding the carrying of firearms in sensitive places such as schools and government buildings, or laws imposing conditions and qualifications on the commercial sale of arms" (*Heller*, 554 U.S. at 626–627). Scalia used a mix of originalism, questionable historical interpretations, and language that framed his assertions as far more conclusive than they actually were to reach the result ([2], pp. 278, 280; [9], pp. 122, 125). Justices Stevens and Breyer wrote vehement dissents questioning Scalia's process, interpretations, and misclassification of 200 years of judicial precedent (*Heller*, 554 U.S. at 636–681, Stevens, J., dissenting; *Heller*, 554 U.S. at 681–724, Breyer, J., dissenting). Ultimately, *Heller* "validated a compromise position on guns. Individuals have a right to possess a gun for self-defense, but that right can and should be subject to some regulation in the interest of public safety" ([2], p. 294).

The decision in *Heller* that found the Second Amendment protected an individual right to have a firearm in the home for self-defense ushered in a deluge of challenges to numerous other firearm regulations, including bans on assault weapons,[13] licensing schemes,[14] restrictions on sales,[15] and prohibitions on carrying a firearm

[13] See *Worman v. Healey*, 922 F.3d 26 (1st Cir. 2019).

[14] See *Kachalsky v. County of Westchester*, 701 F.3d 81 (2nd Cir. 2012).

[15] See *Teixeira v. County of Alameda*, 873 F.3d 670 (9th Cir. 2017).

outside the home.[16] But courts have overwhelmingly upheld most existing and new firearms laws [20, 21], largely looking to the passage from *Heller* which carved out exceptions for many existing prohibitions and included a footnote reading, "We identify these presumptively lawful regulatory measures only as examples' our list does not purport to be exhaustive" (*Heller*, 664 U.S. at 627, n. 26). Both state and federal courts have cited that language to uphold about 91% of challenged firearms laws [20].

Since *Heller*, the Supreme Court has only taken up only two cases that implicate the Second Amendment. The first, in 2010, was *McDonald v. Chicago* (561 U.S. 742) [22], which extended the Second Amendment and the *Heller* analysis to apply to the states in addition to the federal government; the *Heller* decision covered only federal territory in the District of Columbia. Per the McDonald decision, *Heller* now applies to all governments, not just the federal one (*McDonald*, 561 U.S. at 750). In *Caetano v. Massachusetts* (136 S. Ct. 1027 (2016) (per curiam)) [23], the Court reversed, in less than two pages, a Massachusetts court ruling that had found "stun guns" to be outside of Second Amendment protection. The Court did not hold that the electronic weapons were, in fact, protected by the Second Amendment; it only dictated that the Massachusetts Supreme Judicial Court had misinterpreted the Court's Second Amendment precedent analysis in reaching its conclusion (*Caetano*, 136 S. Ct. at 1028). *Caetano* was essentially a Second Amendment case that barely addressed the Second Amendment.

Since 2008, no gun regulation has gained traction on the federal level, even after the massacre of 26 people (20 of them children) at Sandy Hook Elementary School in Newtown, Connecticut, in 2012 [24–25]. In 2018, after a former student killed 17 people at his high school in Parkland, Florida, several of the teenaged survivors managed to renew a push to institute several reforms [27]. Despite initial support from national politicians, nothing came to fruition in Congress [26, 28, 29]. Most firearm regulation takes place in the states, which creates a confusing patchwork of laws and regulations in which one state may require a strict licensing process while the next state over does not require licenses at all [30, 31].

The history of firearms law in the United States has been fraught with fears of tyranny, racism, and an exceptionally powerful lobby group that elevates gun ownership over human lives. The Centers for Disease Control and Prevention (CDC) has been stymied from conducting research into gun violence because of the "Dickey Amendment," a clause that has been included in every Congressional budget since 1995 [32]. It reads, "[N]one of the funds made available for injury prevention and control at the Centers for Disease Control and Prevention may be used to advocate or promote gun control."[17] The studies that do exist show many promising connections between stronger gun laws and a reduction in firearms fatalities [33–35]. But the existence of the Second Amendment means that instituting widespread and

[16] See *Peruta v. County of San Diego*, 824 F.3d 919 (9th Cir. 2016).

[17] Original budget inclusion language available at https://www.govinfo.gov/content/pkg/PLAW-104publ208/pdf/PLAW-104publ208.pdf

sweeping reforms on firearms—including outright bans, like what Australia and New Zealand have done—is legally impossible in the United States [36, 37]. In fact, in 2019, the U.S. Supreme Court seemed poised to expand Second Amendment protection to include the right to carry a firearm outside the home when it agreed to hear the case of *New York State Rifle & Pistol Association v. City of New York* [38, 39]. In that case, a local gun club challenged New York City's ban on the transportation of firearms to anywhere except seven ranges within city limits (883 F.3d 45 [40]). But before scheduled oral arguments, New York City made the case moot by changing its ordinance and therefore averting a likely expansion of the Second Amendment from protecting the individual right to have a handgun in the home for self-defense to a much broader protection that would have also included the right to carry a firearm outside the home (*N.Y. Rifle & Pistol Association v. City of New York*, 149 S. Ct. 1525 [41] (per curiam)). While the country has come a long way from the fear of a tyrannical government disarming state militias, the arms referenced in the eighteenth-century Second Amendment have managed to remain at the forefront of political, legal, and moral debate. And tens of thousands of people die every year because of it [42].

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Part IV
Solutions

Chapter 12
Public Health Approach to Gun Violence Prevention: Remove the Gun Handle

Woodie Kessel

Historical Overview

In 1854, the city of London experienced a cholera pandemic killing approximately 11,000 people in Newcastle, Gateshead, and London. After careful investigation, John Snow, a British physician, identified the likely source of the disease—drinking water from a pump located on Broad Street. He identified this source by mapping cases of cholera occurring in London from water contaminated with the bacterium *Vibrio cholera*—a disease with no known cure in 1854. He then worked with the city to remove the pump handle from the contaminated water supply. Cases of cholera immediately began to diminish [1]. Metaphorically, it's time to "remove" the "gun" handle to stop the epidemic of gun violence in America.

Dr. Snow's careful observations, surveillance, and deliberate action prevented the spread of a life-threatening disease. John Snow is considered one of the founders of the science of epidemiology giving rise to the public health approach to disease prevention and health promotion [2]. An evidence-based "John Snow" public health approach has not only successfully reduced death and disability from life-threatening biological causes but non-biological causes as well. The horrific epidemic of gun violence in America is an epidemic that is preventable by applying a public health approach.

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Public Health Approach

A public health approach is designed to fulfill society's interest in assuring conditions in which people can be healthy and generate organized community efforts to address the public interest in health by applying scientific and technical knowledge to prevent disease and promote health [3]. This approach embodies three main elements: *assessment, action, assurance*. The public health approach begins with an *assessment* of the problem and its etiologies; formulation of a potential solution that educates, mobilizes community *action*, and establishes effective policies including legislation, and *assures* results by enforcing laws, providing necessary health services and reassessing consequences. This approach accentuates prevention and the social determinants of health, applies epidemiologic methods to prevent and control adverse outcomes, and adopts a multidisciplinary approach to establish collaboration between practitioners, pediatricians, law enforcement, educators, government officials, and communities. The public health approach seeks to answer three questions: What's the problem? What's the soution? What's the result? The public health approach then reassess the problem, adjusts the solution appropriately, and tracks the new results forming a continuing quality improvement process until the problem is solved.

What's the Problem? [Assessment]

Collecting and analyzing data answer initial questions including who, what, when, where, why, and how? Ongoing, systematic collection, analysis, and interpretation of problem-related data seek to understand the causes of the issue answering the why and how questions in order to formulate effective interventions. For example, firearm injuries and related morbidity and mortality can be classified as unintentional or unpremeditated and intentional or deliberate. Children discharging a loaded weapon during innocent play and causing unintended harm to another child, indeed no less tragic regardless of intent, require a different solution than homicide—a planned, premeditated, and calculated act of purposive harm to others, with or without mental illness; or suicide—intentionally causing one's own death often the result of despair and hopelessness. The factors that affect the likelihood of a person perpetrating homicide or attempting and completing death by suicide as well as unintentional firearm injury can be understood as risk and protective factors. Risk factors include mental illness and loss of a loved one, uncontrolled free availability of firearms, unsecured loaded weapons, and or lax law enforcement of gun ownership registration. Protective factors include support networks and access to mental health care, gun safety classes, gun locks, law enforcement, and responsible weapon storage, as well as understanding child development and vulnerability.

What's the Solution? [Action]

Success associated with reduced morbidity and mortality related to cigarette smoking involved establishing clear scientific evidence that cigarettes cause harm, a trusted public educator, cigarette taxes, underage use laws, effective messaging, and

social change. Similarly reductions in auto fatalities included safety engineering for collision avoidance and reduction of injury producing forces, seat belts, car safety seats, driver education, driver's education, safer roads, effective texting and drunk driving laws, and social change. All of these interventions include primary, secondary, and tertiary prevention strategies that attempt to influence a combination of individual psycho-socio conditions, physical environment, and sociocultural conditions including collaboration between community leaders and coalitions that cut across traditionally separate sectors.

What's the Result? [Assurance]

Follow-up and follow-through are also essential elements to the public health approach to assure desired outcomes and results. While removing the pump handle was effective for stopping the acute cholera outbreak in a London community, it was not until a thorough understanding of microbiology matured that a sustained preventive solution could be initiated. Formal evaluation also allows necessary revisions and solution improvements to maximize success of the intervention. Communication between all parties—health departments, community leaders, citizens, advocates, law enforcement, and media—is essential as well to ensure that the intervention addresses everyone's real needs and provides clear evidence of successful prevention effectiveness as well as cost effectiveness.

Policy Triad

Julius B. Richmond, MD, a pediatrician and 12th Surgeon General of the United States, articulated a policy model that complimented the public health approach that also included three elements: the knowledge base, political will, and social strategy. The knowledge base is comprised of scientific evidence and principles to define the problem and guide actions toward a desired outcome. Political will includes laws and regulations to compel positive or prohibit negative actions. The social strategy involves a deliberate strategic course of action to make decisions and achieve outcomes [4]. Applying Dr. Richmond's policy triad, we can see the importance of research leading to science-based actions and an implementation strategy to prevent and treat harmful threats.

Public Health Successes

The Centers for Disease Control and Prevention (CDC) identified the top 10 public health successes of the previous century. They included lead poisoning, motor vehicle safety, and tobacco, among others [5]. The next few sections will provide a brief overview of these victories and lessons learned that we can adapt to firearm injury prevention.

Plumbism

In 2016, lead poisoning resulted in an estimated 540,000 deaths worldwide. Lead poisoning can occur from contaminated air, water, dust, food, or consumer products. The brain is the most sensitive to harmful lead consequences—headaches, irritability, memory problems, intellectual disability, attention deficits, behavioral problems, and seizures, coma, or death. It may also cause abdominal pain and constipation [6].

More than 2000 years ago, lead became a prominent source for pottery, smelting, and plumbing in Rome. Yet even then Greek physicians noted its consequences and gave a clinical description of lead poisoning. Some 100 years ago US medical authorities diagnosed childhood lead poisoning and linked paint to childhood lead poisoning and gasoline. In 1925, the Surgeon General temporarily suspended the production and sale of leaded gasoline and a national lead company admitted that lead was a poison; yet, the United States declined to ban white-lead interior paint. Subsequently there were scientific reports that ingesting lead paint chips caused childhood physical and neurological disorders. This prompted local action by the city of Baltimore to ban the use of lead pigment in interior paint. This resulted in a voluntary national industry standard to prohibit lead pigments in interior residential paints and in 1971 the Federal Lead Poisoning Prevention Act with the Federal government banning consumer uses of lead paint. While these efforts have resulted in decreased lead poisoning in the United States, this threat still exists; for example, the 2014 Flint, Michigan lead water crisis. This history affirms the importance of science leading to legislative action, the need for credible educators, and industry compliance to help families and prevent lead poisoning especially among children, and continued monitoring of vulnerable populations.

Motor Vehicle Injuries

The path toward reducing fatalities and injuries from motor vehicle collisions has been long and involved physics, engineering, laws and regulations, and behavioral changes. US Patent and Trademark Office issued the first patent for a seatbelt in 1885. The State of Connecticut created the first statewide traffic laws and New York State enacted the first drunk driving laws. Michigan, the home of automobile industry, established the STOP sign design that was quickly standardized across all states. Structural crumple zones, child car safety seats, passenger restraint laws, speed limits, and road safety improvements have resulted in continual improvement in car safety. All of the science, legislation, industry leadership, protection technology, and automobile safety becoming an active choice by consumers combined to significant lower automobile fatalities and harm.

Cigarette Smoking

In 1964, Surgeon General Luther Terry announced that cigarette smoking causes lung cancer and probably heart disease [6]. Since that time, cigarette smoking has been on the decline. Terry, a longtime smoker, documented the evidence regarding the dangers of cigarette smoking that lead to the requirement that cigarette packages are labeled with a warning: “The Surgeon General has determined that cigarette smoking is dangerous to your health.” [7]

As early as the 1940s there was scientific evidence linking smoking to cancer [8]. Despite these data, the per capita number of cigarettes smoked increased over the next few decades. Contributing factors may have included a failure to disseminate essential research results; no sufficiently organized focus of key decision-makers with the authority, capacity, legitimacy, and the power and means to effect change; or lack of outreach mechanisms to affect the human interactions and relationships necessary to change culture and behavior [9].

The Surgeon General Luther Terry’s 1964 public declaration was based upon the preponderance of scientific evidence that cigarette smoking caused lung cancer. This announcement captured the headlines and public awareness with cigarette smoking on the decline ever since. Subsequent to Surgeon General Terry’s landmark report, there have been 36 additional Surgeon General Reports related to the untoward consequences of smoking, constituting two-thirds of all SG Reports. All of the additional science-based Surgeon Reports have affirmed the evidence on the harmful effects of cigarette smoking. The voice of the “nation’s doctor” has been an important part of summoning the political will leading to restrictive smoking bans and the social strategy educating the public about the harm from cigarette smoking, all contibuting to stop cigarette smoking.

A social strategy encompasses a deliberate plan to achieve established goals and objectives, predicated upon a thorough understanding of population needs and preferences. It should also be dynamic and have a consistent message [10]. This strategy has worked very well for cigarette smoking. Applying Surgeon General Richmond’s policy paradigm clearly demonstrates the influence of science, political will, and the social strategy to effect the public health goal of decreasing smoking rates.

Lessons

All three of these examples demonstrate key lessons for success. Lead poisoning is harmful, as there is no safe level of lead in humans; motor vehicle collisions can cause disability and death; cigarette smoking can cause cancer, lung disease, heart disease, pregnancy complications, etc., and death; and ALL are scientifically proven

facts and not in dispute. The goal is to mitigate their untoward consequences: either by eliminating exposure to them or moderating their harmful effects, for example, de-leading gasoline and paint, lead abatement in housing; improving roads and highways, drivers education and operating licensing, age and health operating restrictions; improving automobile collision energy absorption and dissipation; protecting passengers from harmful and damaging energy with seatbelts and airbags; and engineering automobile hazard detection radar with avoidance systems.

The cigarette example shows the clearest relationships between the importance of scientific evidence, legal regulations and statutes, social policy and outcome. It is evident that science is essential to support effective legislation and regulations emanating from the political will to act. But it is the social strategy that is key to success, translating science into actual behavioral change and the ultimate health outcome benefits. For example, age buying restrictions; package warnings; antismoking public education campaigns; manufacturer regulations; advertising limits; smoking location restrictions in schools, on campuses, in the workplace, on airplanes, in restaurants; etc., have all contributed to achieving smoking cessation with ALL of the attendant health improvements as public health success through the effective application of a public health approach.

Gun Violence Prevention: A Public Health Approach

Approximately 165 years ago John Snow stopped the London cholera epidemic by removing the Broad Street water pump handle. This action was one of the first public health interventions to save lives. He accomplished this incredible feat without the knowledge of the science of microbiology but by applying the principles of a public health approach. Today, cigarettes are restricted by law, manufacturers are accountable, and there are warnings on every pack of cigarettes. Automobiles are registered and inspected, seat belts and airbags are required, and drivers are licensed and insured. However, guns are protected, manufactures are immune, there are no Federal safety standards and most owners unlicensed or insured. Applying a public health approach has saved lives, prevented long-term consequences and the cost of untoward morbidity and mortality. The lessons learned from our successes can be applied to the prevention of gun violence.

What's the Problem? [Assessment]

"Gun violence is a public health emergency…no society, including ours, need be permeated by firearm [violence]." Surgeon General C. Everett Koop; [1986 Surgeon General's Workshop on Violence and Public Health] [11]. Collecting and analyzing gun violence-related data answer initial questions including ongoing, systematic collection, analysis, and interpretation of gun violence-related data that seek to

understand the causes of gun violence and answer who, what, when, where, why and how questions in order to formulate effective and specific interventions. For example, firearm injuries and related morbidity and mortality can be classified as unintentional or unpremeditated and intentional or deliberate, for example, a child discharging a loaded weapon during innocent play and causing unintended harm to another child; indeed, no less tragic regardless of intent suggests a different set of solutions than preventing suicide or homicide. The first step in understanding a public health approach: measuring and counting those who are affected and why. Victims of gun violence are variable across populations, communities, and states. While an indepth picture of the scope of gun violence in the US is presented elsewhere in this text, overall an estimated 174,000 people (including some 22,000 children) were shot in America in 2017. While many consider this number to be an underestimate because of the sampling method used by CDC, knowing the number of people injured by firearms, including deatails about their specific demographical charateristics, as well as the metrics associated with those fatally wounded, provides key information about the magnitude of problem and its resolution. For example, scientific evidence have demonstrated that gun availability is decidedly correlated with higher rates of ALL types of gun violence. Strong gun laws are highly associated with decreased availability *and* fewer gun fatalities. The type of weapon matters as well: handguns are most often associated with urban violent crime, suicide, childhood injuries with rifles, and semiautomatic weapons with urban mass shootings, rural unintentional injuries, and suicides.

Economics

The cost of the gun violence epidemic imposes severe economic consequences—both capital and human, on families and society. While the human costs—loss of husbands, wives, fathers, mothers, children, grandparents, teachers, police officers, and others—are incalculable, gun violence costs the US economy an estimated $229 billion in terms of healthcare treatment, lost income and spending, employer costs, police and criminal justice responses, and reduced quality of life due to pain and suffering.

Monitoring

Unlike most other products like drugs and food for example, guns are the only consumer products manufactured in the United States that are not subject to federal health and safety regulation. While the Consumer Product Safety Commission (CPSC) regulates household and recreational products such as toasters, lawn mowers, and toys, it is forbidden from regulating the sale and manufacture of guns. When the CPSC was created by Congress in 1972 to set safety standards for most consumer products, firearms were specifically excluded from CPSC's jurisdiction

by the 1976 Consumer Protection Act [12]. Nearly every American industry and product is subject to civil liability laws to hold irresponsible manufacturers and sellers accountable. Not the gun industry. The 2005 Protection of Lawful Commerce in Arms Act (PLCAA) immunized the gun industry from nearly all lawsuits [13].

Sociocultural Influences

When the question *what's the problem* is asked, the initial response involves quantitative facts and information. Yet, to fully understand the problem and consider effective corrective actions, essential contextual factors that relate to sociocultural influences, particularly affecting the political will—either for or against a particular action lifesaving or not—are crucial. These factors are dynamic and needed to appropriately frame effective interventions/policy to prevent the gun violence epidemic. For example, when the Second Amendment was enacted semiautomatic assaualt weapons were never envisioned.

Indeed, contextual factors have been the basis of the continued ban on automatic assault weapons like the machine gun dating back to a 1934 law passed a month after outlaws Bonnie and Clyde were killed in a hail of machine gun bullets. The machinegun ban was affirmed again when the semiautomatic assault weapon ban was repealed with the passage of the 1986 Firearms Owners' Protection Act [14].

The National Rifle Association was founded in 1871 to improve the marksmanship of the troops and to "promote and encourage rifle shooting on a scientific basis" [15]. In 1903, the NRA's interest expanded to include the promotion of shooting sports among America's youth with groups such as 4-H and the Boy Scouts of America. In 1934, while maintaining a strong commitment to safety training, education, and marksmanship, the NRA formed the Legislative Affairs Division wary of potential government actions to curtail gun rights. In 1975, the NRA established the Institute for Legislative Action in 1975 greatly expanding its government surveillance vigilance. The NRA shifted its focus from predominately advocating for sportsmanship and gun safety with programs like The Eddie Eagle GunSafe® program, to provide for aggressive political defense of the Second Amendment. Today the NRA persists despite the epidemic of gun violence, firearm murders of children, mass murders with semiautomatic military-style assault weapons with body armor piercing ammunition, suicide by lethal firearm, gun trafficking threatening police safety, and homicide with illegal guns. No longer the "premier firearms education organization in the world," the NRA has become the antagonist against rational gun safety vastly departing from its roots.

Legislation

High-profile shootings frequently mobilize a groundswell of social support to reduce gun violence and sometimes (but not always) have prompted several major federal gun laws. The following list provides a timeline of federal legislation regarding firearms and their political contexts:

- The National Firearms Act of 1934 was signed by President Franklin D. Roosevelt after high-profile gangland crimes, including the St. Valentine's Day Massacre in 1929 that killed seven in Chicago. The law imposed a $200 tax on transfers of machine guns, short-barrel rifles, and shotguns, and it required gun owners to register those weapons.
- The Gun Control Act of 1968 was passed after the assassinations of President John F. Kennedy, the Rev. Dr. Martin Luther King Jr., and Robert F. Kennedy. It banned interstate mail orders of all firearms, interstate handgun sales and weapons with no "sporting purpose." It prohibited the sale of firearms to minors, felons, fugitives, drug addicts, and those committed to a mental institution and required gun manufacturers and dealers to be licensed and maintain records of sales.
- The Firearms Owners' Protection Act of 1986 lifted some of those restrictions. The 1986 law allowed dealers to sell rifles and shotguns through the mail, and it limited federal inspections of gun dealers. It also prohibited the sale of machineguns manufactured after May 19, 1986.
- The Brady Handgun Violence Prevention Act of 1993 further amended the 1968 law: it required gun purchasers not already licensed to possess a firearm to undergo background checks when buying from sellers licensed by the federal government post President Regan shooting. However, private transactions were exempted, creating the so-called gun-show loophole.
- The Violent Crime Control and Law Enforcement Act of 1994 banned the possession, transfer, or domestic manufacturing of some semiautomatic assault weapons for 10 years. Known as the Federal Assault Weapons Ban, it expired in 2004, despite efforts by gun control advocates to extend it.
- The 2008 NICS Improvement Amendments Act post Virginia Tech shooting killed 33, created a series of incentives and systems—but not requirements—for states to share information with the federal government about people who have been disqualified from obtaining guns.
- NOTHING Post Sandy Hook School shootings December 14, 2012.
- The 2018 Students, Teachers, and Officers Preventing (STOP) School Violence Act funds the creation of Threat Assessment Teams (TATs) to train students, teachers, etc., to properly identify and respond to threats against schools: increased school security measures and creation of anonymous reporting systems post Parkland Florida.
- The 2018 FIX NICHS legislation is designed to push federal agencies and states to upload criminal records into the National Instant Criminal Background Check System post Parkland FL.

Research

Additional scientific research is needed to provide the necessary specificity to construct appropriate actions to address the problem of gun violence. Key research domains include motivations for or against firearm ownership, nonfatal and fatal gun violence by weapon type, undestading risk and protective factors related to

perpetrating gun violence, the impact of culture on attitudes toward firearms, the effects of specific legislation on firearm carrying and firearm-related injuries, and the understanding of new technologies and big data analysis to inform evidence-based practice.

What's the Solution? [Action]

Prevention

Recognizing violence as a health issue is founded on a new understanding of violent behavior as arising from contextual, biological, environmental, systemic, and social stressors. A "trauma-informed" approach suggests that violence is not symptomatic of "bad people"; rather, it is a negative health outcome resulting from exposure to numerous risk factors. All of the successful interventions to curb smoking and reduce auto injuries include strategies that attempt to influence a combination of individual psycho-socio conditions, physical environment, and sociocultural conditions including collaboration between community leaders and coalitions that cut across traditionally separate sectors.

Remedies to treat the epidemic of gun violence are also dependent upon the triad of prevention and a care examination of the details related to understanding the epidemic in order prevent it. For example, the factors that affect the likelihood of a person perpetrating homicide or attempting and completing suicide as well as unintentional firearm injury can be understood as primary, secondary, and tertiary risk and protective factors. Increased likelihood for a GSW includes uncontrolled free availability of firearms, unsecured loaded weapons, lax law enforcement of gun ownership registration, and mental illness diagnosis and treatment, as well as hospital-based violence interventions. Protective factors include support networks and access to mental healthcare, gun safety classes, gun locks, smart guns, law enforcement, and responsible weapon storage, as well as understanding child vulnerability.

"Removing the Handle"

Based on what we already know and speculating on the answers to the "what we need to know" questions, several actions can be postulated applying Dr. John Snow's model in effect removing the "Gun Handle" to stop the epidemic of gun violence in America.

- Build community coalitions around violence prevention.
- Educate communities on gun safety practices.
- Legislate universal shared background checks.

- Make gun manufactures/sellers and owners accountable and liable.
- Prevent high-risk individuals from legally obtaining and carry concealed, loaded guns.
- Require background checks and record-keeping requirements for private party purchases.
- Require gun dealers to have inspections, license revocations, and safety reviews.
- Reinstate an assault weapons/high-capacity magazines ban.
- Require gun owner licensing, titling, and registration.
- Establish a detailed nationwide data and reporting system for violent crimes.
- Require reports if guns are lost or stolen.
- Advocate for children first, 2nd amendment second, including bullying prevention efforts and resiliency strategies.
- Expand mental health care.
- Design guns to prioritize safety and apply new safety technology to gun operation.
- Expand conflict resolution, self-efficacy, human rights education, and social justice.
- Address issues of poverty, structural violence, and institutionalized systemic racism.

Common sense actions and solutions have prevented violence, including gun violence, and created healthier and safer communities for our children and their families through the implementation of science/evidence-based approaches; support for individuals and families; protecting the rights of all; sustained partnerships with parents, practitioners, and politicians; and making a difference in every community. Maintaining civil rights and essential freedoms of life, liberty, and the pursuit of happiness and the full protections of the US Constitution, as amended, is vital and secured for all Americans, and especially for our youngest citizens—our children.

What's the Result? [Assurance]

Follow-up and follow-through are also essential elements to the public health approach.

While removing the pump handle was effective for stopping the acute cholera outbreak in a London community, it was not until a thorough understanding of microbiology matured that a sustained preventive solution could be initiated. Formal evaluation of all interventions is essential as it allows for the necessary revisions and solution improvements to maximize success of the intervention. Communication between all parties—health departments, community leaders, citizens, advocates, law enforcement, and media—is essential. It will ensure that the intervention addresses everyone's real needs and provides clear evidence of successful prevention effectiveness as well as cost effectiveness.

Epilogue

It is evident from an examination of CDC's Ten Great Public Health Achievements in the twentieth century that applying a public health approach to gun violence is a great opportunity for effective resolution. The epidemic of gun violence is not immutable. Establishing the science-base, articulating reasonable solutions, summoning the political will to act, implementing a thoughtful social strategy, and being fully accountable for the results in assuring conditions in which all people can be free of the threat of gun violence.

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Chapter 13
Combatting Gun Violence in Newark, New Jersey

Leigh S. Grossman and Todd R. Clear

Newark, New Jersey

The largest city in New Jersey, and an 18-minute commute to New York City, Newark is home to a diverse population demographically and socioeconomically. First founded in 1666, Newark officially became a city in 1836. Long known as a manufacturing city, Newark's population peaked following WWII with just under 450,000 residents. With its close proximity to Manhattan, Newark was a magnet for immigrants and functioned with a vibrant manufacturing and service sector as a kind of exemplar of the Northeast US industrial revolution. As each successive wave of immigration arrived at the eastern shores of the United States, a portion made their way to Newark. By the time of the Great Depression, Newark was the major economic engine of New Jersey, with robust ethnic hubs featuring substantial subpopulations of second-generation Jews, Italians, Germans, and Irish [1].

Newark became a destination, too, for the Great Migration of African Americans northward, fleeing the injustice of Jim Crow South, drawn to the promise of economic and social opportunity in the industrial north [2]. White flight followed. By the mid-1960s, Newark was a majority black city.

While life for black residents was better than the lives they would have faced in the South, racism and racist policies in Newark made life difficult. These issues came to a head on July 12, 1967, when residents saw police officers dragging a black cab driver into the police precinct. A revolt followed and lasted approximately 5 days and resulted in 23 deaths from gunfire. Twenty-one African Americans were killed, as well as a policeman and a fireman. The aftermath of the disturbance left

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the city increasingly divided. One side felt “the black community was increasingly being taken over by ignorance and lawlessness and therefore needed to be controlled” and the other felt “that the authorities were corrupt racists who eagerly dealt out vigilante justice and suppressed people of color” [1].

In some ways, the modern history of this 300-year-old city can be divided into before-the-revolt and after. Before 1967, Newark was not unlike many east coast urban centers, struggling with concentrated pockets of poverty and urban decay, but buttressed by a healthy underlying economy. Following the turbulence, Newark’s population rapidly declined, decimating the tax base. Businesses closed or moved out of town, and the city’s financial situation became bleak.

Since then, Newark has acquired a national reputation as a city beset by violent crime. The reputation is largely deserved. Violent crime quickly rose in the 1970s, reaching hit an all-time high in 1981 when there were 166 murders. That year, there were also 7,876 robberies and 3,850 aggravated assaults [5]. Gun violence remained high in Newark for the next 30 years, even as it was declining across the rest of the nation; indeed, shootings surged at a time when national rates of violence were reaching an all-time low [3].

The most extreme consequence of gun crime is murder, and here Newark remains a troubled place. Figure 13.1 displays the murder rate for Newark, compared to the national rate [4, 5]. Although the murder rate in Newark appears unstable compared to that in US, after smoothing the Newark data by calculating a 3-year moving average, the two rates are moderately correlated (0.51). The Newark murder rate remains semi-stable for the entire series, with 60% of the data points falling between 30 and 40. Overall, however, the murder series is relatively stable for the entire 40-year duration. The national series, by contrast, peaks in 1991 and trends downward, for the next two decades.

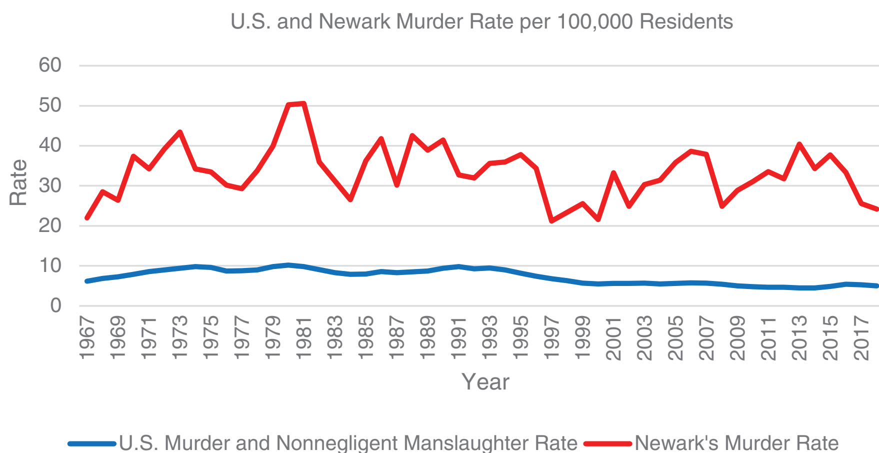

Fig. 13.1 US and Newark murder rate per 100,000 residents: Three-year moving average. (Source: Uniform Crime Report and Newark Police Division)

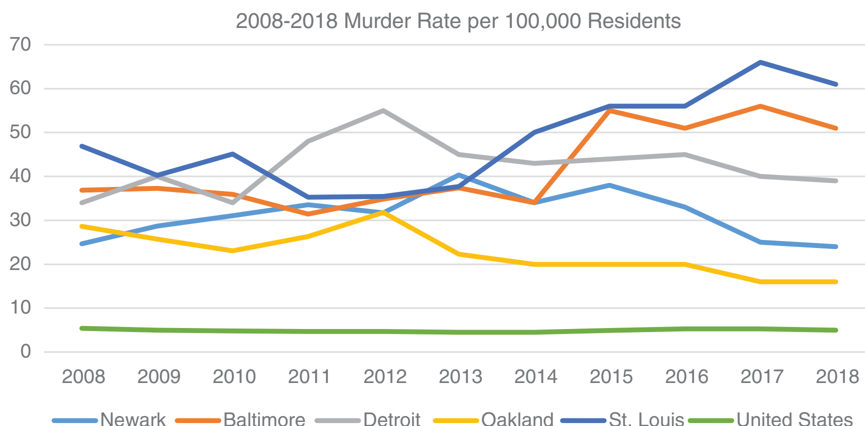

Fig. 13.2 2008–2018 murder rate per 100,000 residents. (Source: Uniform Crime Report and Newark Police Division)

Newark public safety leaders compare their violence rates to other, similarly situated urban areas. Figure 13.2 shows trends in murder rates for Newark and four similar cities: Oakland, St. Louis, Baltimore, and Detroit [4, 5]. It shows that Newark's murder rate is comparable to these other cities, and by far not the worst.

Despite the seeming implacability of the Newark murder rate in the long term, policymakers are prone to respond to changes that take place in the short term. In the Newark murder series, there are nine different periods where murder drifts up (4) or down (5) for three consecutive years. For each of the updrifts, policymakers tended to be alarmed; for each downward drift, they started to think they were doing something right. That gives historical context to the current mini-trend down, starting in 2015, but reflecting a longer trend that started with a 20-year peak in 2013 that has now become the third-lowest rate in a half-century. Indeed, although almost 30% of residents continue to live below the poverty line, several national corporations have relocated their national headquarters in the city, and the economy has begun to rebound. Newark's leaders are cautiously optimistic, yet again.

