

## The Need for Federal Funding of Public Health Research on Gun Violence and Its Prevention

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Daniel W. Webster, ScD, MPH  
Bloomberg Professor of American Health  
Johns Hopkins Center for Gun Policy and Research  
Johns Hopkins Bloomberg School of Public Health\*

Chairwoman DeLauro, ranking member Cole, and other members of this Committee, I appreciate having the opportunity to offer testimony on the need for federal funding for research on gun violence, one of our nation's most important threats to public health and safety. Suicides by firearms accounted for nearly 24,000 deaths in 2017 and firearm suicide rates have risen steadily since 2006. In 2017, 75 percent of homicides in the United States were committed with a firearm; that is a greater share of homicides committed with firearms since at least 1981.<sup>1</sup> Because firearm homicide rates are highest among the young, firearm homicide represents a leading cause of premature mortality in our nation. An estimated 133,895 individuals were treated for nonfatal gunshot wounds in the U.S. in 2017<sup>2</sup> and more than 456,000 nonfatal firearm crimes reported based on the National Crime Victimization Survey.<sup>3</sup> Yet the impact of firearm violence on public health cannot be fully captured by data on deaths and physical woundings. Countless individuals throughout our nation, including many young children, have been mentally scared by their own victimization with a firearm or by witnessing others who have been shot.

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\* Affiliation provided for identification only. Any opinions expressed are not those of the Johns Hopkins University.

I have been studying gun violence as a public health problem for 30 years and conducted research on virtually every form of gun violence and evaluated a broad range of strategies to reduce gun violence. I have led several studies of policy and programmatic interventions designed to prevent gun violence that were funded by the CDC through grants to the Johns Hopkins Center for the Prevention of Youth Violence. Each of these studies were after the Dickey Amendment. But while I have studied gun violence and efforts to prevent it with CDC funding, these studies did not really examine if or how access to firearms played a role in violence nor how firearms were acquired by those who used them to harm themselves or others. Although firearms were used in 90 percent of the homicides of victims ages 15-24 years, and most suicides and intimate partner homicides involve the use of firearms, CDC funding of research on youth violence, intimate partner violence, and suicides has not focused on critical questions relevant to access to firearms for more than two decades.

It is clear that CDC's reluctance to support research examining the role of firearms in interpersonal and self-directed violence and strategies that focus on firearm access has been driven by actions taken and not taken by Congress – the cut to the CDC's budget in the mid-1990s by the amount that had been allocated to firearms research and the subsequent lack of appropriations directed and the role of firearms in violence. I hope you and your Congressional colleagues will set a new course by investing much needed federal funding for research to inform efforts to prevent gun violence.

### **Better Data for Studies of Firearm Policies**

Debates over what policies to enact to reduce gun violence center around questions that rigorous scientific research can help to settle. How do those who commit acts of violence

obtain their firearms? Do various firearm laws affect the ability of individuals who might be prone to violence to obtain and use firearms? Do policies or programs directed at firearms access affect suicidal behavior or outcomes? Do certain firearm policies negatively impact the safety of law-abiding citizens by keeping them from accessing firearms to defend themselves? How does firearms storage practices in homes and motor vehicles affect risks to underage youth, gun theft, and risks of lethal violence within homes, schools, and communities?

I served as an editor of two special issues of public health journals that were devoted to firearm violence including *Epidemiologic Reviews*. There is a lot to draw from available research to guide current prevention efforts. For example, there is good evidence that the impact of state firearm policies on intimate partner homicides depend on the breadth of firearm prohibitions for violent individuals and that handgun purchaser licensing or permit-to-purchase laws reduce homicides and suicides. But most studies designed to estimate the effects of firearm policies and firearm-focused interventions have important weaknesses. I believe that these weaknesses are often due to modest levels of funding that limit the amount and type of data that are collected and analyzed. To build evidence that supports causal inferences between firearm policies and violence, researchers would ideally want to know whether perpetrators of firearm violence were prohibited from possessing the firearms they used and, as much as possible, they would want to know whether the paths that firearms take to perpetrators were disrupted. But both these types of data are either difficult or impossible to obtain. Collecting data on the criminal history of perpetrators is a labor-intensive process that takes financial resources.

With very rare exceptions, researchers do not have access to granular-level data from crime gun traces conducted by the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) that indicate whether each criminal gun possessor was the legal purchaser of the firearm involved in crime, whether the purchaser of the gun that was later used in crime purchased other guns involved in crime, or how crime guns that are diverted for criminal use shortly after a retail sale are distributed across retail gun sellers within an area. Prior to Congressional actions taken in 2003 through an appropriations amendment, it was possible, though not easy, for researchers, including myself, to access these de-identified data from crime gun traces. We learned that a very small percentage of licensed gun dealers sold approximately 60% of the guns used in crime<sup>4</sup> and that the disparities across gun dealers in their contributions to the pool of guns used in crime could not be explained fully by differences in sales volume, demographic of firearm purchasers, or local crime rates.<sup>5</sup> Importantly, using granular-level crime gun trace data obtained prior to 2003, I found evidence that proper regulation and oversight of gun dealers,<sup>6</sup> as well as undercover stings with legal consequences for facilitating illegal straw sales<sup>7</sup> were associated with fewer guns being diverted for criminal use shortly after a retail sale. Using crime gun trace data that I obtained from the Milwaukee Police Department I was able to show that while the transparency of the volume of crime gun traces linked to a retail seller can reduce the number guns channeled from a retail seller eventually for criminal use, Congressional restrictions on crime gun trace data can have the opposite effect.<sup>8</sup>

Effective responses to public health outbreaks or hazards often center around identifying and responding to local sources of problems – unscrupulous “pill mill” pain clinics, alcohol outlets that serve alcohol to underage youth, restaurants selling unsafe food. Yet public

health and safety officials and the communities they serve are largely in the dark about the role of problem gun dealers, gun traffickers, and patterns of gun theft that create environments conducive to high rates of gun violence. CDC should fund local demonstration projects designed to gather comprehensive data to not simply track firearm-related deaths and injuries, but to also collect data on how guns are accessed by those too young or too dangerous to have them. This might include data from crime gun traces, thefts of firearms, and criminal charges connected to illegal transfers of firearms. Researchers and public safety officials could assess whether such projects advanced their understanding of local gun violence problems and their capacity to combat those problems.

