

Death by Gun Violence—A Public Health Crisis

Howard Bauchner, MD; Frederick P. Rivara, MD, MPH; Robert O. Bonow, MD, MS; Neil M. Bressler, MD; Mary L. (Nora) Disis, MD; Stephan Heckers, MD; S. Andrew Josephson, MD; Melina R. Kibbe, MD; Jay F. Piccirillo, MD; Rita F. Redberg, MD, MSc; John S. Rhee, MD, MPH; June K. Robinson, MD

The shooting in Las Vegas, Nevada, that left 59 people dead, 10 times that number wounded, and thousands of people with the psychological distress from being present at the scene during and after the massacre has once again raised the issue of what we as a nation can and should do about guns. The solution lies in not just focusing on Las Vegas and the hundreds of other mass shootings that have occurred in the United States in the last 14 months, but rather to underscore that on average almost 100 people die each *day* in the United States from gun violence. The 36 252 deaths from firearms in the United States in 2015¹ exceeded the number of deaths from motor vehicle traffic crashes that year (36 161).¹ That same year, the US Centers for Disease Control and Prevention reported that 5 people died from terrorism. Since 1968, more individuals in the United States have died from gun violence than in battle during all the wars the country has fought since its inception.²

Guns do not make individuals, their families, or homes safer and they result in far more deaths to loved ones than to an intruder intending to cause harm.³ Often forgotten is that 60.7% of the gun deaths in 2015 in the United States were suicides.¹ Means used to attempt suicide matter; guns will result in suicidal deaths well over 90% of the time, whereas ingestion of pills or wrist cutting will be *unsuccessful* more than 90% of the time. The majority of people who try to commit suicide but survive the attempt will not go on to die from suicide⁴; if the attempt is with a gun, there will be no second chance at life.

The journals of the JAMA Network are dedicated to improving the health of people across the globe. We do so by addressing the most important public health problems harming people and publishing the best science that can be done. The journals have published important work on gun violence; in the past year this has included studies on differences in gun use during terrorist attacks in the United States compared with other countries,⁵ the effect of exposure to gun violence in the media on children's interest in real guns,⁶

the relationship between firearm laws and firearm homicides⁷ and suicides,⁸ and the association of “stand your ground” laws with homicide and suicide.⁹ Research on gun violence is important, although Congress over the last 2 decades has placed limits on that science from being conducted.¹⁰ This attempt to suppress research into gun violence resulted in a 64% decline in the number of firearm studies per million citations in SCOPUS between 1998 and 2012.¹¹

Physicians and other health care professionals can do more. The US Court of Appeals for the 11th Circuit has ruled that attempts to prevent physicians from asking and counseling patients about guns violate the First Amendment.¹² As with any epidemic, prevention is important. Physicians and others should ask about guns in the home, especially for high-risk patients,¹³ and advise about removal and safe storage. Good evidence has shown that safe storage of firearms is effective in reducing misuse.¹⁴ Physicians can conduct appropriate screening and early intervention for suicide,^{15,16} the most common cause of gun deaths.

We, as editors of the journals in the JAMA Network, are committed to providing policy makers, as well as the medical community and the US public, with accurate, timely information to guide interventions that will reduce injuries and deaths from guns. Numerous polls have shown that the majority of citizens want action that will make a difference. Other countries have acted: when a mass shooting happened in Australia 2 decades ago, the federal government responded with legislation within 2 weeks of the event banning semiautomatic rifles.¹⁷ Since 1996, there has not been a mass shooting on that continent.

Guns kill people. More background checks; more hotel, school, and venue security; more restrictions on the number and types of guns that individuals can own; and development of “smart guns” may help decrease firearm violence. But the key to reducing firearm deaths in the United States is to understand and reduce exposure to the cause, just like in any epidemic, and in this case that is guns.

ARTICLE INFORMATION

Author Affiliations: Editor in Chief, *JAMA* and The JAMA Network (Bauchner); Editor, *JAMA Pediatrics* and *JAMA Network Open* (Rivara); Editor, *JAMA Cardiology* (Bonow); Editor, *JAMA Ophthalmology* (Bressler); Editor, *JAMA Oncology* (Disis); Editor, *JAMA Psychiatry* (Heckers); Editor, *JAMA Neurology* (Josephson); Editor, *JAMA Surgery* (Kibbe); Editor, *JAMA Otolaryngology-Head & Neck Surgery* (Piccirillo); Editor, *JAMA Internal Medicine*

(Redberg); Editor, *JAMA Facial Plastic Surgery* (Rhee); Editor, *JAMA Dermatology* (Robinson).