Violence Interventions in Newark

Given intractable rates of gun violence in Newark, elected leaders and police alike have set made it the highest priority to bring gun violence down. For the police, attempts to reduce gun violence were hindered by three main issues: changes in leadership, inconsistencies in strategies, and manpower problems.

The city of Newark enjoyed relatively stable mayoral leadership since 1970. In 1970, Kenneth Gibson was elected mayor and was the first African-American mayor of any major Northeastern city (Times Wire Services, 1970). His tenure ended in

1986 with the election of Sharpe James who served five terms. Cory Booker followed from 2006 to 2013 until he was elected to serve as the US Senator from New Jersey. Louis Quintana served the remainder of Booker's term and left office when Ras Baraka was elected in 2014 who is currently in his second term. Since 1970, there have been 16 police directors—an average term of 3 years.[1] When he longest serving director is discounted (Hubert Williams, 1974–1985), the average term is a little over 2 years. Between 1980 and 1997, when there were five different directors, murder rates perambulated downward from 50 to 20. Murder rates doubled in the decade from 1997 to 2007.

Recent leadership history has been equally unstable. Between 2006 and 2019, there have been five different police directors. Each new director brought a different policing strategy and restructured the organization. While a number of different strategies have been employed over the years to confront crime, five stand out. In several respects, the progression of interventions, from foot patrol to community strategies, reflects the progression of police thinking about violence, nationally.

Newark Foot Patrol Experiment

Beginning in 1973, the police participated in a field experiment to understand the impact of foot patrol (rather than police cars) on public safety. Under the joint leadership of George Kelling, noted scholar of policing, and Hubert Williams, well-known director of police, the Safe and Clean Neighborhoods Program, sought to demonstrate the value of close police-community relationships as a tool for crime prevention. Using a random field experimental design that compared car patrol versus foot patrol, the Newark Foot Patrol Experiment found significant reductions in some types of crime due to foot patrol, as well as significant increases in public support for and confidence in the police in areas [6].

Despite these successes, foot patrol was faced with considerable resistance from the uniform rank and file and was the target of sustained complaints from the police union. Notably, moreover, murder rates were not affected by the strategy, peaking in 1981. As gun violence continued to rise, there was considerable pressure to forego foot patrol in favor of a more aggressive stance to policing.

[1] John Redden 1970–1972; Edward Kerr 1973–1974; Hubert Williams 1974–1985; Charles Knox 1985–1986; Louis Greenleaf 1986–1988; Claude Coleman 1988–1991; William Celeste 1991–1996; Joseph Santiago 1996–2002; Robert Rankin 2002–2004; Anthony Ambrose 2004–2006; Garry McCarthy 2006–2011; Samuel DeMaio 2011–2014; Sheilah Coley 2014; Eugene Venable 2014–2016; Anthony Ambrose 2016–present.

Operation Cease Fire

Even though murder rates experienced substantial decline from 1981 to 1997, political pressure continued that violence rates were too high and needed to be brought down. In 2000, again under the leadership of George Kelling (who now headed up the Police Institute at Rutgers in Newark) the project Operation Cease Fire was undertaken. The theory underlying Cease Fire was the criminological finding, rapidly gaining prominence among policymakers, that a small portion of those who are criminally active—the "high rate offenders"—account for a disproportionate amount of total crime. Under this reasoning, the strategy of Cease Fire was to identify gang members who were most heavily involved in violence and employ a scheme of focused interventions and wrap-around services to try to disengage them from their gang activity with its and associated violence. Pulling off Operation Cease Fire required a careful coordination of police resources with community services, and it laced the police in direct cooperation with social work systems.

An evaluation of the strategy found it did not have any measurable impact on hospitalizations for gunshot wounds [7]. Shortly after Kelling left Rutgers, there was yet another change in police leadership, and the program was discontinued.

Newark Violence Reduction Initiative (NVRI)

Impressed with the results of the "pulling levers" gun strategy in Boston, newly elected Mayor Corey Booker and his new Police Chief, Garry McCarthy, undertook the Newark Violence Reduction Initiative (NVRI). Aimed at deterring serious gun violence committed by group and gang members and drawing upon the concept of focused deterrence, the strategy called for gang members to be called in to meetings where they were notified that serious violence would incur a swift and certain response by law enforcement. Law enforcement would legally pull all levers available to them not just on the individual responsible for the violence, but on the whole group [8]. If they wished to participate, a battery of social services was made available for who needed help or were interested in changing their lives.

NVRI began with much fanfare and publicity from the police director and mayor. However, prior the first call-in, the police director that initiated the strategy left the department and a new director who was not as enthusiastic was placed in charge. Despite this, NVRI began in one housing project, expanded to cover two of the most violent precincts, and finally went citywide for a short period. During this time, the police department went through another three police directors and a new mayor. Although some early results seemed to suggest the strategy might be working, new local leadership was indifferent to the work, and NVRI eventually petered out.

Model Neighborhood Initiative (MNI)

While NVRI was heavily law enforcement based, its critics kept pointing out that neighborhood conditions, not residents, explained the persistent high crime rates in Newark. Until those conditions were changed, it was reasoned, crime would remain high. The Model Neighborhood Initiative (MNI), initiated in 2014, sought to transform two blighted and crime-ridden areas of the city by investing resources to improve residents' quality of life [9]. In addition to ramped-up law enforcement efforts, city officials from the Health, Economic Development, Employment, and Code Enforcement Departments worked with residents to improve the physical look of the blocks and provide social services to those that need them. Despite the effort that was put into revitalizing the neighborhoods, MNI ended after a couple of years. There was no large impact on crime and violence and the program never spread to other areas of the city.

Newark Community Street Team (NCST)

One of newly elected Mayor Ras Baraka's highest priorities to confront violence was to engage local community members to become agents of safety. To that end, the Newark Community Street Team (NCST) became the city's community-based violence reduction strategy. For the past few years, it has operated in two of Newark's five wards (the South and West Wards) and has employed over a dozen residents as outreach workers, mentors, and situational interventionists with the goal of resolving conflicts peacefully. NCST is trusted in the community and has been able to work with residents in a way that law enforcement has struggled to. Rather than work in opposition to or apart from law enforcement, NCST works closely with officers and holds biweekly meetings that include both law enforcement and the community. This public safety roundtable is a community-driven public safety forum that not only allows the community to participate in reducing crime and violence in their neighborhood but also holds law enforcement accountable.

No formal evaluation of the NCST has yet been done. But there are those who think the community-based approach is bearing fruit, and they have some recent data on their side. Figure 13.3 is a graph of citywide fatal and nonfatal shooting for the latter period of this history, 2006–2019 [5]. In the 5th Precinct where the NCST is most active, murders decreased 58% in 2019 compared to 2018 and nonfatal shooting incidents decreased 28%. Advocates for the mayor's community-based strategy look at these data and see reason for optimism, because the numbers appear to decline shortly after the street teams are established (giving them some time to get their strategies in place). Statistically, this is not a significant fall in shootings, and an eyeballing seems to suggest that the big drop occurred under Mayor Booker, when McCarthy was director, and that recent drops are possibly corrections of temporary upward blips in an otherwise stable series.

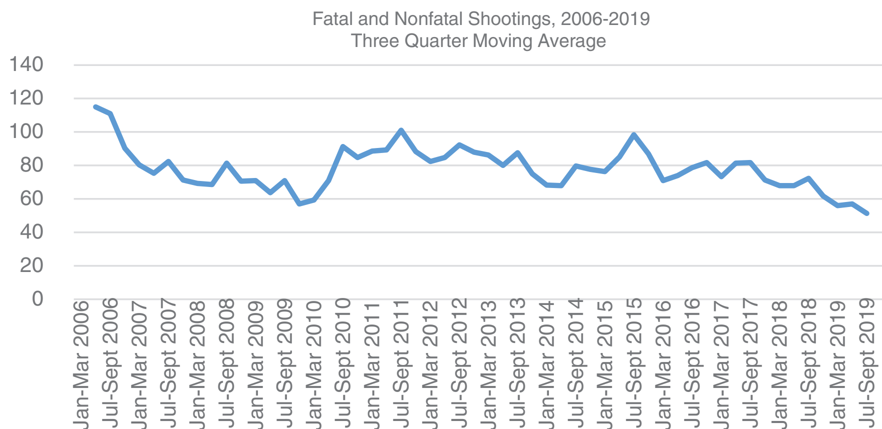

Fig. 13.3 Fatal and nonfatal shootings, 2006–2019: Three-quarter moving average. (Source: Newark Police Division)

What is the bottom line? We can draw three conclusions. First, Newark has much higher rates of gun violence than the rest of the nation, and this has been a sustained pattern of high levels of gun-related violent crime for several decades. Second, political and law enforcement leaders have, over the years, undertaken varying approaches to try to bring the violence down. Instability in police leadership, especially recently, has meant that none of these strategies have been employed in a sustained way. Rather, the history of fighting gun violence in Newark reflects a search for the most recent, powerful, and politically expedient way to confront violence. Most of the special strategies employed have not enjoyed a very long shelf life. Finally, there is no hard empirical evidence and precious little anecdotal evidence that any of the purposeful strategies to bring down violence have had much impact.

Newark in the Broader Context of Policing in the United States

No element of the criminal justice system has faced a greater call for change than the police. Calls to reform the police often become nation-wide efforts. The forces that have affected policing nationally over the years have also played out in Newark.

From their founding in the first half of the nineteenth century, the nation's first police departments were susceptible to the vicissitudes of electoral politics. Mayors, in particular those elected to head up big cities, often operated as political bosses. Appointments to the police department were often made as political favors. And more often than not, the police who received those favors were more than willing to return them. Yet because of the typically tight coupling of local elected officials and

the communities that elect them, the police came to be experienced in many communities as a kind of politically responsive policing—an informal type of service, in which the local police were the first option people would turn to in a time of need [10]. Over time, however, political reciprocity became, in too many places, an openly expressed pattern of corruption [11, 12]. Public indignation at the excesses of corrupt police, accompanied by a demand that the police be held accountable for a public protection function, fueled a reform agenda that came to be expressed as the "professionalization," of the police [13]. Police professionalism set standards for recruiting, training, and daily operations.

Professionalization carried with it a sense that the police worked at arm's length, not just from local political leaders, but from local community leaders and members as well. The police enforced the law. The community often felt that it had the law enforced "against them." In places beset by crime and poverty—especially places where concentrations of impoverished minority citizens lived—the "professional" police felt more like an occupying force than a source of service and support. The motto, "protect and serve," became a kind of a parody that had little resonance in many inner-city places. Citizens developed deep distrust of the police, and the feeling was too often mutual. Ironically, crime continued to rise even as the police became ever more professional at their work.

As a reaction to the community's alienation from the police, police leadership began, once again, to rethink the dominant theory of policing. Realizing that contemporary policing efforts were not only failing to keep crime at bay, but they were also disaffecting the very community that was afflicted by crime, the police were open to new strategies. Moreover, a solid body of policing research during this time supported a turn to the concept of community policing. Not only did this strategy promise a better capacity for dealing with crime, it held the formula to improve relations with the community. Not a monolithic idea, community policing embraced a process of community engagement with three core elements: citizen involvement, problem solving, and decentralization [14]. This overarching approach offered a broad umbrella that would lead to different strategic manifestations of the community policing ideal: including broken windows policing, pulling levers policing, hot spots policing, problem-oriented policing, and more [15]. These strategies all experienced success in one way or another and helped contribute to the impressive drop in violence in the late 1990s.

Police over the last few years are once again grappling with the idea that the traditional concept of law enforcement is not working to reduce violence and crime. Additionally, a series of high-profile deaths of black citizens at the hands of police have led to renewed calls for police reform and change. Using a public health approach to decreasing crime and more specifically gun violence is new to law enforcement and like all other policing innovations will take time to gain favor throughout policing departments. But as the case study of Newark, New Jersey will show, a public health approach to gun violence is not only needed to reduce violence, it is also needed to repair the relationship between law enforcement and the residents they serve.

The Newark Police Division (NPD), the primary law enforcement agency in Newark, is something of a case study in the move from professional policer models to community policing ideas. In fact, Newark is policed by various county, state, and federal law enforcement agencies, all of which have some jurisdiction and some degree of presence within the city's boundaries. But the vast majority of day-to-day policing, at least as is experienced by the city's residents and visitors, is performed by the NPD.

Newark's post-WWII story is a paradigmatic example of the professional model. Police were hired based on a state-wide civil service exam, and they were trained by attending an 8-week academy in central New Jersey. By the second half of twentieth century, Newark became increasingly populated by African Americans, and the makeup of the NPD was increasingly divergent from the makeup of the city it policed. Enthusiastically embracing the professional ideal of the Iron Fist, the NPD was increasingly experienced as an occupying force in a minority city. One consequence was the tension that spilled out into the streets as the public revolts of 1967. Newark, it seems, had become a prime example of the kind of estrangement that was so characteristic of professional policing. The tension between the people and their police, particularly young people and the police, became a dominant characteristic of community life in Newark.

Not that there were not efforts to repair the fractured relationship between the NPD and the community, it is just that these efforts were often seen as window dressing, and they were overwhelmed by the dominant feel of policing in Newark: a tough force not backing down from a dangerous and resistant community. This ethos culminated in 2014, when the US Department of Justice (DOJ) issued a report that detailed a pattern or practice of that included routine violations in stop and arrest practices, use of force, and personal theft by NPD officers (Department of Justice, 2014). The findings from the report led to the City of Newark to formally enter into a consent decree with the DOJ in 2016 aimed at reforming internal affairs, discipline, training, policy, and community engagement (United States of America v. City of Newark, 2016).

Major changes hit the city's law enforcement infrastructure in 2016. Most significant was the formation of a Consent Decree monitoring team, under the leadership of former NJ Attorney General Peter Harvey. The team began an extensive review of NPD policies and procedures and conducted series of departmental and community surveys. The work of the Consent Decree team had some relevance to every aspect of the NPD's functioning. Just as that work was getting underway, the NPD was reorganized, combining police, fire, and other emergency services and locating it all under a single, new director of public safety. The newly appointed director was a long-time veteran of police leadership in Newark and elsewhere. His arrival has coincided with a number of benefits motivated in part by the consent decree: the hiring of hundreds of officers, the promotion of hundreds of officers, new and redesigned training, and additional funding. The consent decree also led the police to accept changes designed to improve relationships with the community.

Nonetheless, implementing all of the requirements of the consent decree has not been easy. The economic crisis of 2008 had hit the city's coffers hard, triggering the layoff of some 167 police officers in 2010. For years there had also been attrition, when positions left vacant due to retirements were not filled. The department went from a peak of 1600 officers under Mayor James to a level of around 1000 sworn officers under Mayor Booker—a decline in uniformed staffing of more than one-third. This, combined with the routine changes in top leadership, chronic low morale, and heavy workloads, led to a sense that the NPD was always in a status of instability. This kind of organizational dysfunction is a recipe for staff chaos [16]. It is small wonder that the various interventions to reduce gun violence during this unstable era—interventions that had worked successfully elsewhere—were largely ineffective due to the leadership turnover and low buy-in at all levels of the department.

While an economic boost and consistent leadership over the past few years have allowed the city and the police department to engage in a more holistic approach to crime and violence, this has not always been the case. Over the past decade, it has been very hard to sustain ideas and leadership in the city. These inconsistencies have made it difficult for the police to effectively combat gun violence. However, over the past few years, promising changes that include a public health focus have helped lead to substantial decreases in crime and violence.

Police and political leadership in Newark believe there is good news in the data presented in Fig. 13.4 [5]. They see a gradual drift downward in shootings over recent months. While the entire series seems to show a gradual reduction in fatal and nonfatal shootings, when the series is differenced (see Fig. 13.3) it is clear that the shooting series is closer to a "random walk": a stable time series that varies but does not trend in one direction or another.

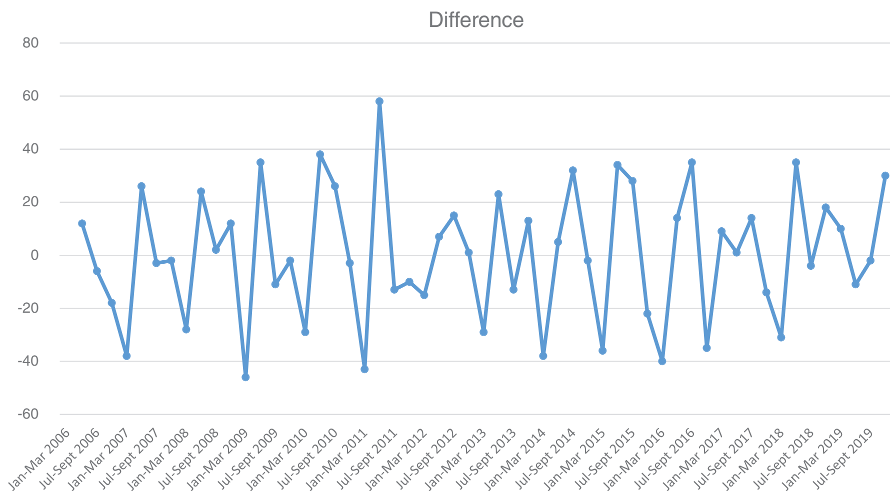

Fig. 13.4 Fatal and nonfatal shootings in Newark. (Source: Newark Police Division)

Summary

In the decade following the 1967 turbulence, violent crime rocketed upward in Newark. The rate of murders, already high by US standards, more than doubled. Since that time, rates of gun crime in Newark have fluctuated in a semi-stable way, seemingly impervious to change. Over the years, coincident with changes in city leadership, a laundry list of strategies has been tried to bring the rates of gun crime down, to little or no effect. In recent years, the potential for any one strategy to succeed has been undermined by continual changes in police leadership and city hall. Problems with the police, well documented by outside observers, have contributed to a force that is understaffed. The most recent changes in the mayor's office and public safety leadership have led to a regime that is much more oriented to community policing values. The advent of a Federal Consent Decree has required significant changes in policy police and practice, but improved police performance combined with an improving police–community relationship makes local observers optimistic that recent small drops in gin violence are a harbinger of larger drops to come.

For the police, there is a long road ahead to successfully and legally combat gun violence. Traditional approaches to fighting violence have not worked for a multitude of reasons some of which were discussed above in the case study of Newark. The police have spent decades using a strict law enforcement approach to prevent crime; however, at this point in time, the communities they help keep safe need the police to also have a guardianship role which requires them to consider other solutions to prevent crime. In order to provide alternate solutions, the police need to understand the root causes of why these crimes occur and develop strategies that do more than just put a Band-Aid on the problem. Working with the Newark Community Street Team is one way that the Newark Police have sought an alternative approach to preventing gun violence. As police departments around the country look for new strategies and initiatives to prevent gun violence and maintain a legitimate place in the community, public health approaches necessitate further consideration.

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Chapter 14
The Impact of Policy and Law Enforcement Strategies on Reducing Gun Violence in America

Jordan Costa and Anthony Azari

Introduction

Gun violence is a daily tragedy that impacts the lives of millions across the country. Every day, more than one hundred Americans are killed with guns [1]. Every year, gun violence claims the lives of nearly 40,000 individuals [2]. However, victims of gun violence are not solely those directly impacted, but also the families and communities plagued by uninterrupted violence within their environments. With such a vast reach, there has been a shift in the field towards addressing gun violence as the public health crisis it is and rethinking some of the more historically punitive approaches for combating the problem.

First and foremost, it should be made clear that the principle public safety concern with regard to guns and gun violence is suicide. Nearly two-thirds of all gun deaths in the United States are the result of suicide and this trend has increased among children and teens in particular over the last few years [2]. While we acknowledge these alarming statistics as the most prominent form of gun violence, we will be focusing on the instances in which the possession or use of a firearm has led to an individual having increased contact with the criminal justice system.

This chapter explores the ways in which law enforcement has addressed the gun violence epidemic in the past and present, as well as the successes and shortcomings that have arisen along the way. We begin by providing a brief overview of how firearm offenses are treated within the criminal justice system. Next, we highlight the relevant criminal justice policies that not only increase criminal justice system contact but have also played a role in the mass incarceration of individuals from disadvantaged areas. Finally, we will review some strategies that have either been initiated or supported by law enforcement to better address gun violence within communities most impacted.

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Firearms and the Criminal Justice System

In 2019, at least 15,292 individuals were fatally shot in the United States [3]. In recent years, the United States has seen record numbers in gun deaths and between 2014 and 2017, and the number of gun murders rose 32%. What might be most alarming is that only 20% of gun murders and gun assaults lead to an arrest by the next day, leaving far too many cases unsolved and the potential for nonfatal violence to turn deadly [4]. However, in the event that an individual does get charged with a firearm-related offense, the outcomes often do not work in their favor.

State and federal laws tend to have severe penalties for firearm use, especially if a violent crime was committed. According to a recent report from the Bureau of Justice Statistics (2016) [5], 29% of individuals incarcerated at the state level and 36% of individuals incarcerated at the federal level were in possession of a firearm at the time of their offense. However, only 23% of individuals incarcerated at the state level and 25% of individuals incarcerated at the federal level actually used the firearm in the commission of the crime for which they are serving time [6]. The use, let alone the sheer presence, of a firearm can result in a person spending substantially more time incarcerated than they initially would have for a given offense based on statutes and policies at the state and federal levels.

Two examples of these punitive policies are enhanced sentencing and mandatory minimums. These policies have not only increased the number of years served for firearm-related offenses, but also the number of individuals who have contact with the criminal justice system. Such policies have undisputedly played a role in the mass incarceration of over 2.3 million individuals in the US prison system.

Relevant Policies

In order to understand the lack of tolerance for firearm-related offenses within the criminal justice system, it is important to understand the context in which these policies were being developed. Starting in the 1960s, crime was increasing at a steep upward trend until it hit its peak in the 1990s. This trend was exacerbated by the crack-cocaine epidemic in the mid-1980s and the boom in firearm-related homicides between 1985 and 1990 [7]. In 1991, there were approximately 5856 documented crimes for every 100,000 people [8]. As a result, politicians began to advocate for tough-on-crime approaches and harshly punitive policies that would address what seemed to be a national epidemic spiraling out of control.

Two of the policy solutions that came out of the tough-on-crime movement were enhanced sentencing and mandatory minimum laws. Policymakers believed that assigning such harsh punishments to individuals who were threatening the safety of the public would yield a deterrent effect that would make them less likely to engage in violent behavior. However, a considerable body of research has since shown that

prison is not as effective a crime-control measure as policymakers would have liked to believe. In fact, some research indicates that incarceration may make an individual more likely to re-engage in offending behavior. The following section will elaborate upon enhanced sentencing and mandatory minimum laws as they relate to firearm-related offenses, as well as describe the ways in which these policies have played a role in the US epidemic of mass incarceration.

Enhanced Sentencing

Enhanced sentencing laws vary by jurisdiction and occur when a sentence is increased by a prior conviction or the nature of the circumstances (sometimes referred to as "aggravating factors") that result in the offense being classified at a higher level. Oftentimes, the presence or use of a firearm in the commission of a crime is enough grounds for a reclassification at a higher level. In response to the tough-on-crime wave, thirty states had adopted some form of enhanced sentencing policy related to firearm offenses by 1996 [9].

Enhancements generally vary by state and tend to range between 1 and 5 years in additional time served before considering whether or not a judge will use their discretion to waive the enhancement. For example, in Arkansas, the judge has the discretion to add up to 15 years to an individual's sentence for a first-time firearm offense (AR Code § 16-90-120 (2016)). However, in Rhode Island, individuals will receive 10 years added to their sentence for their first non-discharge use of a firearm during a violent crime or 20 years for subsequent offenses involving a firearm thereafter (RI Gen L § 11-47-3.2 (2017)). Interestingly, Illinois stands out as having arguably the strictest enhanced sentencing laws that result in the addition of 15 years to a sentence for the possession of a firearm during a felony.

Beyond severity and discretion, states can also enhance sentences for firearm offenses in a range of different ways. For instance, a judge may apply a more serious enhancement for more dangerous weapons, for subsequent firearm offenses, or for more serious base offenses. Some states make no distinction in their enhancement policies based on the possession, use, or discharge of a firearm and some may characterize firearm use as its own separate offense as opposed to an aggravating factor. These are just a few ways in which the presence of a firearm can lead to an individual serving more time in a correctional facility.

While policymakers in favor of tough-on-crime statutes may advocate for enhanced sentencing, the research regarding whether or not they actually work to reduce gun crime is mixed. For example, Abrams in 2011 [10] found that sentencing enhancements for firearm offenses resulted in roughly a 5% decline in gun robberies within the first 3 years of the law's enactment. Conversely, the National Research Council's Committee on Law and Justice found no evidence that firearm enhancement reduced gun crime in any significant way (2014) [11]. On a nationwide front, enhanced sentencing laws appear to have little to no crime-prevention effects. In a cross-sectional analysis of 170 cities with sentencing enhancement

laws, Kleck [12] found that having such statutes had little to no impact on homicide, assault, and robbery rates. Overall, there is weak support for the idea that enhanced sentencing laws for firearm offenses have led to any decrease in gun violence within communities.

Mandatory Minimums

Mandatory minimum sentencing laws are different from enhanced sentencing laws in that they require judges and prosecutors to follow certain statute-specific requirements. These laws can take many forms—many assign minimum penalties for violent or drug crimes, some require incremental penalties be imposed if an individual meets specific criteria, and others specify minimum sentences for those who have prior felony convictions [13]. The amount of time an individual serves is based on predetermined sentencing guidelines that give judges virtually no discretion in sentencing. For example, under current federal law, if an individual is caught possessing, brandishing, or discharging a gun in the course of crime, they are mandated to serve between five and 30 years in prison (18 U.S.C. § 924(c)). Furthermore, the Armed Career Criminal Act of 1984 (ACCA) mandates that any individual with three or more prior violent felony convictions receive a sentencing enhancement of a strict 15 years if they are found guilty of committing a crime with a firearm.

States also have their own mandatory minimums. For instance, in Massachusetts, the Bartley-Fox law mandates a 1-year minimum prison term for the unlicensed carrying of a firearm and a 2-year minimum sentence for the possession of a firearm during the commission of crime. In New York, the penalty for possessing a loaded, illegal gun on the street is a three-and-a-half-year prison sentence at minimum regardless of criminal history. In Minnesota, individuals with a felony record who possess a firearm in the commission of a crime face a minimum of 5 years in a correctional facility, although there are some measures in place that make an exception for individuals who are not considered a danger to public safety.

Policymakers that advocate for mandatory minimums typically do so on the grounds that they believe it promotes an equal distribution of justice and promotes transparency within the sentencing process. Furthermore, such harsh penalties are believed to discourage individuals who may consider participating in violent behavior from doing so since they are already aware of the minimum sanction they will receive. However, there is no credible evidence that the enactment or implementation of such sentences has significant deterrent effects. In fact, a considerable body of research actually indicates that mandatory minimums reduce accountability and transparency, lead to injustice in many cases, and result in unwarranted disparities in the handling of cases with similar characteristics [13].

In theory, mandatory minimums are supposed to make the sentencing process fairer. In practice, that is not the case. While it may appear that there is little discretion, prosecutors carry a lot of power in the crimes with which they choose to charge an individual and can effectively avoid mandatory minimums for certain individuals

if they so choose. This can result in disparities within the sentencing process through a seemingly justice legal mechanism. In fact, the one outcome we can be sure of when it comes to mandatory minimums is not a reduction in gun violence, but a boom in the prison population.

Mass Incarceration

While the adoption of enhanced sentencing laws and mandatory minimums may seem like a well-intentioned effort to create accountability and transparency within the sentencing process, it has not led to a fairer legal system. Such policies have effectively robbed judges of their discretionary power and reassigned it to prosecutors who ultimately have the final say as to whether or not they will charge an individual with a crime that triggers an enhancement or mandatory minimum. This imbalance in the courtroom has resulted in a disproportionate number of generally low-risk individuals spending extra years, and sometimes the rest of their lives, behind prison bars.

There are presently over 2.3 million people incarcerated within the United States prison system [14]. Approximately 74% of the people being held in jail have not been formally convicted of any crime but many are simply being held because they cannot afford bail and remain behind bars until their trial. On the other hand, some may argue that those in prison for violent offenses are too dangerous to be released. However, as we have discussed through our explanation of enhanced sentencing and mandatory minimums, such policies facilitate the unnecessary incarceration of individuals not based off level of danger but instead due to the nature of the statute.

America has historically had a track record of resorting to punishment and incapacitation when faced with tough problems, especially crime. This culminates in a disproportionate impact on communities defined by poverty and minority status—communities that are disproportionately defined by high rates of crime and violence. However, instead of addressing the structural factors that facilitate violence within certain communities, the criminal justice system instead pulls as many bodies as it can into its web consequently decimating any potential hope of reducing crime, but particularly violence, within communities most impacted. Those responsible for enforcing the law have the unique opportunity to use their power to leverage relationships within the community and lead a collective effort towards reducing crime and violence among residents.

Law Enforcement Strategies

In order to reduce gun violence within our communities, we need not develop new laws grounded in punishment, but instead focus our efforts on understanding the characteristics that make certain people and places vulnerable to violence. Tools like social network analysis have been foundational in understanding the ways in

which the people and places individuals tend to associate with are connected to their experiences with crime and violence. For example, research suggests that each "handshake" a person is removed from a gunshot victim decreases the probability of becoming a victim of gun violence by 57% in Chicago, 25% in Boston, and 38% in Newark [15–17]. Thus, to reduce violence in communities most impacted, it has become incredibly necessary for law enforcement to re-think the ways in which they address violence as more and more people are vulnerable to being directly or indirectly affected by it.

While law enforcement still remains largely punitive, some jurisdictions have shifted towards problem-oriented policing to address gun violence in their communities. Oftentimes, problem-oriented policing strategies necessitate a collaboration between law enforcement officers and community partners in the implementation of violence reduction initiatives as a more proactive and effective way to address crime and violence. Two examples of strategies that center on people and/or places are focused deterrence and hot spots policing.

In this section, we will review these two strategies in an attempt to highlight the ways in which law enforcement has leveraged their resources to focus on people and places disproportionately affected by violence. While these are not the only strategies law enforcement has used to combat community violence, they are among the most widely utilized across departments. However, it should be noted that more rigorous evaluations of both strategies are needed to fully understand the impact of their implementation across jurisdictions.

Focused Deterrence

In an effort to specifically address the issue of violence within communities most impacted, some jurisdictions have implemented strategies such as focused deterrence. Sometimes referred to as "pulling levers," this approach is rooted in deterrence theory which suggests that an individual will be less likely to engage in future illegal activity if the threat of punishment is swift, certain, and proportional to the crime committed [18]. When an individual does not perceive the benefits of involvement in illegal activity to outweigh the costs, the assumption is that crime rates will be lower [19].

Focused deterrence is based on the proposition that a small group of individuals are disproportionately responsible for the majority of violence within a given community and that these individuals tend to be part of gangs or groups [20]. While strategies grounded in focused deterrence can take many forms depending on the behavior being targeted, among the most effective are those that seek to address group behavior [21]. Through this model, the police and representatives from the community come together to communicate the incentives for avoiding violence and deterrents for engaging in violence to those at a high risk of involvement. Some incentives may include connections to job placement programs or substance abuse treatment, while some deterrents may involve enhanced penalties and sanctions for

those who continue to participate in violent behavior. Ideally, the advertisement of a law enforcement strategy will encourage high-risk individuals to share these messages with their networks that may potentially be composed of other high-risk individuals, ultimately decreasing the amount of opportunity available to commit violence. Moreover, this strategy allows the community to play a critical role in discouraging its members from engaging in violence and possibly improves police-community relations along the way [22].

In 1996, Boston implemented the first focused deterrence strategy called Operation CeaseFire, which sought to identify a small group of individuals who had been known to be responsible for over half of the youth homicides in the city [22]. In practice, program staff would conduct interventions, or "call-ins," for those at risk of perpetuating violence within the community. At these meetings, police officers, community activists, social service providers, faith leaders, and other community members articulate to the individual that their behavior will not be tolerated and that services are available should they choose to desist. An impact analysis of the Boston program showed that there was a statistically significant 63% reduction in monthly youth homicides, a 44% reduction in monthly youth gun assaults, a 32% reduction in citywide "shots fired" calls for service, and a 25% reduction in all-age gun assaults. Other US cities that implemented their own version of CeaseFire, such as Oakland, have seen notable reductions in violence, as well. Between 2012 and 2017, Oakland's homicide rate was cut in half.

Overall, the strategy has been associated with a statistically significant, moderate crime-reduction effect. However, not every US city that has implemented the program has seen reductions in violence and shootings. In fact, some communities saw no effect or increases in homicides due to factors such as implementation issues, budget deficits, and inadequate support from public officials. These discrepancies may also exist because of differing perceptions of police legitimacy within communities—that is, the public belief that they should accept and defer to decisions made by authorities [23, 24]. While focused deterrence strategies have been shown to reduce crime, it is important to keep in mind that more rigorous evaluations are needed to fully embrace their implementation across jurisdictions trying to reduce their rates of gun violence.

Hot Spots Policing

Recent reports have shown that half of America's gun homicides in 2015 occurred in just 127 cities and towns, even though these communities made up less than one quarter of the nation's population [25]. While focused deterrence seeks to address the *people* at risk of being involved in violence, other strategies such as hot spots policing focus their efforts on high-risk *places*. Hot spots policing is rooted in the notion that crime is not randomly distributed across space and that the characteristics of places allow for crime to concentrate in specific areas. The strategy is theoretically grounded in rational choice theory, routine activity theory, and environmental criminology [26]. To summarize, rational choice theory assumes that individuals are

reasonable actors who weigh the costs and benefits of a decision before making a rational choice [27]; routine activity theory suggests that the presence of a potential offender, a suitable target, and the absence of a capable guardian facilitates the consideration of involvement in illegal activity [28]; and environmental criminology explores the distribution and interaction of targets, individuals who participate in offending behavior, and opportunities across time and space, as well as the characteristics of places that give rise to the opportunities that rational actors will encounter during their routine activities [29].

