

## FEATURE

## GUN VIOLENCE

## Reviving research into US gun violence

**Michael McCarthy** looks at whether events at Sandy Hook Elementary School are paving the way to reopen research into guns

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In January, in response to the shooting at the Sandy Hook Elementary School in Newtown, Connecticut, that left 20 schoolchildren and six adults dead, US president Barack Obama issued 23 executive orders to deal with gun violence in America.<sup>1</sup>

Among those was an order directing the US Centers for Disease Control and Prevention (CDC) to research the causes and prevention of gun violence, an order directing the US Attorney General to issue a report on new gun safety technology, and an order clarifying that the Patient Protection and Affordable Care Act, the president's 2010 health reform law, "does not prohibit doctors asking their patients about guns in their homes."

That it was necessary for the president to issue executive orders directing actions in a country that sees more than 31 000 killed from gunshot wounds each year surprised many.

But for 17 years, legislation has been on the books banning or severely constraining government initiatives to reduce gun violence and gun related injuries.

In his statement announcing his executive actions, Obama denounced in particular efforts to deny federal funding for scientific and medical research into the causes of gun violence. "We don't benefit from ignorance. We don't benefit from not knowing the science of this epidemic of violence," Obama said.

For much of the 20th century, gun violence in the US had been considered a law enforcement issue. But in the late 1970s and early 1980s, a series of reports and workshops started to recast the issue as a public health problem and calling for a far broader societal approach.

The 1979 US surgeon general report, *Healthy People*, identified homicide as a important health problem.<sup>2</sup> The report noted that although many factors were involved in the nation's high murder rate, including economic deprivation, family breakup, and the glamorization of violence in the media, "Easy access to firearms appears to be the one factor with a striking relationship to murder." And in 1985 the Institute of Medicine issued an influential report, *Injury in America*, calling on, among other initiatives, research into the effectiveness of laws and "other measures to reduce firearm homicide."<sup>3</sup>

As part of this shift to a public health approach to violence reduction, the CDC created a Division of Violence Prevention in 1991 and a year later raised the division to center status as the National Center for Injury Prevention and Control (NCIPC).

Gun rights advocates, however, denounced the research coming out of the center and other research groups looking in to gun related injuries, which they charged was merely anti-gun propaganda designed to demonize guns.

Research funded by the CDC that particularly angered gun rights groups were reported in two papers in the *New England Journal of Medicine* in 1992 and 1993.<sup>4,5</sup>

In those papers, Arthur Kellermann and colleagues found that keeping a gun in the home was associated with a 2.7-fold increase risk of homicide for members of the household and a 4.8-fold increase in risk of suicide.

"Despite the widely held belief that guns are effective for protection, our results suggest that they actually posed a substantial threat to members of the household," they wrote.

In 1995, gun rights advocates, led by the National Rifle Association, enlisted their supporters in Congress to pass legislation that would have eliminated NCIPC completely.

When that effort failed, they instead successfully stripped the CDC of the \$2.6m (£1.7m; €1.9m) of its budget slated for gun violence research and forbid the agency "to advocate or promote gun control."

Similar language was put in legislation governing the National Institutes of Health's budget, and federal funding for public health research into gun violence all but disappeared.

Gun rights advocates also moved to pass both state and federal laws seeking to prevent doctors from asking their patients about guns in their homes.

Several medical societies, including the American Academy of Pediatrics, the American College of Physicians, and the Academy of Family Physicians, have recommended that physicians counsel their patients about firearm injury prevention, such as the use of gun safes and trigger locks.

Florida passed a law that made it possible to sanction doctors who held such conversations and recorded information about gun ownership in a patient's medical record.

During the battle over the health reform law, Senator Harry Reid, the Senate Majority Leader and a Democrat from the rural state of Nevada, inserted a provision mandating that the wellness and health promotion activities implemented by the law "may not require the disclosure or collection of any information relating to . . . the presence or storage of a lawfully possessed firearm or ammunition in the residence or on the property of an individual; or . . . the lawful use, possession, or storage of a firearm or ammunition by an individual."

