

# Funding for Gun Violence Research Is Key to the Health and Safety of the Nation

Mass shootings are the glaring tip of the iceberg of US gun violence. In the past two decades, more than 500 000 US civilians were killed by guns and roughly 1.5 million others survived gunshot wounds.

Any scientific study addressing the threat of gun violence would involve comprehensive data collection and unbiased scientific analysis to determine a cause or causes, followed by testing potential solutions and implementing effective action. The Centers for Disease Control and Prevention (CDC)—the federal government agency whose mission is to protect the health of Americans and engage in activities that support the safety of our communities from a range of possible threats, including disease, natural disasters, and violence—has followed precisely this procedure in responding to many other national health problems. This, however, is not the case with our approach to gun violence in the United States. The reason for this failure, in no small part, is a clear lack of federal research funding.<sup>1</sup>

## HISTORY OF RESEARCH ON GUN VIOLENCE

According to recent estimates, research on gun violence in the United States comprises less than 0.085% of the CDC's annual budget.<sup>2</sup> This lack of federal funding dates back to 1996, when Congress passed the Dickey Amendment—legislation that

effectively blocked the CDC from funding research that might result in gun control<sup>3</sup>—in direct response to emerging research reports on gun violence at the time.<sup>4</sup> The author of this amendment has since recanted his position on research funding of gun violence and expressed regrets for hindering what could have been life-saving science that never came to fruition.

The gun violence research that prompted the passage of the Dickey Amendment was, at its most basic, peer-reviewed scientific analyses, exemplifying sound public health science that sought to describe and document causes, investigate mechanisms, and ultimately test prevention measures. The work was guided by scientific methods that had already been successfully employed for decades to inform and change some of the nation's leading and most intractable health problems, such as motor vehicle crashes, tobacco consumption, and infectious diseases.

These early gun violence research analyses—now some three decades old—were rigorous and replicable, built on prior epidemiological designs for other diseases, and scientifically sound. Moreover, the conclusions drawn from those analyses were—and still are today—scientifically defensible.<sup>4</sup> This iterative scientific process—compiling data, conducting rigorous analyses, drawing plausible conclusions, preparing articles summarizing the work that would undergo peer review, and then repeating this again in even more expansive

ways—is precisely what unbiased, systematic public health research looks like.

## CONGRESSIONAL INACTION

Despite its profound public health impact, research into gun violence, its determinants, and what action is needed to avert it, remains severely underfunded.<sup>1,2</sup> One of the reasons for this is the Dickey Amendment—which has been tied to reduced scientific productivity on gun violence—alongside reductions in funding at the CDC and other federal agencies, such as the National Institutes of Health.<sup>1,3,4</sup> A principal impediment to discovering effective solutions to gun violence is a lack of sufficient federal research dollars to support comprehensive data collection and unbiased scientific study.<sup>2,5</sup> Without such research we cannot understand the causes and complexities of gun violence—from day-to-day shootings in Chicago, Illinois, and other cities to mass killings such as those that occurred in Newtown, Connecticut; Orlando, Florida; and

Las Vegas, Nevada. Moreover, we cannot systematically understand what the behavioral, environmental, and policy determinants of such gun violence may be—a necessary first step in developing and implementing an effective and multilevel range of prevention efforts.

Rather than investing in well-designed scientific studies and mobilizing the nation's vast intellectual talent to investigate and develop solutions to this large public health problem, we endure legislation that deters scientists from taking on difficult gun violence research questions<sup>3</sup> and simply react each time the next shooting event happens. Meanwhile, our nation devotes a relative pittance of scientific investment<sup>1</sup> to preventing these tragic events from happening in the first place. As for all public health crises—and as is consistently reiterated by numerous policymakers, scholars, and experts on this issue<sup>5</sup>—solutions to gun violence warrant significant investment in prevention if we are to control this growing crisis. And that investment begins by removing impediments like the Dickey Amendment and allocating sufficient federal funding for gun violence prevention research.

## THE PATH FORWARD

Congress needs to allocate new funding for gun violence

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prevention research. While research alone may not solve the problem, research surely could test existing solutions to confirm that they work and even discover new solutions that never would have emerged otherwise. Funding should be guided by action and research agendas<sup>5,6</sup> and flow to the CDC, the National Institutes of Health, the Department of Justice, and related agencies that research, track, and maintain statistics on gun violence, including gun homicides and the rapidly growing and now larger problem of gun suicides. Furthermore, other, seemingly unrelated federal agencies—for example, the Department of Housing and Urban Development and the Department of Homeland Security—also need to be brought in if we are truly going to be creative and initiate a unified and extensive effort to reduce gun violence similar to that of the “moonshot” that was recently launched for cancer prevention and treatment.

Research on gun violence and its prevention does matter. For example, existing research has confirmed that laws requiring comprehensive background checks for gun buyers reduce firearm injuries, and laws promoting safer gun storage practices reduce unintentional shootings by children. The nature of social interactions and how they influence gun violence has been identified in some of the most innovative work in this area. Researchers have even recently shown that largely apolitical interventions to reduce blighted areas in cities could significantly and sustainably reduce gun violence with sizable returns to local taxpayers. The acquisition and application of this knowledge to advance our efforts to reduce gun violence and save lives could take place far more quickly and more

effectively if funding for such research were strengthened.

Several recent developments suggest there is converging urgency for Congress to act. Five prominent members of the International Committee of Medical Journal Editors have recently described what health care professionals can do to address the threat that firearms present.<sup>7</sup> Some US senators recently appealed in a letter to the director of the National Institutes of Health to reinstate funding for the nation’s “gun violence research program,” calling gun violence “underfunded and understudied.” And the *New York Times* Editorial Board has called the level of gun violence in the United States a “public health crisis.”

Repealing the Dickey Amendment and moving to appropriate new federal funding for gun violence research would be a substantive stride in the prevention and treatment of gun violence across the nation. However, without such action, federal agencies cannot effectively use their scientific capacities or mount and maintain the population surveillance required to support the necessary research to better understand the causes and potential remedies for this crisis. Until such changes are made, our national gun violence crisis is likely to continue. **AJPH**

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