A central aspect of policing a beat is familiarizing oneself with the community—that is, its residents, its landmarks, but also its trouble spots. While departments can use this information to increase levels of patrol and surveillance, hot spots policing offers a systematic approach to not only identifying hot spots but addressing the characteristics of a place that facilitates the presence of crime. In this model, departments collect, manage, and analyze data using tools such as CompStat to track crime and develop problem-solving techniques for areas experiencing disproportionate rates of violence [30]. For example, police interventions such as directed patrol and proactive arrests (or "crackdowns") can be used to yield significant crime-prevention gains in places characterized by high levels of violence [31]. Further, research has shown that when a community receives an intervention, crime is not displaced to neighboring communities, but rather crime control benefits are diffused among surrounding areas [32].

Although research suggests that hot spots policing can be an effective approach to crime prevention, such practices can also lead to abusive and unjust policing, particularly in disadvantaged minority communities [33]. In part, this can be attributed to the ease with which hot spots policing can become an indiscriminate and aggressive policing tactic that corrodes trust between communities and law enforcement [34]. Furthermore, the strategy has the potential to burden the legal system by bringing in a high volume of arrests for low-level offenses, consequently undermining the long-term stability of specific neighborhoods [35]. While place-based strategies such as hot spots policing may provide short-term crime prevention gains, it is likely the case that more sustained crime prevention benefits can be attained by addressing structural deficits by altering place characteristics and dynamics that give way for violence to occur.

Conclusion

In this chapter, we provided a brief overview of how firearm offenses are treated within the criminal justice system while contextualizing the historically punitive nature of law enforcement efforts, which largely began in the 1990s when violent crime was at its peak. We describe the relevant policies that came out of the tough-on-crime movement, such as enhanced sentencing and mandatory minimums, that have not led to the goals of violence reduction they may have hoped for. We go on to explain how such punitive policies have instead led to a prison boom for low-risk

offenses and technicalities that are not representative of the danger an individual poses to society and has led to the utilization of unnecessary incapacitation and consequently, mass incarceration. Finally, we culminated our review by discussing the importance of focusing on the characteristics of people and places most vulnerable to violence and the ways in which law enforcement and community representatives have come together to reduce gun violence within their neighborhoods.

Law enforcement agencies and their actors have played a major role in how we conceptualize our response to the gun violence epidemic across the United States. Their historically punitive approach has caused strain on police-community trust and perceptions of police legitimacy that will not be resolved overnight. While some departments have employed strategies such as focused deterrence and hot spots policing that put the people and places most impacted by violence at the center of the conversation about reducing gun violence, it is critical that their role in these efforts be fair and transparent in nature. To win the war on gun violence, the voices of community members must be heard and valued while law enforcement agencies leverage their authoritative power to facilitate meaningful change.

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Chapter 15
Gun Buyback Programs in the United States

Sandra Carpenter, Kevin Borrup, and Brendan T. Campbell

Introduction

Defining a Gun Buyback Program

Gun buyback programs involve the government or a private group providing incentives for the voluntary surrender of firearms. These programs are typically short term, local in scale, and held in accessible and safe locations, such as community centers, police stations, or houses of worship. The incentive may be cash, a gift card, product voucher, or merchandise, and is usually adjusted according to the type of firearm that is turned in. To promote participation by high-risk individuals, such as criminals, those with mental illness, and minors, these programs often allow firearms to be turned in with "no questions asked." The recovered guns are sometimes traced by law enforcement and then, in most cases, stored or destroyed.

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Aims of Gun Buyback Programs

The principal aim of gun buyback programs is to reduce the prevalence of firearms in the community to curtail both intentional and unintentional gun violence. Additional goals include educating the public about the prevention of firearm violence, safe gun storage, and fostering alliances within communities to support a multi-pronged public health campaign to lessen gun violence.

History of Gun Buyback Programs

Operation PASS: The First US Gun Buyback Program

Gun buyback programs have existed in the United States since the late nineteenth century [1]. The first described buyback program was held in 1974 in Baltimore, Maryland. This program, Operation PASS (People Against Senseless Shootings), was created by the city's police commissioner after three officers were shot and killed. Operation PASS was a 2-month gun "bounty" that collected 13,500 firearms at a significant financial cost to the city [2]. Following the implementation of this program, firearm homicide rates in Baltimore increased by 50% and gun assaults increased by more than 100% [3]. Police were unable to explain why gun-related crime increased after thousands of firearms had been removed from the community.

Operation PASS was cut short when the federal Law Enforcement Assistance Administration denied funding to continue the program on suspicion of encouraging economic exploitation through the exchange of cheap handguns rather than collecting the firearms that were used to commit crimes [4]. Despite strong criticism against its design and outcome, the Baltimore buyback prompted many American cities to implement similar programs [2]. Since 1974, hundreds of gun buyback programs have been conducted throughout the United States.

Gun Buyback Programs at Home and Abroad

Despite an absence of evidence that buyback program implementation lowered the incidence of gun violence, this first buyback program created an impetus for other municipalities to implement more of them [2]. Buyback programs thrived in the early 1990s when violent crimes peaked due to an upsurge in gun homicides among urban youth [5, 6]. Since 1988, approximately 550 programs have been held in 37 states, often following high-profile mass shootings.

In April 2000, President Clinton unveiled plans to fund a gun buyback program in Washington D.C. in response to a shooting at the National Zoo [7]. This buyback

was the largest program to join “BuyBack America,” a 15-million-dollar national gun buyback program that had begun a year earlier and was sponsored by the Department of Housing and Urban Development [8]. Buyback America provided funding to 85 participating communities to enable public housing authorities and local law enforcement agencies to conduct local gun buyback programs [9]. The initiative encountered intense pushback from gun policy experts and Congress [10, 11]. In July 2001, the Bush administration terminated the program, declaring it an ineffective strategy to combat gun violence in America [12].

In the last 30 years, both the United Kingdom and Australia passed laws that substantially reduced the availability of specific firearm types. In 1996, the United Kingdom banned the private ownership of handguns in the aftermath of the Dunblane school shooting where 16 Scottish children were killed. A large-scale gun buyback program was arranged to safely collect and compensate individuals for banned weapons in private ownership [13]. There is no evidence that these firearm prohibitions and buyback programs lowered the rates of gun violence in the United Kingdom [14].

Australia similarly implemented stricter firearm regulations in response to the 1996 mass shooting in Port Arthur, Tasmania, during which an individual used a semiautomatic rifle to kill 35 people [14]. This incident was one of several mass homicide events in the country that spurred Australia’s federal and state governments to pass the National Firearms Agreement (NFA) in 1997. Under the NFA, it became illegal to sell, import, or possess magazine-fed semi-automatic firearms [14]. The Australian government also organized a national buyback that removed about one-fifth of the country’s total firearms.

The Australian gun buyback represents the greatest reduction of civilian firearms—in any country—between 1991 and 2006 [15]. Several studies have evaluated the NFA’s effect on Australian firearm deaths, and their findings suggest that it accounted for a significant decrease in gun suicide and homicide rates [15–17]. Importantly, firearm deaths dropped significantly in states where more firearms were bought back. No mass shootings occurred in the decade after the NFA was passed [17]. The authors of the longest and most rigorous analysis of the NFA believe that strengthening and enforcing gun ownership legislation, in combination with firearm prohibitions, caused the decrease in firearm-related death rates observed in Australia during this period [15].

The results from the Australian gun buyback are often cited as evidence that gun buybacks are an effective measure to lower the incidence of gun violence. However, it must be appreciated that the way firearms are sold and regulated in the United States differs significantly from that in Australia. American gun buyback programs have been small scale and voluntary, while the Australian buyback after the NFA was expansive and mandatory. Moreover, the NFA prohibitions were bolstered by the absence of domestic gun manufacturers and strict enforcement of restrictions on firearm imports [15]. In the United States, the average gun buyback program removes about 1000 firearms from circulation. This amounts to less than 2% of the total firearms held by a typical American community [18], and retail firearm sales

are continuously adding firearms back into civilian circulation in all 50 US states. While the Australian experience and evidence of impact is promising for those looking to address firearm deaths, the policies that might support a broader gun buyback program in the United States are differently bounded. Firearm ownership is a right protected by the second amendment of the US constitution under the D.C. v. Heller ruling [19]. Any discussion of comparisons would be incomplete if it did not recognize this important difference.

Disadvantages of Gun Buyback Programs

Many American communities affected by firearm violence endorse gun buyback programs as a harm reduction strategy. In the aftermath of gun-related tragedy, buyback programs enjoy broad public support while avoiding the controversy generated by legislation that imposes greater restrictions on firearm ownership. The theoretical premise is straightforward and compelling: by limiting the prevalence of firearms in a community, the rates of violent crime and suicide will decrease. However, there are three assumptions that need to be met if gun buyback programs are to be cost-effective public health interventions. First, firearms surrendered during buyback programs must be comparable to guns used in homicides and suicides. Second, the buyback program must remove these firearms from individuals at significant risk of firearm injury. Third, cost-effectiveness of the buyback must be acceptable. Research on gun buyback programs in the

Table 15.1 Advantages and disadvantages of US gun buyback programs

Advantages	Disadvantages
Voluntary nature promotes broad public support	Voluntary nature fails to attract criminals
Typical participants are at high risk of firearm suicide	Typical participants are at low risk of firearm homicide
Provides accessible, safe means for disposing of unwanted firearms	Many participants own multiple firearms
Provides opportunity to educate community members about safe firearm storage and lethal means safety	"No questions asked" policy may limit data collection and follow-up
Decreases prevalence of firearms in a community by removing and destroying firearms	Increases prevalence of firearms in a community by encouraging replacement purchases
Targeted advertising to high-risk populations	Most programs have limited advertising resources
Individual activism	Small-scale intervention
Promotes public–private partnerships and mobilizes communities	Law enforcement involvement may dissuade participation by some community members
Exchanged guns may match fatality-related firearms	Exchanged guns may not match fatality-related firearms
Can be a supportive element of a broader public health campaign against firearm violence	No demonstrated gun violence reduction as an isolated intervention

Table 15.2 Priorities and pitfalls in gun buyback program implementation

Priorities	Pitfalls
Targeting high-risk firearm types that are used in suicides and homicides, specifically handguns	Not having enough gift cards on hand during buyback events
Developing a strong partnership with local law enforcement to assure event safety and the legal destruction of collected guns	Buying back low-risk or inoperable firearms
Engaging community stakeholders to broaden the impact and scope of the program	Not having a plan to manage protestors or individuals who attempt to buy guns outside the event

United States has shown that many of them do not meet these assumptions which impede their ability to lower rates of gun violence in the communities where they are held.

Firearms turned in at some buyback programs have been shown to differ from those commonly used in homicides and suicides (Table 15.1). Specifically, many of the guns turned in are older and inoperable [13, 20, 21]. Removing outdated and inoperable guns from the community is not likely to decrease the rates of suicide and homicide because the risk of these types of events is inversely related to a firearm's age [21, 22]. The exchange of predominantly low-risk firearms also raises the concern that buybacks facilitate the replacement of outdated guns with newer ones. A 2001 economic market analysis predicted that long-term or recurrent gun buyback programs will actually increase the quantity of guns in a community, the opposite of their intended effect [23]. Therefore, organizers of buyback programs must prudently set trade-in prices to discourage firearm upgrading while promoting participation from target groups. Contemporary evaluations of gun buyback programs report that typical participants are at low risk for committing violent crime [13, 24–27]. Furthermore, the majority of buyback participants possess firearms in addition to those they are turning in, which are often improperly stored [13, 26, 27]. The challenges of successfully targeting the high-risk youth demographic underscores a major flaw in current buyback design.

Compared to international programs such as the U.K. and Australian buybacks, the small scale of US buyback programs presents a challenge when attempting to demonstrate causal reductions in gun violence (Table 15.2). The number of firearms bought back in a typical program is negligible in magnitude to the numbers remaining in civilian hands and the numbers of guns sold each year [25]. It follows that a powerful criticism of buyback programs is that they may draw limited resources away from other more evidence-based crime reduction strategies.

Advantages of Gun Buyback Programs

One putative advantage of gun buyback programs is that they provide a safe method of removing unwanted firearms from a community. Anonymous and safe venues for firearm disposal may be important to communities because even marginal

reductions in the availability of guns may have direct and indirect benefits as part of a broader strategy to prevent firearm injuries and deaths.

A wealth of research shows that removal of firearms from the home lowers the risk of homicide and suicide for those living there [18]. Decreasing the overall prevalence of firearms within homes and communities may impede firearm acquisition by high-risk individuals. However, this ripple effect is very difficult to prove. While typical buyback participants are at low risk of committing firearm homicide, they are at higher risk of committing firearm suicide [25, 28]. Gun buyback programs, therefore, may have greater potential to lower the rates of firearm suicide than that of firearm homicide, although this hypothesis is unproven. Several recent buyback programs have employed strategies such as targeted advertising and graded incentives to increase the return of high-risk firearms, namely, handguns and assault weapons [26, 29]. These are important issues from an epidemiological standpoint, since gun buyback programs should focus their resources on high-risk populations and those firearms most likely to be used in homicides and suicides for maximal effect.

The most salient advantage of gun buybacks (Table 15.1) is their universal support, making them much more feasible to implement than legislative or regulatory measures. Buyback programs are often championed with the mantra "every gun bought back is a potential life saved." These programs engage both groups and individuals to become actively involved in prevention efforts. Voluntary participation and ease of implementation are strong drivers of buyback popularity, particularly in communities desperate to take action. Moreover, buybacks forge partnerships between community stakeholders, such as trauma centers, law enforcement, schools, and other agencies. These alliances raise awareness about gun violence prevention and firearm safety (Table 15.2). When integrated into a multi-faceted public health model for firearm injury prevention, buyback programs are considered worthwhile interventions.

Assessing Gun Buyback Program Efficacy

Conflicting Evidence

Systematic evaluation of buyback efficacy has consistently assessed three measures: firearm injuries and fatalities over time, characteristics of exchanged firearms, and participant demographics and views. In this section, we will describe the findings of three moderately strong studies and several smaller, less rigorous ones. Taken together, these studies present mixed evidence for the utility of gun buyback programs as a method of reducing gun violence in the United States.

The first program evaluations examined buybacks held in St. Louis, Missouri, and Seattle, Washington, during the mid-1990s [24, 30]. In these studies, researchers sought to isolate the short-term, temporary effects of each buyback program by

comparing monthly frequencies of gun homicide and assault. Both concluded that there was no reduction in firearm violence, and the Seattle study even reported an increase in gun-related deaths. Two smaller studies published in 1998 and 2002 evaluated buybacks in Sacramento, California, and Milwaukee, Wisconsin [13, 21]. The authors reported on the exchanged firearm characteristics and demographics of buyback participants. They identified critical limitations of buyback programs, such as their failure to target high-risk populations and their tendency to collect low-risk firearms.

Following these studies, academic discussion on buyback efficacy became increasingly critical; yet the number of programs steadily grew. In 2001, a prominent review of gun policy research cited the St. Louis and Seattle evaluations to show that gun buyback programs are counterproductive [31]. The author criticized federal policymakers for ignoring these data, which had been included in two separate reports to Congress, and for moving forward with the BuyBack America initiative. In 2005, the National Committee to Improve Research Information and Data on Firearms similarly concluded that the theory underlying buyback programs was flawed and that their failure to influence firearm injury rates was well-documented in the literature [18].

Recent papers further support their assessment. A 2012 meta-analysis that investigated the relative efficacy of firearm violence prevention efforts found that buyback programs have no empirical relationship with gun violence and have performed poorly in reducing gun crime compared to other measures [32]. Another time-series analysis of a 5-year buyback program in Buffalo, New York, also reported no significant decrease in gun-related crime [33]. Echoing past criticisms, the authors call buyback programs instant solutions for satisfying public expectations without producing meaningful change.

Modest evidence from a long-term buyback program held annually in Worcester, Massachusetts, demonstrated a small benefit [26]. The researchers reported a downward trend in firearm mortality and a decrease in firearm injuries over the 7-year life of the program compared to other Massachusetts counties where buybacks were not held. These studies do not report statistically significant trends, however. It is, therefore, unlikely that the effects of a small-scale buyback can be determined from variations in county-wide death rates. Still, the Worcester buyback program experience highlights how private and public partnerships can foster civic engagement, provide safe gun disposal venues, and support a low-cost component of a broader gun safety campaign [27, 34].

In 2013, researchers examined two buyback programs held 12 years apart in Boston, Massachusetts [29]. They describe how deliberate programmatic modifications in buyback design led to the return of significantly more crime-related firearms. The new changes were increased incentives for working handguns, proof of Boston residency, multiple drop-off locations, and streamlined advertising to urban youth. The authors noted a significant decrease in gun violence in the years following the second buyback. They did not attribute this decrease to the buyback alone, however. Two other violence reduction programs directly changed gun violence behaviors by high-risk youth rather than solely limiting firearm access. The authors,

who had criticized buyback programs in previous reports, reversed their opinion in this short piece. They argued instead that altering the design of a buyback program can improve its potential effectiveness as a violence prevention measure by affecting the nature of firearms that are recovered.

Another promising study from Hartford, Connecticut, showed that graded incentives encouraged buyback participants to preferentially turn in handguns. In contrast to previous buyback evaluations, this study found that the recovered firearms were all operational and generally similar to firearms used in crimes in the city during the same year [25]. Additionally, the typical buyback participant matched the demographic most at risk for suicide, informing potential new roles for buyback programs in addressing mental health and suicide prevention [28].

Although buyback programs are both promising in theory and popular in practice, the epidemiological evidence demonstrating their effectiveness is conflicting. The lack of a demonstrable reduction in gun violence after buyback program implementation does not necessarily invalidate their potential as a prevention strategy. Rather, it calls for more structured buyback design with a rigorous evaluation of their local effects. For example, the Worcester, Boston, and Hartford buyback programs improved upon earlier programs by attracting high-risk individuals and netting high-risk firearms. Though modest, their findings are notable in that they provide insight for designing better buyback programs and selecting more appropriate outcome measures for program evaluation.

New research suggests that gun buyback programs may be beneficial when they are implemented with additional public health efforts. Buyback programs are intended to serve other goals beyond reducing gun-related death, injury, and crime. These goals are less tangible, and include community mobilization, social cohesion, heightened awareness, and cultural shift. Buybacks may have greater potential to achieve these other public health interests than producing measurable reductions in gun violence rates.

Gaps in Research and Future Directions

Opposition to investing prevention resources in gun buyback programs is supported by the observation that these small-scale interventions have not been demonstrated to decrease the incidence of firearm suicides, homicides, and unintentional shootings. However, recent studies present evidence that buyback programs can be designed to increase the likelihood that high-risk guns are turned in by high-risk individuals in a community. This has yet to be systematically assessed, creating possibilities for future research.

One fundamental area of future research should be to determine effective methods of targeting individuals who would confer the greatest benefit to a community by surrendering their firearms, such as minority youth in cities, older males, and individuals suffering from dementia. This requires a more complete understanding of the demographics at high risk for firearm violence in the community, the

demographics most likely to participate in a buyback program, and the types of firearms owned by both. Mismatch between these populations should be used to inform the design of future buyback programs, as well as other community-based gun violence prevention efforts.

A second crucial area of research will be redefining buyback efficacy within a public health model. Researchers should periodically analyze process measures in addition to health outcome measures, such as macro death rate data. Process measures are under the control of the interventionist and are more sensitive to change than outcome measures [35]. With respect to gun buyback programs, process measures may include firearm characteristics, participant homicide and suicide risk, participant knowledge, attitudes, and beliefs, number and age of persons residing in the home, number of firearms remaining in the home, and the accessibility of remaining firearms. Process measures may be better indicators of buyback efficacy for several reasons: they can be compared between program iterations; they can be directly related to programmatic changes in buyback design; and they can demonstrate the program's effect on individual persons or families, which is relevant to community-based injury prevention efforts. Most importantly, these measures can provide more information about how well a buyback program is relating resources to risk factors when it is implemented alongside other violence prevention measures. Research of this nature will help community stakeholders decide if a buyback program is a cost-effective strategy or if their resources should be reallocated to other prevention measures.

Outline for Conducting a Gun Buyback Program

Designing the Gun Buyback Program

I. Define program goals.

   A. Characterize burden of firearm violence in the host community.

      1. Use public health frameworks for injury prevention measures, such as logic or causal models and conceptual planning models.
      2. Use research to identify high-risk demographics and barriers to firearm safety.

   B. Define the target demographic and the target firearms.

      1. The target demographic and target firearms should be specific to the host community.
      2. The target demographic and target firearms may change based on the host community, trends in firearm violence, program timing, and funding.

   C. Leverage reinforcing factors within the host community.

1. Reinforcing factors include education and awareness programs, law enforcement programs, and changing regulations and laws.
2. Pursue collaboration with community stakeholders, such as medical organizations, law enforcement, judicial systems, education systems, local businesses, community centers, community organizations, and media agencies.
3. Characterize the relationship and level of cooperation among community stakeholders.

D. Work with community stakeholders to generate a list of short-term and long-term program objectives.

1. Stakeholders include the program implementers, community leaders, and representatives from the target population.
2. Plan a coherent public health strategy.
3. Involve community stakeholders early in the evaluation planning process.
4. Program objectives should be well-defined and target measurable short-term and long-term outcomes to be evaluated.
5. Measures should include both outcome measures, such as community-wide injury and death rates, and process measures, such as firearm and participant characteristics.

II. Choose program elements.

A. Structure trade-in prices.

1. Grade incentives to maximize the return of target firearms.
2. Choose incentives that will encourage participation by the target demographic.
3. Gift cards, product vouchers, or merchandise specific to the interests of the target demographic are preferred over cash.
4. Allow the disposal of old, malfunctioning, or non-target firearms, but do not provide incentives for them.

B. Choose the event location.

1. Select a location that is accessible and tailored to the target demographic, such as a youth center or a senior center.
2. Community centers are preferred over police stations.

C. Set the event date and timing.

1. Select an appropriate date and length of time for the event.
2. Select multiple times that will accommodate the schedules of the target demographic.

D. Conduct a streamlined advertising campaign.

1. Plan for ample time to advertise the event.

2. Clearly articulate incentives in all communications.
3. Clearly state procedures for turning in a firearm: unloaded, in a clear bag inside a brown paper bag, and ammunition to be carried in a separate bag.
4. Use earned media to gain free coverage (i.e., press conference a week or days before the event).
5. Advertise directly to the target demographic and promote the return of target firearms. Distribute flyers to businesses and at community centers; arrange for articles in community newspapers; work with local clergy to spread the word; encourage partners to provide interview to local radio, community television, and social media.

III. Conduct the buyback program.

A. Secure the location.

1. Involve a covert police force to monitor the event and respond in case of an emergency.
2. Decrease police visibility as much as possible to encourage participation by high-risk individuals.
3. Establish additional, safe locations for anonymous firearm disposal.

B. Ensure participant anonymity.
C. Ensure participant residency in the host community before exchange.
D. Award the appropriate incentive.

1. Involve consultants to assess each firearm and determine the appropriate incentive.
2. Consultants other than law enforcement personnel are recommended.

E. Secure exchanged firearms.

1. Involve law enforcement to remove firearms from the site for storage or destruction.
2. In advance determine whether metal from destroyed firearms can be used in community art projects.

F. Provide on-site education for high-risk participants.

1. Involve medical professionals to provide education and/or counseling tailored to the target demographic.

G. Administer on-site surveys for ongoing evaluation of process measures.

Evaluating the Gun Buyback Program

I. Establish or clarify program effectiveness.

A. Determine how to best evaluate process measures and outcome measures.

1. Determine how best to evaluate less tangible outcome measures such as community mobilization, social cohesion, heightened awareness, and cultural shift.
2. Periodically assess both process and outcome measures for ideal program implementation.
3. Administer on-site anonymous surveys with optional follow-up surveys to assess participant risk of intentional and unintentional firearm violence.

II. Evaluate firearm characteristics.

A. Characteristics may include the following:

1. Type of firearm
2. Condition of firearm
3. Status as lost or stolen
4. Missing serial number

B. Compare to the following:

1. Predefined target firearms
2. Crime-related firearms in that same year

III. Evaluate participant demographics.

A. Demographics may include the following:

1. Age, race, ethnicity, gender
2. Income level, zip code, living situation
3. Number of minors living in the home
4. Number of seniors living in the home

B. Compare to the following:

1. Predefined target demographic
2. County, city, or nationwide demographics at risk for firearm violence

IV. Evaluate participant risk for firearm-related homicide or suicide.

A. Assessment may involve the following:

1. History of firearm violence, criminal history, history of mental illness, mental health screening
2. Number of remaining firearms in the home
3. Number of remaining firearms improperly stored
4. Number of remaining firearms properly stored

V. Evaluate participant views and behaviors.

A. Assessment may involve the following:

1. How the participant learned about the program
2. Reasons for disposing of firearms

3. Knowledge, attitudes, beliefs, barriers, self-efficacy, and stages of change regarding firearm safety

VI. Evaluate community views and behaviors.

A. Assessment may involve the following:

1. Public awareness and approval of the program
2. Knowledge, attitudes, beliefs, barriers, self-efficacy, and stages of change regarding firearm safety

VII. Improve program implementation.

A. Begin process evaluation early to identify problems and enable modifications and adjustments in resources.
B. Compare data between program iterations and make adjustments accordingly.
C. Evaluate the efficacy of specific changes between program iterations.
D. Periodically perform cost benefit, cost-effectiveness, and cost utility analyses using both process measures and health outcome measures.

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Chapter 16
Hospital-Based Violence Prevention Programs: From the Ground Up

Joseph B. Richardson Jr and Che Bullock

The Hospital

A hospital is a place where strangers who suffer come to be cared for [1]. Typical hospitals today provide highly sophisticated inpatient treatment by specialized medical and nursing professionals employing state-of-the-art medical procedures and equipment. The treatment is generally focused on reducing the untoward consequences of symptomatic disease, that is, disability or death. Trauma is a sentinel example. Whether the result of an automobile collision or a gunshot wound, there is no better facility than a hospital to mitigate their consequences and save the victim's life. Hospitals, however, as a community institution have expanded their roles and responsibilities to extend beyond their doors and include primary and secondary prevention in their portfolios.

Hospital violence intervention programs (HVIPs) is not a new concept. These innovative programs that aim to reduce trauma recidivism among survivors of violent injury have been in existence since the 1990s. Although the research on the effectiveness of HVIPs is still in its nascent stages due to the lack of funding support for gun violence research, these programs have shown evidence of being effective [2]. Currently, there are 40 hospital violence intervention programs in the world. These programs are members of the Healing Alliance for Violence Intervention (HAVI) the National Network of Hospital Violence Intervention Programs is now

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under HAVI. To our knowledge there is no research, particularly qualitative, on the challenges and successes in developing and implementing a hospital-based violence intervention program.

This chapter qualitatively describes the development of a hospital-based violence intervention program at an urban Level II trauma center in the Washington DC metropolitan area. This chapter descriptively illuminates a year in the life of THRIVE an emerging hospital-based violence intervention program at Kings County General. Kings County General (pseudonym) is the second busiest trauma center in Maryland, located less than five miles from the District of Columbia. Kings County General, colloquially known as "Kings," annually treats 745 violently injured patients per year approximately 33% of this population have been injured by a firearm. These patients are typically injured in the District of Columbia and Kings County, Maryland.

This narrative uses a timeframe of analysis from August 2017 (when the program was officially launched) to August 2018. The narrative is told from the perspectives of the authors, the first author served as the founder and founding co-director of THRIVE and the second author who served as the violence intervention specialist for THRIVE and a senior member of the program's frontline staff.

Recurrent Violent Injury Research Strategy

In 2013, the first author, Dr Joseph Richardson, Jr, Professor at the University of Maryland College Park initiated a longitudinal ethnographic research study to understand the risk factors for recurrent violent injury, linkages and barrier to care, and HIV risk behaviors among 25 violently injured young Black men treated at Kings County General Trauma Center. The period of the study was 2 years. The research team comprises Dr Richardson and his post-doctoral research fellow Dr John Evers (pseudonym) recruited participants at the bedside in the trauma center that fit our research criteria: Black; male; between the ages of 18 and 30; a victim of a gunshot wound, stabbing or blunt trauma; resident of the District of Columbia or Kings County. Three waves of in-depth semi interviews and participant observations were conducted in the communities and households of the study participants. The data were used to inform the development and implementation of THRIVE, an emerging hospital violence intervention program (HVIP) at Kings.

The research and development team for THRIVE comprised the lead investigator (the first author), Dr Evers, and Dr Carnell Cooper. At the time of the study, Dr Cooper was the Chief Medical Officer of Kings County General and also the Director of the Violence Intervention Program (VIP), a hospital violence intervention program at the University of Maryland R Adams Cowley Shock Trauma Center (STC). The VIP at STC was one of the first HVIPs in the nation. Dr Cooper was a pioneer and respected scholar in the area of hospital violence intervention programs. He also served as my mentor. At the time of the study, Dr Evers was my post-doctoral research fellow at the University of Maryland, Department of African-American Studies. He recently completed his doctoral studies at Howard University

School of Social Work. Dr Cooper and Dr Evers are Black men who were both professionally and personally committed to improving the health and lives of young Black men, particularly young men involved in gun violence as victims and offenders.

One of the most pressing challenges with conducting research on Black male survivors of nonfatal firearm violence is access to the patient population in a hospital setting [3]. Fortunately, Dr Cooper's role as the Chief Medical Officer of Kings facilitated our entrée into the hospital; however, it did not prevent the numerous challenges encountered by the research team once the study was launched. When Dr Evers (whom I will refer to as John) and I initiated the research study in the trauma center, we were tasked with approaching each potential study participant at the bedside for recruitment. This was not as easy a task as we had initially anticipated. One assumption that we made, which was immediately proven wrong, was the patient population would be receptive to us because we were Black men. We would quickly learn that our identity and positionality as Black male researchers did not imply that young Black men would automatically open up to us. In fact, it was quite the opposite. The first 25 violently injured young Black men we approached at bedside rejected us.

There was a 3-week period when we first began accessing patients on the trauma floor that no one wanted to participate in the study. The first 3 weeks of the study were rejected by at least 100 patients. Although we looked relatively young, particularly John, I assumed that most patients would immediately connect with us. However, many patients assumed that we were law enforcement. Because victims of violent injury are investigated by the police regarding the circumstances of their injury while they are in the hospital, typically at the bedside, patients assumed that we were detectives not researchers. Despite displaying our hospital badges and providing patients with our business cards that had our titles as faculty members at the University of Maryland for most patients, they were still skeptical and reluctant to speak to us. Furthermore, the sterility of the IRB approved script we used made us even more robotic, clinical, and less authentic. We were just not very compelling or convincing in the initial recruitment phase. It was the first time in my career as an ethnographer that I struggled with recruitment and I had conducted several ethnographic studies with high-risk populations of young Black males in schools and jails with great success. But this study proved to be challenging from the start.

One potential participant, a young Black male with a gunshot wound to the chest, told John and I that he thought we were the police and literally called my university office from his hospital phone while we were standing at his bedside to confirm if we were really professors. When he heard my voicemail, he immediately hung up, chuckled and said "the police are tricky, so I don't know if you're really professors or the police, because the DTs (detectives) were just in my room asking a bunch of questions, I thought y'all were the police doubling back." This patient declined to participate in the study. By week three John and I were frustrated. I clearly remember John saying, "Dr. Richardson, I don't think the patients are feeling us." He was right. They were not. We were stuck. Three weeks into the study we had no participants.

Despite the fact that Kings treats 740 victims of violent injury per year (roughly a third of patients fall equally into each category of injury) approximately two violent injuries per day, we were missing all of them. At that point, we collectively decided that we would tweak using our sterile study script and change our presentation. Instead of rushing to consent patients, we strategized that we would briefly explain the study but more importantly allow patients to see our authentic selves. As social scientists working in a clinical setting, we allowed the setting to alter our personalized approach, which is a key to the success of an ethnographic study. Streetwise young Black men can immediately discern when people are being authentic. Our clinical approach set the stage for distrust. More importantly, we learned to be empathic. Although I had not learned the concept of trauma-informed care at the time, I intuitively knew that we needed to approach each patient with sensitivity and compassion. The person lying in that bed was just shot. There is no normality in that. Our new approach, John and I would sit at the bedside and talk with each patient about anything as a gesture to show that we cared. The subject did not matter. It was imperative that we approached each interaction as developing a relationship and not merely a transaction.

The most important aspect of doing this work is building relationships with patients by establishing trust and rapport. Instead of presenting the study, within the first few minutes of entering a room, we would ask patients if they needed anything and engaged in a genuine conversation about how they were feeling that day. What we neglected to acknowledge in the beginning of the study is that patients are experiencing trauma and are trying to make sense out of being shot or stabbed. Some are re-experiencing the incident over in their heads, others cannot sleep, and many are thinking about retaliation. As we exhibited more humanity, compassion, and authenticity, our consent rate drastically increased. We quickly consented 25 patients.

I illuminate this barrier in the recruitment process because it would later inform how the frontline staff of the emerging HVIP at Kings needed to approach patients at the bedside. Acknowledging and affirming "what happened to you?" In contrast to the approach typically used by law enforcement where the questions are often accusatory or probing for "who did this to you?" I observed that both medical staff and law enforcement often blame the victim. Unconscious and conscious racial bias is typically present in most encounters I have observed between patients, medical staff, and law enforcement.

Trauma-Informed Care

This compassionate trauma-informed care approach resulted in one of the participants in the study, Che Bullock (age 25), who was treated at Kings for multiple stab wounds forging a close relationship with us. Following the study, we remained in

close contact with Che. Che was a young man from Southeast DC, one of the most impoverished sections of Washington DC. Much of his young adulthood was spent in the streets where he led a crew that sold drugs. He was also briefly incarcerated. Like many young men with natural leadership skills that could be used to run a drug crew or serve as the CEO of a Fortune 500 company, he was also very intelligent. He was a talented athlete in high school and recruited by a top public university for basketball. But his life in the streets altered his trajectory. One visceral aspect of qualitative research is the human connections and relationships forged between researchers and the individuals they study. For myself and John, as two Black men from neighborhoods in Philadelphia and New York, Che's personality and story resonated with us. One of the characteristics that separated him from the other 24 participants was his drive and desire to change his circumstances.

