

WHY FUNDING GUN VIOLENCE RESEARCH MATTERS

GUN VIOLENCE IS A PUBLIC HEALTH CRISIS IN AMERICA. IT'S TIME TO INVEST IN FINDING A SOLUTION.

Every year, more than 36,000 people are killed with guns in the United States and many more are shot and injured.¹ America's gun death rate is 11 times higher than that of other high-income countries.² In a recent national poll, 58 percent of American adults reported that they or someone they care for has experienced gun violence in their lifetime.³ Despite this uniquely American epidemic, Congress has knowingly restricted gun violence research and, as a result, lives are put at risk every day. It is time for federal and state governments to recognize gun violence as a public health crisis and support a robust research agenda to study its causes and effects.

BACKGROUND

In 1996, Congress approved a budget restriction, known as the Dickey Amendment, that dramatically curtailed the ability of the Centers for Disease Control and Prevention (CDC) to conduct firearms research. This restriction prevented the agency from spending funds to "advocate or promote gun control" and effectively zeroed out the \$2.6 million the CDC had previously used for firearms research.⁴ In December 2011, exactly one year before the tragedy at Sandy Hook, Congress moved to extend these funding prohibitions to the National Institutes of Health (NIH).⁵ Although these amendments did not explicitly change existing law,⁶ they had a profoundly chilling effect on federal efforts to develop research on guns and gun violence.⁷

Both the CDC and NIH budget restrictions were deliberate efforts by the gun lobby to suppress gun research following landmark studies examining the impact of firearms on public health and safety.⁸ In the spring of 2018, Congress took an important step by clarifying that the CDC has the authority to examine gun violence.⁹ However, the spending bill that accompanied that action lacked funding for any research, and researchers remain skeptical that support for their work will increase.¹⁰

BOTH THE CDC AND NIH BUDGET RESTRICTIONS WERE DELIBERATE EFFORTS BY THE GUN LOBBY TO SUPPRESS GUN RESEARCH.

KEY FINDINGS

Since the passage of the Dickey Amendment, the CDC and NIH have severely underfunded gun violence research.¹¹

- **The Centers for Disease Control and Prevention:** CDC funding for gun injury prevention fell by 94 percent between 1996 and 2018.¹² In 2018, out of a total budget of more than \$8.2 billion, the CDC devoted merely \$199,000 to firearm-related research.¹³

CDC FUNDING FOR FIREARM INJURY PREVENTION 1996-2018

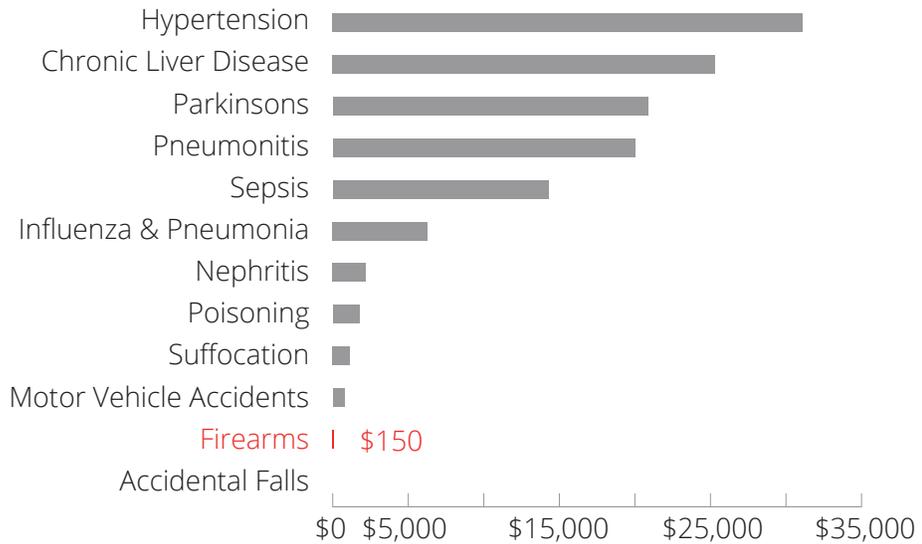


- **The National Institutes of Health:** For nearly two decades, NIH funding for gun violence research has remained below 1 percent of its total budget for research grants.¹⁴ In 2018, out of approximately \$21 billion in support for research grants,¹⁵ the NIH awarded less than \$9 million—approximately 0.04 percent of the total—to projects addressing gun violence.¹⁶

The CDC and NIH grant less funding for gun violence research than for nearly every other leading cause of death in America.