Corresponding Author: Howard Bauchner, MD (howard.bauchner@jamanetwork.org).

Published Online: October 9, 2017.
doi:10.1001/jamainternmed.2017.6917

Conflict of Interest Disclosures: Dr Rivara reports receiving research funding from the City of Seattle,

Washington, and from the Arnold Foundation for firearm research. No other disclosures are reported.

Simultaneous Publication: This Editorial is being published simultaneously in *JAMA* and the 11 JAMA Network Journals.

REFERENCES

1. Web-based Injury Statistics Query and Reporting System (WISQARS). <http://www.cdc.gov/injury/wisqars>. Updated August 1, 2017. Accessed October 4 2017.
2. Bailey C. More Americans killed by guns since 1968 than in all U.S. wars-combined. NBC News. <https://www.nbcnews.com/storyline/las-vegas-shooting/more-americans-killed-guns-1968-all-u-s-wars-combined-n807156>. October 4, 2017. Accessed October 5, 2017.
3. Kellermann AL, Reay DT. Protection or peril? an analysis of firearm-related deaths in the home. *N Engl J Med*. 1986;314(24):1557-1560.
4. Owens D, Horrocks J, House A. Fatal and non-fatal repetition of self-harm: systematic review. *Br J Psychiatry*. 2002;181:193-199.
5. Tessler RA, Mooney SJ, Witt CE, et al. Use of firearms in terrorist attacks: differences between the US, Canada, Europe, Australia, and New Zealand [published online October 6, 2017]. *JAMA Intern Med*. doi:10.1001/jamainternmed.2017.5723
6. Dillon KP, Bushman BJ. Effects of exposure to gun violence in movies on children's interest in real guns [published online September 25, 2017]. *JAMA Pediatr*. doi:10.1001/jamapediatrics.2017.2229
7. Lee LK, Fleegler EW, Farrell C, et al. Firearm laws and firearm homicides: a systematic review. *JAMA Intern Med*. 2017;177(1):106-119.
8. McCourt AD, Vernick JS, Betz ME, Brandspigel S, Runyan CW. Temporary transfer of firearms from the home to prevent suicide: legal obstacles and recommendations. *JAMA Intern Med*. 2017;177(1):96-101.
9. Humphreys DK, Gasparrini A, Wiebe DJ. Evaluating the impact of Florida's "stand your ground" self-defense law on homicide and suicide by firearm: an interrupted time series study. *JAMA Intern Med*. 2017;177(1):44-50.
10. Kellermann AL, Rivara FP. Silencing the science on gun research. *JAMA*. 2013;309(6):549-550.
11. Alcorn T. Trends in research publications about gun violence in the United States, 1960 to 2014. *JAMA Intern Med*. 2017;177(1):124-126.
12. Rivara FP, Fan MD. Pediatricians, firearms, and the First Amendment. *JAMA Pediatr*. 2017;171(8):723-724.
13. Simonetti JA, Mackelprang JL, Rowhani-Rahbar A, Zatzick D, Rivara FP. Psychiatric comorbidity, suicidality, and in-home firearm access among a nationally representative sample of adolescents. *JAMA Psychiatry*. 2015;72(2):152-159.
14. Grossman DC, Mueller BA, Riedy C, et al. Gun storage practices and risk of youth suicide and unintentional firearm injuries. *JAMA*. 2005;293(6):707-714.
15. O'Brien KHM, Knight JR Jr, Harris SK. A Call for social responsibility and suicide risk screening, prevention, and early intervention following the release of the Netflix series *13 Reasons Why*. *JAMA Intern Med*. 2017;177(10):1418-1419.
16. Miller IW, Camargo CA Jr, Arias SA, et al; ED-SAFE Investigators. Suicide prevention in an emergency department population: the ED-SAFE Study. *JAMA Psychiatry*. 2017;74(6):563-570.
17. Chapman S, Alpers P, Jones M. Association between gun law reforms and intentional firearm deaths in Australia, 1979-2013. *JAMA*. 2016;316(3):291-299.