From the time when we first met Che, he would consistently come up to our offices at the University of Maryland College Park to visit. He would visit us at least three to four times a week on campus just to talk. But it became increasingly clear to me that he used these visits to get away from his violent neighborhood in Southeast DC and that the serenity of the college campus environment provided a safe haven for him to just relax and decompress. The campus was a protective environment and a safe space. I also know now that his constant exposure to two Black male professors and the collegiate environment was a source of social capital that was inspiring. Even though the campus was less than 20 minutes from his home, it was a world away. However, even during those times when he would visit us on campus, he wore a bulletproof vest and carried a firearm. In the middle of 90° plus days in August, he never removed that vest it would bulge from under his polo t-shirts. The vest symbolized the life he was trapped in, which was strangely ironic that the neighborhood, street corners, and homes where drugs are sold are called the trap. I clearly recall the day he removed the vest permanently. John and I finally were able to convince him that the vest attracted negative energy. I was proud to see that he made the decision not to wear it anymore. Our experiences with Che and intimately seeing his drive to change his life, I knew that once THRIVE was developed and we began staffing the program, Che would be our first hire as the Violence Intervention Specialist for the program. I will describe this position in more detail in the staffing of THRIVE later in this chapter.

Additional methodological challenges with conducting research in an urban Level II trauma center with young Black male survivors of violent injury is described in thick rich in a recent article John and I co-authored [3]. Ultimately, our research study was used to inform the development of the hospital-based violence intervention program, THRIVE at Kings County General. Social scientists often do not engage in translational science we are typically more theoretical than applied. However, researchers particularly those who conduct gun violence research should think more seriously about how their research can translate into innovative interventions. We recommend that prior to the development of an HVIP, research should be conducted on the target population for services in the clinical setting. These data will be critical to informing the development of an HVIP.

Buy-In

Getting buy-in and identifying a clinical champion (preferably a trauma surgeon or physician) for the program is by far the most important aspect of building a hospital violence intervention program. The success of the program is contingent on a clinical advocate or a medical staff member, who is willing to champion for the HVIP with the hospital administration. This clinical champion should advance the mission and goals of the HVIP and translate the need for the program. When we initiated the research at the hospital, Dr Carnell Cooper was the Chief Medical Officer and Director of Trauma Services at the hospital. He advocated for the research studies that informed the development of the HVIP. Dr Cooper was also the founder of the hospital violence intervention program at the University of Maryland R Adams Cowley Shock Trauma Center that was established in the late 90s. His HVIP achieved considerable success.

We were fortunate to have Dr Cooper as the Chief Medical Officer at Kings because he understood the effectiveness of hospital-based violence intervention programs and the resources needed for success [2, 3]. Dr Cooper also served as a member of the Steering Committee for the National Network of Hospital Violence Intervention Programs (NNHVIP). He provided significant guidance and direction during the conceptualization of the HVIP at Kings. However, a year prior to the implementation of the program at Kings, Dr Cooper left the hospital leaving a critical leadership vacuum in advocating for the program. We needed to quickly identify another clinical champion. Fortunately, the new Medical Director of Trauma Services was familiar with HVIPs and had previous experience working with an HVIP in Philadelphia.

Further, Emergency Department Physicians, the Trauma Program Manager at Kings, and other staff at Kings were invested in having an HVIP at a Level II trauma center in Kings County. Thus, following the departure of Dr Cooper we had three clinical champions for the program. Most programs are not as fortunate to have this kind of expertise in HVIPs and health policy. We were lucky. Thus, I recommend that emerging HVIPs should identify multiple clinical champions who will advocate and serve as liaisons to the hospital administrators and clinical staff. I would also suggest that directors of HVIPs identify key hospital administrators who will also serve as champions for the program. We forged a relationship with the Vice President of the Kings, who was then promoted to President of the hospital. Initially, she strongly advocated for the program but as she became more inundated with the challenges of leading a hospital, our program became less of a priority. She ultimately resigned leaving no hospital administrators to advocate for the program. Therefore, we also recommend that emerging HVIPs identify multiple hospital administrators who will serve as champions for your program.

The remaining topics of this chapter will focus heavily on my experiences with building the infrastructure for THRIVE particularly within the context of a Level II trauma center where resources are often constrained.

Funding

The research funding climate for gun violence research and programmatic support for HVIPs can make or break a program. I was fortunate that at the conclusion of my research study, the DC government had recently launched an initiative to support male survivors of violence. This initiative sponsored by the DC Office of Victim Services and Justice Grants provided 3 years of funding for the delivery of program services to support HVIPs in the DC metropolitan area. THRIVE was one of the first HVIPs in the DC metro to receive funding from this initiative. Because 30% of the patient population treated for a violent injury at Kings County were DC residents, the DC government provided 30% FTE for program staff. Kings assumed the remaining 70% of the FTE. As a result, the program was fully funded in its first year. In Year 2, I applied for a new violence intervention and prevention grant sponsored by the Maryland Governor's Office for Crime Control and Prevention (GOCCP) that provided an additional 2 years of funding. This grant was awarded to the program. Thus, within a 2-year period the program was fully sustainable on grant funding. However, both grants would expire in a 3-year period. Therefore, HVIPs must develop a sustainability plan.

How programs are sustained particularly when violence prevention/intervention grants that are no longer a priority for funders must be strategized. Sustainability of funding is a key to the success of the program. A short- and long-term plan must be developed by the leadership of the HVIP. Furthermore, if programs rely heavily on their hospitals for funding, they should conduct an analysis of the cost-benefits to highlight that the programs not only are effective in reducing trauma recidivism but also increase revenue for the hospital. One of the challenges I experienced is the inability of the hospital to provide data on the cost of violent injury. An HVIP should be able to assess how much a hospital spends per year on violent injury and the cost per patient. This excludes long-term costs. Buy-in from hospital administrators is critical during periods when programs are unable to sustain themselves. At some point, program funding may need to be temporarily supported by the hospital. A novel alternative approach I used to fund the program was developing research proposals that would support gun violence research and also support our program staff as co-investigators. This was another innovative approach that I found to be successful. However, this approach also had its challenges. Due to the Dickey Amendment of 1996, the CDC and the NIH had essentially stopped funding gun violence research leaving gun violence researchers, like me, to conduct our research on

shoestring budgets. I found creative approaches to generate programmatic funding by building a research agenda that would constantly inform the development and implementation of the program. I will discuss this in further detail in the "Research" section of this chapter.

Infrastructure and Staffing

While each HVIP may have variation in the structure of its staff, it is critically important when developing a program whether it will be hospital-based or hospital-linked. From my experiences, I learned that a hospital-based model where the provision of psychosocial services is directly facilitated by staff at the hospital was not the most optimal model for THRIVE. For me, the hierarchical structure of the hospital, its inflexible, and rigid culture did not align with a program that required the ability to be flexible when necessary. Not all HVIPs experience these kinds of challenges but as the director of my program, I learned during my tenure that a hospital-linked model is far more flexible in accommodating the staffing and programmatic needs that may often need to be more malleable. For example, Kings required that the Clinical Counselor report for work at 8:30 am. Reporting for work at this time was not conducive to the schedule of the program participants. None of the program participants were willing to attend counseling services in the morning. Participants preferred the afternoon and early evenings. However, the hospital was unwilling to accommodate the Clinical Counselor's request to begin his schedule at a time when program participants were more receptive to attending services. This culture of inflexibility created serious tension among myself, the clinical counselor, and the hospital administration. Ultimately, the clinical counselor resigned. This was disheartening because our clinician was an extremely talented therapist. We were fortunate to have a Black male clinician.

Finding a Black male clinician to work with young Black men is like finding a unicorn, the pool of this population is limited. I know of few programs that have a Black male clinician despite the fact that HVIPs disproportionately work with young Black male survivors of violence. Other HVIPs I have worked closely with also provide flexible schedules for program staff. I believe this kind of approach provides the opportunity for shared governance in a program, where the staff have the autonomy to determine the most effective times for providing services, and more importantly their input and expertise are valued. Through my patient-centered outcomes research with program participants, I learned that program participants had serious concerns regarding the provision of services in the hospital setting. In my focus groups, participants expressed many concerns. Two of their primary concerns changed my thoughts regarding why a hospital-based model may not be the most optimal model for all hospital violence intervention programs.

In my patient outcomes research study, funded by the PATIENTS program at the University of Maryland School of Pharmacy, using focus groups, I qualitatively explored the ways THRIVE could empower patient outcomes. Focus groups were

comprised young Black male survivors of violent injury who participated in THRIVE. During the coding process, their first concern that immediately struck me as thematic was the participants voicing concerns that the provision of services at the hospital was a re-traumatizing experience. Many had expressed that revisiting the hospital for program services produced traumatic stress. There was a consensus among participants that many almost died at the hospital. Lying in a hospital bed as they tried to make sense out of their victimization and near-death experience was traumatization and life-altering. Thus, revisiting the hospital for services triggered re-traumatization and re-experiencing a common symptom of post-traumatic stress. While I initially believed that the provision of psychosocial services at the hospital made sense, this approach was actually producing more harm than good.

Re-Traumatization

As the Program and Research Director, the idea of re-traumatization never occurred to me until I conducted the focus groups. Their second concern was safety. The majority of our program participants reside in the same neighborhoods and zip codes. For residents from the District, we treat violently injured patients from one zip code. As a result, the hospital serves as the epicenter where rivals and conflicting crews may encounter each other. For example, there have been occasions when THRIVE scheduled group counseling sessions with a participant, and a member of the rival crew, colloquially phrased “the opps” had been shot and was still receiving treatment at the hospital. In these instances, the family and crew of the person injured will wait at the hospital until they learn the condition of their loved one and to provide support. The provision of direct services at the hospital raised the likelihood that a program participant would encounter his or her rival and their crew at the hospital. Some participants described the potential to be “set up” if a rival or their opposing crew saw them at the hospital. The hospital was essentially a hub that could potentially bring conflicting crews into the same space. Although hospitals are intended to be safe spaces, they are not for the vulnerable populations of young men we work with. Some participants also expressed that they possessed guns while they were being treated at the hospital. Many had guns for protection while they were lying in bed in the event a rival crew discovered their room number. Some assigned armed members of their crew to sit in their rooms. Study participants also revealed that they carried weapons to the hospital when they were scheduled for counseling. We quickly learned that delivering services in the hospital setting was not a safe approach.

Thus, the hospital-based model and the hierarchical structure of the hospital reduced shared governance, produced a culture of rigidity, inflexibility, and were incongruent with our mission to run a safe and effective HVIP. Furthermore, the concerns expressed by program participants in regard to re-traumatization and safety changed my perceptions of a hospital-based intervention model. However, hospital-linked models are rarely acknowledged as alternative models. Based on my experiences, I am an advocate for this model.

Location, Location, Location

This model would be supported by a partnership between the hospital and a community-based organization (CBO). With this model, the hospital would provide the CBO and its staff access to recruit patients in the hospital setting. CBO staff would be authorized by the hospital to recruit patients at the bedside. Once a patient consented to participate in the program, the provision of services would be facilitated at the site of the CBO or another location in the local community. For example, I conducted several of my focus groups on the campus of the University of Maryland College Park, where I am a Professor. A finding that emerged from the focus groups was the participants preferred that the violence intervention program be facilitated on the campus. Several young men would ask, "Doc, why can't we have the program up here (on campus)?" After every focus group before we placed them in an Uber, they would ask how could they apply for college? Exposure to the campus was for some the first time in their lives that they could envision themselves in college. One participant took multiple selfies so he could show his friends on Instagram that he was at "Maryland University." The constant exposure to a college environment made the idea of being a college student more realistic. Furthermore, the campus provided a safe space. It eliminated re-traumatization and participants were unlikely to encounter their rivals on campus. One participant expressed that he did not feel the need to carry his gun when he visited the campus. Most expressed that the campus environment was "peaceful" in stark contrast to the chaotic neighborhoods where they lived. More importantly, the campus was safe. Safety is a defining principle in trauma-informed care.

The campus also had a wealth of resources that the hospital lacked. As a Professor, I had access to a wealth of resources offered through the Department of Psychology. Doctoral candidates in the Department of Psychology were interested in providing assistance with counseling for their practicum and serving as research assistants. The campus also has a Black cultural center (The Nyumburu Cultural Center) that facilitates the Black Male Initiative Program (BMI). BMI trains Black male undergraduate/graduate students, university staff, and faculty to provide mentoring, social, and emotional support to high-risk Black male youth in the local community, juvenile detention centers, jails, and elementary and middle schools in the DC metro. The success of the program was featured in the Washington Post. BMI could have been used as a resource to mentor and support program participants.

The Department of African-American Studies, my home department, houses a human development research lab that could have been used to provide counseling for victims of violent injury. This lab could have been used to assess and address adverse childhood experiences (ACE). I have also invited program participants to audit my classes and serve as guest lecturers. Several of the young men in the program have guest lectured my class on race, violence, and the criminal justice system including Che. This approach provides participants with exposure to an academic environment, increases their confidence through public speaking, and encourages them to think critically about their aspirations to attend college. Thus, there are different models that can be used for hospital violence intervention programs, not all programs should be hospital-based nor should we use a one size fits all approach.

If other community-based institutions can provide psychosocial services more effectively and efficiently in the local community, the hospital-linked model is a better alternative. In my opinion, many hospitals should not be in the business of providing outpatient psychosocial services particularly for high risk populations of young Black men. Imagine the innovation in creating a hospital-linked program that partners with the state's flagship university. Prestigious universities such as Georgetown University have initiated re-entry programs for returning citizens on their campus. These programs are tailored to empower disenfranchised young Black men and women from the District of Columbia. If top-tier universities like Georgetown can facilitate re-entry programs on their campus, then developing a hospital-linked violence intervention program on the campus of a major university is possible. Thus, when developing a program, administrators need to be very clear on what kind of hospital violence intervention program model they want to use. In my opinion, being married to one model is a recipe for failure.

Handoff

The other component needed for the continuum of comprehensive services as participants that are discharged from the trauma center is a warm handoff to a local street outreach organization that engages in violence prevention/conflict resolution such as Cure Violence/Safe Streets. One challenge my program encountered was the Cure Violence program in Kings County was defunded and closed the year prior to the launch of THRIVE. Therefore, in the instances where a survivor of a gunshot wound expressed thoughts of retaliation, there was no point of referral for violence prevention/conflict resolution services once they were discharged. When participants expressed their desire for "get back" or retaliation, we lacked a street outreach team to negotiate conflict in the street. This was a frustrating aspect of the work. We did not have a street outreach organization that specialized in reducing conflict.

We solely relied on the Violence Intervention Specialist to engage in street outreach after a patient was discharged. While Che was quite successful with taking on these additional responsibilities, it also resulted in overloading his caseload and increasing burnout. This approach was not sustainable. For the next grant cycle, I included in a grant proposal funding for three violence interruption outreach workers that would work closely with young men in the community following discharge from the hospital. This model would allow the VIS to assign high-risk participants to outreach workers upon discharge from the hospital. Unfortunately, I was unable to determine the effectiveness of this model because my tenure at Kings County Hospital ended before this model was implemented. But I mention this model as a possible alternative for street outreach intervention if your HVIP is situated in a jurisdiction where a Cure Violence program does not exist. If your jurisdiction does not have a Cure Violence program, part of your mission may also include advocating with your city or country government to implement a program.

In-House

What I did not anticipate when implementing the program was the lack of space in the hospital to house the program. The lack of space for the provision of services jeopardized the integrity of the program and created low morale among the staff. In the first 6 months of the program, we had no office space to provide services. The Clinical Counselor, Case Manager, and Violence Intervention Specialist would routinely seek out private space in the hospital to provide services. It was a daily routine to squat in an unauthorized space for the day. While the hospital administration supported the program in theory, space was not prioritized in practice. This was frustrating for THRIVE because we felt undervalued by the hospital. In some instances, we threatened to use a squatter rights approach for hospital space. We would squat in an empty office space for weeks until we were told to move by the hospital. Due to the frustration with the lack of space, the Medical Director of Trauma Services, who was also the co-director of the program encouraged us to use this approach. Six months elapsed before we were assigned a private office and this space was extremely tight. Three staff members were crammed into a space that could barely fit three desks. Even though these accommodations were much better than the squatting approach, the new space still did not address issues concerning protecting the participants' privacy and confidentiality. In order to protect health information, the frontline staff were still faced with identifying a private space to collect confidential information. Clients were reluctant to engage in divulging their personal information and concerns if they suspected that other staff members would overhear their conversation. Programs that share a small space, at the very least, should have partitions that separate staff members to promote a sense of privacy for themselves and their clients. Furthermore, there must be a designated private space that is used for individual and group counseling. I cannot emphasize this enough. Clinical counselors must have a private space to engage in counseling. It should be a designated space that program participants consistently use for counseling. The program staff also need a designated space for meetings. The counseling space could also be used for staff meetings if the hospital-based or hospital-linked program lacks space. We used our counseling space for staff meetings as well but we also shared this space with another department so scheduling when to use the space became an issue. Before implementing a program, the Director and the hospital administration should be very clear on where the program will be situated.

Database

Equally important to identifying office space is identifying a user-friendly and manageable database. During the program development phase and prior to implementation, the director of the HVIP should have a clear grasp of the database that will be used to collect and maintain data on violently injured patients and program

participants. The database should be an effective and efficient tool to collect, analyze, and evaluate data on program participants and the overall effectiveness of the HVIP. I was initially told by the hospital that THRIVE would be using EPIC that was the hospital's case management system. However, when the hospital transitioned to the EPIC system, THRIVE was not considered a priority by the hospital for the implementation of EPIC. My case manager and I investigated using other case management platforms such as ETO (Efforts to Outcomes), but many platforms were not expandable, and if they were, the cost to build out was too expensive. I was aware that other HVIPs were using QuesGen for their case management database. QuesGen is a data management platform designed for HVIPs. I entertained using this database but my program budget could not accommodate the long-term expenses associated with using the service. As a result, we developed a database using Excel. Yes, Excel! First, let me go on record, Excel is an excellent temporary solution for programs that lack a database system. However, Excel only works well if your staff is highly proficient in its use. I would highly recommend mandatory staff training for Excel. I learned that Excel is a powerful data management and analysis tool if you understand how to maximize its capabilities. I would also highly recommend hiring a data analyst who can build an Excel database tailored to your program's needs. Excel can also be migrated into statistical analysis software such as SPSS. Again, identifying a database and training staff on how to use the database prior to the implementation of services is crucial. The database must also have the ability to be built out to accommodate the changing needs of your program. The most frustrating experience I encountered was building a database from the ground up that could address the changing needs of THRIVE and was user friendly and cost effective.

Trust

When the program began, there were key personnel that I intuitively and empirically understood based on my experiences conducting research in the trauma center at Kings with violently injured young Black men that would be critical to the success of the program [3]. In my previous qualitative research study conducted at Kings on the risk factors for repeat violent injury among young Black men, the first methodological challenge I encountered was the extreme level of distrust young Black men expressed toward the researchers, the healthcare, and criminal justice systems. Despite my background as a culturally competent Black male researcher with lived experiences being raised in an urban neighborhood, the majority of the patients I approached at bedside did not trust me. What I learned from this experience is that programs must have a frontline staff member(s) who shares the lived experiences of the target population. They must be credible. During the conceptualization of the program, I learned from my research that an HVIP needed a frontline staff member that patients could viscerally connect with. Someone who could establish a connection built on trust and rapport because they shared similar experiences.

Che was the perfect candidate for the position. He had been violently injured and treated at Kings for his injury, had a history of involvement with the criminal justice system, and was well respected in his Southeast DC neighborhood. He was also trustworthy, principled, charismatic, straightforward, and was an excellent public speaker who was highly motivated to create change in his community. These are the skills needed to be a successful violence intervention specialist (VIS). However, an individual with a history of violent injury and incarceration does not translate to being a successful violence intervention specialist. I also think there is a certain "it factor" that Directors must be able to identify which is neither quantitatively nor qualitatively measurable.

If there is one take away, I would want to leave readers with an HVIP who cannot survive without a good Violence Intervention Specialist (VIS). While some programs provide direct services and others provide referrals or a mix of direct service and referrals, the VIS is the most critical component of the frontline staff. Without a VIS, an HVIP will encounter significant challenges to recruit and retain participants. The role and function of the VIS are to recruit patients at the bedside, during the golden hours, a 48–72 hour period when patients are thinking about the lifestyle that resulted in their injuries and are more receptive to opportunities to change. A VIS understands that the golden hours provide a small window of opportunity to recruit patients. Being empathetic and culturally competent is a critical aspect of the trust-building process. For the VIS, establishing a relationship of mutual respect and honoring a code is at the heart of their interactions with patients. As mentioned earlier, the VIS should share similar lived experiences with patients whom he or she recruits at the bedside. Our program participants have often expressed that they see a reflection of themselves in their relationships with Che and he embodies the kind of person they aspire to be. In our interviews and focus groups with program participants, they often stated that Che was a model of success, "if he can do it, then I can do it" was a common sentiment echoed by participants.

However, because an individual may possess these characteristics that does not imply that he or she will be successful as a VIS. A person's temperament, critical thinking skills, and the ability to code switch between being clinical and nonclinical with patients and staff is necessary. Because the VIS works in stressful conditions, the VIS must be able to work calmly under pressure. For example, the VIS is the first frontline staff member to receive notification typically by pager when a patient is being transported to the hospital for a violent injury. The VIS must respond to all patients transported via EMS to the trauma center. Che would often wait in the trauma bay until a patient arrived. His knowledge of trauma became so advanced that he could predict when a patient would survive or perish. I recall him telling me that he could predict the patient's survival rate by merely observing a patient's feet as they were being brought into the trauma bay.

VIS must also work closely with the trauma surgeons, physicians, and nursing staff. For example, Che had an extremely close working relationship with Kings Trauma Surgeon, Dr Jacob Mullins (Pseudonym). Dr Mullins after operating on a violently injured patient would immediately reach out to Che so that Che would know when he could expect a patient to be placed on the trauma floor. Che and Dr

Mullins were in constant communication with each other regarding the status of patients. The VIS must have an effective and efficient working relationship with medical staff particularly the trauma surgeons. The VIS is often able to translate a clinical conversation, diagnosis, or procedure into nonclinical terms for program participants. There was one event that stands out regarding why the relationship between the VIS and the Trauma Surgeon is important. One of the participants in our program, Geoff (pseudonym), was shot multiple times by the police when he was in his late teens. His injuries resulted in wearing a colostomy bag. Following his injury, Geoff was sentenced to 6 years in federal prison. He spent his entire sentence wearing the colostomy bag. When he was released he was shot again, ten times, and hospitalized at Kings. When the VIS met Geoff at the bedside and learned that he was wearing a colostomy bag, Che reached out to our trauma surgeon Dr Mullins regarding the bag. Dr Mullins examined Geoff and assessed that the bag should have been removed years ago. Geoff unnecessarily wore the bag for years. Mullins immediately scheduled surgery to remove the bag. I cannot begin to capture the joy Geoff expressed to Che after the bag was successfully removed. It was the first time in years that he was able to literally sit on a toilet to relieve himself. While that may seem normal for most us, for Geoff it was a psychologically debilitating experience to lose the ability to sit on a toilet. The surgery transformed Geoff's life particularly his self-confidence. To this day, he says that he is forever indebted to Che.

What I learned from the numerous in-depth interviews and focus groups I conducted with program participants is the VIS is often the only person that the participants genuinely trust. We work with a population that is distrustful of individuals, this includes peers and family members, and institutions. What is thematic in all the interviews and focus groups is that the VIS is the key person in their lives that the participants not only trust but would also do anything for. The high level of respect for the VIS has resulted in the successful recruitment and retention of program participants but more importantly it has led to program participants staying engaged in mental health counseling. The VIS was able to achieve considerable success with keeping participants involved in mental health counseling by first serving as an example of why counseling is necessary. Che also engaged in mental health counseling not only to cope with the stress of working in a trauma center, but also for his trauma from adverse childhood experiences growing up. Leading by example, he has encouraged the young men he works with to engage in counseling. Because he was trained in mental health counseling, specifically M-TREM (Men's Trauma Recovery Empowerment Model) and motivational interviewing, Che was credentialed to co-facilitate the group counseling sessions with our program's psychotherapist. Many participants attributed their successes with addressing their mental health challenges to Che and our psychotherapist.

Furthermore, the VIS also serves as the liaison between the participant and the criminal justice system. Approximately 70% of program participants had a history of criminal justice involvement. Many were still on probation or "papers" as we colloquially call it. Che was in constant communication with probation officers regarding the status of participants to ensure that the POs were aware of their participation in THRIVE. He worked closely with several POs from the Court Services

and Offender Supervision Agency (CSOSA). This relationship reduced the likelihood of technical violations that would result in participants being remanded back to jail. It also increased the success rate for completing supervision. In addition, Che also identified pro bono legal services for participants who were fighting court cases, sometimes in two jurisdictions. We also partnered with a top criminal defense attorney in DC to provide legal services to participants. He was an amazing attorney and we were so fortunate to have a Black male attorney who shared lived experiences with our participants representing them in court.

When we lost our case manager, Che picked up the slack by identifying potential referrals for employment. He secured employment for several participants. Some positions were in the hospital system. As a caveat regarding employment, I want to emphasize that programs should not send participants out for employment until they are mentally and emotionally prepared. Their mental health and social skills should be addressed first before they are ready for employment. Che and I learned that if participants are not mentally prepared to take on the responsibility of employment they should not be referred to employment services. Mental health status should always supersede getting a job because participants are often not psychologically or socially prepared to handle a job. That said, the VIS is capable of taking on the responsibilities of the case manager in the event that a program may not have the budget to hire a case manager. These two positions can be combined.

Thus, I strongly believe a program's success is premised on the effectiveness of the VIS.

Clinical Care

The clinical counselor is the other key personnel necessary for a VIP to be successful. The critical skill set needed for this position is cultural competence. While licensed clinical counselors are trained to provide therapy for vulnerable populations, this does not mean they possess the unique skill set to work with a population of violently injured young Black men. Regardless of race, class, and gender, working with this population similar to the VIS requires a unique skill set. Clinical counselors must understand that they are providing services for a population that is historically distrustful of the healthcare system and may have negative perceptions of mental health care. What I have observed among effective counselors is the ability to establish relationships of trust with participants. Our psychotherapist was a Black male. A Black male clinician is essentially a unicorn to find among licensed mental health providers in DC and Maryland. What's more, he used creative strategies in his work, including mindful meditation, ambient music, African spirituality, incense, and water in his counseling sessions to convey a sense of calmness to participants. He also used a dry erase board in group counseling sessions to draw visual representations on trauma and trauma-informed care. The mental health model we used was M-TREM (Men's Trauma Recovery Model). M-TREM was approximately 18 weeks. It could be condensed to 9 weeks if sessions are conducted twice

a week. Our program provided group counseling twice a week and individual counseling. M-TREM was initially designed for criminal justice and substance-abusing populations; however, these populations overlapped with violently injured young men. There were two peer-reviewed articles that supported it as evidence-based; however, there were no randomized controlled trials (RCT) on its effectiveness.

We decided to use M-TREM with our participants because criminal justice involvement and substance abuse overlapped with our young men. Seventy percent of the participants were under criminal justice supervision, and the majority tested positive for drugs at the time of their hospitalization. To our knowledge, M-TREM had not been tested among violently injured young men. When we implemented the model, it was the first time it had been used with a violently injured population of young Black men. One of the challenges of using M-TREM is the retention of program participants and getting participants to attend every session. M-TREM is facilitated in groups of 7–10 participants. Each session covers a different topic such as substance abuse, anger, fear, and anxiety. If a participant misses one session, he has to wait until the entire 18-week cycle is completed to attend the sessions he missed. This process can extend counseling infinitely. To be quite candid, we did not have one participant that completed every session. The literature review on M-TREM cites this as one of the major challenges with the model, it is far too long. One approach to ensuring that each participant completes all the sessions would be to incentivize each session completed with a gift card. Our workers successfully managed to get participants to the ninth or tenth session without incentives. There are other models I learned were used by other HVIPs such as the Sanctuary Model. However, to my knowledge, its effectiveness has not been tested with violently injured populations.

I would recommend that programs provide counselors with more autonomy to test innovative cognitive behavioral therapy models considering that the field is really ripe for new treatment modalities. In closing, if I had to build a program again I think combining the VIS/case manager and the clinical counselor/program manager positions would be my approach. It is more cost effective and efficient. I would recommend hiring two VIS/case managers and limit their caseload to fifteen participants per quarter. At THRIVE, we initially set our staff's caseload to 25 participants per quarter for a total of 100 per year but that heavy caseload increased burnout. We did not have the bandwidth to provide services for 100 participants per year, so after the first 6 months, we reduced the yearly caseload from 100 to 60 participants and 15 participants per staff member, which was more comfortable for staff.

Management

A program manager is necessary to handle the day-to-day operations of a program. Program managers should be responsible for managing all frontline personnel, conducting weekly meetings, managing the program's database (probably the most critical aspect of the position), submitting reports to funders, grant management, serving

as the liaison between the program and the hospital administration, forge relationships with government and community-based institutions, and identifying potential funding resources. A good program manager is also highly organized. Because clinical counselors provide group counseling twice a week, for 2 hours per week, in addition to any individual counseling hours, counselors may have significant time remaining in a 40-hour week. Thus, the clinical counselor and program manager could be integrated into one position. A clinical counselor/program manager could divide their work week between counseling and managing the program. The director also works closely with the program manager particularly with issues of grant and data management. The program manager should be prepared to provide grant and data reports on the program at any given time. Program managers should be responsible for developing, implementing, and managing the program's data. They are also responsible for training staff on how to collect, analyze, and manage their data. If your program manager is not skilled in data management, I would suggest not hiring them.

Managing the data well will ultimately be the barometer of whether your program is successful. A really good program manager is also capable of assuming the responsibilities of the frontline staff. If your HVIP was a basketball team, I envision the program manager as a versatile player, similar to the VIS, where they can play any position if required. For example, if our program loses a staff member, who could fill their responsibilities until your program makes a new hire. Again, I think that emerging programs should seriously consider hiring a program manager that could also serve as a clinical counselor. Because clinical counselors work well with handling different personalities and behaviors, it is important that these skills, crossover to their managerial skills. Program managers must be great working with people. If they do not possess the ability to work with people and their personalities, this can result in a toxic and cancerous culture. I experienced this when an ineffective program manager with poor interpersonal skills created a toxic culture that resulted in staff harboring ill-feelings and became unenthusiastic about working for the program. While the staff believed in the mission of the program, their enthusiasm was tempered by their relationship with the program manager. Again, program managers should advocate for shared governance and value the input of all staff in the decision-making process because ultimately the staff really run the program and are responsible for its success, not the manager or director. My program had a designated program manager and a clinical counselor. In retrospect, I would not have used this model again. I would integrate the two positions. Staffing a program with personnel that can do multiple things very well is much more effective than a large staff where personnel can only do one thing and in some instances, they are not capable of doing those small things really well.

Role Clarity

I cannot emphasize this phrase enough "stay in your lane." Now, the use of it for physicians and trauma surgeons to disengage from the gun control debate I find reprehensible, I support physicians fully in exercising their voice in the gun

violence crisis. However, one of the greatest challenges I experienced as the Director of THRIVE was the staff not having a clear understanding of their roles and not infringing on another staff member's area of expertise or territory. I learned that even when your program has clearly defined and written protocols, some staff members will still shift out of their lane of responsibilities into another staff member's lane. "Staying in your lane" was a daily challenge and when staff neglected to do it, it created a climate of contempt. One stark example I could give would be a clinical counselor should never assume the responsibilities of a VIS.

A VIS should always make the first contact with a patient at the bedside. Unless the VIS gives permission to another staff member to make the first contact with a patient, that responsibility should be the exclusive lane of the VIS. Any other approach causes confusion for the patient and the staff. Our first clinical counselor was formerly a trauma social worker in the hospital. In his role as a trauma social worker, he was required to meet with patients at the bedside. However, as a clinical counselor for the program, the counselor's duties changed. The VIS was responsible for meeting patients at the bedside. Yet, because the trauma social worker was so accustomed to his previous responsibilities meeting the patients at the bedside, he continued to meet violently injured patients at the bedside despite the program's protocol that explicitly stated that the VIS should touch patients first and then make a handoff to the clinical counselor or case manager once the VIS felt it was appropriate to do so. Because the clinical counselor had so much free time in the morning, their counseling sessions with program participants did not typically begin until the afternoon. This left the clinical counselor with a great deal of free time in the morning.

The clinical counselor decided that he would assist the VIS by going to meet patients at the bedside. This would occur frequently without the authorization of the VIS. This not only led to tension between the VIS and the clinical counselor, it also created confusion among the patients and medical staff. Furthermore, it affected the recruitment process. In many instances, when the VIS would arrive at a patient's room to recruit at the bedside, the patient would inform him that another staff member from the program had visited the room. If the patient for any reason decided not to participate in the program when the clinical counselor attempted to recruit them at the bedside, then the possibility of the VIS recruiting the patient was unlikely. Because the VIS works with the patients in the hospital setting and following discharge, it is important to establish this relationship of trust at the bedside. Also, the VIS approaching the patient at the bedside reduces the level of distrust among patients.

Law enforcement may visit the patient multiple times to investigate a case and they may often send different officers. To ensure the patient that the VIS is not affiliated with law enforcement, it is critical that the VIS not only makes the first contact with the patient but also controls what program staff members have access to that patient. The program protocol should never inundate patients with different program staff. Finally, the clinical counselor should never approach patients at the bedside because a program should not introduce mental health counseling immediately to patients, particularly, violently injured young Black men that may be reluctant to engage in mental health counseling. A clinical counselor immediately sets the tone

that the program is solely about the delivery of mental health services. This will affect recruitment.

Ultimately, staying in your lane comes down to a staff member's expertise and their domain. Similarly, a VIS would never dominant a group counseling session because it would undermine the role of the clinical counselor. This is one example of staying in your lane and the impact it has on your program. I learned that the staff need autonomy and to be empowered to control their domain. This is what makes them experts at what they do. You want the best for your program and that can only happen if your staff feel empowered. To use another sports analogy, if your program was a football team, the frontline staff control the ground, by running the ball, and the director controls the air, by passing the ball. A successful program has a good ground and air game. Once everyone understands their roles and domains, your program has hurdled a significant barrier.

