

## The Smoking Gun

### *Can We Do for Gun Control What We Are Doing to Control the Vaping and E-Cigarettes Epidemic?*

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On September 24, 2019, the Governor of Massachusetts, Charlie Baker, took the unprecedented step of keeping e-cigarettes and vaping products out of the hands of the general public by signing into law a temporary 4-month ban on the sale of these products and devices. This declaration of a public health emergency in Massachusetts through the banning of all vaping products and e-cigarettes was quickly followed by the Governors, legislative bodies, and health councils in several additional states, including Michigan, New York, and Rhode Island, which have also moved to temporarily ban or restrict the sale of flavored or unflavored vaping products. These bold and timely actions based on discussions with, and the review of available evidence by, various medical experts including addiction specialists, pulmonologists, and pediatricians will hopefully forestall an impending and incompletely understood outbreak of vaping-related respiratory illnesses that has claimed the lives of 26 young persons and has resulted in > 1200 hospitalized cases as of October 8, 2019<sup>1</sup>; this ever growing number, however, pales in comparison with the nearly 40,000 persons who died from gun-related injuries in the United States in 2017,<sup>2</sup> an epidemic that we have yet to contain despite knowing the primary etiologic agent involved and having proven means to reduce gun-related violence. The Centers for Disease Control and Prevention (CDC) have reinforced the health concerns associated with vaping by issuing a broad public health warning recommending that persons concerned about contracting serious lung-related illness abstain from using vaping products and that no single product or brand has been linked to the cases that have been identified to date.<sup>3</sup> Only time will tell about the magnitude and impact of this evolving public health threat and the profile of individuals who may be at particularly high risk for developing various lung-related illnesses thought to be associated with the use of e-cigarettes and vaping products.

The rapidity of this “call to action” by the Governor of Massachusetts and politicians from other US states, which will allow for the collection of further data and a period of reflection and possible further actions by researchers, public health advocates, and industry representatives, is highly encouraging and reflective of an effective public health surveillance system, informed electorate and thoughtful governmental officials, and committed health professionals who are attempting to nip this emerging epidemic of serious pulmonary diseases in the bud. While the merits of these vaping moratoriums or outright bans are currently being debated by some, with legitimate concerns expressed about persons switching to the smoking of cigarettes or to the underground network that will supply vaping products to adolescents and young adults, these announcements are reflective of a highly functional health system that is charged with protecting the health of children and young adults from this latest scourge of e-cigarettes. As commented on by one of the medical experts providing input and advice to Governor Baker in formulating his bold decision to temporarily ban vaping products, it was

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stunning to hear the Governor's announcement when even assault rifles aren't banned in the United States.

The rapid response by the public health community and several state legislatures to the highly morbid and fatal public health emergency associated with vaping is in stark contrast to that of the well-established and senseless epidemic that continues to worsen despite increasing calls by the general public, especially by young people, for Congress to act on a number and variety of bills that have been put forward over the past several years to stop gun-related deaths. We know the direct cause(s) of gun-related violence, in contrast to that of vaping-related illnesses, but we still refuse to act on this knowledge leading to needless deaths at the hands of guns. Indeed, the sordid history of the inability of the Congress to pass meaningful and commonsense legislation on gun control in the United States reached its pinnacle in the mid-1990s, when the National Rifle Association and its supporters pressed Congress to pass the Dickey Amendment.<sup>4</sup> This amendment, which was passed in 1996, stopped in its tracks any future funding support to the CDC to study gun violence as a public health issue. This highly unfortunate >2-decade long freeze on federal spending for research into gun-related violence, and solutions into its control, has contributed to the tragic deaths of many thousands of gunshot victims. Moreover, it has led to considerable despair by individuals who have been affected by gun violence and cries by the general public to ban these weapons of destruction. Many of us refuse to accept the notion that guns are now a part of the American fabric and nothing further can be done to control and eventually eliminate gun-related violence and deaths by suicide from our collective DNA.

