

# A Call to Action: Firearms, Public Health, and Emergency Medicine

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At the time of this writing, it has been 2 months since Newtown. We have each mourned from a distance, imagining the heartbreak. We have asked ourselves what we would have done were this our community, our school, our child. We have formed opinions about what may or may not have stopped this tragedy. And we have each quietly recalled other tragedies that we have witnessed.

Now it is time, as individuals and as a specialty, to take action to decrease the likelihood of future deaths.

First, a review of the facts. Although mass shootings such as the Sandy Hook Elementary School massacre generate the greatest public attention, guns killed almost 32,000 American civilians in 2011 alone<sup>1</sup> and seriously injured another 74,000.<sup>2</sup> The rate of firearm-related deaths for children younger than 15 years is nearly 12 times higher in the United States than in other industrialized nations.<sup>3</sup> Our overall firearm-related death rate is 7.5 times higher than in the world's other 22 high-income countries.<sup>4,5</sup> Case control and cohort studies show that the presence of a gun in the home is associated with a significantly increased risk of homicide, suicide, and accidental death.<sup>6-9</sup> Firearm injuries cost the United States more than \$70 billion a year in medical expenditures and lost productivity.<sup>10</sup>

As emergency physicians, we are often the first—and only—physicians to treat victims of gun violence. We are therefore acutely aware that victims of shootings have a higher mortality than those injured by other methods of assault or self-harm. We know that patients with gun-related injuries are unlikely to present anywhere *other* than the emergency department (except, perhaps, directly to the morgue). And we know that to reduce firearm-related deaths and injuries, we must prevent people from getting shot in the first place.<sup>11</sup>

We also know that emergency physicians can act collectively to prevent injuries.

Emergency medicine has long been at the forefront of public health.<sup>12,13</sup> As a specialty, we have identified domestic violence, child abuse, and vaccination, for instance, as just a few of the many public health issues that warrant our involvement and our intervention. The American College of Emergency Physicians (ACEP) has specific clinical care policies relating to these and other public health issues, including firearm injury prevention.<sup>14</sup> Through well-designed research, advocacy campaigns, and public-private partnerships, emergency physicians have effected inspiring change. We have helped reduce drunk driving by supporting a shift in societal mores and implementation of

“.08” per se laws throughout the nation; we have advocated for child-resistant caps on medications, leading to dramatic decreases in the rate of pediatric poisonings; and we continue to research more effective means of reducing injury from a variety of causes, ranging from suicide to opioid abuse to falls.

Emergency physicians are, of course, a diverse group that includes proud, responsible gun owners and non-gun owners alike. We have a history of advocating for public health and community well-being while respecting individuals' rights. Our work in highway and auto safety, for instance, has helped to reduce US automobile fatalities by 31% without limiting access to automobiles. Scientific concerns for public health are free of agendas, and we are committed to finding solutions wherever they may lie.

Unfortunately, although successful automobile safety measures came directly from careful and comprehensive research, we are limited in our ability to make evidence-based recommendations about firearm violence.<sup>15-17</sup> Since 1996, the Centers for Disease Control and Prevention has been banned from using funds to “advocate or promote gun control,” a thinly veiled threat that has led to an absence of federally funded research on the nature, causes, and potential prevention of firearm injuries. In 2011 this ill-conceived limitation on the development of scientific data was formally extended to include the National Institutes of Health (NIH). In Florida, the legislature has passed HB 155 (currently under injunction by a US District judge), a law that subjects physicians to potential sanctions, including loss of license, if they discuss or record gun safety information with their patients. Even the Patient Protection and Affordable Care Act contains language (subsection 2717 [c]) that limits the ability of physicians and researchers to gather data on patient gun ownership.<sup>18,19</sup>

The state of policy on guns has led to a sad irony. James Holmes, the alleged perpetrator of the Aurora theater massacre, received \$21,600 from the NIH to pursue his education. Using that money to fund research that may have prevented the massacre would have been illegal.<sup>20</sup>

The steps outlined by the President on January 16 are necessary, but not sufficient, to cause a significant reduction in firearm-related deaths and injuries in our country.<sup>21</sup> In the face of these challenges to the development of scientific research, and unprecedented forays into the patient-physician relationship, we believe that emergency physicians have a critical role to play.

We therefore urge our specialty to actively advocate for the following efforts to reduce gun violence<sup>22</sup>:

- An immediate ban on assault rifles and high-capacity magazines.
  - Outside of the military arena, and in the face of a growing and clear threat to public safety, there is no cogent argument for the wide prevalence of these weapons and magazines.<sup>23</sup>
- Mandatory background checks for all firearm transfers.
  - Approximately 40% of current firearm transfers avoid the requirement for background checks. Law-abiding gun owners and society at large will benefit from fewer firearms in the hands of those who should not have access to them.<sup>23,24</sup> (It would be reasonable to exempt transfers between generations in a family, such as from parent to child.)
- Immediate restoration of funding for research on firearm-related injuries.
  - Although President Obama's plan calls for lifting the 1996 ban on federal research into firearm injuries, his executive orders do not allocate funding. Research is a sine qua non for the success of public health measures, and efforts to reduce gun injuries must be based on comprehensive and sound science.<sup>16</sup> Additionally, the National Violent Death Reporting System should be expanded to all 50 states to aid in collection of accurate epidemiologic information about the circumstances surrounding gun violence. Debates about the utility of measures to reduce gun violence are useful only if they are informed debates.
- Improved access to mental health services.
  - Although the mentally ill are more often victims than perpetrators, those with violent tendencies can be prone to unspeakable acts. A lack of access to mental health care has hampered the medical community's ability to prevent such tragedies.
- Protection of the First Amendment rights of physicians.
  - Physicians have sworn an oath, and we consider the patient-physician relationship sacred. So do our patients. Policies that keep physicians from raising health concerns with their patients are unethical and dangerous. Similarly, policies that develop new "mandatory reporting" requirements for physicians run the risk of keeping psychiatric patients away from needed help.