Students Interns

Without our amazing interns, THRIVE would not have survived its first year. I am so thankful for our interns and their contributions to the success of the program. The interns stepped up in so many ways when at times THRIVE seemed like it was not thriving at all. In the first year, our case manager and clinical counselor resigned within months apart. The interns filled the gaps with the loss of the case manager. They identified and vetted referrals for employment, education, food assistance, and housing. They completed the CITI Human Subjects research and assisted with facilitating the focus group research. The interns organized and managed the recruitment for the focus groups, arranged transportation for the study participants, and catering the food.

They also transcribed the data and coded. With Che's ability to manage them, the interns kept the program afloat when we suffered losses among our staff. I would highly recommend that an emerging program provides internship opportunities for highly motivated interns. There is no doubt that we would not have achieved success in our first year without this amazing group of interns. They deserve all the praise.

To and From

Transportation is another key resource and could potentially be a challenge for your program if it is not done correctly. Now that your participants trust you and believe in the program how do you get them to the services? From the outset of the program, I never believed that providing free bus tokens or a Metrocard would compel participants to use the services. The first mistake that programs make is buying into the proverbial notion that "if we build it they will come." I have heard staff complain that the participants do not want the services offered because they are lazy or

irresponsible. That could not be further from the truth. I always suggest that staff and directors read my colleague Dr Alford Young's book *The Minds of Marginalized Black Men* [4]. This book provides valuable insight into the ways young Black men from underserved communities process their interactions with institutions. One takeaway I would leave readers with is the young men you work with don't owe you anything! It is your job to convince them that it is in their best interest to use your services not that they have the responsibility to show up because you offered them. Staff must get their egos in check just because we are offering a service that does not mean that young men and women must come.

One approach to building trust is offering a safe means for getting them to your services. The first principle of trauma-informed care is safety. Directors and front-line staff must ask to ensure that your program is adhering to this principle. Are we keeping young men and women safe? I would never expect a participant who was recently shot to travel by bus or subway to our program. More than likely they are still recovering from the physical damage associated with the injury. A recent study found that gunshot wound patients suffer from long-term physical, psychological, emotional, and social damage [5]. Many are still in physical pain. We are asking young people with rods in their legs and arms, who have colostomy bags, to travel by public transportation to receive our services. It is illogical. More importantly, most are suffering from the psychological effects of traumatic stress, such as hyper-arousal, hypervigilance, and avoidance [6]. Our young men were still actively involved in conflict; some had money on their heads, meaning people in the community were paid to kill them. The culmination of all these factors led to the use of Uber/Lyft.

My budget included Uber/Lyft that was 12,000 per year or 1000 a month. Our VIS and the interns were responsible for scheduling the Lyft transportation for patients. Because Kings policy would not provide THRIVE with a credit card to establish a Lyft account, I placed the Lyft on my personal account and was reimbursed. *I would not advise directors of an HVIP to do this.* While I thought that this was necessary because I wanted the program to succeed by any means, I quickly realized that merging your personal account with business is not a sound practice. What I would suggest is that a Director confirms in the development phase of the program, how the transportation services will be covered by the hospital because a corporate card must be used for digital transportation services. While getting participants to the services using Lyft was a great idea and improved access to services, there were significant challenges with this process. Logistically, it was a nightmare. Because I had the Lyft account in my name, the VIS would call me each time a participant needed a ride. This would require me to schedule the participant's Lyft then call or text the VIS with the pickup information (i.e., the time the Lyft would arrive, the description of the car, the driver's name).

The VIS would then relay that information to the participant. If at any time the arrival time changed or the trip was canceled by Lyft and reassigned to another driver, I would have to relay all of this information to the VIS who would then have to relay that information to the participant. In some instances, if the Lyft was scheduled to arrive, for example, at 3:15 but arrived at 3:18, the participant may not be

there. Many participants because they were suffering from PTSD particularly hyperarousal and hypervigilance were unwilling to stand outside beyond the designated time that the Lyft was scheduled to arrive. If the Lyft was a minute late, some of our young men would retreat to their homes or another safe place but waiting outside for them was like a death sentence. This would result in starting the scheduling process over again. In addition, my account was charged the five-dollar no show fee. I accumulated up to one hundred dollars of these fees per month. The no-show fees will also impact your transportation. Furthermore, logistically, when using Lyft or Uber you can only schedule one trip at a time. As a result, the program participant must arrive at the intended destination before another trip can be scheduled. The service will not allow two or more rides simultaneously on the same account. As a result, I would have to use my Lyft account for one participant and my Uber account for another. If you planned to have group counseling at 3 pm for eight participants that required starting the transportation process at 1:30 pm in order to have all of the participants arrive on time.

Fortunately, after several months of using this approach, I learned about Uber Health. Uber Health is a much more streamlined digital transportation service designed for service providers. I established an Uber Health account with Kings County Hospital; however, I was still using my personal card. Uber Health allowed the VIS to schedule multiple rides at the same time and the rides could be scheduled in advance they did not need to be scheduled on the same day that the services would be used. Instead of the VIS and intern scheduling and managing the transportation, Uber Health contacted the client regarding the pickup time, destination, drop-off, and round-trip return information. Thus, once the VIS submitted the client's information, Uber Health assumed all the logistics with the client. Also, Uber Health sent an invoice to me at the end of the month. The invoice contained the pickup and drop-off times and address, length of time for the ride, and the cost of each ride. Instead of charging my account for each trip, Uber Health would charge my account at the end of the month. For our program, Uber Health was a lifesaver. I would recommend using Uber Health for any HVIP that has experienced challenges with getting participants to program services. We also used Uber Health to provide transportation to job interviews and getting participants to appointments on time with their probation officers. Uber Health revolutionized the program. The only caveat was the use of your personal account to support the services. No director should assume this responsibility, it is expensive and your program should have a corporate account. If your hospital or organization cannot provide a corporate card to support the services, then do not use your personal account!

Research and Evaluation

THRIVE was developed based on a research study I conducted prior to the implementation of the program. I spent 2 years in the trauma center at Kings conducting ethnographic research on risk factors for repeat violent injury, access, and barriers to care among violently injured young men treated at Kings. These data translated

into the development and implementation of the program. But the research did not stop there. Continuous research is needed to inform the implementation of the program and the delivery of services. For an HVIP to be successful, research must be continuous. Fortunately, I was the Program and Research Director of THRIVE but many programs lack a researcher. From the initiation of the program, I was constantly engaged in research that would inform the delivery of services. I was awarded a patient centered research outcomes grant in the first year of the program. This grant was intended to collect data that would empower violently injured patients to engage in the decision-making process in their continued care and the outcomes they wanted to achieve through participating in the program. I used focus groups comprised of violently injured young Black male participants, their caregivers (typically, the mothers and romantic partners of the participants), and stakeholders (program staff, medical staff, law enforcement, policymakers and service providers) to inform the delivery of program services. These focus groups helped tremendously in understanding the needs and challenges of program participants.

The findings from the focus groups with program participants informed how they perceived Uber Health. The findings from the focus group produced important thick rich narratives describing their relationship with the VIS. Two important innovative papers were produced from these findings. A peer-reviewed paper describes the best practices of the VIS. Another paper describes the use of Uber Health to address barriers and access to care. I also learned from the focus group that participants preferred engaging in services off-site and away from the hospital. This was first time I heard program participants articulate that receiving services at the hospital was a re-traumatizing experience and jeopardized their safety. Without the research, THRIVE would have continued this practice not knowing that it was harming our participants. This finding led me to critically rethink whether the hospital-based model was the best model for the delivery of services. I am convinced based on the narratives of the young men we worked with that HVIPs should reconsider their structure and try more innovative models, such as developing a program on a college campus or in a safe community space. Because most HVIPs are affiliated with a Research I university, it would be a novel concept to place these programs on the university's campus for young Black men that often have only a high school diploma and few credentials could be exposed to higher education.

I cannot count how many young men expressed that they had never been on my campus despite living less than 15 minutes away. I have had our young men attend my classes and guest lectures. Che and I forged our relationship through his constant visits to campus. He visited my offices at least three times a week on campus after his discharged from the hospital for his injury. Based on his experiences, he would often encourage me to move THRIVE to the campus. I now know why he advocated for moving the program because the constant exposure to campus had given him a sense of peace and safety. Inevitably, every time I bring young men to campus they ask me, "Doc how can I enroll this school?" That isthe power of exposure to a life outside of the block. The campus should be one of many blocks they are comfortable with standing on. It is not a rocket science. HVIPs have to think outside the box if we are going to maximize our potential and the potential of the survivors we work with.

Caregivers

I also learned from my research that caregivers suffer in silence and deal with tremendous vicarious trauma. Many caregivers are often more traumatized than the person they are providing care for. Mothers and romantic partners suffer from extreme anxiety, hyperarousal, and hypervigilance. However, because they are the caregivers, they bear this burden alone and have no one to speak to about their mental health challenges. In the focus groups, women literally cried about their trauma. The focus groups served as a therapeutic space for the caregivers. Most had never discussed their trauma. Based on the focus group, the caregivers asked for a caregivers counseling group. Again, we empowered our participants in the decision-making of what they wanted to see as a positive outcome. This resulted in THRIVE providing caregiver counseling twice a month. We ultimately reduced caregiver counseling to once a month due to issues with staffing. What I regret is not conducting a more longitudinal study to determine whether the caregiver counseling improved their mental health.

The research and the evaluation in my estimation are the most critical components for the short- and long-term sustainability of a program. If you cannot prove that the program actually works and more importantly what works, you will not be in the hospital violence intervention program business for too long. I was constantly conducting focus groups with program participants, caregivers, and stakeholders to understand the effectiveness of the program and to inform the delivery of program services. Through the focus groups, I learned a great deal about the delivery of program services and what participants wanted to get out of the program. Two things I learned stood out.

Client Identity

The customer is always right. I do not agree nor support the idea that if we build it they will come. I think that hospital administrators, medical, and program staff get this completely wrong. The young men we work with do not owe us anything! They are not obligated to engage in services. We are offering them services that could potentially alter the trajectory of their lives however that does not imply that they have to take advantage of it. There is a certain level of classism that scholars, hospital administrators, medical and program staff must rid ourselves of. From our middle-class positionality, it is so simplistic to assume that young men are irresponsible if they are late to an appointment or distrustful even if the very people that are providing the services are Black. There were so many assumptions I blindly made regarding our work. I assumed because I was Black and male born and raised in Philadelphia that it was, a given that patients who looked like me and shared the same urban experience would be interested in joining the program. If they decided not to participate it said more about them and then it did about me. The research

demolished all of my stereotypes and assumptions. It forced me to re-evaluate how we often impose what we want on patient populations with little regard for hearing and listening to their voices. You have to let go of being married to a model and to a certain extent even evidence-based practices that may not be germane to the context of your program. No program should be the same because the context of every hospital culture and the neighborhoods where these young men reside is different.

For example, in DC young men are engaged in conflict between blocks, where they are literally at war with the next block. We have heard so many stories of 40th street being at war with 41st street and both blocks share the same Chinese carry out. It is just a matter of when they meet at this location that they will be shooting at each other on sight. How do you intervene when life or death conflicts are literally across the street from each other? Imagine that kind of trauma and the level of hyperarousal and hypervigilance young men are experiencing every waking hour when they are shooting at each other from across the street and have to carry a gun and wear a bulletproof vest at all times because the likelihood of running into an "opp" (opposition) can happen at any time? The majority of us have no idea what that feels like to know that any given moment during the day someone may be shooting at you and if you want to survive you will have to shoot back. We need to understand through research to understand the day-to-day challenges of our population. I would also suggest that your VIS is involved in the research and that your program use a researcher to practitioner model that will provide opportunities for your frontline staff to be engaged as researchers.

Relationships

Through the Center for Victim Research Researcher 2 Practitioner Fellowship, Che and I used this model to conduct a digital storytelling project where we interviewed ten young Black male survivors of nonfatal firearm injury on their lived experiences of being shot, some in multiple incidents and the daily routine of protecting themselves by carrying a firearm. Che was instrumental in the recruitment of participants for the study that eliminated a great deal of distrust that young Black men may have held for researchers. Che also assisted with developing the interview guide and co-facilitating the interview. An innovative methodological tool I learned in the process of conducting research with Che is the power of facilitating interviews as researcher and practitioner.

There were empirical questions that I was interested in which at times could be too academic, which were balanced out by Che's questions regarding the unspoken rules of the street that only individuals engaged in the culture of the street could understand. Che could also raise questions regarding the intimate nature of the challenges a young man was negotiating in the street or at home. He was able to tap into the emotions of young men based on shared experiences. Based on his close relationships with the young men he knew, details of their lives that I could never capture in an interview, but because he had trust the young men were willing divulge

narratives that it would be impossible for me to illicit. We call this method "Geeks & Goons." I'm the geek researcher and he is street scholar goon. It makes the perfect balance in an interview. The two-member research team approach also makes the interviews more conversational in nature and less formulaic. As the principal investigator, my responsibility is to adhere to the interview guide to ensure that we capture everything we would like to know empirically. Che, as the practitioner, keeps the conversation more grounded natural, raw, and genuine. When the interview is completed, I cannot count the number of times young men told us that it did not feel like an interview, it felt like a conversation on the corner, and many would thank us for allowing them to tell their story. I was always fascinated by this statement, because I was the one in such deep gratitude to them for sharing such intimate details of their lives.

This leads to second thing I learned from the research. Our work in this space ultimately is driven by relationships. The best research comes from establishing relationships of trust among the researcher, practitioner, and study participants. Without the trust between Che and I as researcher/practitioner, there is no research. With our patient population, it would be extremely difficult for a researcher to conduct a study without the assistance of the practitioner. The research must start with trust between the researcher and practitioner. Once the researcher and practitioner have a relationship built on trust, mutual understanding, expectations and outcomes, then the team is ready to engage in a study. As researchers, our first priority should be establishing relationships with the frontline staff as collaborators before we begin recruiting participants. From my experiences, your research study is only as good as your relationships with the practitioners. They can either make or break your study.

Evaluation

Finally, evaluation is a key to the long-term success of your program. The only measure to truly grasp the effectiveness of your program is a case-control or randomized controlled trial. However, conducting an RCT is difficult, researchers and program staff should be prepared for the challenges that accompany an RCT. First, I experienced significant push back from the clinical counselors on the concept of an RCT. Counselors by nature are compassionate people and believe that every client has the right to treatment. However, an RCT challenges all conventional wisdom, beliefs, and principles of clinical counselors regarding the delivery of services to one population of clients and the neglect of service delivery to another group. I was consistently confronted by clinicians with the question, "How can one group be randomized to services yet we deny another group of individuals that may need the services even more? It is the million-dollar question that will never bear an acceptable answer for clinicians. We struggled for months with this question with HVIP clinicians at other programs in the DC metro. Ultimately, we arrived at the hard decision that those in the treatment group would receive direct services and the control group would receive a referral.

While I understand from a clinician's perspective the harm of randomization, if you step back to assess the continuum of psychosocial services the vast majority victims of violent injury across the US receive post-discharge, most will receive nothing at all. In the United States, there are approximately 100,000 people who are nonfatally shot every year, and there are 40 HVIPs and growing in the United States. Most are located in urban trauma centers in the Northeast, Mid-Atlantic, the Midwest, and Western regions of the United States. Few are in rural areas in any region of the United States and a limited number are in the South despite the fact that the Southern region of the United States has the highest rates of gun violence. Furthermore, for trauma centers that are fortunate to have an HVIP, most do not have the capacity to provide direct services for the entire violently injured patient population they treat. HVIPs do not have the bandwidth or capacity to provide services for everyone. Kings treated an average of 745 violently injured patients a year. THRIVE had three frontline staff and caseload capacity of 60 program participants per year. Thus, the majority of violently injured patients treated at Kings will not receive direct services. This is the reality of HVIPs, most patients will not receive direct services. Only a small few will receive direct services and these services should be triaged to the highest risk for re-injury and violent offending. The idea of an RCT providing a referral to the control group is actually better than what most victims of violent injury will receive post-discharge. The majority are "treat and street" patients. They will be patched up in less than 72 hours and sent directly back to the same neighborhood where they were injured without any continued services. If you can make this persuasive argument to clinicians, it may be a more compelling argument for their buy-in for the RCT. As researchers, buy-in from the clinicians is needed to succeed.

The other challenge with RCTs with this patient population is recruitment and retention. Many RCTs have difficulty with recruiting and retaining participants in the study. This will result in low sample sizes that affect the power of the study. How do we keep participants engaged longitudinally? What are the best practices for keeping this population engaged in the study over a period of 3 years? We still do not have any studies that address this question. Taking into account the high level of staff turnover at HVIPs, this could also impact the study because it takes time to establish trust with program participants to persuade them to engage in a study. If you are planning to launch an RCT to understand the effectiveness of your program in reducing trauma recidivism, please be prepared to address these challenges. I could not effectively initiate an RCT because of high staff turnover and attrition. In our first year, we loss two clinical counselors that made it impossible to conduct an RCT because we did not have a cognitive behavioral therapy model to evaluate. We were limited to assessing the services provided by the violence intervention specialist and case manager. THRIVE then lost our case manager. Thus, we did not have the staffing to conduct an RCT. I would suggest that at the outset of the program, an evaluator should be hired so your program collects and analyzes data in a systematic way. Evaluators and researchers should be written into every grant and should work with the program throughout the duration of the grant. Proving that a program works, what about it works, and how much revenue it increases by saving lives should always be at the forefront to justify the need for an HVIP.

Media

I heard the saying that all press is good press. From my experiences, media exposure is both a gift and a curse. We unexpectedly received significant media attention in our first year. Our program was featured on the local NBC- and CBS-affiliated stations. DC is a major media market, so this was a significant accomplishment. This exposed the program to the metropolitan area. The program was also featured in the Huffington Post. The media department at Kings was elated that we were bringing positive attention to the hospital because there were a series of stories in the media prior to THRIVE that cast the hospital in a negative light. The media department staff openly acknowledged that our program was the media department's greatest asset because it garnered so much positive attention from the local and national media. This bolstered the hospital's reputation and offset other negative headlines associated with the hospital. People gravitated to feel good stories about patients who were violently injured, and how the program particularly the staff changed their lives.

The caveat to working with the media is getting hospital administrators, medical, and program staff to understand that the media and journalists control the final narrative to any story whether on television, the Internet, or in print. I learned that despite wanting all of the THRIVE staff to get their 15 minutes of fame for all the hard work they do, the media could care little about including multiple voices in their storylines. Journalists are in the business of selling stories and have their own ideas about how those stories should be marketed and sold. A journalist or television reporter could come to your site and the staff may have the expectations that the storyline will include every staff member of the program but unfortunately that is not how the media works. Even if a news reporter or journalist interviews every staff person at your program, 90% of the context from those interviews will be edited once it airs or hits the press. As the director of THRIVE, this was challenging to explain to staff why they were excluded from a news story despite being interviewed for 20 minutes by a reporter. The directors have little control over the final story that makes the newspaper or television. A journalist may be kind enough to send you the final draft before it goes to print but even that is unlikely. The same is applied to stories on television. The director of the HVIP has no control over how those stories are edited.

For example, when the final cut for a featured news story included myself, Che, and a program participant, the program staff was infuriated assuming that I made the final decision on who should be included in the story. When the final story was published, or aired on television, staff would confront me with the questions regarding why they were not included in the story. In other instances, if a reporter or journalist did not want to interview all of the staff, they would be angered that they were not asked to participate in the interviews. Directors need to make clear to staff and should work closely with the media department of their organization to make transparent how the media works. Transparency regarding the media is the best policy. Reporters and journalists, I have learned, gravitate to a story that sells and will

attract viewers and ratings. News stations and digital print media must make hard decisions about what is left on the cutting room floor and what stays. It is similar to writing an ethnographic article, I may have interviewed ten people for a study but only five are included in an article because they may have the most compelling stories. Do the five people who revealed their lives to me but were not included in the study have warranted reasons to be angry? Certainly, but the nature of the business will not allow every voice to make print. But significant media attention on a few staff members will in some instances cause jealousy and envy that can result in a toxic working environment. As a former director, my advice would be to inform your program staff that any person receiving media attention is great for the program and ultimately you want the program to be acknowledged for the good work it is doing regardless of who receives the attention. If one person on the staff is the media darling for the program, then the program staff should understand that ultimately any media attention is good for your program. Do not let media attention drive a toxic wedge in your program.

Burn Out

A toxic work environment and the role of stress and burnout can take a tremendous toll on the physical, psychological, and emotional well-being of program staff. In the first few months of the program, it was clear that the staff were becoming overwhelmed and stressed by the volume of violently injured patients coming into Kings daily. Initially, our caseload for each frontline staff was 25 program participants per quarter for a total of 100 per year. Six months into the program we reduced the caseload to 15 per quarter for a total of 60 per year due to burnout among the staff. I clearly recall Che telling me that he was emotionally drained from watching so many people come into the trauma center who were shot or stabbed.

He watched a lot of people die from GSWs in our trauma center. He often accompanied Dr Mullins when he had to tell the heartbreaking news to family members. That takes a psychological toll overtime. It affected his sleep and mood. He would spend much of his free time on the weekend at home sleeping or not going outside to participate in activities. It was a self-imposed social isolation. This also resulted in us self-medicating at a local bar. I did not realize how often we tried to balm our pain with alcohol and when we did meet for happy hour we only discussed work. Our conversation revolved around how many bodies we saw that day, who may possibly get shot again after discharge, who has an upcoming court date for a gun offense, what is the status of their probation, and who needs housing or a job. The work figuratively bleeds into every aspect of your life. And the vicarious trauma begins to set in. For Che, he was being re-traumatized every time he entered a hospital room to recruit a patient at the bedside. He would eventually describe in detail how the smell of the hospital made him sick and reminded him every day of when he was injured and lying in the same hospital bed on the trauma floor with 13 stab

wounds. For months, he never discussed his re-traumatization with me but fortunately he was meeting with our clinical counselor routinely to seek help.

The traumatic symptoms of re-experiencing trauma occurred at the start of each shift. For me, I was burnout from seeing block bodies dying or shot. Moreover, the stress of trying to keep everything together and running smoothly was emotionally and psychologically taxing. Despite having only one participant return to the hospital for a violent injury out of 116 patients in our first year, clearly a milestone of success, there were many other internal difficulties I experienced within the hospital culture. As a scholar, I am accustomed to the autonomy of being in an academic environment and a culture of shared governance. Hospital cultures are often rigid, inflexible, and hierarchical. Shared governance did not exist. Moving between the academic culture and the hospital culture was often a culture shock. Every request needed to go through a chain of command and it was often highly bureaucratic and slow. It also appeared that some hospital staff were intentionally trying to sabotage the program once it started to show a success. Initially, I thought that I was being paranoid; however, it became clear to me that there were some administrators and medical staff that wanted the program to fail under my watch. My sleep patterns were disturbed. I could not sleep through an entire night. I would often wake up at 3 or 4 in the morning thinking about something related to the program. Second guessing decisions that under normal circumstances I would never give too much thought. I am pretty sure I needed to seek out counseling but as the leader of the program I thought that was a sign of weakness so I did not. The clinical counselor and case manager were also suffering from vicarious and secondary trauma without much support.

To ameliorate these concerns, I suggested to an administrator that the frontline staff should be allowed to telecommute 2 days a month. This would provide the opportunity for staff to decompress by at least having the flexibility to work from home. During my tenure, I observed many of the trauma registry nurses telecommuting. They were in the trauma services department. Despite THRIVE being under the department of trauma services, I was told that telecommuting for THRIVE frontline staff was against hospital policy. The administrator suggested that other options would be developed to address self-care however that never happened. Ultimately, the clinical counselor and case manager resigned. Che managed the program for 9 months without additional staff that resulted in increased burnout. Nine months after the first clinical counselor resigned, the hospital administrators hired a new clinical counselor whom they terminated in 3 weeks. A new case manager was hired and terminated in a month because the hospital could not accommodate flexibility in her schedule. The case manager was completing her fieldwork hours for her MSW. Her fieldwork required her to start her shift later in the day. The hospital would not allow a flexible schedule so she resigned. By the end of the 9 months of managing the delivery of psychosocial services by himself, Che resigned from burnout.

Despite the program's emphasis on the provision of mental health services for THRIVE participants, mental health counseling was not mandatory for program staff. To my regret, it should have been. One of our government funders offered

self-care treatment for staff, but it was not utilized. I believe that clinicians and staff were uncomfortable utilizing self-care resources provided by the funder. While it was a compassionate and thoughtful idea by the funder, I learned that the self-care must be a policy prioritized by the HVIP. There should be mandatory self-care days for staff once a month and offering holistic mental health resources such as yoga that are reimbursable. Working in this space is overwhelming at times for staff; they are constantly dealing with death, gunshot wounds, stabbings, grief, and healing. Because they are passionate and compassionate, the staff are motivated to take care of participants and as a result they often neglect to take care of their own needs. If you are not good to yourself, you ultimately will be ineffective to clients. If there is one take away, I would highly recommend for HVIPs is investing in a good self-care program.

Sustainability

Without self-care for frontline staff, a program cannot be sustained in the long-term. Staff will burnout and turnover will be high. In addition, without a clear plan to fund the long-term sustainability of your program, your HVIP may be quickly out of the business of saving lives. Every program must determine how they are going to sustain themselves beyond the first 3 years. In our first year, the hospital covered 70% of the program costs, mostly for staffing, and our funder from the DC government covered 30% of program costs because 30% of our violently injured population was DC residents. By our second year, I submitted and was awarded a grant through the Violence Intervention and Prevention Program (VIPP) sponsored by the Governor's Office on Crime Control and Prevention of Maryland that provided funding to hire additional staff to provide services for Maryland residents.

VIPP was established in 2018 as Maryland law to appropriate funding support to violence intervention and prevention programs throughout the state. Our health policy director, and emergency department physician at Kings, was instrumental in working with state legislators to advocate for VIPP funding and assisted with drafting the VIPP bill. States such as California through CALVIP (California Violence Intervention and Prevention Grant Program) also have state laws that appropriate millions of dollars to support violence intervention and prevention programs throughout the state. CALVIP grants are used to support, expand, and replicate evidence-based violence reduction initiatives, including but not limited to: hospital-based violence intervention programs, evidence-based street outreach programs, and focused deterrence strategies.

In Maryland, we were fortunate to have our legislature and support a funding mechanism similar to CALVIP. In 2018, THRIVE was awarded over a half-million dollars from the Maryland VIPP. This was a significant amount of grant funding. The award was for 3 years. Thus, I recommend that emerging HVIPs and those that are established in states where there is no MD VIPP or CALVIP to identify legislators that are interested in supporting this kind of legislation. Organizations such as

Giffords and Everytown also provide technical assistance with how to identify legislators and how to draft bills. An advocate and champion for your program within your hospital should be the first step. Again, getting buy-in from the hospital is a key because a president of your hospital system or Chief Medical Officer may be able to leverage their position to generate support for legislation on the state level. Or if you are fortunate enough to have a health policy expert, then your program should take advantage of their expertise!

While every state is different, MD VIPP, and CALVIP can be used as models for the long-term sustainability of your program. The other innovative approaches I used for sustainability were research studies that included funding support for front-line staff to serve as co-investigators. With new funding streams for gun violence research from the NIH and CDC that were once limited due to the Dickey Amendment, there are research funding alternatives now such as the Arnold Foundation's National Collaborative on Gun Violence Research, PCORI (Patient Centered Outcomes Research Institutes), National Institute of Justice, and the Robert Wood Johnson Foundation. A director should advocate that your program will be included as a mandatory budget line in your hospital's budget as well as your county's health department. I have also explored creative ways to partner with the Department of Probation and Parole and Re-Entry Programs on grants that would support THRIVE considering that over 70% of our program participants were involved in the criminal justice system. We spent a great deal of staff time and program resources working closely with probation officers to keep our young men compliant.

In our first year, we were awarded a Department of Justice grant to collaborate with the Kings County Health Department and the Kings County Department of Corrections Re-Entry Program. This study would identify individuals in a correctional setting that were going to be released within 3 months who also had a previous history of hospitalization for violent injury. A component of the re-entry program would refer this population to THRIVE for violence intervention services. Thus, I was able to leverage funding support from partnerships with criminal justice agencies. I also initiated discussions with the State Attorney's Office (SAO) to support a component of the program that would identify the highest risk participants (individuals with multiple hospitalizations for violent injury, adjudication for gun-related offenses, and history of incarceration) to receive wraparound services from a focused deterrence program similar to Advance Peace in Richmond, CA. If you can get buy-in from the SAO in a way that supports your participants and does not entangle them further in the criminal justice system, it could be beneficial for the long-term sustainability of your program. Although I am no longer the director of THRIVE, I plan to develop a focused deterrence program like this with the State Attorney's Office. It has been proven that a small percentage of offenders are responsible for the majority of shootings and homicides in our neighborhoods. HVIPs have a great deal to offer to a focused deterrence strategy that could be supported by the state government. I am sure that I have not covered all the strategies for long-term sustainability but these are some of the strategies that worked for me. A good mix of all these approaches may result in keeping your doors open.

Next Steps

By June 2019, I left THRIVE. The lack of support for the program and a toxic culture in the hospital setting made it too difficult to continue to direct the program. The irony that I had dedicated my academic career as a scientist to understanding interpersonal violence and using my research to develop interventions could not combat the level of structural violence by a medical institution against the most vulnerable populations. Structural violence is defined as preventable harm that damages a specific group. HVIPs were designed in my opinion to address interpersonal violence by first addressing structural violence such as the lack of accessible mental health services in disadvantaged communities, and the collateral consequences of the carceral state for young Black men and women such as limited employment opportunities. Many HVIPs do an admirable job providing mental health services, employment opportunities, and working closely with the criminal justice system to reduce trauma and criminal recidivism. But what happens when the institution designed to address structural violence is actually the perpetrator of it? From my experiences, the culture within a hospital, and the lack of shared vision for HVIPs can destroy a program and the lives of the young people they are intended to serve.

I arrived at a point in my second year where it became literally impossible to get things done. We lost our entire staff within 18 months. Two clinical counselors, two case managers, and the violence intervention specialist were either terminated or resigned. Our medical director, one of the co-founders of the program, who had previous experience working with HVIPs resigned. Our program manager, who had extensive experience managing our sister HVIP was removed from her position and replaced by a new program manager with no history of working with HVIPs. My mentor, the Chief Medical Officer of Kings, who provided me the opportunity to use the trauma center as my research lab to study violence, and also was one of the pioneers of the HVIP movement in the United States resigned. Without his advocacy, things progressively got worse. Our health policy director, who worked with state legislators to bring into law the state's violence intervention and prevention program funding policy, was essentially stripped of all his duties. He also served as the policy director for the national network of HVIPs. There was a leadership vacuum. All of the experts with knowledge of how to efficiently and effectively run a hospital violence intervention program were gone. Left in the wake was me with no advocates remaining in the building. A new program manager was hired with no previous experience in managing a hospital violence intervention program. A nursing staff administrator with no experience with HVIPs assumed the leadership duties. Based on the responses by the program participants and frontline staff, they wanted the program to move to my campus. I attempted to negotiate a restructuring of the program to shift from hospital-based to hospital-linked program. However, the hospital was worried that one of their few credible programs would be taken. I could not get a definitive answer from the president of the hospital regarding how to transition the program to a hospital-linked model where they would partner with my campus. The president would later resign at the same time I left my position.

During this period of instability, I remember one of my close friends who worked for an HVIP as case manager said to me, once you and Che are gone, all of your guys will go back to the streets and I guarantee you some of them will be come back to the hospital within a year for another injury or they will be locked up or dead. While I did not want to believe that would happen he was right. One of our young men was shot in February 2019 and by the close of 2019 another was murdered in firearm-related homicide. Both incidents were preventable. Two critical gaps were left following the departure of the clinical counselor and violence intervention specialist. The clinical counselor had developed close therapeutic relationships with a large number of young men in the program. The group counseling sessions were at capacity every week. We were experiencing unanticipated success with getting young men into therapy and the participants were enjoying it. When the clinical counselor was terminated, the hospital did not allow him to provide exit interviews with his patients to inform them of their progress, that he would no longer be their clinician and to offer a potential referral for the continuation of services. This violated the clinician/patient relationship and protocol, when a clinician will no longer be working with his/her clients they must notify their patients. Similarly, the Che resigned and requested 2 weeks to inform his clients that he would no longer be working with the program. He was summarily dismissed without the opportunity to inform clients regarding his departure. All of the participants had developed strong relationships with Che. In the focus groups, when participants were asked why they decided to join the program and remained committed to it, the consensus was their relationship of trust they formed with Che kept them involved. These were young men who were distrustful of institutions like the healthcare and criminal justice systems. They were also distrustful of peers, family, and community members.

The two relationships that they had entrusted their deepest emotions and lives to were suddenly gone without warning. It frustrates me to think about how we merely contributed to the cycle of individuals that came into their lives and left without notice. We reinforced that narrative. I wondered how much damage this caused. It was clear when one of them returned to the hospital with a GSW and by the close of the year another was murdered that I and we failed those young men. We were the perpetrators of structural violence and preventable harm. Their blood and lives are on our hands. It became intolerable, particularly for a scholar that studies structural violence, to be employed by an institution engaged in the very violence that we were trying to combat. The institution seemed to care little about the lives of these young men. During this period of instability, one of our funders threatened to defund the program which ultimately happened after my departure. It was a stratospheric rise and a tragic fall.

This experience taught a valuable lesson regarding collaborating with an institution that did not share my same principles as a scholar and more importantly a humanitarian. From my perspective, I am not fully convinced that HVIPs should be solely situated in hospitals, the politics and culture can literally be suffocating. The business of delivering psychosocial services can potentially be outsourced to community-based programs that have a strong track record in the delivery of these services. Should HVIPs partner with CBOs to deliver these services? Yes. The

hierarchical, linear, and inflexible culture of hospitals does not seem to be a culturally sensitive model or approach for vulnerable populations of young Black men. Some people ask would I ever direct an HVIP again. To be honest the answer is no, unless it was hospital-linked. At the end of the day, we saved a lot of lives in 1 year but we could have saved so many more. I wish you all the best of luck!