Since allowing the federal assault weapons ban of 1994 to expire a decade later,<sup>5</sup> we have seen an alarming increase in the number of mass shootings in the United States with assault weapons playing a large role in these horrific events. On the basis of these and other data, and believing what our eyes and common sense tells us, we no longer need additional research into whether having a gun in a home is a risk factor for these mass casualties or whether civilian access to assault weapons leads to more mass casualty events. The evidence is in front of our collective noses about our need for action on gun control. The research that we do need, however, is about providing insights into which population-based interventions could be designed and delivered to prevent gun-related violence and alter the trajectory of gun-related deaths in the United States. This could entail researching the effects of more aggressive counseling by health care providers to remove guns from homes and/or their safe keeping, especially from those who are known to be domestic abusers or from people convicted of violent crimes, red flag laws, and better enforceable background checks, improving the green spaces of impoverished neighborhoods with concomitant job training efforts, and improving the quality of the information contained in our national databases so that when gun ownership background checks are performed, they contain the vital information needed to halt gun sales to dangerous individuals.

There is, however, some light that may be emerging from this dark and foreboding tunnel. After the horrific school shooting of high school students in Parkland, Florida, on February 2, 2018,<sup>6</sup> and a groundswell of support and activism of calls for more effective gun control, led primarily by school-age

children and not by adults who should know better, Congress has recently stated that the CDC could in fact use government funds to study gun violence. To date, however, while \$50 million has been earmarked by the House of Representatives to study the problem of gun violence in America through grant support to the CDC and the National Institutes of Health (NIH), this bill has not even been discussed on the Senate floor for a variety of inexcusable reasons. One could further argue that while it is encouraging to see that monies have been set aside for research into gun violence and its ultimate control, as we have successfully done for numerous infectious and chronic diseases for more than a century, this is a mere pittance of the amount of federal support that needs to be devoted to curb this senseless epidemic. We need strong leadership from members of Congress, as was recently demonstrated by the Prime Minister of New Zealand and the country's governing body in banning the sale and distribution of assault rifles and all military style semiautomatic type weapons following a mass shooting there.<sup>7</sup> Indeed, as has been recently shown by Congress in providing an infusion of funds to victims of 9/11, members of Congress need to "do their jobs" and provide support and leadership for ending gun-related violence. Would it not be at least a thoughtful first step to consider a temporary ban on the future sale of guns and assault rifles in the United States while we more systematically study gun safety and begin to implement control measures? Several states are pursuing such an approach to forestalling the epidemic of lung-related illnesses linked to e-cigarettes and vaping products and these "lessons learned" should be extended to gun control.

To paraphrase Charles Dickens, we have seen the best of times and the worst of times. The best of public health times is now being shown in terms of the rapid identification of serious lung diseases associated with the use of vaping devices in adolescents and young adults and the courage of politicians and public health officials to halt this emerging epidemic that has already been associated with considerable morbidity and mortality. We have also seen the worst of times in failing to muster the political grit to curb the epidemic of gun violence that has plagued our nation for far too long. It is time to hold our elected officials and ourselves to a higher moral standard and demand that Congress pass legislation and secure meaningful funding that will send this epidemic on a downward course. Inaction on this front is inexcusable and the general public and the families that have been affected by gun violence deserve better.

We have learned much from the epidemiologic study of disease outbreaks in the United States and elsewhere and how to prevent as well as control these health threats. We have firmly established the importance of recognizing an emerging public health problem through careful surveillance efforts, identifying important contributory factors to the initiation and spread of predisposing factors, and then developing and applying effective control measures for the general public as well as high-risk individuals. We have learned much in a short time about the significant respiratory health hazards associated with e-cigarettes and vaping and seem to be acting thoughtfully and accordingly with regards to control measures that will ultimately lead to sustained educational efforts. While there is still much to be learned about the factors predisposing individuals and communities to gun-related violence, isn't it time to draw a line in the sand and say that

enough is enough with regards to this major public health crisis? Societies that appear to be knowledgeable and civilized such as the United States should not behave in the manner that we are presently doing with regards to gun control, and we need our public health and governmental leaders to face this problem head on and do what we know in our hearts is needed. Similar to the decisive actions that are being undertaken to minimize the health threats posed by e-cigarettes and vaping products, isn't it time we put our "smoking guns" in their rightful places?

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