- Among the 30 leading causes of death, gun violence ranks 13th in terms of mortality, but 29th in terms of research funding per life lost.¹⁷ The only leading cause of death to receive less research funding per life lost than gun violence is accidental falls.¹⁸
- From 2008 to 2017, gun violence killed nearly 342,500 people in the US but received only \$150 per life lost in research funding from the CDC and NIH.¹⁹
- By contrast, motor vehicle accidents killed roughly the same number of people as gun violence from 2008 to 2017, but received approximately five times the amount of funding per life lost.²⁰

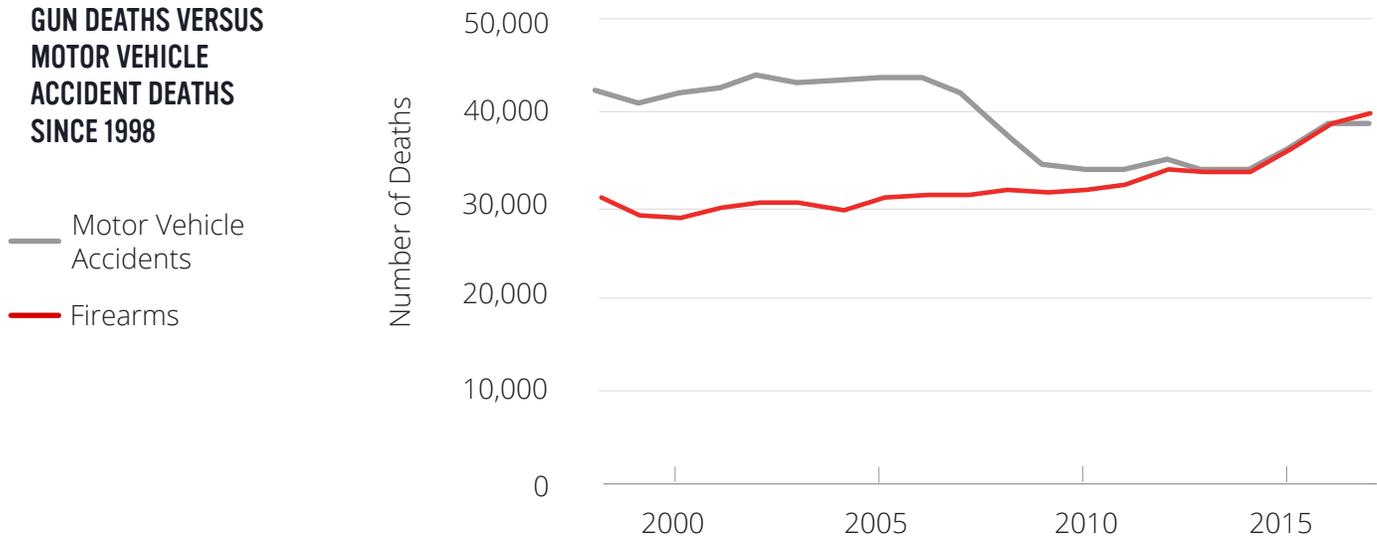
**RESEARCH FUNDING
PER LIFE LOST FOR SELECT
LEADING CAUSES OF DEATH
2008-2017²¹**



Unlike with the issue of gun violence, sustained government investments in research on motor vehicle accidents led to scientific innovations and policies that have saved countless lives.