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Chapter 17
Looking at the Second Amendment from the Tenth: Early Experiences with a State Gun Violence Research Center

Stephanie Bonne, Paul Boxer, Michael Gusmano, Elizabeth Sloan-Power, Michael Ostermann, Angela Centellas, and Bernadette Hohl

Background

The tenth Amendment to the Constitution of the United States reads: "the powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people." In the context of the

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study of gun violence, the states are free to provide funding for research on the problem.

Interest in Gun Violence Research Centers (GVRCs) has paralleled the public interest in lowering the burden of firearm injury in communities in the United States and worldwide. Universities, policy makers, leaders, and others are particularly interested in the development of these centers as a means to help direct policy toward firearm ownership, injury prevention, and regulations. Universities also have a mission to produce high-quality research outcomes across a broad field of study, including the many disciplines that intersect to inform gun violence prevention efforts.

Public Health and Gun Violence

There is evidence to support the disease model of gun violence. In some populations, gun violence has been shown to spread from contact to contact, similar to infectious disease [1]. When treated like a disease, we can apply public health principles that lower risk through the mitigation of the disease itself, the effects of the disease on people and populations, and the vectors that transmit the disease. For gun violence, this means mitigating the root causes of violence, creating improved systems to treat the victims of gun violence, increasing deterrents for firearm crime, and improving the safety of gun ownership in the population.

Building a state gun violence center can be a daunting task, given the scope and limited access to functional components, such as preexisting data and funding. There is a relative paucity of public health literature relative to the burden of disease, and a correlated paucity of peer-reviewed literature on gun violence relative to other health problems.[1] In 1996, the Dickey Amendment was added to the United States federal government omnibus bill, stating, "none of the funds made available for injury prevention and control at the Centers for Disease Control and Prevention (CDC) may be used to advocate or promote gun control." Although not an explicit "ban" on gun violence research, it was widely interpreted as such, and created a resulting relative dearth of high-quality, peer-reviewed research in the ensuing years.[2] Academics understand that funding shortages lead not only to poor data collection during that time, but also to a relative lack of collaboration and mentorship to produce high-quality science, as many are unable to build a sustainable career in academia without extramural, government funding. A few scholars have had some success by using "creative" funding sources, including private foundation funding, institutional funding, or even their own private funds. Additional investigators study issues that are intersectional to gun violence, such as trauma recovery, adolescent homicide, urban health, domestic violence, or suicide, without directly studying the relationship to firearms, and have achieved extramural funding through these

[1] *JAMA*. 2017;317(1):84–85. doi:https://doi.org/10.1001/jama.2016.16215

[2] https://www.nature.com/articles/d41586-019-03882-w

interest areas. This entire climate has created a functional disincentivization for new scholars to pursue this area of scientific inquiry, as young investigators feel pressure to achieve extramural funding in the common academic model. With nearly 30 years of drought to build upon and few proven mentors in this space, and nearly no extramural funding available, a career in gun violence research is a challenging proposition for a young researcher.

In an attempt to correct this oversight by federal funding agencies, states have taken up the mantle and provided funding to support gun violence research centers. The California center was awarded to the University of California at Davis in 2016, and shortly thereafter the New Jersey Gun Violence Research Center (NJGVRC) was established at Rutgers, the State University of New Jersey, in 2018. The purpose of these centers is to produce high-quality research products that can be used to inform actionable programs and policies around firearm ownership, health and criminal justice interventions, and safety education. Both were established in a framework of using a public health approach to combat the problem of gun violence. The mission statement of the New Jersey GVRC is cited in Box 17.1.

Box 17.1 Mission Statement of the New Jersey Gun Violence Research Center at Rutgers

The Center's mission is to provide high-quality, multidisciplinary research on gun violence causality and prevention and translate this research into clear and actionable policies and programs, therefore creating safe and healthy environments. The Center will achieve this mission by partnering with local, state, and national experts, accessing data to conduct research that identifies factors involved in gun violence, developing interventions to reduce gun violence, and translating science into effective programs and policies to ensure their widespread adoption.

Center Goals:

- To develop and maintain an effective organizational structure that supports and sustains our work.
- To elucidate the causes, consequences, and solutions to firearm violence.
- To train researchers and practitioners, including future scholars, across disciplines to be leaders in the field of violence prevention, with particular emphasis on the importance of underserved and underrepresented populations.
- To translate our findings in meaningful ways to communicate with various audiences, and within and outside of New Jersey, especially policy makers.

Planning a Gun Violence Research Center

Building a gun violence research center can be accomplished by using existing injury prevention centers as a model. In 1980, the Centers for Disease Control and Prevention established the Center for Environmental Health, which evolved in 1987

to the Center for Environmental Health and Injury Control, and began establishing and funding academic Injury Control Research Centers (ICRCs) nationwide. Subsequently, in 1992, the CDC divided this center into the National Center for Environmental Health and the National Center for Injury Prevention and Control (NCIPC) [2, 3]. The NCIPC has funded core data surveillance programs around injury, such as Web-based Injury Statistics Query and Reporting System (WISQARS) and the National Violent Death Reporting System (NVDRS), has provided a number of resources to assist health centers in providing injury prevention programming, and has continued to support Injury Control Research Centers (ICRCs) through competitive grant mechanisms.[3, 4]

The ICRCs have three core responsibilities: Research, Outreach, and Training. Gun violence centers, as a subject-matter specific replication of ICRCs, have been established with the same core functions. In New Jersey, a fourth core, dedicated to surveillance, is intended to address current gaps in understanding of the burden of gun violence (Fig. 17.1). The concept of a center, however, is important to be understood as "more than a sum of the parts." While the core structure described below is important, the key component of a center is the collaboration between individuals who might otherwise be siloed in a University, as well as the collective resource utilization and idea generation that comes with the collaborative environment [4, 5].

The core model of the New Jersey GVRC (Fig. 17.1) includes four cores: surveillance, research, training, and dissemination and outreach. Each core functions across the university structure and reports to the center leadership.

The model demonstrates the leadership of the center and their role, and the collaborative role and joint governance across several schools of the university (Fig. 17.1, top), as well as the four cores and the responsibilities and mission of each core (Fig. 17.1, bottom).

Infrastructure

Securing funding to support a GVRC in these two cases has come from a state appropriations process. Funding supports essential staff, partial salary support for core directors and leadership, and center functions. It may be necessary to support university indirect costs and space, depending on the stipulations of the funding; however, indirect cost reduction might be possible in the case of a state grant funding a center in a state university. The advantage of using an existing university infrastructure in part lies in the availability of resources such as communications, information technology, research support staff, and external affairs and administrative staff that

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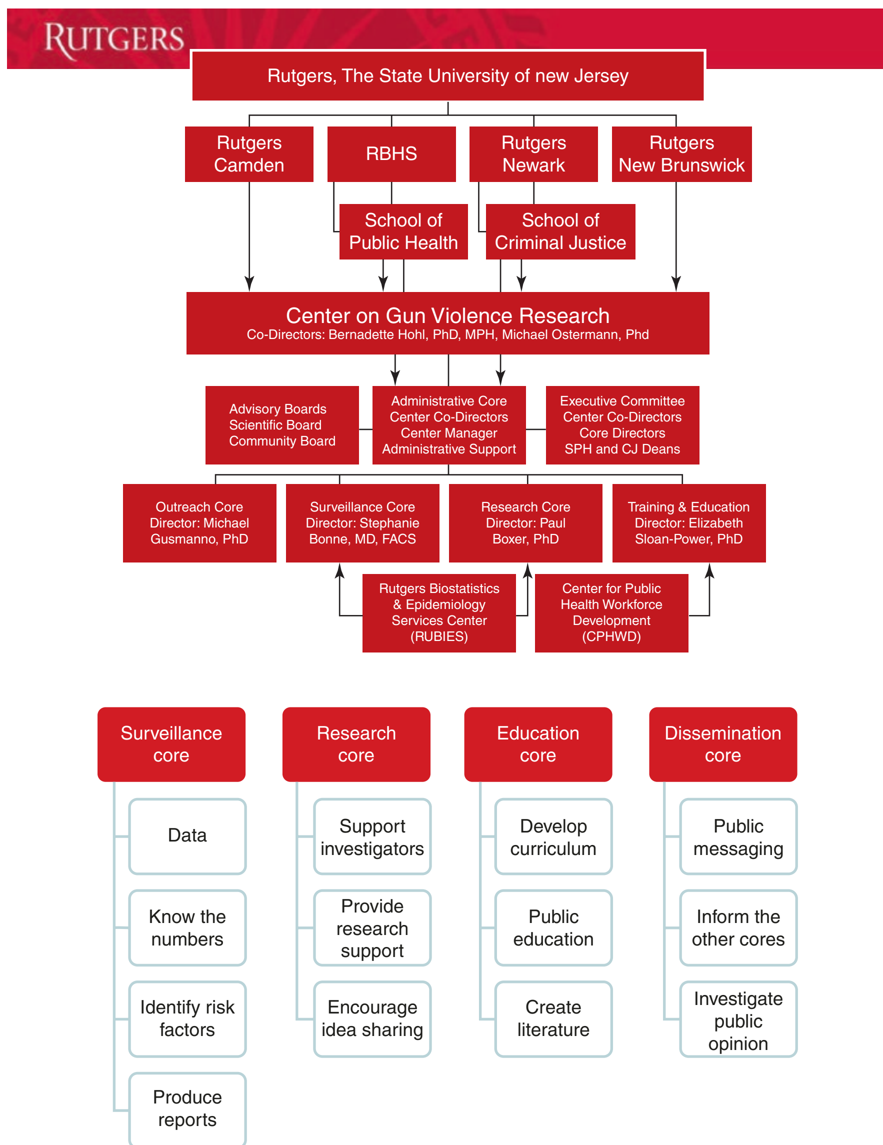

Fig. 17.1 Core model of NJGVRC

already exist in a large university. These staff, in our experience, were critical as we were establishing our organizational structure and allowed the center to become established relatively quickly.

Center functions may vary by the needs of each state, but would typically include launch events and public-facing events regularly, for center staff and researchers to disseminate their findings and receive feedback from both the scientific community

and communities impacted by gun violence. A community advisory board with representation from a diverse group of stakeholders can offer feedback on individual projects or on center priorities as a whole. Website and social media engagement allow additional opportunities for the center to disseminate their work and engage in discussion with communities in their state.

Early preparation of a request to fund internal proposals is a key first initiative. The state appropriations process, which is annual, may create a scenario in which internal grants must be rapidly funded in order to satisfy the annual nature of the funding. Multiyear projects might be more difficult to fund at the outset. As extramural funding for gun violence research has typically been difficult to achieve, there may be investigators in the center who have projects that have been partially funded or done on a voluntary basis in the past, that need smaller amounts of funding in order to finish them quickly. Larger projects, particularly those requiring primary data collection, may require a longer timeline and more funding for investigators, students, or post-doctoral fellows. The support for larger, longer projects can be a complicated venture if center funding is an annual appropriation and therefore projects lasting longer than one year cannot be guaranteed. Ideally, centers would be funded as multiyear projects that allow multiyear funding that more closely approximates the typical extramural funding cycles.

Finally, plans for a university-based GVRC should ensure the participation of a multidisciplinary team of investigators. While a public health approach should necessarily include leadership from the university's public health faculty, a number of other schools are likely to have individuals who have interest or expertise in aspects of gun violence. Schools of Law, Criminal Justice, Arts and Sciences, Social Work, Nursing, and Medicine are all likely to have individuals who should participate in both leadership positions and as center affiliates. Planning for center budgets requires some understanding of the varying ways in which academic appointments are funded, depending on tenure appointments, academic year models, or buy-down of time for clinicians. However, a diverse group of individuals will have varying perspectives, expertise, and access to either data or directly to populations affected by gun violence, all of which bring key components to center success.

Implementation

Early steps in the implementation of a center will necessarily include the establishment of administrative support and regular leadership meetings. The lawmakers or offices involved in funding the center are likely to have specific expectations that stipulate the funding and these should be clearly outlined in a list and timeline of deliverables. Establishing individuals to be responsible for messaging and reporting for the center is key to ensure that these processes are streamlined and do not overwhelm center staff.

Administration

This core provides the infrastructure to promote cross-discipline interactions, programs, and projects, and helps ensure translation and dissemination of research findings. To be successful, this core must provide oversight of all Center activities and communicate within the Center and between the Center and the funding agency. If the GVRC is situated across university departments, a strong understanding of policy and procedures across departments is recommended to prevent administrative delays. Center-specific policy and procedures for onboarding staff and volunteers, awardee selections, data use agreements, and a communication strategy should be developed. Establishing a website and social media accounts in the early stages of implementation facilitates dissemination of launch events and early Center accomplishment. A detailed activity plan with benchmarks should be developed and evaluated periodically to identify areas for improvement.

As center setup begins and research is starting, ensuring the buy in of state agencies is necessary to obtain the data needed. While the goal of a center should be prospective research and projects that involve primary data collection, many projects, particularly early on, will necessarily need to access existing public health datasets and public records to perform secondary analysis of administrative data. Ensuring that access to these datasets can be streamlined and seamless will be important to ensure that researchers have the data they need to complete projects in a timely fashion. The development of standardized data use agreements and a HIPAA-compliant data storage platform will help facilitate data transfers and de-identification of data, when necessary.

Surveillance

The surveillance core can then provide critical real-time reporting on firearm injury and death to inform state policy. Injury surveillance can be difficult, particularly when depending on hospital administrative data, which is dependent on the fidelity of hospital billers and the use of external cause coding. An assessment of statewide compliance with external cause billing can help identify gaps in information that may exist due to the variations in billing patterns across hospital systems or payers. A relationship with trauma centers, that receive most firearm injury patients, can provide access to hospital trauma registries, a powerful tool to assess injuries in high-volume areas. Death data are relatively easier to obtain through departments of vital statistics, states that participate in the National Violent Death Reporting System; however, a relationship with local medical examiners offices can also be useful or may provide additional detail to death data when needed.

Criminal justice data is also a key component to surveillance. This can be obtained through state sources such as the attorney general or state police, or through

relationships developed with individual municipalities and state police. Early establishment of standing data use agreements between these departments and the university improves the fluidity of the data process and understandings between the center and the criminal justice entities. State parole board data may also be useful. Establishing a system to use geospatial analysis of firearm data is also useful early on to create heat maps or provide more sophisticated analysis that can inform policies such as appropriation of funding for law enforcement, support for community-based organizations, or initiation of place-based interventions.

Housing these datasets internally is ideal, but may be subject to significant challenges regarding coordination, data fidelity, data use agreements, and the merging of multiple datasets. In the absence of common identifiers that are accurate across datasets, some centers use a probabilistic matching algorithm that balances the fidelity of matched data with the human resource time devoted to manual review of matches. The creation of a data repository that is housed by the center is a complex proposition and political support for the data access necessary to accomplish this should be considered in the initial center application.

Research

The purpose of the research core is to lead research that is conducted by the GVRC staff and faculty and to work to develop external resources such as funding and original proposals. The success of the research core will depend on organization and oversight of project proposals. Early release of funding to start research is key. As noted above, the release of a request for proposals in the first few months will help investigators start their projects. Regular research meetings, the assignment of mentors and center affiliates as collaborators, and oversight by one of the cores can ensure that the research remains on track and is completed and disseminated in a timely fashion. In addition to internal research proposals, consideration should be given to a community grant mechanism that can pair community members who have research ideas with academic faculty that can help execute the research.

Training

Training within the university setting reflects the commitment to the next generation of firearm injury researchers, as well as teaching best practices to those who have the opportunity to provide frontline gun violence prevention in their communities. As such, training materials should be multidisciplinary and developed to serve a variety of educational and professional programs. In the thinking-rich environment of a university setting, this can mean providing space and programming to allow students to explore ideas around gun violence prevention. Artistic expression of the

effects of gun violence can create venue for exploration and compel thoughtful consideration of the causes and impact of gun violence. Curriculum development for professional and preprofessional programs can assist future clinicians and practitioners in developing best practices around the mitigation of gun violence among their patients and clients. Finally, the applications of broader curriculum to gun violence, such as applying legal principles, epidemiologic methods, or mixed methods research to questions about gun violence, is the role of the training core.

Dissemination

It is vital for both the public and policy makers to know about the progress of the GVRC and about the findings from scientific research on gun violence. Unlike other advocacy groups, which may provide valuable information to policy makers and the public, an academic research center has a commitment to nonpartisan, scientifically rigorous information about this controversial topic. A goal of the GVRC, along with producing high-quality research, is to become a trusted source of information on this issue. Regular newsletters, interviews, and policy briefs can help update the public and help interpret highly technical literature into a digestible format for general consumption. Updates about current epidemiologic trends, policing information, and hotspotting can help the public know what is happening in their state and provide actionable information to policy makers and organizations running programs that serve the public. Finally, the engagement of the public through social media and public events can continue to help inform two-way communication between researchers and stakeholders in the community and in government.

Sustainability

Plans should begin early in the center to create a sustainable model for future funding and support. In addition to identifying partnerships within the university that can help support the center, funding should come from sources other than an annual appropriation from the host state. These funds can come from local and statewide fundraising efforts, private and foundation grants, or through the allocation of extramural funding dollars to help support center operations. Ideally, the investigators who are funded through early and seed funding mechanisms would generate preliminary data through these projects that can be used to apply for extramural funding, and selection of grant recipients should take into consideration the likelihood of a project leading to a viable extramural award.

Other core functions may want to add additional staff over time, including dedicated epidemiologic staff with expertise in data management and analysis or geospatial analysis. Imbedding staff in health departments or law enforcement entities

may be necessary to facilitate data collection and transfer. Training and dissemination cores may need additional administrative support, writers, and support from communications. If those who are building centers believe these individuals may be necessary, it is prudent to include them in the initial center proposals.

Planning for the Future

As of spring of 2020, the Centers for Disease Control and Prevention are making $25 M available for gun violence research for fiscal year 2020. This is an important first step in reversing the chilling effects of the Dickey Amendment, although it is uncertain that funding will continue, or will ever be commensurate with the burden of firearm injury in the United States relative to other diseases. However, adoption of state gun violence prevention models is promising for several reasons. These centers can remain community focused and relevant to local cultural factors, can be funded relative to the priorities of those living within those states, and can utilize the existing resources of state and local institutions of higher education.

A true public health approach to gun violence prevention will require both federal investment and state investment, along with both political and social will. We must continue to identify prevention programming and policies that are widely applicable to all Americans, and additional programs and policies that are responsive to local needs within states and municipalities. Only when we address the problem of gun violence in this multifaceted approach will we begin to decrease death and disability from gun violence and make firearm ownership and use as safe as possible.

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Chapter 18
Youth Gun Violence Prevention Organizing

Taylor King

Organizing

One substantial failure of the gun violence prevention movement has been its inaction in regard to activating and mobilizing youth for gun violence prevention. Prior to the March for Our Lives in March of 2018, the youth-based gun violence prevention movement was overlooked, disorganized, and relatively small. Groups like B.R.A.V.E. Youth Leaders and National Die-In existed, and there were a number of individual young people involved in gun violence prevention efforts; however, young people in this movement were viewed as the exception—not the rule. After the mass shooting at Marjory Stoneman Douglas High School in Parkland, Florida, though, hundreds of thousands of students around the country took to the streets to demand a change from their parents, legislators, and society in regard to gun policy and gun violence in the United States. After the shooting in Parkland, groups like Students Demand Action, Youth Over Guns, and March for Our Lives formed to organize the outrage and desire to act among young people. This chapter looks into the role of young people in creating and organizing around the toxic American gun culture, why young people belong in the gun violence prevention movement and the unique understanding we bring to the table, and our role in redirecting the movement looking into the future.

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Gun Culture

Firearms have been romanticized, glamorized, and celebrated for over 400 years, for example the "star" idealized gun-slinging American frontiersman, leading many to believe guns make people safer [1]. The contemporary gun culture is inextricably linked to American history and our development as a nation. In fact, the United States is unique among nations when it comes to guns in many respects, including a population of firearms that exceeds the census of US inhabitants. More significantly, few nations ever included an explicit right to bear arms in their constitution. Only three countries in the world—the United States, Guatemala, and Mexico—include the right to bear arms in their constitutions. Of these, the United States is the only one that does not detail restrictions [2].

The romanticization of the "wild west" folklore in the early twentieth century, combined with the harmful concepts of racism, machismo, and violence, has conspired to unduly influence young people to the perpetuation, entrenchment, and victimization of such a culture. Moreover, the virulent gun culture of the United States as toys, on screen, and in videos games has been capitalized upon by organizations wishing to perpetuate this malady, entrenching a gun culture in our current and future societies via youth engagement.

"Gun culture is part of the fabric of American childhood," a facet of youth that has been secured through generations of careful planning and strategy [3]. In fact, engraining gun culture in the minds and experiences of young people has been a practice going back for more than a century. The National Rifle Association (NRA) began its partnership with Boy Scouts of America near the beginning of World War I, to teach Scouts marksmanship, and has continued to foster a deep, abiding, and oftentimes toxic attachment to firearms among young men ever since. Although the initial behaviors of what has now become the Washington gun lobby were innocuous, the failure of advocates to notice the indoctrination of American youth into this toxic culture directly aided and abetted the spread of gun culture and its entrenchment in politics, law, and society.

Boy Scouts of America encourages scouts to pursue a variety of firearm certifications from NRA instructors. Though the act of training in responsible firearm use is commendable, the means of achieving such goals through a partnership with a radical organization contributes directly to the indoctrination of young people. Ironically, gun safety training courses likely introduce young men to the organization fighting most passionately against gun safety legislation. Young people are further indoctrinated into this culture through games like the Cowboy Action Shooting Program. In such programs, young people dress up as cowboys and play shooting games with NRA instructors; although this may seem like a harmless game, the intent is clear: further perpetuate the myth of the "good guy with a gun" and convince children that shooting things is both fun and noble. The proverbial Wild West culture is an apt description of the world should such toxic beliefs prevail: lawless and exceedingly violent.

While organizations like the NRA and Boy Scouts actively use their power to perpetuate gun culture among young people, many corporations do so in more

subtle manners. The prevalence of toy guns—both hyper-realistic and obviously fake—and violent first-person shooter games help to advertise guns to young people not as weapons, but as toys and games. Whether intentional or not, these products carry one clear message: shooting is fun.

Dueling Cultures

The gun culture oftentimes depicted in mainstream media is a predominantly white, socially protected institution. However, there is a concurrent gun culture outside of the spotlight and outside of popular media portrayals, evidenced in low-income Black and Brown communities that have been systemically oppressed and disregarded by the government and social institutions. This concurrent gun culture does not receive the respect or the protections of the predominantly white gun culture, and has been brought about by governmental efforts to diminish and oppress the aforementioned communities by fomenting violence, disinvestment, and adversarial police presence. In communities marred by violence, poverty, and governmental and social disregard, gun culture is less a privilege and more a necessity of survival.

This is not to say that the gun culture in low-income Black and Brown communities is superior to white gun culture; however, it is to say that this aspect of gun culture has roots far beyond the entitlement evident in the popularized understanding of white gun culture. To address the manifold reforms necessary to restructure this culture would require extensive discussion of education policy, investment in communities, policing reform, and dismantling institutional and societal bigotry; this will be briefly discussed at the end of this chapter. However, it does bear immediately acknowledging that the gun violence prevention movement has a propensity to falsely conflate the racialized manifestations of gun culture in ways that perpetuate mass incarceration, alienate Black and Brown people and communities of a lower socioeconomic status, and contribute to a general ignorance of the issues at hand. This failing of the gun violence prevention movement has held us back from achieving credibility on a number of gun violence issues including group violence, city gun violence, and the disproportionate violence plaguing Black and Brown people.

Gun Culture Toxicity

Though the aforementioned contributors to privileged gun culture may seem harmless, they each distinctly contribute to a modern gun culture plagued by racism, machismo, and the glorification of violence and bloodshed. Each of these toxic aspects of white gun culture are particularly prevalent among young people, and—once more—the lack of action from the gun violence prevention movement to counteract these factors until relatively recently constitutes a major failing of the movement.

Racism

Gun culture, as briefly acknowledged previously, is a deeply racist institution that only affords protection and respect to white participants and disproportionately excludes, oppresses, and kills people of color—particularly young Black men.

Throughout the country, young white men and women play with toy guns and people like Kaitlin Bennet—"the Kent State gun girl"—tote real guns in public places with virtually no repercussions. In fact, many of these young people are lauded by the proponents of our toxic gun culture. Kaitlin Bennet was exalted into fame and given a job for Infowars—a media outlet known for pedaling white supremacist materials—as a correspondent after her outspoken and tone-deaf defense of carrying weapons of war on college campuses.

The admiration and accolades do not extend past the boundaries of whiteness. Young Black men are often harassed, harmed, and even killed for the same actions that landed Kaitlin Bennet a job. Even when the young man poses no threat to public safety, the presence or even the idea of a gun can lead to his murder, because society protects gun ownership and gun culture only for white bodies. When Philando Castile, a legal gun owner and Black man, was shot and killed by police after informing them of his gun, the NRA said nothing. When Tamir Rice, a 12-year-old boy, was shot and killed by police for carrying a toy gun, the proud advocates for gun culture and the right to bear arms said nothing [4]. Even in instances where a Black person is more than an innocent bystander, when the Black man is a hero who stopped a gunman—as is the case with Jemel Roberson—they are shot and killed [5]. Gun culture is not a celebration of the universal right to bear arms in the United States, it is a celebration of the history of oppression and white supremacy that built this country and continues to dominate and subjugate communities into modernity. Gun culture is also not a culture based upon the need to protect oneself and one's own from an oppressive government, were that the case, people of color—those with the most need to defend themselves against an oppressive government—would be the primary benefactors.

Racism has always been a public health crisis—be it attacks on people of color, the lower quality of health care afforded to people of color, or prejudicial allotment of vital resources as evidenced by food deserts in non-white areas—people and communities of color have been consistently neglected [6, 7]. Such neglect is evident when one considers that the average lifespan for Black people in the United States has been substantially lower than the average lifespan for white people in the United States for longer than a century [8]. The disproportionate shooting and killing of young Black men and people of color as a whole, though, is a public health crisis within the larger public health crises of gun violence and racism.

Young people, specifically young Black and Brown people, as the demographic most impacted by this racist and violent culture within America, are uniquely situated to fight for a public health response to this problem in collaboration with professionals in fields of research, medicine, and policy [9]. A movement backed by sound data provided by those in public health professions, while providing the necessary

logos to the movement, cannot move forward and succeed without the voices and passion of those who can appeal to pathos using their personal stories and insight. A policy made to protect a community without input from and collaboration with said community will not be nearly as effective. Without intersectionality and without the will to elevate voices that the ethnocentric white state would rather silence, an end to the disproportionate killings of Black and Brown people condoned in this gun culture will remain unchecked.

The gun violence prevention movement, unfortunately, has a poor track record in confronting racism. The gun control movement—distinct from the modern gun violence prevention movement in actuality, but conflated in public opinion—was based largely on the fear of Black men arming themselves against the oppressive government. Though this failing occurred decades ago, its negative ramifications echo today. Additionally, modern gun violence prevention work, though diverse, is racially segregated—most national advocacy organizations disproportionately cater to the availability of the affluent and white activist rather than create an environment open to diverse perspectives and lifestyles. This failing has helped perpetuate the fragmentation of the gun violence prevention movement and must be addressed in order to improve coalitions, communication, and collaboration within the movement.

Machismo

In addition to racism, gun culture also idealizes toxic masculinity—a flawed perception of manhood that is detrimental to the physical safety of women and those in the LGBTQIA+ community, and to the mental health of men themselves. The brand of machismo perpetuated by gun culture is one that glorifies dominant, uncompromising masculinity. Such masculinity is often associated with aggression, sexism, racism, other forms of bigotry, and disconnected from emotions.

In line with the machismo idealized by gun culture is incel culture. Incels, or involuntary celibates, are boys and men who violently hate women due to their own inability to find love or receive physical affection. This anger against women stems from an entitlement to women's bodies. Incels often make news due to their violence against women—violence that is especially deadly when armed with a gun. Incel culture is closely linked with domestic violence and mass shootings [10]. From the shooting at Isla Vista to the shooting at Tallahassee Hot Yoga, incels have funneled their rage through the barrel of a gun to target, intimidate, and kill women. The toxic gun culture centered on a false understanding of manliness and heteronormativity is especially powerful to young audiences. Theories have linked homophobia and toxic masculinity to the violence that plagues many school settings, as young men will resort to violence to separate themselves from femininity and assert their masculinity [11].

This violence also manifests in abusive relationships. A woman in an abusive relationship is five times more likely to be killed if her abuser is armed with a gun [12]. And women who arm themselves for protection are very likely to have that gun

used *against* them rather than *by* them [13]. Just as the disproportionate killing of Black and Brown people is a public health crisis, so is the use of guns to dominate and oppress women. In a society where women are 21 times more likely to be shot and killed than are their counterparts in other high-income countries, it is vital to increase the flow of research and public information on the intersection of intimate partner violence and gun violence [14].

Machismo obviously targets women, but little attention is paid to another group targeted by toxic masculinity: the LGBTQIA+ community. Bigotry, homophobia, and transphobia cannot all be attributed to toxic masculinity, but to ignore the stigma placed on those who defy the societally perpetuated understandings of sexuality, gender identification, and gender roles/presentation by the patriarchal and oppressive regime would be to ignore a key facet of toxic masculinity. Though transgender women are women, violence against trans women, especially trans women of color, is distinct from violence against cisgender women. While there is a lack of research in regard to gun violence against women, there is an even more staggering deficit in regard to violence against transgender people. Too often, trans women and trans men are misidentified by family, police, and the media and the targeting and violent transphobia that led to their murder goes unreported.

Though data is lacking, the data that does exist paints a clear picture: the LGBTQIA+ community is disproportionately likely to be targets of hate crimes. Nearly 18% of hate crimes are perpetrated against members of the LGBTQIA+ community, while making up only 4.5% of the population [15]. Though not all perpetrators are men, the role of toxic masculinity in perpetuating the oppression of the LGBTQIA+ community is obvious. Attacks against members of the community are motivated by a hate that largely stems from a perception that members of the LGBTQIA+ community do not act in the way that their birth-assigned gender "ought to"—an expectation developed through toxic perceptions of masculinity, femininity, and heterosexuality.

"If violence is constitutive of masculinity, then violence becomes the mode by which one asserts one's masculinity" [16]. In moments where these men feel their masculinity threatened, their sense of helplessness manifests in violence against members of the community who they perceive as inspiring such a fear. The flaunting of gender norms oftentimes associated with the LGBTQIA+ community challenges the "binary opposition" between masculinity and femininity and thus inspires such violent reactions from violence-reliant men [16].

The violence perpetrated against both cisgender women and the LGBTQIA+ community constitutes a public health crisis in both physical and mental health manifestations. The fear and physical pain caused by violent outbursts of toxic masculinity grow more acute when fatalities are involved, and those fatalities often come at the hands of an armed man. In order to successfully combat toxic masculinity, there must be a concentrated effort to prevent it from taking root among younger generations. By teaching young people about healthy emotional expression and peaceful resolution of conflict, and by dispelling the false gender binary and oppressive gender norms that are all equated with toxic masculinity, we can dislodge the unhealthy conception of masculinity that has so pervaded society through gun culture.

Glorification of Violence and Bloodshed

Though racism and sexism both constitute clear acts of physical violence, these manifestations can often stem from a general glorification of violence and bloodshed within the toxic gun culture. Young people have been raised in an era where nearly every facet of life has been pervaded by gun culture's glorification of violence. Violent video games, action heroes who solve their problems with guns, and violent music that trivializes murder each contribute to the violent milieu that so often surrounds young people as they age. The depiction of violence alone in these mediums is not enough to explain the surge of gun violence; however, the glorification of this violence as depictions of a "good guy with a gun" entrenches gun violence and gun culture into the minds of impressionable youth and normalizes daily gun violence.

Though action movies and violent music are not new phenomena as much as violent video games, the pervasion of technology and media in the lives of young people compared to the lives of previous generations make these factors much more influential. Internet culture coupled with unhealthy attitudes toward violence allows gun culture to take inflammatory speech, such as Charlton Heston's infamous "cold, dead hands" speech, and lionize the incendiary speaker in the minds of the public. The ability of the gun lobby to shape the narrative in these instances through glorification and deification of violent individuals from the old time gunslinger to the modern comedic bodyguard serves a twofold purpose: bolster the toxic masculinity previously discussed using a "shoot first, ask questions later" mentality, and normalize the use of violence in solving problems.

Though not as direct a public health threat as the role of racism and sexism in gun culture, the glorification of violence in gun culture may hold a causal relationship with the more direct forms of gun violence. Just as the glorification of smoking as cool and sexy led impressionable youth to smoke, the glorification of gun violence as powerful and honorable may lead young people to minimize the gravity of using guns against others [17].

Reversing Toxicity of the Gun Culture

The gun violence prevention movement has largely failed to address the gun culture in the United States for what it is: racist, sexist, and perpetuating an unhealthy deification of violent figures. In order to reverse this long-term failing, the gun violence prevention movement must embrace, amplify, and engage young people from all demographic, socioeconomic, and geographic groups. As explained in this section, young people have historically been preyed upon in the perpetuation and entrenchment of gun culture in the United States and have played a key role in the evolution of its toxicity. Young people in particular, though, have also grown increasingly aware of this toxicity and of the predatory strategies utilized by the gun lobby and those pedaling in racism, sexism, toxic masculinity, and all other negative aspects

of gun culture. In order to uproot and restructure gun culture, the gun violence prevention movement needs to utilize the voices of those who shape the zeitgeist: young people.

Gun culture, no matter its manifestation, will not be easy to resolve and will require the passion and hard work of academics, activists, young people, and policymakers. Because gun culture has been perpetuated throughout generations and is entrenched within our Constitution, the dismantling of gun culture will take many years and a willingness to amplify the voices of those who are oftentimes not represented in advocacy and in political processes.

The Impact of Guns on Young People

One voice that must be considered in order for the gun violence prevention movement to succeed is the voice of young people—especially young people of color. Though young people represent varied backgrounds, life experiences, and perspectives, the commonality among us is the longstanding disregard from our elders. We are central to the creation of a cultural norm, and just as young people are vital to the creation of gun culture, we are equally important to its demise. Without the support of young adults, gun culture cannot continue to expand and thrive in politics or in society.