### **Expanding CDC Surveillance Data on Firearm Injuries**

Considerable federal funds have been applied to the CDC's National Violent Death Reporting System that allows researchers to answer certain questions that they otherwise could not answer. Unfortunately, NVDRS does not include data on the origin of the guns used in the deaths such as what can be derived from crime gun traces. Furthermore, there are serious concerns about the reliability of the data that the CDC uses to track national trends in nonfatal gunshot injuries treated in hospitals that are based on a relatively small sample of hospitals.<sup>9,10</sup> Even if the CDC's data on incidence of nonfatal gunshot wounds were sufficient for estimating national trends, the system is not designed to develop state-level data. Arguably the biggest data gap in research on the effects of firearm laws is that we don't know if or how various firearm laws affect the incidence of nonfatal gunshot wounds. This gap exists because there are no standardized data on nonfatal gunshot wounds that provide researchers sufficient

information about where and how victims were shot. Increased funding could remedy this situation.

### **Need for Research to Spur Innovations to Prevent Gun Violence**

Throughout the fields of criminology, sociology, public health, and other disciplines, there is a growing recognition that we have relied too heavily on incarceration in our efforts to curb violent crime and that we should invest in public health solutions to violence.

The CDC supported research that I conducted to determine whether a public health program first implemented in Chicago that is now known as *Cure Violence* could be replicated in Baltimore. The program has shown some degree of effectiveness in reducing shootings in neighborhoods long plagued by gun violence.<sup>11</sup> There is also evidence that addressing urban blight through cleaning and greening<sup>12</sup> as well as measures to secure and make vacant houses look occupied reduce gun violence. Yet despite these examples, there has been relatively little investment in developing and evaluating new public health intervention models to reduce gun violence. Given the scope of the problem and the desperate need for a range of solutions that do not rely on aggressive policing or wide-scale incarceration, Congress should provide funding to spur innovation and testing of new public health models for preventing gun violence. Such funding should support partnerships between community-based organizations and researchers and provide funding to train the next generation of researchers who can advance the field of gun violence prevention.

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<sup>1</sup> National Center for Injury Control and Prevention, Center for Disease Control and Prevention, Web-based Injury Statistics Query and Reporting System, Fatal Injury Data, accessed March 3, 2019.

<sup>2</sup> National Center for Injury Control and Prevention, Center for Disease Control and Prevention, Web-based Injury Statistics Query and Reporting System, Nonfatal Injury Data, accessed March 3, 2019.

<sup>3</sup> Morgan RE, Truman JL. Criminal Victimization, 2017. NCJ 252472. Bureau of Justice Statistics, Office of Justice Programs, US Department of Justice, December 2018.

<sup>4</sup> Pierce GL, Braga AA, Hyatt RR, Koper CS. The characteristics and dynamics of illegal firearms markets: implications for a supply-side enforcement strategy. *Justice Quarterly*. 2004; 21:391–422.

<sup>5</sup> Wintemute GJ. Risk factors among handgun retailers for frequent and disproportionate sales of guns used in violent and firearm related crimes. *Injury Prevention*. 2005; 11: 357–363.

<sup>6</sup> Webster DW, Vernick JS, Bulzacchelli MT. Effects of state-level firearm seller accountability policies on firearms trafficking. *Journal of Urban Health* 2009; 86:525-537.

<sup>7</sup> Webster DW, Zeoli AM, Bulzacchelli MT, Vernick JS. Effects of police stings of gun dealers on the supply of new guns to criminals. *Injury Prevention* 2006;12:225-230.

<sup>8</sup> Webster DW, Vernick JS, Bulzacchelli MT, Vittes KA. Recent federal gun laws, gun dealer accountability and the diversion of guns to criminals in Milwaukee. *J Urban Health* 2012;89:87-97.

<sup>9</sup> Cook PJ, Rivera-Aquirre AE, Cerda M, Wintemute GJ. Constant lethality of gunshot injuries from firearm assault: United States, 2003–2012. *American Journal of Public Health*. 2017; 107:1324–1328. doi: 10.2105/AJPH.2017.303837

<sup>10</sup> Campbell S, Nass D, Nguyen M. The CDC Is Publishing Unreliable Data On Gun Injuries. People Are Using It Anyway. FiveThirtyEight. October 4, 2018. <https://fivethirtyeight.com/features/the-cdc-is-publishing-unreliable-data-on-gun-injuries-people-are-using-it-anyway/>

<sup>11</sup> Webster DW, Whitehill JM, Vernick JS, Curriero FC. Effects of Baltimore’s *Safe Streets* Program on gun violence: a replication of Chicago’s *CeaseFire* program. *Journal of Urban Health* 2013; 90:27-40. doi: 10.1007/s11524-012-9731-5.

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<sup>12</sup> Branas CC, South E, Kondo MC, Hohl BC, Bourgois P, Wiebe DJ, MacDonald JM. A citywide cluster randomized trial to restore blighted vacant land and its effects on violence, crime and fear. PNAS - Proceedings of the National Academy of Sciences 115(8), 1-11, 2018.