- Advocates for motor vehicle safety persuaded Congress to enact new legislative standards to support research, despite opposition from the automobile industry.²² As a result, for nearly 60 years, the US Department of Transportation (DOT) has invested significantly in highway and vehicle safety research.
- Each year, the DOT directs approximately \$320 million to studying road safety,²³ and it has tracked all motor vehicle deaths since 1975 through the Fatality Analysis Reporting System (FARS).²⁴ This research led to new motor vehicle technologies, such as safer highways equipped with guardrails and barriers,²⁵ and laws requiring seat belts and criminalizing unsafe driving.²⁶
- Together, these measures helped reduce the fatality rate of motor vehicle accidents by 81 percent from 1956 to 2017.²⁷ In 2017, firearms killed substantially more people in the US than did motor vehicles for the first time in modern history.²⁸

**GUN DEATHS VERSUS
MOTOR VEHICLE
ACCIDENT DEATHS
SINCE 1998**



Following years of inaction, government investments in data collection and subsequent research dramatically shifted the trajectory of the HIV/AIDS epidemic in the US.

- The Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome (HIV/AIDS) epidemic first emerged in the US in the late 1970s and early 1980s. Despite the devastating impact of the disease, particularly among the LGBTQ community, the government refused to acknowledge the issue for many years.²⁹ It wasn't until thousands of lives were lost that the US Department of Health and Human Services received congressional support in 1983 for funding to study the epidemic.³⁰
- Today, the CDC dedicates an average of \$758 million to domestic HIV/AIDS prevention and research each year, including nearly \$120 million for surveillance data tracking the transmission of HIV.³¹ Surveillance data led to the identification of HIV as the causal agent of AIDS, a better understanding of transmission modes, and studies examining the efficacy of treatment and prevention methods.³²
- Prevention and treatment efforts must continue to expand,³³ but today, more Americans than ever before are living with HIV as a manageable chronic condition,³⁴ and the death rate has decreased by 90 percent since the height of the epidemic in 1995.³⁵

Underfunded and censored federal data collection systems leave considerable gaps in our ability to study gun violence. Good research requires good data, but unlike the database of motor vehicle fatalities or the surveillance system for HIV, the systems tracking firearm casualties are incomplete. As a result, researchers lack much of the data necessary to rigorously measure the causes and effects of gun violence, including the following:

- **Nonfatal firearm injuries:** The CDC derives the estimates of nonfatal firearm injuries treated in hospitals from a survey of hospitals known as the National Electronic Injury Surveillance System (NEISS).³⁶ According to the CDC, these estimates, particularly at a granular level, are unreliable and limit the data for greater specificity by geography and demographics.³⁷
- **Shootings by law enforcement and unintentional shootings:** The CDC's counts of two fatal injury intents—shootings by law enforcement and unintentional shootings—are believed to be greatly underreported due to missing information on death certificates resulting in misclassification of intent.³⁸ According to the widely cited *Washington Post* database, an estimated 986 civilians are fatally shot by police in an average year—nearly twice as many as recorded by the CDC.³⁹
- **Gun ownership:** In 2001, 2002, and 2004, the CDC measured the prevalence of gun ownership through its anonymized Behavioral Risk Factor Surveillance System (BRFSS) surveys. The CDC removed questions on gun ownership following the 2004 survey.⁴⁰

In the absence of federal funding, state governments have stepped in with financial support for research.

- Recent years have seen a growth in public-private partnerships between state governments and universities, such as a \$5 million package from the State of California to establish the Violence Prevention Research Program (VPRP) at the University of California, Davis,⁴¹ and \$2 million from the State of New Jersey to fund the New Jersey Center on Gun Violence Research at Rutgers University.⁴² In January 2019, the New York state legislature put forth a bill to fund a similar research center on gun violence.⁴³

RECOMMENDATIONS

Gun violence is a public health crisis in America, and there is a demonstrated need for additional research to guide policy-making. Research and data are integral to prevention, but without adequate resources, researchers are prevented from thoroughly examining gun violence and gun policies. There are several steps that can be taken to fill these gaps:

GOVERNMENT-FUNDED RESEARCH WILL HELP ADDRESS GUN VIOLENCE BY:

- **SUPPORTING A BROAD RANGE OF RESEARCH TOPICS**
- **IMPROVING DATA COLLECTION AND SHARING**
- **FACILITATING MULTISTATE CONSORTIUMS**

Federal and state governments can provide funding to researchers to conduct a broad range of gun violence research projects.