Unfortunately, the gun violence prevention movement has failed to utilize the passion of adolescents and young adults until recently. The lack of intergenerational appeal and engagement within the gun violence prevention community contributed to a stagnation of ideas and approaches that limited the growth potential of the movement for many years. However, despite this failure, one of the greatest successes of the gun violence prevention movement in modernity is its newfound inclination toward amplifying and engaging the voices of young people of all races, classes, religions, sexualities and gender identifications, socioeconomic statuses, and education levels.

Millennials and Generation Z have grown up with active shooter drills, the scourge of daily gun violence impacting communities of color, and the highly publicized suicides of celebrities and friends. As such, the younger generations are uniquely suited to bring the pernicious impact of gun violence to the forefront of American culture and politics. Though past generations (especially those in forcefully segregated Black and Brown communities) have faced the damages of gun violence for many years, young people can incorporate that knowledge with knowledge of social media, emphasis on intersectionality and inclusion, and the passion and energy so often associated with young activists—just as young people did in the Civil Rights, Black Lives Matter, LGBTQIA+ rights, and environmental protection movements. In addition to our youthful energy and vitality, growing up in the "Mass Shooting Generation" has given young people a unique perspective on the emotional, mental, and physical health repercussions of gun violence in our communities.

Physical Toll

The physical toll of gun violence is clear: people are being injured and killed by guns in the United States at much higher rates than are their counterparts in other high-income countries. Gun violence is not only the mass shootings so widely covered by the media, it is also daily gun violence, intimate partner violence, suicide, hate crimes, and many other manifestations. The media largely covers stories of mass shootings and the tragedy of young lives cut short in those horrific events; however, young people are gunned down much more frequently in the aforementioned instances of daily gun violence.

In the United States, those ages 18–24 are more likely to be shot and killed or injured than in any other age-range [18]. The physical toll of gun violence on young people lasts beyond youth into adulthood and throughout life. Shootings can result in mental and physical handicaps, amputations, chronic pain, and the loss of mobility. Additionally, in some cases, shootings can encourage retaliatory shootings which only serve to perpetuate the cycle of violence and carnage often plaguing young people in low-income communities. This cycle of violence and the limitations gun violence causes can lead to cyclical poverty and a lack of access to education or other vital resources—ramifications that go without acknowledgment once the media attention has faded. The general public does not have access to the true long-term physical toll of gun violence because so much is shielded from public consumption; however, these long-term impacts can be highlighted and fought if the gun violence prevention movement continues to highlight the voices of young people—especially young survivors.

Although the direct physical toll of a shooting is explicitly apparent, there are other physical effects wrought by witnessing a shooting or being shot. Those who witness gun violence in their youth are likely to experience "chronic or recurrent physical pains, such as headaches or stomachaches" and exposure to trauma as a child can later manifest as a variety of chronic diseases [19]. As the age cohort most directly impacted by the physical toll of gun violence, our voices must be brought to the table and valued.

Mental Health

In addition to the most obvious ramification of gun violence—physical pain and death—there are also many mental health problems caused by high rates of and interactions with gun violence that young people can bring to light. Exposure to gun violence during youth and adolescence is "significantly associated" with trauma like post-traumatic stress disorder [20]. The mental health complications associated with exposure to gun violence—both direct and indirect—put young people who have been exposed to gun violence at risk for their entire lives. PTSD from a shooting can complicate a young person's future prospects socially, emotionally, academically, and professionally. The long-term mental health impact of such stressful and traumatic experiences and of the prolonged stress associated with gun culture in this era on young people has

yet to be fully examined; however, research shows that early exposure to emotional trauma is connected to adult experiences of depression and anxiety [21].

The negative impacts on mental health for young people exposed to gun violence is of dire importance and must be acknowledged; however, few consider the trauma universally experienced by young people who have long since accepted the possibility of falling victim to gun violence. The increasing rates of firearm deaths in the United States and the large-scale media coverage of mass shootings at schools have made gun violence an expectation among many young people. Students at Marjory Stoneman Douglas High School, for instance, were quoted as not being surprised after the tragic shooting that took the lives of 17 students, faculty, and staff. While the students at Marjory Stoneman Douglas were certainly traumatized by the shooting, the lack of surprise among some students indicates a larger desensitization to gun violence and points to the unimaginable burden carried by young people in the modern gun culture and era of mass shootings.

This desensitization and normalization of gun violence begins at a much younger age, though. One anecdote recounts a group of elementary school students who, instead of playing house or school, play what is essentially "active shooter drill" where they stack imaginary chairs and tables and hide. The mass shootings have become so commonplace among the youngest people, that it has become little more than child's play. This blasé or playful reaction to such important and, frankly, horrifying affairs has been repeated in other areas, as well [22].

On March 16, 2019, at the University of Michigan—a day when many students were celebrating St. Patrick's Day—there were reports of an active shooter situation. Students in the library barricaded themselves into rooms, parents frantically called their children, and the police spent hours scouring the buildings in question. Ultimately, the reports were a false alarm due to the sound of balloons popping. The ever-present threat of gun violence in public spaces made students more inclined to believe that balloons were gunshots. False alarms have been caused by all sorts of loud or unexpected noises, including bottles and water heaters [23].

Although young people have been socialized to accept the reality of gun violence in the United States, that does not mean there is a lack of fear. In the United States, 57% of teens report feeling afraid that there will be a shooting at their school, and constant fear takes a toll on mental health, attention span, sleeping, metabolism, and brain development [24]. Furthermore, this fear likely extends beyond the confines of school to many public spaces like movie theaters, malls, parks, concerts, grocery stores, and many recreational areas—all of which have been targets of mass shootings in the past. No other generation has experienced the nearly universal inability to feel completely safe from gun violence. This inescapable fear creates a number of false alarm situations, as well.

Suicide

Suicide rates among young people have reached a near-20-year high in recent years [25]. In a nation with severely lacking mental health care, young people—who, as previously discussed, are disposed to depression, anxiety, and PTSD at least in part

due to the trauma of mass gun violence in addition to the general rates of mental illness and the pressures of adolescence—are increasingly likely to attempt suicide.

While all suicide attempts are tragic and causes for concern, attention must be paid to suicide attempts using a gun because attempted suicide with guns is the most fatal method. While less than 5% of those who attempt suicide using non-firearm methods will die, roughly 85% of those who make the attempt using a gun will kill themselves [26]. Guns make up roughly 6% of attempted suicides but make up roughly 50% of completed attempts. Young people, especially those who have struggled with suicidal ideation or attempts and those who have shared those feelings through the experiences of a loved one ought to be brought to the table so that they may bring this experience to light.

Young people are dying because of difficulty within the United States to acknowledge that mental health and gun violence are inextricably linked. Gun violence brings about mental health struggles in the form of trauma, just as mental health struggles can bring about gun violence in the form of suicide. The mental health impacts of such trauma impacting all young people has not been adequately acknowledged by the gun violence prevention movement, public health officials, or policy leaders. Those who lead and those who have come before us owe the younger generations more than passion, research, and legislation, young people are owed support and understanding. The stress under which young people grow up, partially due to gun culture, has bred a milieu of untreated mental illness, and in order to move through this difficult era, we need to be more than numbers—the movement cannot forget the humanity of the future generations for whom they fight.

Uncommon Sense

Although the presence of gun culture is undeniable and permanent in American society due to its entrenchment in the United States Constitution, it need not remain as toxic and violent as described in the initial portion of this chapter. Instead of centralization around the “cold, dead hands” theory of gun rights advocacy, gun culture could instead focus on safe storage, background checks, and the great responsibility that comes with gun ownership—as it did in its infancy. The gun violence prevention movement has long sought to change the narrative and shift the culture, but the movement has repeatedly failed due to its past inability to work with those with the ability to shape the zeitgeist in favor of common sense, safe gun ownership in the long term—young people.

The fight to shape the narrative, though often believed to be fought in state capitols and news stations, will actually be fought in the minds of young people. Generation Z and Millennials will make up the largest voting bloc in upcoming elections—a margin that is expected to grow in every election cycle—and also make up a large bloc of media consumption [27]. Young people, as the generations with the most longevity, are catered to in ways that shape cultural norms and societal expectations. Whichever side of this debate is able to capture the minds and passions of young people will be able to maintain their stronghold on cultural norms for the foreseeable future.

The gun lobby has been so successful in long-term maintenance due to its ability to engage with young people; however, public opinion among young people seems to be shifting toward gun violence prevention and tougher legislation—53% of people ages 13–24 report gun violence as a major concern and 54% believe that common sense gun legislation like stronger background checks will be effective preventative measures [28]. In order to continue this shift, the gun violence prevention movement must capitalize on its successes in youth engagement and continue to elevate diverse voices from all age-ranges.

Youth-Led Advocacy

Although the gun violence prevention movement largely pursues legislative and policy reform, young people believe that gun violence can only be remedied with a multifaceted approach and are actively fighting to bring this approach into the mainstream. The approach most widely supported by young people involves a combination of traditional gun violence prevention work—research, legislative advocacy, and public information campaigns—with a more community-based approach. This approach has been modeled for decades within majority-Black and Brown communities. Historically, the mainstream gun violence prevention movement has failed to consider and address the social factors that have contributed to daily gun violence, factors that gun policy and research alone cannot solve.

As previously discussed, white gun culture in America—and American culture generally—is built upon structures of racism and systemic oppression. This white gun culture, and white supremacy as a whole, uses economic disinvestment, predatory policing practices, and housing discrimination to create environments in low-income Black, Brown, and immigrant communities that practically necessitate gun ownership and that help to create another gun culture outside the protections of whiteness.

Gun violence cannot be fully addressed and remedied without confronting its racist foundations and pursuing reform in criminal justice, education, public transportation, housing, welfare, law enforcement, and all forms of racial and economic oppression, as each of these factors has influenced the rise of daily gun violence. In order to combat these manifestations, young people fight for increased funding and investment in communities that have historically been victimized by disinvestment and economic oppression. Though this form of intervention does not classify as traditional gun violence prevention work—a realm that generally includes legislative advocacy, public information, and research—there is a body of research to support its efficacy.

Neighborhood-level interventions as seemingly simple as neighborhood beautification can increase neighborhood safety perception by residents; increase the use of common outdoor spaces for socialization; and lead to decreases in all crimes, gun violence, and burglaries [29]. Additionally, access to quality education and the completion of high school are related to decreased participation in criminal behavior, which likely encompasses decreasing gun violence as well [30].

By encouraging investment in neighborhoods, resources, and educational systems, the gun violence prevention movement will succeed in realms in which it has consistently failed: ripping out the gun violence incentive structures in marginalized communities and confronting our own movement's history of bigotry. Additionally, this approach will also confront many of the public health risks posed by this country's oppressive tendencies. In order to fully pursue these aims, though, the gun violence prevention movement—including academia—must take into account the voices of young people who preach intersectionality and representation and the voices of people from communities generally ignored and silenced.

This chapter has gone to great lengths to discuss the nature of gun culture in the United States, the role young people have played in its perpetuation, the unique understanding of gun violence held by today's young people, and a new direction toward which youth activists will push the gun violence prevention movement. Unless substantive steps are taken moving forward to continue engaging with young people in the movement, the toxic gun culture will persist and young people will not be able to reach their full reformative potential. Fortunately, despite past failures, the gun violence prevention movement has largely succeeded in youth engagement and retention. Students Demand Action alone has more than 300 active groups in high schools, colleges, and graduate schools around the country. As we age out of our respective schools, young students rise to replace us and we go on to continue expanding into our new schools and communities. The rapid growth in the youth gun violence prevention movement in the 2 years since the shooting at Marjory Stoneman Douglas High School bodes well for the future of this movement, so long as the adult actors continue to respect and value the integral role of young people.

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Chapter 19
Smart Guns *Don't* Kill People

Woodie Kessel

Smart Technology

Since Alexander Graham Bell successfully transmitted the message "Mr. Watson--come here--I want to see you" on March 10, 1876, phone technology has become highly advanced [1]. Today smartphones offer features for the user that far exceed even untethered wireless voice calls. These capabilities including storage of personal information has spawned an acute need for privacy protection and security. Phone manufacturers have responded by installing user/owner recognition technology like passwords, finger print readers, and facial recognition to limit access to the smartphone. Similarly, the auto industry has now made auto safety its number one priority and it is among the top reasons buyers select a particular vehicle [2].

Gun violence injuries and deaths are a preventable public health epidemic that can be mitigated by applying many of the same technologies employed by the mobile phone manufacturers and automobile builders. Injuries and deaths from motor vehicle crashes have been significantly reduced employing a public health approach. In part success has been achieved from a comprehensive set of strategies that included data analysis, research and effective policies change, as well as design and technological modifications to enhance automobile and road safety. Gun violence injuries and deaths, as well, can be reduced with the development and application of contemporary technologies integrating science, technology, and societal concerns.

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Product Safety and Security

Smartphones

In 2018, the number of smartphones in the United States is estimated to be 257.3 million. These devices are multi-purpose mobile computing devices that in addition to traditional telephone functions—voice calls—allow text messaging, software applications, web browsing, email, and multimedia/personal information storage. All of the information stored on smartphones is considered private, requiring security protections, and consequently needing protections from unauthorized access. There are different ways in which a user can "unlock" their "protected" devices to make a call and access data on the phone including authentication unique passcodes, encryption, biometric fingerprint scanners, biometric facial recognition, and/or iris scanners. In addition to software security, there are hardware or mechanical protections, including physical locks generally limited and infrequent.

Smart Automobiles

Today there are nearly 270 million motor vehicles registered in the United States. Automobile injuries and fatalities are at their lowest rate ever due to automobile safety. About a 100 years ago the U.S. Patent and Trademark Office issued the first patent for a mechanical safety device—a seatbelt, now standard in all autos sold in the United States. Car safety seats, another inventive mechanical safety device, have saved countless children's lives involved in an automobile collision. Today, automobiles are loaded with advanced safety and collsion avoidance electronics. Microprocessors, used in car engines since the late 1960s, have steadily improved stability, braking, and general comfort. The 1990s brought enhancements such as GPS navigation, reverse sensing systems, night vision (able to visualize animals and people beyond normal human range) as well as airbags, collision avoidance technology, auto stopping, and lane changing devices all contributing to saving lives and preventing injuries as the result of extensive auto safety engineering. The 2000s added assisted parking, Web and email access, voice control, smart card activation instead of keys, and systems that keep the vehicle a safe distance apart from cars and objects in its path. The ultimate smart car is the one that drives itself [3].

Many of these mechanical and "smart" safety technologies are "active" or "passive," that is, requiring user activation and response or automatically engaging without user intervention and controlling the vehicle. Receptivity to user responsibility has been mixed. Interlocks that prevent ignition until the seatbelt is fastened or a breathalyzer/memory code device to stop drunk driving have failed. Even with a plethora of drunk-driving prohibition laws and, more recently, distracted driving laws prohibiting texting both with consequences, innumerable people are noncompliant. Achieving the most effective protections require passive safety

devices—optimizing occupant and vehicle safety without human involvement needed to activate them with safety features built in as an integral part of the vehicle.

Hazards

Home safety to protect children, the elderly, pets, and incapacitated adults is another area that has a long and successful history of employing active and passive safety devices to prevent harm. Child proofing devices and locked storage containers, for example, to limit access to cigarettes, alcohol, prescription medication, dangerous products, toxic substances, hazardous tools or equipment, knives, cleaning supplies with poisonous chemicals or pesticides are mostly accepted and commonplace. We install fencing to limit access to physical hazards such as backyard pools, we secure flammable materials, and we err on side of minimizing risk and safelt secure and store even items that may pose a small but genuine threat if improperly used, being concerned not just about the owner but to family members and neighbors as well.

With proper education, limited access, and safe storage, the dangers from these potential hazards have been mitigated. So too can the harm from firearms be significantly reduced with education, with technology limiting access tools, and with safe and secure storage.

Smart Gun Safety and Security

Gun safety is an important part of gun ownership. Armed with the sophisticated engineering, specific technologies can be developed to address the vulnerabilities and characteristics of firearm fatal/nonfatal violence. The original gun "safety" was a simple mechanical lock added to firearms to protect the user from harm if the weapon is dropped. Murders, assaults, death by suicide, unintentional injuries, and mass shootings could be significantly reduced with "smart gun" advanced technologies to prevent firing a weapon by the wrong hands. Crime solving and rendering illegal weapons secured and inoperable could be greatly enhance with tracking sensors imbedded into all manufactured weapons, with sensors to disable the use of the firearm from a distance. These technologies already exist in home security devices, automobiles and smartphones.

Most gun owners appreciate the risks associated with unsecured firearms and are responsible and committed to gun safety. Rendering guns inaccessible or impossible to operate by any person other than the cognitively unimpaired (e.g., with no history of mental illness, violent behavior, suicidal vulnerability, alcholism, or substance abuse), lawful owner is imperative to prevent tragic harmful consequences, including theft for criminal activities with stolen weapons. For example, securely locking an unloaded firearm and ammunition in a place where children cannot access would prevent more than two-thirds of gun-related deaths involving children.

Typically, firearms are manufactured with a gun "safety" button or lever. When set to the "safe" position it is a mechanical means of preventing the firing of the weapon until the safety catch mechanism is deliberately released. Other "safety" mechanisms often built in to the gun include a grip safety lever actuated when holding the weapon, a "decocker" with the hammer proximal to the chambered round, a firing pin or hammer block, chamber or magazine blocks, external trigger and cable locks applied directly to the weapon, locable gun cases, lock boxes, locable gun cabinets, and gun safes for storage for both hand guns and long gun weapons.

Guns can be "personalized to a specific user." They can have designed-in integral mechanisms (as opposed to an external locking device) allowing only authorized users to fire the weapon. As early as the 1880s, the Smith & Wesson gun manufacture, for example, created a childproof gun that would not fire unless a "grip safety"—a metal lever was depressed at the same time the trigger was pulled. This was a strength-based compound movement too difficult for the small hand of a child younger than 8 years old to perform.

In the latter half of the twentieth century, a three-wheel combination lock was incorporated into guns made by the Tri-C Corporation of Meriden, Connecticut, and Taurus International. In the 1990s, radio frequency identification (RFID), touch memory, and biometrics such as fingerprint-reading technologies were introduced. Using these technologies, Smith & Wesson again produced a childproof handgun. It was, however, boycotted via the NRA which caused serious financial damage to the company and served as a warning to other gun manufactures.

In 2002, iGun Technology, a subsidiary of the Mossberg Technology Group, developed a technology for a carbine long gun with a user ring (or wristwatch or bracelet) to match a unique code via a radio-frequency identification or RFID tag. It was similar to library-book theft prevention, to vehicle parking access, to unlocking and staring a car with a "smart fob" and controlled building access. TriggerSmart™ has developed a pistol with an RFID equipped bracelet, which must be worn by the user in order for the gun to fire. Armatix, a German company, now manufactures a .22 caliber pistol requiring a wristwatch and user entry of a personal identification number (PIN) to unlock the electromechanical firing pin lock. Guns can also be retrofitted to read fingerprints or palm recognition [4]. ALL of these examples serve as evidence that "smart" guns are feasible and effective.

Smart Guns, Smart Use

Combining traditional gun safety with advanced technology and sensors (similar to chips built in to smartphones and other devices) can potentially make fatal weapons even safer for lawful gun owners, sportsman, collectors, law enforcement, and families. With the development and application of such technologies as empty chamber locks, trigger pressure inhibitors, gun/ammunition tracking devices, magazine limiters, unique user identity recognition (facial/voice/fingerprint/passcode) distance from target limiters, brain function impairment detection limiters, criminal evidence encryption, domestic partner recognizers especially applied to the most frequent

Table 19.1 Smart gun technology opportunities to address gun violence

Gun violence harm	Potential smart technology
SUICIDE	User authentication –
Alcohol	Voice recognition
Substance misuse	Facial recognition
Impulsivity	Finger print access
	RFID access
	Passcode
	Two-factor authentication
	Iris detectors
	User inhibitors -
	Gyroscope destabilizer sensor
	Breathalyzer
	Distance sensor
	Target recognition
	Empty chamber locks
	Cognitive impairment limiters
	Active safeties enhancements
	Cell phone link
HOMICIDE	User authentication –
Weapon theft	Permanent disarming/lock out
Ammunition tracing	Ammunition-weapon ID matching
	GPS weapon trackers
Evidence	Finger print encryption
DOMESTIC VIOLENCE	User authentication –
Intimate partner violence	Family ID blockers
Alcohol	Voice/facial recognition
Substance misuse	Sweaty palm sensor
Anger	User inhibitors –
Evidence	Finger print encryption
UNINTENTIONAL CHILD USE	User authentication –
Play	Trigger pressure inhibitors
Curiosity	Alarms
	Empty chamber locks
MASS SHOOTINGS	User inhibitors –
Semi-automatic weapons	Ammunition capacity limiters
	Iris detectors
	Hey Google. Hey Siri. HELP/DON'T SHOOT
POLICE INTERVENTIONS	Driver license smart chips

firearm used—hand guns—significant reductions in gun violence and its consequences can be realized.

Table 19.1 lists the specific gun violence harm and suggests a specific potential smart technology—feasible today and often already built-in to smartphones and smart cars and credit cards, to mitigate that threat. For example, if a non-owner of the weapon, like a child, attempts to fire a weapon with a finger print sensor keyed

to the owner only it would not authenticate the user. It would render the firearm not only inoperable but sound an audible alarm and or send a message to the gun owner on their smartphone or the police. Sounds familiar. Technology can help trace ammunition and quickly link ballistics to a GPS weapon tracking to aid police in recoving the weapon. Sportsman use laser sights to increase accuracy; the same lasers can be used as distance sensors limiting a weapon from firing when it was turned against themselves preventing death by suicide at close range.

In summary, applying contempoary technologies to hand guns and rifles could significantly reduce gun violence, homicides, suicides, and unintentional deaths and injuries. If cars don't kill people, drivers kill people; and, if guns don't kill people, people kill people, then it's people we need to protect from people with the aid of smart technolgy. Smart guns are a smart interpretation of the Second Amendment.

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Chapter 20
Reducing the Incidence and Impact of Gun Violence Through Community Engagement

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Overview

Bullets are a vector of violence, a traumatic transfer of energy from one person to another. While guns are the physical origin of the trauma that bullets inflict, their fire power is rooted in social structures and historical forces that have shaped communities across the United States. Gun violence affects the lives of all Americans; 99.9% of individuals across racial groups will know a victim of gun violence in their lifetime [1]. Urban communities are disproportionately affected with homicide rates more than 10 times the national average [2]. Even within urban areas, certain populations bear an unequal burden of this epidemic. Specifically, black men constitute 51% of homicide victims despite representing only 6% of the US population [3]. All too often, the solutions posed to reduce the incidence and impact of this violence focus on the character and choices of the finger that pulled the trigger and fail to recognize the multitude of forces are at play in those high-risk behaviors. Media reporting and resources have primarily focused on the underlying causes and experiences of mass shootings rather than recognizing the day-to-day toll of gun violence on communities [4, 5]. While policy-driven structural changes are required to reduce gun violence, community-based solutions hold a unique value as they are locally informed by the social forces which uniquely drive the experience. As many of these initiatives have arisen in the setting of an inadequate institutional and political response to the problem, they represent an opportunity to powerfully connect to assets within communities that can reduce and even prevent gun violence. Community solutions to interrupt the cycle of violence

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can be divided into two main categories: those that focus on mitigating the risk present in the lives of individual people, sometimes dubbed “hot people,” and those that work to modify the environments which fuel gun violence or “hot spots.”

Hot People

At this level, interventions seek to identify the vulnerabilities and assets within individuals that make them more likely to experience gun violence, recognizing that one of the greatest risks for being shot is having been shot before. This includes work to reduce both the risk of perpetrating and becoming victims of gun violence.

Many community-based solutions focus on street outreach, which has its roots in the Chicago Area Project of the 1930s that used outreach workers to connect with marginalized youth to attempt to give them the skills to be able to make safer, self-preserving choices [6]. In the modern era, street outreach underwent a rebirth with Boston CeaseFire in the 1990s. Their approach involved collaboration between law enforcement, “Streetworkers” (community outreach workers), churches, and charity groups. They targeted at-risk youth identified by law enforcement, finding that 75% of homicide victims and 77% of homicide offenders had been previously arraigned [7]. CeaseFire interfaced directly with gang members through the process of a “call-in” where police, streetworkers, and community leaders were present. The call-in served to simultaneously convey the message that those participating in violence would be swiftly punished to the full extent of the law, to offer services including counseling and job training, and to allow community leaders to talk to gang members about their commitment to reducing violence [8]. Focused deterrence programs, such as CeaseFire, have been successful in many cities including Boston, Chicago [9], Cincinnati [10], Indianapolis [11], and Los Angeles [12]. The original program in Boston reported a 63% reduction in youth homicides [13]. In order for deterrence programs to have a lasting impact, the response from law enforcement must be consistent and sustained, which is difficult to achieve with inconsistent funding. In addition, they require a foundation of communal trust with law enforcement, a condition which is often missing in urban communities. What’s more, longer-term follow-up of focused deterrence initiatives demonstrates that they frequently do not have sustained success, and may, in fact, lead to increases in violent crime over baseline, or “whiplash” [14].

Cure Violence, formerly Chicago CeaseFire, targets at-risk youth as well [15]. In order to be eligible, participants must meet at least four of the following seven criteria: “(a) gang-involved, (b) major player in a drug or street organization, (c) violent criminal history, (d) recent incarceration, (e) reputation of carrying a gun, (f) recent victim of a shooting, and (g) being between 16 and 25 years of age.” Cure Violence staff includes outreach workers, who connect participants to community resources, and violence interrupters, who help mediate conflict in order to prevent retaliatory violence. In order to be effective, both the outreach workers and violence interrupters must be trusted by the communities they are working with and often have previous exposure to the criminal justice system. Unlike the original Boston CeaseFire, Cure

Violence does not work directly with law enforcement or use the threat of punishment to deter violence. Instead, it attempts to use alternative methods of conflict resolution to change attitudes and behaviors among high-risk individuals and to use education to gradually change the norms of the community as a whole to "denormalize" the use of guns [15, 16]. Cure Violence has been effective at reducing shootings in multiple cities including Chicago [17], New York [18], Baltimore [19], and many others. Importantly, a study of the program in New York demonstrated that Cure Violence can successfully change norms around violence with significantly fewer participants reporting a willingness to use violence in both serious and petty disputes [18].

Both Cure Violence and deterrence programs like CeaseFire require an enormous amount of resources and coordination of social service organizations to function optimally. Mixed results of the programs have been seen when there is inconsistent funding or problems with implementation [17].

When focusing on high-risk individuals, another point of possible contact is in the setting of recent violent injury. Hospital-based violence intervention programs are a response to high rates of recurrent violence-related injury ranging from 10 to 45% in various studies [19–22]. They center on the hope that a life-threatening injury may increase openness to behavioral change. In addition, they assist victims in overcoming obstacles to their well-being in the post-injury period through improving access to follow-up care, counseling, substance abuse treatment, employment training, and educational assistance [23, 24]. They have been shown to effectively reduce both rates of committing violent crimes and violent injury recidivism [23, 24]. Low rates of violent injury recidivism have been tracked out to 10 years [25].

Frequently the root of gun violence behavior in an individual is centered in the prior experience of trauma. The very nature of gun violence deeply violates human connection, deepening the impact of that trauma. Interventions which are individualized must restore that human connection and trust. Peer mentoring is an important aspect of both Cure Violence and hospital-based violence intervention programs. By connecting to someone with a shared experience, the essential element of trust is restored and allows for therapeutic intervention for the individual. One of the most important assets in peer mentors is their ability to model having community respect without a need for violence and retaliation [26]. In this way, community-based solutions which focus on the individual thrive when they recognize the invaluable input of peers in community and successfully recruit those same community members within their workflow, priorities, strategies, and planning. Representing a model of deeply involved community engagement, these programs utilize the assets within community to fortify at risk individuals, stabilization, and recovery for those.

Hot Spots

Another approach to addressing the cycle of violence is to recognize its concentration in high-risk locations or hot spots and try to change the environment that predisposes violence [27, 28]. Neighborhood factors associated with violent crime

include concentrated poverty, vacancy, high density of alcohol outlets, and lack of social cohesion [29–33]. Interventions that focus on neighborhoods rather than individuals have the potential to affect a broader target audience and are less prone to problems of inconsistent funding [27]. Even individuals who are not directly involved in violence can suffer mental and physical health impacts due to the threat of victimization [34].

Vacant lot greening has been associated with reductions in gun assaults in Philadelphia [35]. It is unclear if this benefit comes from reducing overgrowth where guns could be hidden or from indirect effects of signifying that the neighborhood is cared for and improving the communal sense of safety [33, 36]. In another study, housing remediation, requiring vacant homes to have secure windows and doors, was associated with a 4% relative reduction in gun assaults [37]. After the great recession and foreclosure crisis, vacant homes and lots have increased in many cities and communities have called for innovative solutions such as community gardens [38]. Youth echo the importance of a community free of litter and vacant lots and homes as a sign of respect both for themselves and for their community [39].

Harm Reduction

In addition to efforts to prevent gun violence, community efforts exist to reduce deaths from bullet injuries. Ujiima medics, an urban emergency response training course, was developed by community members to address the gap of trauma services on the southside of Chicago [40]. By teaching community members to be first responders, programs such as Ujiima medics and Stop the Bleed can reduce preventable deaths from bleeding [41]. However, these programs also confer value to community members by equipping and training them, enhancing resilience, and increasing confidence.

Innovative Ways to Address Attitudes Toward Violence

Both Hot People and Hot Spots interventions attempt to heal prior trauma and enhance assets within community. Art can be utilized to achieve some of these goals by creating the separation needed to view life and feelings from new perspectives and can be a powerful tool to heal trauma and support new pathways to self-preserving choices and behavior. Power4STL utilizes graphic art to engage more diverse participants in their Stop the Bleed courses and to create public service announcements on gun safety that can reach a broader target audience [42, 43]. Unlike photographs, which can only represent a specific individual, the more abstract quality of graphic art creates representations with which diverse individuals can identify. The use of art thus can allow for the viewer to see themselves as the characters in the story or message, increasing both the relatability and emotional

response produced. Prioritizing art as a mechanism for community engagement provides the opportunity to collaborate with and engage artists who are already a part of the community, which increases not only the relatability but also the visibility of the message. Moreover, exposure to the arts has been shown to increase civic engagement within communities [44]. Youth art programs provide both a safe space outside of school or employment for the youth to spend their time and promote nonviolent methods of expressing their emotions [45, 46]. For example, Story Stitchers, a non-profit in St. Louis, is a collective of professional artists and minority youth who reframe and retell stories through writing and performance to promote understanding and social change, with a focus on gun violence prevention [47]. Their performances create a platform for community engagement and offer an artistic lens for the community to shift perceptions and find hope.

Advocacy/Policy

Policy and advocacy play important roles in approaching comprehensive gun violence reform and can help drive community-based solutions. While national policy undoubtedly plays a critical role in shaping the nation's norms and practices regarding guns, the state and local level are more approachable venues and have just as powerful impacts in the community. Local policy should reflect the priorities of the local people, whose job it is to advocate for the needs of their community.

State laws can be crafted to push forward public health campaigns. For instance, as of January 2020, more than 39 states have passed laws requiring CPR training for students before they graduate high school [48]. Research has illustrated that community education to increase bystander CPR and use of AEDs is associated with increased survival from cardiac arrest. A 2017 JAMA Cardiology study found that after the implementation of a campaign that included training of community members in compression-only CPR at civic events and providing grants for groups to implement CPR classes, the rates of bystander-initiated CPR significantly increased [49]. This was shown to increase survival, with patients who arrested in public being most likely to survive if they received bystander-initiated CPR and defibrillation [49, 50].

In most cases of cardiac arrest, it takes too long for an ambulance to arrive and bystander intervention maximizes survival. The same is true for traumatic injuries. The general public should be equipped to stop life-threatening bleeding because it takes only minutes to exsanguinate. Classes, such as Stop the Bleed, teach simple and effective techniques to stop hemorrhage. A 2018 study in The Journal of the American College of Surgeons found that civilian prehospital tourniquet application for peripheral vascular injuries was independently associated with a sixfold reduction in mortality [51]. Just as we have prioritized teaching students how to respond in the setting of a cardiac arrest with CPR, we need to prioritize teaching students how to stop life-threatening bleeding.

According to the American College of Surgeons, as of March 2019, Arkansas, Missouri, Massachusetts, and North Carolina have introduced bills that would

require public schools to administer trauma first aid training for students and staff [52]. However, this is not enough. Members of each state should push to have this type of training be standard in the curriculum. Individuals can also approach local school districts to initiate these classes on a smaller scale. Doing so will equip the next generation of adults with the knowledge to properly respond to severe hemorrhage, which is a powerful form of secondary prevention from firearm injury.

Challenges to Community Collaboration

Effective community solutions require collaboration [46]. Problematically, the criminal justice and medical institutions, given their institutionalized racism and history of mistreatment of communities of color, suffer from distrust by the communities that they are attempting to serve [53–55].

Programs to improve community-police relations may include a direct reconciliation process where police meet with community members or begin foot patrols to increase community-police positive contacts [56–58]. Improving community-police relations may also lead to reductions in retaliatory violence as the belief that justice system will fail community members makes individuals more likely to use their guns as they feel there is no other recourse [46, 53].

As part of their American College of Surgeons verification, level-one trauma centers are tasked with providing leadership in trauma prevention and education [59]. Focused engagement around the issues facing individuals and communities at risk for violence should be a priority. However, to overcome inequity hospitals must move beyond community engagement/outreach, in which hospital priorities determine supportive services offered to community collaboration, in which expressed need and the priorities of community stakeholders drive goals of policy and practice [60].