We also urge *individual* emergency physicians to consider the role that we can and should play in shaping this national dialogue. Just as cardiologists and oncologists have embraced their role as messengers on the dangers of smoking, we bear the responsibility to speak up, and speak loudly, about gun violence.

- Become involved with the discussion on a local, state, and national level. Numerous physician organizations have provided educational sessions on how to help influence the conversation.
  - To start, we suggest calling your members of Congress, writing editorials for local newspapers, and if possible attending the ACEP Leadership & Advocacy Conference.

- We also welcome new members in our ACEP Trauma & Injury Prevention Section working group. Be a voice.
- Ask your high-risk patients about firearm possession and counsel on safe handling of guns. Part of the assessment of suicidal, psychotic, and violent patients should include questions about firearm access or ownership. Counseling of parents should include safe storage of handguns.
  - Develop partnerships with local community groups and law enforcement officials. We should consistently raise the issue of gun violence when interacting with police officers, domestic violence advocates, mental health providers, emergency medical services personnel, and other groups. These individuals often see physicians as ambassadors of public health and look to us for cues about the most pressing threats in our community. They must be helped to understand that gun violence is a public health emergency and that they are valuable partners in our quest to make our communities safer.

Change, it is said, is hard to come by and harder still to make. Frequently, tectonic events must occur for change to be possible. Since the Newtown massacre, our society and our specialty have reawakened to this grave public health crisis. As emergency physicians, we are trained to act in times of crisis. It is time for us to do so, in the best interests of our patients and our communities.

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## REFERENCES

- Hoyert DL, Xu J. Deaths: preliminary data for 2011. *Natl Vital Stat Rep.* 2012;61:1-51.
- Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). Available at: <http://www.cdc.gov/injury/wisqars/index.html>. Accessed January 10, 2013.
- Rates of homicide, suicide, and firearm-related death among children—26 industrialized countries. *MMWR Morb Mortal Wkly Rep.* 1997;46:101-105.
- Killias M. International correlations between gun ownership and rates of homicide and suicide. *CMAJ.* 1993;148:1721-1725.
- Sloan JH, Kellermann AL, Reay DT, et al. Handgun regulations, crime, assaults, and homicide. A tale of two cities. *N Engl J Med.* 1988;319:1256-1262.
- Kellermann AL, Rivara FP, Rushforth NB, et al. Gun ownership as a risk factor for homicide in the home. *N Engl J Med.* 1993;329:1084-1091.
- Kellermann AL, Rivara FP, Somes G, et al. Suicide in the home in relation to gun ownership. *N Engl J Med.* 1992;327:467-472.
- Kellermann AL, Somes G, Rivara FP, et al. Injuries and deaths due to firearms in the home. *J Trauma.* 1998;45:263-267.
- Wiebe DJ. Homicide and suicide risks associated with firearms in the home: a national case-control study. *Ann Emerg Med.* 2003;41:771-782.
- Corso PS, Mercy JA, Simon TR, et al. Medical costs and productivity losses due to interpersonal and self-directed violence in the United States. *Am J Prev Med.* 2007;32:474-482.
- Kellermann AL, Rivara FP, Lee RK, et al. Injuries due to firearms in three cities. *N Engl J Med.* 1996;335:1438-1444.
- Kellermann AL. Emergency medicine and public health: stopping emergencies before the 9-1-1 call. *Acad Emerg Med.* 2009;16:1060-1064.
- Rhodes KV, Gordon JA, Lowe RA. Preventive care in the emergency department, part I: clinical preventive services; are they relevant to emergency medicine? *Acad Emerg Med.* 2000;7:1036-1041.
- ACEP policy compendium. In: Rosenau AM, ed. Dallas, TX: American College of Emergency Physicians; 2012.
- Hemenway D. The public health approach to motor vehicles, tobacco, and alcohol, with applications to firearms policy. *J Public Health Policy.* 2001;22:381-402.
- Kellermann AL, Rivara FP. Silencing the science on gun research. *JAMA.* 2012;1-2.
- Mozaffarian D, Hemenway D, Ludwig DS. Curbing gun violence: lessons from public health successes. *JAMA.* 2013;1-2.
- McClanahan C. Gun owner rights and Obamacare: yes, it is in the law [Forbes Web site]. Available at: <http://www.forbes.com/sites/carolynmcclanahan/2012/07/23/gun-owner-rights-and-obamacare-yes-it-is-in-the-law/>. Accessed January 10, 2013.
- Compilation of Patient Protection and Affordable Care Act. In: Public Law 111-148, 124 Stat 119, HR 3590. 2010.
- Morain D. Gun lobby blocks violence studies. *Sacramento Bee.* July 29, 2012:E1.
- White House. *Now Is the Time: The President's Plan to Protect Our Children and Our Communities by Reducing Gun Violence.* Washington, DC: The White House; 2013.
- Webster DW, Vernick JS. *Reducing Gun Violence in America: Informing Policy With Evidence and Analysis.* Baltimore, MD: Johns Hopkins University Press; 2013.
- Webster DW, Vernick JS, Vittes KA, et al. *The Case for Gun Policy Reforms in America.* Baltimore, MD: Johns Hopkins Center for Gun Policy and Research; 2012.
- Barry CL, McGinty EE, Vernick JS, et al. After Newtown—Public opinion on gun policy and mental illness. *N Engl J Med.* 2013.