- To improve understanding of gun violence and gun violence prevention, funding can support research examining the effects of gun policies and prevention strategies on a broad range of outcomes, including, but not limited to, suicide and self-harm, homicide and nonfatal assaults, unintentional shootings, shootings by law enforcement, firearm theft and trafficking, and domestic violence.
- States can support research by dedicating funding to violence prevention centers aimed at studying these issues, following the model of the centers at the University of California, Davis, and Rutgers University.

Federal and state governments can support the infrastructure of research on gun violence by improving and expanding data collection.

- Improve the collection and reporting on gun deaths and nonfatal injuries, including the rigorous examination of deaths and injuries disaggregated by different intents.
- Support the expansion of the National Violent Death Reporting System (NVDRS) to all 50 states with additional funding to build that infrastructure.⁴⁴ NVDRS will provide comprehensive counts of fatal injuries and detailed circumstantial information about these deaths, including deaths resulting from shootings by law enforcement.⁴⁵
- Resume collection of voluntarily provided, anonymized data on gun ownership through federal and state-level health surveys.

States can facilitate the development and maintenance of multistate consortiums to combat firearm violence.

- Funding can support the mission of the Regional Gun Violence Consortium⁴⁶ and similar organizations, to inform the public and provide evidence-based recommendations to prevent gun violence.