The central tenant of this collaboration is relationship. Hospital systems and trauma centers are best advised to recognize the assets within community members and leaders, from shared experiences to knowledge of both needs and strategies for success. These relationships must be centered in equity, longitudinal and responsive. In a challenge to academic medicine Dr. Consuelo Wilkins writes "an enterprise-wide approach to community engagement will require reconsideration of communities, moving from viewing them as people or groups in need of service to seeing them as assets who can help [academic health centers] better understand and address social determinants of health" [61]. The same is true for all trauma centers that care for patients who have experienced gun violence, a disease in which social determinants of health factor into risk and outcome so heavily. Community consultants, survivor groups, peer mentors, and advocates with a shared purpose represent invaluable resources in the care and prevention of gun violence. This complex disease of gun violence in hot spots and hot people is a reflection of structural inequities that have fueled the social and health experience of many marginalized

communities for decades. Successful community-based solutions around gun violence must not see that history as a disqualifier and must instead embrace that lived experience as one of the greatest resources in work to reduce this lethal social disease.

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Part V
International Perspectives

Chapter 21
Gun Violence and Barriers to Reparation in the United States: Scars of Survival

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Introduction

Gun violence in the United States is a human rights crisis. Over half a million people died of gunshot injuries between 2001 and 2017, and a further 1.3 million people sustained firearm-related injuries and survived [1]. This chapter focuses on the survivors of gun violence, many of whom experience life-threatening and life-changing injuries, and evaluates the adequacy of the US government's response. It begins by examining the scale of gun violence in the United States and explains why gun violence in the United States represents a human rights crisis. It then discusses the challenges gunshot survivors face in accessing the health care and support they need in the aftermath of their injury, including the high costs of health care, and the bureaucracy associated with accessing existing systems of health care and other support. Finally, this chapter analyzes the adequacy of victim compensation funds—the only public programs available to victims and survivors of gun violence to seek any form of compensation—in light of the US government's human rights obligations.

This chapter is based on research conducted for a report by Amnesty International, titled "*Scars of Survival: Gun Violence and Barriers to Reparation in the USA*" [2]. For this report, Amnesty International researchers interviewed 25 gunshot

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This chapter is taken from a full-length report by Amnesty International. *Scars of survival: gun violence and barriers to reparation in the USA*. 2019. Details available at https://www.amnestyusa.org/wp-content/uploads/2019/07/Scars-of-survival.pdf.

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survivors, 11 past or current caregivers to a gunshot survivor, and 17 health workers who have worked extensively with gunshot survivors. Interviews took place in four cities across three US states (e.g., Florida, Louisiana, and Maryland) and occurred in January, April, August, and September of 2018. Amnesty International researchers also spoke to 40 public health experts, advocates, social workers, journalists who cover gun violence, victim advocates, human rights activists, and nonprofit service providers about the challenges survivors face in accessing health care and support.

Background

Scale of Firearm-Related Deaths and Injuries

Gun violence in the United States is pervasive. According to the CDC, more than half a million people died of gunshot injuries in the United States between 2001 and 2017 [1]. In 2017 alone, there were 39,773 firearm deaths; about 38% of these were homicides, 60% were suicides, and the rest were accidental or undetermined [1]. Firearm fatalities are overwhelmingly male (85%) and disproportionately occur among young adults [1]. The CDC estimates that the rate of firearm death is about twice as high for people who are identified as black (19.51 per 100,000) than for those who are identified as white (9.74 per 100,000) [1]. Looking more specifically at the CDC's firearm-related homicide data, young black men are more than 10 times as likely to be killed by a firearm than young white men [1].

Although popular discourse around gun violence tends to focus on the number of people killed, more than twice as many people who are shot survive [3]. In 2017, an average of around 366 people a day nationwide were shot and survived [3]. When the nonfatal gunshot injury data are disaggregated by gender and age, the pattern is similar to that of firearm deaths: men are more than eight times as likely to be shot and injured as women, younger adults are most at risk, and those identified as black are at the highest risk [3].

Why Gun Violence in the United States Is a Human Rights Issue

Although the United States has the highest absolute and per capita rates of civilian gun ownership in the world [4], the US government has failed to implement a comprehensive, uniform, and coordinated system of gun safety laws and regulations. Instead, a patchwork of inconsistent and inadequate federal and state laws governs the training, licensing, and registration of firearms. The prevalence of gun violence in the United States raises serious human rights concerns, particularly around the rights to life and security of person. States have a positive obligation to prevent

violations of the right to life by taking measures to address actual or foreseeable threats to life. States' responsibilities to prevent firearm violence, as part of their obligation to protect the right to life and other human rights, require two interrelated approaches: (1) restricting access to firearms and ammunition, especially by those most at risk of misusing them, and (2) taking effective steps to put in place and implement violence reduction or protection measures where firearms misuse persists. If, in the face of clear evidence of persistent firearm violence, a state does not exercise adequate control over the possession and use of arms by private actors, then it is in breach of its obligations under international human rights law. The scale of firearm violence in the United States indicates that the government has failed to meet its obligations to exercise due diligence to protect people's rights to life and security of person and other human rights [2]. It has failed to exercise adequate control over the purchase, possession, and use of firearms by private actors.

Under international human rights law, the state therefore bears responsibility for providing effective remedies, including reparation, to the victims and survivors. The right to effective remedy has been recognized under various international and regional human rights treaties and instruments and also as a rule of customary international law[1]. The right to effective remedy requires states to provide all victims of human rights violations with adequate, effective, and prompt reparation for harm suffered and access to relevant information concerning violations and reparation mechanisms [5–7]. Under human rights law, reparation—measures to repair the harm(s) caused to victims of human rights violations—can take many forms. Reparation must seek to remove the consequences of the violation and, as far as possible, restore those who have been affected to the situation they would have been in had the violation not occurred [8]. Many forms of reparation are recognized under international human rights law, including compensation and rehabilitation. Rehabilitation includes any medical and psychological care needed by the victim as well as support from legal and social services [5]. Furthermore, monetary compensation should be provided for economically assessable harm, to include physical or mental harm; lost opportunities from employment, education, and social benefits; material damages and loss of earnings, including loss of earning potential; moral damage; and costs required for legal or expert assistance, medicine and medical services, and psychological and social services [5].

[1] See: Article 8, Universal Declaration of Human Rights; Article 2 (3), International Covenant on Civil and Political Rights; Article 2, International Covenant on Economic, Social and Cultural Rights; Article 6, International Convention on Elimination of all Forms of Racial Discrimination; Article 2, Convention on the Elimination of all forms of Discrimination Against Women; Article 14, Convention Against Torture; Article 25, American Convention on Human Rights; the UN Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power, UN Doc A/RES/40/34, 29 November 1985; and UN General Assembly, Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law, UN Doc A/RES/60/147, 21 March 2006.

Difficulties Accessing Health Care, Mental Health Services, and Rehabilitation

Being shot is a traumatic event that can result in extremely painful and potentially life-threatening or fatal injuries. For example, in 2016, "M." was shot by her partner. She showed Amnesty International her scars and said, "I got shot at close range with a .22, right in the side of my chest … it almost killed me cause my lung collapsed". She ran out of her house and was taken to a hospital by some passersby:

> That bullet went nearly all the way through… I thought I was going to die… it was very hard cause it blew right through me, through my kidney and there was a lot of blood, and the man [in the car] told me I had to press on it hard or I was going to bleed out and die [2].

Where people survive, their gunshot injuries can result in a range of long-term, serious, and debilitating health needs. Gunshot survivor Derrick Strong told Amnesty International that he had

> At least eight or nine [follow up surgeries] maybe more. They had to put a rod in my left leg, and they had to remove bullets from my left arm and fix the fracture. I had about seven operations alone on my kidney and bladder, not to mention another one on my intestine where they had to cut me open the first time, then another to get bullets out of my back. I think that's all. But I still got one bullet left, in my hip [2].

Dr. Marie Crandall, a surgeon at the University of Florida College of Medicine Jacksonville, told Amnesty International,

> Being shot in your dominant hand can mean a permanent disability and pain. If you are shot in the head, you have a poor chance of survival, and if you do survive, chances of brain damage are high and permanent injury are high… People shot in the back are likely to face paraplegia and quadriplegia [2].

Gunshot injuries can also have profound psychological consequences for those who are wounded, their families, and their communities. As one trauma surgeon said, "It is often easy for us to fix the actual bullet hole. But the holes that the gunshot creates in people's minds still remains" [2]. A 2016 study that examined the needs of victims of gun violence after they were discharged from a hospital in Chicago described patients as "having flashbacks, and feeling anxious, scared, and depressed" and requesting mental health support for themselves and their families [9]. A gunshot survivor told Amnesty International, "There is a real need for mental health support… this needs to be dealt with as a priority. For gunshot survivors, even hearing news about other shootings can be traumatizing" [2]. Many people Amnesty International spoke with echoed this and emphasized the importance of having access to mental health care and support in the aftermath of their injury.

This is also true of the families of people who have been shot. For example, a woman whose son died from a gunshot injury told Amnesty International, "When my son got killed I went into a deep depression… I couldn't even go out of the house and was always looking over my back and thinking that I am going to get shot too" [2]. This sentiment is reflected in studies that indicate the many challenges people with mental health conditions, such as post-traumatic stress disorder (PTSD),

face in accessing health care. People with low incomes, inadequate resources, poor informal support, and those who are younger are least likely to seek mental health counselling or have difficulty in maintaining follow-up appointments [10, 11]. This further emphasizes the need for people who have experienced trauma, as well as their families (who may become caregivers), to be adequately supported.

Unaffordable: Health Care for Gunshot Survivors

Despite its obligation to provide survivors with effective remedy, including reparation, federal and state governments have not created any special programs to provide for the rehabilitation needs of gunshot survivors. This means that those affected by gun violence must seek medical and psychological care through the general health system, where they face numerous economic barriers to accessing the health care they need, especially if they are low income. Even those who sustain less serious injuries may find that their situation is made worse by the fact that they are unable to work while they recover. Survivors who are left with permanent disabilities that prevent them from undertaking full-time paid work, or whose injuries require long-term treatment, often face the greatest challenges in accessing affordable medical and psychological care.

Various studies have tried to quantify the costs of being shot. A study by researchers at Johns Hopkins University published in 2017 looked at the costs of health care for people who came to emergency departments across the country with a firearm injury between 2006 and 2014 [12]. The study found that the average cost for a visit to the emergency department for a firearm injury was $5254 and the average cost for initial hospitalization in the emergency department for a firearm injury was $95,887. According to the authors, this study likely underestimates costs since it does not account for medical care costs for people who died before they reached the hospital or who did not go to an emergency department after sustaining a firearm-related injury [12].

A study by researchers from Stanford University published in 2017 looked at the costs of initial hospitalizations for firearm injuries from 2006 to 2014 and the ability of people to make these payments [13]. It found that 6% of patients were covered by Medicare, 29% were covered by Medicaid, 21% were privately insured, 29% were defined as self-pay (meaning they did not have insurance), and 14% were not charged by the hospital or had alternative forms of insurance. The study found that over 80% of self-pay patients had a low household income and were "unlikely to be able to absorb health care costs" [13].

The total actual cost associated with being shot has not been extensively researched and there are limited studies on the costs of long-term care for survivors of firearm violence. A recent study on readmission costs for firearm injuries found that the total initial admission cost for firearm injuries in the 1 year the study reviewed was $1.45 billion nationwide, and the total cost for all firearm injury related readmissions in that 1 year was $131 million. Some 64% of those injured by firearms were publicly insured or uninsured [14].

The high cost of long-term medical care is a source of stress and financial burden for gunshot survivors in the United States. For example, Amnesty International spoke with Megan Hobson, who was 16 years old when she was shot in Miami in 2012. She was in her sister's car, dropping a friend off after a birthday dinner, when people began shooting around them. Hobson was shot in the cross fire by two bullets from a high-powered assault rifle and was rushed to the hospital. Emergency treatment saved her life, but she continues to live with health conditions linked to the shooting, including difficulties walking, complications caused by bullet fragments in her uterus, and the need for mental health care and support. Hobson told Amnesty International that she was still in debt because of the medical bills she incurred for treatment after she was shot, "I was a victim … I was just in the wrong place at the wrong time according to detectives. But today, I cannot tell bill collectors I was in the wrong place at the wrong time and expect my debt to disappear" [2].

Although Hobson had health insurance, she still incurred costs associated with emergency health care (around $50,000) and her recovery in the hospital (around $35,000). The injuries caused by the shooting were severe and Hobson continues to need regular health care, which she has to pay for. For example, she has a leg brace to aid with walking, which costs $800. She needs to visit a podiatrist regularly because of calluses on her feet linked to her use of the leg brace. The most conveniently located podiatrist does not take her insurance and she must pay him $50 per session. She told Amnesty International, "If I could go every week, it would be $200 a month, but because of budget constraints I try to stretch it to as much as once every 2-3 months." Hobson visited a psychiatrist briefly, but her insurance did not cover these sessions and the cost was prohibitive [2].

Similarly, Dwayne Dilling, a 40-year-old man who was shot by armed burglars in his home in August 2015, has similar concerns [2]. The bullet hit him in his chest. "It travelled to my spine and it kind of sat there, the bullet didn't go straight through," he said. Dilling was rushed to the emergency room. He spent 5 months in the hospital getting care for multiple injuries linked to the shooting, including spinal injuries, broken ribs, a collapsed lung, internal hemorrhage, bed sores, and ulcers. Dilling estimates that he had between 10 and 20 surgeries. His lower body remains paralyzed. "It was madness for me, because I had never been in a hospital for any length of time, no more than a day or so, and so it was all brand new to me," he told Amnesty International.

After the hospital, he was moved to a rehabilitation center for 6 weeks. When Dilling was shot, he was insured through his employers. While they covered his initial care, his insurance did not cover his rehabilitation. Therefore, he still owes the rehabilitation center around $20,000.

> I'm still paying them on a plan, they debit it out of my card, like $40 every two weeks, but it's the most I could afford, and I really can't even afford that. It wasn't until I got to [the rehabilitation center] and I didn't have my insurance [he was not insured by this time] that things started to mount up … you try to block it out, but it's depressing because I've always been a person that wants to pay my bills and do things right, and now my credit is ruined. And so, they throw stuff on your credit sometime without even giving you a chance to pay [2].

Dilling has since changed his insurance provider and enrolled in Medicare. However, he still has co-payments for accessing some aspects of his health care, which are covered by his insurance but not by Medicare.

> The co-pays are mounting up. I pay them when I can… they're still mounting up and they're constantly coming... because [of] the different things I go to, wound care, urologist… regular primary care, it's all adding up. It's in the thousands [of dollars] [2].

Overwhelming Bureaucracy and Difficulties Accessing Information

Gunshot victims repeatedly identified bureaucracy and paperwork as some of the key barriers they face in accessing long-term health care in interviews with Amnesty International. Shooting victims living in unstable environments often find it difficult to make and keep appointments, seek information, maintain personal records, and complete paperwork. In addition, they are often trying to negotiate and process the changes in their health, family lives, jobs, or job prospects caused by the shooting. They need to navigate a fragmented and complicated system to access the health care and other support they need to achieve the best recovery possible [2].

The US government does not have a program in place to help gunshot survivors with these processes. Individual hospitals have social workers who can connect people with available resources, give them their insurance and financial options, and sometimes set up follow-up appointments. Amnesty International spoke with five hospital-based social workers who all agreed that the volume of paperwork was not easy for patients to deal with. "Now imagine someone was in the wrong place, at the wrong time, was shot and placed in the middle of all this [implying bureaucracy and paperwork]," a social worker said [2].

Even when survivors were provided with some information, they explained how it could be difficult to follow up on it, given how overwhelming the aftermath of being shot can be. One gunshot survivor told Amnesty International that the hospital where he received emergency treatment following his shooting told him he was eligible for free health care.

> But I never went through with the process to get it," he said. "They did send someone to tell me about the free care program when I was still in the hospital … But I didn't proceed with it and I didn't fill out the forms, it was too much then … all they told me about was the building where I had to go to apply for the free care, they didn't do nothing else [2].

Since he was shot in 2016, rap artist and community organizer Derrick Strong has experienced chronic pain and needs regular physical therapy and physical rehabilitation. He is currently covered by Medicaid but has found that many places don't accept his insurance, "Many places don't accept Medicaid. I have to navigate the system and find out on my own. It's never easily accessible. You just have to go on Google [to find out] ... some people also help. [but] my friends are just as lost as I am" [2]. He has also found it hard to access mental health care for the same reason,

"You need help with navigating the system, you need counselling. I try to meditate past the trauma. My sister and brother need counselling too, but it is only because I am coping that they can get past it," he said [2].

As one survivor told Amnesty International,

> When you are going through being shot, when you are recovering, you don't want to deal with [paperwork]. Who would have the frame of mind to keep track of all that? That's a crazy expectation... Even now I sometimes don't get refunds I'm entitled to because the bureaucracy and paperwork is too much and is very stressful. Who can add that to their plate? Having a gunshot wound means you miss work. You are living paycheck by paycheck. Where does the time for the paperwork fit in? [2]

Limitations of Crime Victim Compensation Programs

In the United States, crime victim compensation programs are the only public ones available to survivors of gun violence. These programs are typically run by states, with support from federal funding. They offer financial assistance and partial reimbursement to individuals who incurred out-of-pocket expenses as a direct result of a violent crime. The reimbursements can be applied to health care, counselling, funeral or burial costs, and lost income. While all states have crime victim compensation programs, statistics indicate that these programs have limited scope and reach. In 2017, for example, an estimated 1,247,321 violent crimes occurred across the United States [15]. In the same year, only 294,990 applications for victim compensation were filed nationwide [16]. Determinations were made in 217,208 applications, of which 77% were deemed eligible for some amount of compensation and 23% were denied [16].

These national data on victim compensation are not disaggregated by type of crime or injury, and therefore it is impossible to know with certainty how many of these applications are related to crimes involving firearms or the costs of treating firearm injuries. However, some states do collect these data. As a part of its research, Amnesty International requested information from authorities responsible for the victim compensation funds in Florida, Louisiana, and Maryland on how their victim compensation programs served victims of firearm violence. The Louisiana Commission on Law Enforcement and Administration of Criminal Justice told Amnesty International that 356 applications for compensation for crimes involving a firearm were submitted over 2017 and 2018 combined, and 243 such applications were approved during this 2-year period [2]. In 2017, alone, there were over a 1000 firearm-related deaths in Louisiana [17], and 585 people were either killed or wounded by guns in New Orleans alone [18]. The Governor's Office of Crime Control and Prevention in Maryland told Amnesty International that 199 and 187 victim compensation applications where a firearm was used in the crime were filed in 2017 and in 2018, respectively, and 54 such applications were approved in 2017 and 79 in 2018 [2]. In 2017, there were over 700 firearm-related deaths in Maryland

[17]. Florida responded saying they had "no responsive records to [these] requests" [2].

These numbers show a clear disparity between the number of people injured and/or killed by firearms in the United States and the number of people who successfully claim victim compensation for a firearm-related crime. This suggests that the current victim compensation system may not be suited to supporting the health and rehabilitation needs of survivors of firearm violence. This is further supported by the factors discussed in greater detail below.

Eligibility Requirements

While eligibility requirements for victim compensation programs differ across states, in general, in order to claim compensation for a violent crime, most states require the person who has survived the crime (or their family) to report the crime to law enforcement within a specific time period, file the compensation application within a specific time period after the crime was committed, cooperate with law enforcement in the investigation of the crime, require the claimant not to have been involved or have participated in the crime, and exhaust all other means of payment. Furthermore, at the time of the research for this work, victims with prior felony convictions were ineligible for victim compensation through these programs in seven states (e.g., Arkansas, Florida, Louisiana, Mississippi, Ohio, North Carolina, and Rhode Island) [19].

These eligibility requirements are a key reason why people are often unable to access necessary victim compensation funds. At a national level, in 2017, 22% of applications for victim compensation were denied or closed by state victim compensation boards because the applicant was deemed "ineligible" [16]. In 2017, in Louisiana alone, the Louisiana Victim Compensation Board approved 1113 claims across all crime categories and denied 90 claims. A majority of the denials were linked to the eligibility requirements—43 victims were denied compensation due to a felony conviction and 33 were denied because the victim was deemed to have "contributed" to the crime [20]. Patterns of denials were similar in 2016 and the vast majority of denials were linked to the victims' prior felony conviction [21].

Pauline Mandel of the Maryland Crime Victims Resource Center told Amnesty International that she helps survivors file victim compensation claims through the Center. In her experience, the most common reason given by the compensation board for refusing claims is that the person who was shot was not an innocent bystander and that they were engaged in criminal activity. She said that sometimes the victim might have a bit of marijuana in their pocket and this was sufficient reason for denial, regardless of whether the marijuana in the victim's pocket was linked to the crime that was committed [2].

Limits on Compensation Amounts

In 2017, a total of $367,525,175 was disbursed through victim compensation programs across the country for all crimes and all expense types. Of this, 37% was used for medical/dental expenses ($136,667,704) and 8% ($28,849,204) for mental health [16]. Victim compensation funds cover specific types of expenses. Usually these include medical and dental costs, mental health and counselling expenses, funeral/burial costs, economic support, crime scene cleanup, and relocation. None of the three US states that were the focus of Amnesty International's research allowed claims for other forms of harm, such as pain and suffering.

States often set an upper limit for the money that it would be possible for applicants to claim both in an individual expense category and as a whole. The threshold for these amounts varies from state to state. In Louisiana, for example, the total recovery cannot exceed $10,000, unless someone has been permanently and completely disabled because of the crime, in which case they are eligible for $25,000 [22]. The Maryland Criminal Injuries Compensation Board allows victims to claim up to $45,000 for medical and dental expenses, up to $5000 for counselling, up to $25,000 for lost wages and disability, up to $5000 for funeral and burial costs, up to $250 for crime scene cleanup, and up to $25,000 for loss of support. However, the maximum award possible under the rules is $45,000 [23]. This means that a victim cannot claim for the maximum possible for medical/health expenses and counselling and disability since this would amount to $75,000.

It was clear from Amnesty International's interviews that even the limited sums disbursed through the funds make a big difference to the survivors who receive them. That said, victim compensation funds do not provide anywhere near amounts required for survivors' rehabilitation needs or other economically assessable harms. As discussed earlier, the average cost of hospitalization for initial emergency care for gunshot survivors alone is $95,887 per patient [12]. This does not include the costs of follow-up care, as well as the other economic impacts of a serious gunshot injury, which can be staggering and lifelong. In situations where a gunshot survivor does not have health insurance, or other financial support, Maryland's maximum provision of $45,000 for medical expenses, for example, would not even cover the cost of initial hospitalization, let alone follow-up care, which some survivors continue to require for many years, if not the rest of their lives.

Lack of Information and Awareness

Most states have some standard routes through which they disseminate information about the victim compensation fund. This includes through victim advocates who work with law enforcement and state attorneys' offices, social workers in hospitals, organizations working on victims' assistance, and outreach by the staff of the victim compensation fund itself. Nevertheless, these methods do not appear to be effective.

Studies of victim compensation programs confirm that there is a disconnect between purported state efforts and information accessible to gunshot survivors and their families. The lack of information and awareness about victim compensation programs emerged as a key theme in Amnesty International's interviews with gunshot survivors, family and friend caregivers, and health-care workers. Several survivors and their families said that they were not aware of the victim compensation program around the time the injury happened and were not given this information at the hospital or by the police. A few who knew about it were not sure what expenses it covered [2].

For example, when Walker Gladden's son was fatally shot in 2016, he was not aware that he could apply to the victim compensation fund for some financial assistance and support. He was not given any information about these programs or his eligibility by the police or at the hospital where his son was taken. He told Amnesty International, "I was not offered any help. I was not offered any counselling. I was not offered anything for my other children. No one talked to me [about victim compensation] … What should the family do? How do we cope?" [2]. He feels it is important that the police and hospital tell people about the victim compensation program, "There is no one to help people manuever through the system. No one to educate people about the process. [In hospitals] the attitude seems to be, if you don't ask, we won't tell. But how can [you] ask for something that you don't know?" [2].

Even when systems to disseminate information about victim compensation programs are in place, the information does not necessarily reach people. "C." was shot on two different occasions in New Orleans. "In 2002, I was shot while walking down the street – the bullet missed an artery by half an inch. In 2012, I was shot in the chest," he told Amnesty International. Both times, he received emergency trauma care in the nearest hospital. He received one call from the police when he was shot the first time and had no contact with the police when he was shot the second time. No one had given him any information about the Crime Victims Compensation Fund [2]. An increase in awareness and outreach usually results in an increase in the number of claims filed, indicating that if more people knew the funds were an option, they would likely file an application [16, 24–25]. However, this requires better resourcing.

Cumbersome Process

Victim compensation applications are cumbersome and require significant amounts of detail and supporting documentation. In Maryland, for example, claims for medical and dental expenses require a police report, itemized bills, a letter from a doctor or medical documentation relating the injury to the crime and the treatment, a treatment plan, and details of medical insurance. If the claimant has no private insurance, the Maryland Criminal Injuries Compensation Board requires the claimant to apply for Medicaid before filing for compensation [24]. Similarly, claims for lost wages in Louisiana require an employment verification form (completed by the

employer), a lost wages/earnings claim form (completed out by claimant), a disability verification form (completed by a doctor), and proof of income through payroll check stubs or a copy of the previous year's federal income tax return [26]. Such requirements can be particularly challenging for people in precarious or irregular employment.

Furthermore, victim compensation funds are structured as funds of last resort, meaning applicants need to demonstrate that they have exhausted all other financial sources and support before approaching them. Even where these requirements might seem reasonable, it is crucial to note that the need to collect this documentation comes at a time that is very stressful for gunshot survivors and their families. Therefore, the process of getting this paperwork together can act as a significant barrier to accessing victim compensation funds. In 2017, for example, the most common reason for denying, or closing, a victim compensation application across all states was incomplete information. A total of 24% of all denials were because applications were not complete [16]. A review of annual reports indicates a similar trend in previous years as well. A victim services coordinator at Maryland's Criminal Injuries Compensation Board told Amnesty International that, in her experience, one of the biggest causes for the rejection of applications was not having an original signature [2]. The director of a New Orleans-based organization assisting crime victims with compensation applications told Amnesty International,

> Overall, the process is too cumbersome… The application for the fund is online but the victims are required to submit it in person. They require all medical bills to be submitted in original, all receipts. If you are seeking compensation for loss of work, you have to submit three check stubs. In addition to this you need an employment verification form to be signed by your employer. Many of our clients find it hard to get these [as they] work in the informal economy. You also need a birth certificate, social security card. If you have a disability you have to submit the medical diagnosis or the hospital records stating whether this is short or long term, whether the disabilities or the paraplegia is caused by the gunshot injury. All this is not easy to get and takes time. Your primary care physician needs to verify this and many who don't have insurance find it very difficult [as you need to pay for the verification] [2].

"P." spoke with Amnesty International 3 weeks after her son was shot 23 times. He survived the shooting, after eight surgeries. She is his sole caregiver. She also cares for her other children and grandchildren. The hospital processed the paperwork and P. does not know if he is covered by Medicaid. Someone in a support group P. attends told her that her son might be eligible for victim compensation. "I've been keeping all my receipts and bills," she told Amnesty International. She plans to give them to her son when he is better, so that he can file for compensation. She told Amnesty International that the hospitals had sent some bills which she had not opened. "I can't look at them now, I've just put them away," she said [2].

Survivors and their families may be too overwhelmed with other responsibilities to follow up on victim compensation applications to see why they have not received any assistance. "It's a full-time job to keep track of resources and paperwork," a gunshot survivor told Amnesty International. "When you've just been shot, you are too stressed out to have to try to figure out who should be paying for all this," he said [2]. "It's a nightmare. I think the process of getting victim compensation is as

traumatic as the experience itself," another survivor told Amnesty International. Difficulties with the process are exacerbated for people who also face language barriers. In Florida's Annual State Performance Report for 2016–2017, organizations working on victim assistance noted that: "Numerous agencies do not have interpreters to assist non-English speaking crime victims… There were additional challenges assisting with the Pulse mass shooting victims, some of whom were non-English speaking, due to having fewer bi-lingual victim advocates" [25].

Officials in charge of victim compensation programs are aware of how cumbersome the application process can be and keen to be of assistance where possible. However, they often do not have the time to help all claimants fill out their paperwork. "If we had more staff, funds and time we could do much more outreach in the community and help victims of crime," an officer at the Crime Victims Compensation Fund in New Orleans told Amnesty International [2].

Conclusion

Gun violence in the United States is a human rights crisis. By failing to adequately regulate the purchase, possession, and use of firearms by private actors, the US government has failed to meet its obligations to exercise due diligence to protect people's rights to life, security of the person, and other human rights. It therefore has a responsibility to provide effective remedies, including reparation, to the victims and survivors of gun violence. Under international human rights law, this should include medical and psychological care, compensation for economically assessable harms, and access to information about all available services that survivors may have a right to access. This chapter has argued that the US government is failing to comply with its obligations and ensure gunshot survivors have access to effective remedies, including reparation.

Despite the seriousness of the physical and mental harm that gunshot survivors often suffer, the US government has not created any special programs to provide for the specific health and rehabilitation needs of gunshot survivors. Interviewees told Amnesty International about the numerous challenges they faced in accessing health care, notably the high costs of health care along with the bureaucracy associated with accessing existing systems of health care and other support, such as housing. Furthermore, this chapter has described how victim compensation funds are the only public programs available to victims and survivors of gun violence to seek any form of compensation and why these are inadequate. Stringent eligibility requirements, limits on compensation amounts, a lack of information and awareness about these programs, and a cumbersome application process mean that they often fail to provide survivors of gun violence with full and effective compensation.

Given this reality, Amnesty International has made detailed recommendations for what the US government should be doing to comply with its human rights obligations and adequately support gunshot survivors. US federal and state authorities should ensure that survivors of firearm violence have access to rehabilitation,

including affordable and quality medical and psychological care, which includes necessary, long-term health interventions, rehabilitation services, mental health care, and long-term pain management. Furthermore, they should ensure that survivors of firearm violence are fully informed about the health care and other benefits they are eligible for and have the assistance they require to access, obtain, and manage them. And finally, US federal and state authorities should revise existing crime victim compensation programs or establish additional mechanisms to ensure that all survivors of gun violence can access full and effective compensation addressing all forms of economically assessable harms they have suffered.

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Epilogue

War, according to the U.S. Joint Chiefs of Staff, Principles of Joint Operations,[1] must have a clearly defined exploitative objective. It must be effective and efficient, disadvantaging the adversary with a unified secure effort, strategy, tactics, doctrine, and a simplified plan of attack. When cholera killed nearly 11,000 people in Newcastle, Gateshead, and London in 1853, a public health "war"—a first of sorts—was declared and led by Dr. John Snow.[2] Using fundamental tools of attacking a biologic weapon, Dr. Snow identified a clear objective to stop the spread and harm from cholera. He effectively and efficiently mapped the city of London's cholera cases, found the source and location of the threat, and disadvantaged the biologic adversary by strategically removing the pump handle from the contaminated well, preventing drinking of the tainted water. These war-like tactics were indeed successful. While unusual to employ the term "war" in a public health context where public health seeks to preserve life, in 1964 when cigarettes were found to be harmful and cause lung cancer and other related deaths, then Surgeon General Luther Terry declared "war" on tobacco—a battle that has been sustained by all succeeding Surgeons General.

Similarly, the public health community declared war on motor vehicle crashes to prevent the nearly 37,000 auto-related deaths per year in the United States.[3] Automobiles are registered and inspected; seat belts, airbags, child safety seats are required; all drivers are tested and licensed to operate a vehicle. Likewise, smoking was restricted by law, cigarette manufacturers became accountable, and warnings appeared on every pack. Since the first Surgeon General report on the harmful

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consequences of cigarette smoking to the successful reduction in automobile injury and death, a public health approach has been invaluable to addressing the threats to the well-being of the American people and all people worldwide. Public health wars succeed in saving lives.

More than four decades ago, Surgeon General Julius B. Richmond issued a landmark report titled, "Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention 1979," and focused on prevention as an "idea whose time has come."[4] This report identified four "major risk factors responsible for most of the premature morbidity and mortality in [the United States]"—cigarette smoking, alcohol and drugs, occupational risks, and injuries, noting "highway accidents killed 49,000 people…and firearms claimed 32,000 lives, and were second only to motor vehicles as a cause of fatal injury in 1977."[4] This report refocused disease treatment to a broader construct, that is, prevention, and called attention to trauma and violence—injuries, suicide, and homicide by firearms—overtaking chronic and infectious diseases as the leading preventable causes of death for all ages.

Subsequently, Surgeon General C. Everett Koop convened a workshop that focused specifically on violence and public health.[5] Dr. Koop said, "If prevention is the business of public health, where better to focus attention than on this scourge of violence that permeates every level of our society."[5] Based upon the science presented in this workshop, Dr. Koop called for a public health-centered response to violence for both treatment and prevention. Surgeons General Antonia Novello and Joycelyn Elders were both champions for children with special needs and adolescents including preventing harm from gun violence. Building on this growing body of work, Surgeon General David Satcher issued several reports on mental health and suicide, including the 2001 Surgeon General's Report on Youth Violence.[6] In reviewing the science for this report, it was evident that the key to preventing violence is understanding where and when it occurs, determining what causes it, and scientifically documenting which of many strategies for prevention and intervention are truly effective.[6]

Surgeon General Richard Carmona held workshops on women's mental health and child maltreatment, both referencing gun violence as a contributing factor, and Surgeon General Regina Benjamin issued a report focused on specific goals and

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objectives for suicide prevention, including attention on gun violence and suicide.[7] Surgeon General Vivek Murthy's very confirmation was threatened because of comments he made as a physician about preventing gun violence. It is indeed evident by their passion and deeds that these Surgeons General of the United States have declared gun violence hazardous to our health.

Declaring war is a matter of survival. Nearly 40,000 Americans lost their lives in 2018 from gun violence on our streets, in our schools, in our homes, and most reprehensibly as the result of racism and police-perpetrated homicide.[8] For all of these victims, it, too, was a matter of survival. A war on gun violence in America, not gun ownership, is essential to our very survival and preservation of all of the rights guaranteed by the U.S. Constitution. Gun violence in America is an epidemic that threatens our way of life and our very existence. It is preventable. Today, however, we are losing the war on preventing gun violence. This book critically explores some of the "principles of war" in terms of the public health perspective concerning issues and solutions related to the gun violence epidemic in America.

We honor the U.S. Surgeons General waging war against all that threatens to harm us!

Woodie Kessel, MD, MPH

Assistant Surgeon General, USPHS, (Ret)

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