

Importance of firearms research

David Hemenway

The US is an outlier compared with other high-income countries in terms of firearms and the problems they cause. While we have average rates of non-firearm crime and violence, we have by far the most guns per capita (particularly handguns) and the weakest gun laws.¹ For example, in most US states, there is no licensure law for firearm owners, no registration of handguns and no training requirements for gun ownership. Not surprisingly, our firearm homicide, firearm suicide and unintentional firearm death rates are much higher than rates in other high-income countries.²

For most documented injury prevention success stories, data and research played an important role.³ Unfortunately, gun lobby groups have helped to prevent much of the data collection and funding for research that could have shed light on how to reduce our firearm-related public health and safety problems.^{4,5} One estimate is that, compared with other leading causes of death, gun violence had less than 5% of the volume of scientific publications predicted.⁶

Research is important for many reasons. It provides foundational knowledge about the various aspects of the problem, suggests what policies and programmes may make sense, and evaluates whether they are working effectively. The drumbeat of research findings can keep the issue and possible solutions salient for both politicians and the public.

For most public health successes, there was strong opposition, but eventually, the situation tipped. In the firearms area, perhaps the tide is turning. We can certainly hope. Many things have happened over the past few years that suggest we might possibly be nearing a tipping point.

The increase in mass public shootings, particularly at schools, has awakened the entire public to the dangers posed by firearms. The simple fact that most schools now have active shooter drills provides a constant reminder. Even suburban upper-middle-class white moms are being affected, because they see that their children are in danger. The incredible response of the students at Stoneman Douglas High School has helped to galvanise activism. (Sadly, the extraordinarily high rates of firearm homicide victimisation of African-Americans never provided

the wake-up call our nation needed to begin to tackle the problem).

Media interest about guns no longer is determined solely by mass shootings. In the past, I would typically speak with many reporters in the immediate aftermath of such an event, but otherwise, I rarely heard from them. Now they call and email continually.

Many Democrats, who for two decades were afraid to discuss the firearm issue, now use it as an important talking point. Virtually, every major association of physicians, nurses and other health professionals have written or strengthened position papers about firearms. Even some large companies have run from the National Rifle Association. A few states and a few more foundations have begun funding firearms research.

There has been a spike in researcher interest in the topic. A quick search of PubMed articles under the search term 'firearms' shows an 88% increase in published articles in the decade from 2006–2008 to 2016–2018. I now personally get asked by journal editors to review submitted firearms papers 2–3 times per week. However, given the size of the problem, funding and research efforts are still minimal.⁶

The gun problem is enormous and heterogeneous and there is so much we don't know. For virtually any issue, we would do well to know the who, what, why, when, where and how. Yet, there still have only been one or two empirical journal articles focused on gun training, or gun theft, and none focused on open carry. We need to learn more about gun storage, gun threats, straw purchases, smart guns, assault weapons, large-capacity magazines, gun shop practices, guns on college campuses, guns at work, guns and road rage, guns and alcohol, police shootings, police discretion, women and guns, children and guns, gun ranges, gun suicide, gun accidents, gun assaults, background checks, gun licensing, gun registration, gun taxes, gun liability, implementation, enforcement and effectiveness of all gun laws, guns and hearing loss, guns and lead poisoning, self-defense gun use, home protection alternatives, and so on.

Reporters often ask me what are the two or three things that we most need to learn. I roll my eyes and tell them that it would be like asking cancer researchers what are the two or three things they need to know—and imagine asking them that if in the past two decades research funding and research levels

had been only 5% of what they should have been.

In this special journal issue, there are a dozen papers on firearms that were accepted in the past year or so. They include brief reports, original articles, a special feature and a study protocol. Data come from surveys of gun dealers and gun owners, from hospitals and death certificates, and from police reports and internet searches. Topics include gun ownership, gun storage, gun suicide, gun homicide, medical care for the wounded and prosecutions for straw purchases. This collection of excellent articles helps to advance our knowledge on some of the many firearm issues.

It will be a good omen if collections such as this become commonplace in the public health literature. Many fine researchers want to contribute to our understanding of and provide useful solutions for our firearm-related public health problems. To sustain that interest, society now needs to provide sufficient research funding to allow them to make a living doing so.

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