1. Centers for Disease Control and Prevention. National Centers for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS) Fatal Injury Reports, Nonfatal Injury Reports. The CDC derives national estimates of nonfatal firearm injuries treated in hospitals from a survey of hospitals known as the National Electronic Injury Surveillance System (NEISS). According to the CDC, some of these estimates may be unstable. The CDC's nonfatal injury data has come under scrutiny largely because of increasing error margins in recent years. Nonetheless, data provided by the CDC on nonfatal injuries are the most common data currently used in gun violence prevention research. To account for fluctuations between years, a yearly average was developed using five years of the most recent available data: 2013 to 2017.
2. Grinshteyn E, Hemenway D. Violent death rates in the US compared to those of the other high-income countries. *Preventive Medicine*. 2019;123: 20-26.
3. SurveyUSA Market Research Study. Data collected from December 7, 2018 to December 11, 2018. <https://bit.ly/2ExpyZ>. See question 39.
4. Omnibus Consolidated Appropriations Act, Public Law 104-208 (1996).
5. Consolidated Appropriations Act, 2012, Public Law 112-74 (2011).
6. Federal agencies do not traditionally advocate for legislation and research into gun violence and its causes does not constitute advocacy.
7. In 2013, President Barack Obama issued an executive order calling for the NIH to support research on firearm violence, which resulted in increased funding in the three years to follow. The funding program has since lapsed.
8. Jamieson C. American Psychological Association Science Directorate. Gun violence research: history of the federal funding freeze. *Psychological Science Agenda*. February 2013. <https://bit.ly/2SDVxxB>.
9. Greenfieldboyce N. Spending bill lets CDC study gun violence; but researchers are skeptical it will help. *National Public Radio*. March 23, 2018. <https://n.pr/2Gkolsc>.
10. Ibid.
11. National Institute of Justice, Awards Funded by NIJ: Gun Violence, <https://bit.ly/2GzPUNb>; Funding from the National Institute of Justice (NIJ) has been similarly impacted, with less than 1 percent of research over the past decade committed to studying gun violence or technologies to make firearms safer. From FY 2004 to FY 2017, the NIJ funded a total of 6,278 projects related to criminal justice research, totaling over \$2.9 billion in awards. Out of those projects, only 42 addressed guns, receiving only \$21.1 million in total.
12. Everytown for Gun Safety original analysis. Data obtained directly from Centers for Disease Control and Prevention, Firearm Injury Prevention Activities at the National Center for Injury Prevention and Control, Budget Expenditures: Fiscal Years 1992-2018. Between 1996 and 2018, the amount of funding dedicated to firearm injury prevention fell from \$3,152,788 to \$199,184. Funding amounts in previous years controlled for inflation by adjusting to their worth in 2018 dollars.
13. Everytown for Gun Safety original analysis. Data obtained directly from Centers for Disease Control and Prevention, Firearm Injury Prevention Activities at the National Center for Injury Prevention and Control, Budget Expenditures: Fiscal Years 1992-2018.
14. Everytown for Gun Safety original analysis. Funding data were accessed through NIH RePORT (Research Portfolio Online Reporting Tools) for the years 2001 to 2018. NIH RePORT database was queried for projects awarded by the NIH (including institutes under the NIH, e.g. National Institute on Alcohol Abuse and Alcoholism) containing project titles and abstracts with the keywords "gun," "firearm," "gunshot," and "rifle." <https://bit.ly/2hvlSAM>.
15. While the total NIH budget for FY 2018 was \$36.4 billion, more than half of the total agency budget is directed towards research grant projects (approximately \$20.9 billion). Total NIH Budget Authority: FY 2018 Operating Plan. National Institutes of Health. <https://bit.ly/2tl6WXX>.
16. Everytown for Gun Safety original analysis. Funding data were accessed through NIH RePORT (Research Portfolio Online Reporting Tools) fiscal year 2018. NIH RePORT database was queried for projects awarded by the NIH (including institutes under the NIH, e.g. National Institute on Alcohol Abuse and Alcoholism) containing project titles and abstracts with the keywords "gun," "firearm," "gunshot," and "rifle." In 2018, research grants for gun violence funded by the NIH amounted to approximately \$8,531,117. <https://bit.ly/2hvlSAM>.
17. Everytown for Gun Safety original analysis. Funding data were accessed through FedREPORTER for the years 2008 to 2017. Mortality data for the 30 leading causes of death were accessed through Centers for Disease Control and Prevention, Wide-ranging ONline Data for Epidemiologic Research (WONDER) Underlying Cause of Death reports for the years 2008 to 2017. For each cause of death, FedREPORTER was queried for the total funding awarded by the CDC and NIH to projects containing project terms corresponding to MeSH terms, including descendant MeSH terms. Methodology derived in large part from: Stark DE, Shah NH. Funding and publication of research on gun violence and other leading causes of death. *Journal of the American Medical Association*. 2017;317(1): 84-85.
18. Ibid.
19. Ibid. This figure is an approximation and is derived from a search of FedREPORTER for projects with "firearm" or "gunshot wound" listed among the project terms. Also note that gun violence may have received funding from other agencies included in FedREPORTER that were not reported here.
20. Ibid. Motor vehicle accidents received approximately \$801 per life lost between 2008 and 2017. This figure is an approximation and is derived from a search of FedREPORTER for projects with "motor vehicle" or "traffic accident" listed among the project terms. Also note that motor vehicle accident research may have received funding from other agencies included in FedREPORTER that were not reported here.
21. Ibid. Select leading causes of death included in graph consist of the 11 causes resulting in a relatively comparable number of deaths to firearms (within a range of 200,000 total deaths over 10 years).
22. Mashaw JL, Harfst DL. The struggle for auto safety. *Harvard Journal of Law & Technology*. 1991;4(1): 307-312.
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24. National Highway Traffic Safety Administration. Fatality Analysis Reporting Systems (FARS). <https://bit.ly/2V5EzOY>.
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32. Centers for Disease Control and Prevention. Surveillance overview. <https://bit.ly/2A3GZ7k>.
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34. Centers for Disease Control and Prevention. Today's HIV/AIDS epidemic. CDC Fact Sheet. <https://bit.ly/2eextT6>. August, 2016.
35. Centers for Disease Control and Prevention. National Center for Health Statistics. Wide-ranging ONline Data for Epidemiologic Research (WONDER) Underlying Cause of Death. Detailed Mortality File 1999 to 2017 and Compressed Mortality File 1979 to 1998. Note that this may be an undercount as AIDS-related illnesses may not have been identified as the cause of death.
36. Centers for Disease Control and Prevention. National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS) Nonfatal Injury Data Sources. <https://bit.ly/2EBNxOI>. NEISS collects data about all types and external causes of non-fatal injuries and poisonings treated in US hospital emergency departments.
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