Michael Hammond, legal counsel for the Gun Owners of America, a gun rights advocacy group which pushed for the provision, said his organization had two main concerns. Firstly, that gun ownership documented in electronic medical records would turn into a "de facto national gun registry." Such a registry is an anathema to gun rights advocates who see gun registration as a first step towards confiscation.

The second concern, Hammond said, was that the presence of a gun in the home would be used by insurance companies to raise insurance premiums to the point that gun ownership would become prohibitively expensive.

Just as cigarette taxes are being used to discourage smoking, Hammond said, the price of health insurance, which everyone must purchase under the new health reform law could be used to discourage gun ownership.

"You can say that's a good thing in respect to cigarettes, but we didn't want the same thing to happen with respect to guns," Hammond said.

Therese Richmond, a professor of nursing at the University of Pennsylvania and co-founder of the university's Firearm and Injury Center, said such concerns are misplaced.

Much can be done to reduce deaths and injury from firearms without confiscating guns by adopting the same public health approaches that dramatically reduced motor-vehicle deaths in the 1970s and 80s, she said.

"We didn't say cars are killing people; we didn't say get rid of cars," Richmond said, instead, public health approaches were used to change social norms around drinking and driving and seat-belt use and to improve car and road design. "Have we totally wiped out injury and death in the form of car crashes. No, but we have made significant inroads. Why can't we take that model and do that with gun violence?"

Despite the president's executive orders, the future of research into gun violence and gun-related injury prevention remains uncertain, says Kellermann, the lead author of the *New England Journal of Medicine* papers who is now chair in policy analysis at the RAND Corporation. One concern is that there is no guarantee Congress will provide the funding for the research, he said. The other concern is whether there will be enough researchers willing to do the work that's needed.

"There were never large numbers of researchers active on this issue. You could almost count the public health community working on this topic on both hands without having to go to your toes," Kellermann said. "What we don't know is are there young or early-career medical and public health researchers who will rise to this challenge and be willing to take on work that could easily disappear as quickly as it re-emerges, particularly if Congress chooses not to take action."

Kellermann also believes that it is possible to take public health approaches to "lower burden of mortality and morbidity from gun violence without compromising the safe, reasonable ownership, use and enjoyment of firearms."

"But to do that we have to set the politics aside, try to understand the phenomenon much better and make smart choices as individuals and society," he said.

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Blog: Get the gun out of the house, <http://bit.ly/12k2V7U>.

Blog: Krishna Chinthapalli on the questions around gun control in the US, <http://bit.ly/Tv2i6l>.

- 1 Remarks by the President and Vice President on Gun Violence. January 16, 2013 [www.whitehouse.gov/the-press-office/2013/01/16/remarks-president-and-vice-president-gun-violence](http://www.whitehouse.gov/the-press-office/2013/01/16/remarks-president-and-vice-president-gun-violence).
- 2 United States Public Health Service. *Healthy people: the surgeon general's report on health promotion and disease prevention*. Publication no 79-55071. <http://profiles.nlm.nih.gov/NN/B/B/G/K/>.
- 3 National Academy of Sciences. *Injury in America: a continuing public health problem*. Washington: National Academy Press; 1985. [www.nap.edu/catalog.php?record\\_id=609](http://www.nap.edu/catalog.php?record_id=609).
- 4 Kellermann AL, Rivara FP, Somes G, Reay DT, Francisco J, Banton JG, Prodzinski J, Fligner C, Hackman BB. Suicide in the home in relation to gun ownership. *N Engl J Med* 1992;327:467-72. <http://www.nejm.org/doi/full/10.1056/NEJM199208133270705>.
- 5 Kellermann AL, Rivara FP, Rushforth NB, Banton JG, Reay DT, Francisco JT, Locci AB, Prodzinski J, Hackman BB, Somes G. Gun ownership as a risk factor for homicide in the home. *N Engl J Med* 1993;329:1084-91. <http://www.nejm.org/doi/full/10.1056/NEJM199310073291506>.

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