amsa | MED STUDENTS FOR GUN SAFETY

INTEGRATING FIREARM SAFETY INTO MEDICAL SCHOOL CURRICULA

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INTRODUCTION

Unsafe practices regarding firearms have led to a plethora of accidental and intentional injuries, including suicide, every year. Firearm violence is a healthcare issue, therefore, medical students should be given the tools to address this issue. However, many medical schools in the United States do not have specific means by which to comprehensively address this topic. This guide is not intended to dwell within the realm of politics, but to address public health as it pertains to prospective clinicians; therefore our discussion pertains to "firearm safety" as opposed to "firearm control."

We aim to advocate for the integration of firearm safety education within the curriculum of medical schools. Engaging in firearm prevention screenings, analogous to the screenings performed to assess other aspects of household safety or to pick up the early signs of a life threatening or chronic disease, may allow the prevention of firearm related accidents and deaths. This guide will also discuss how to allocate a means by which medical schools can pragmatically begin the conversation of firearm safety with faculty and students and its integration into curricula.

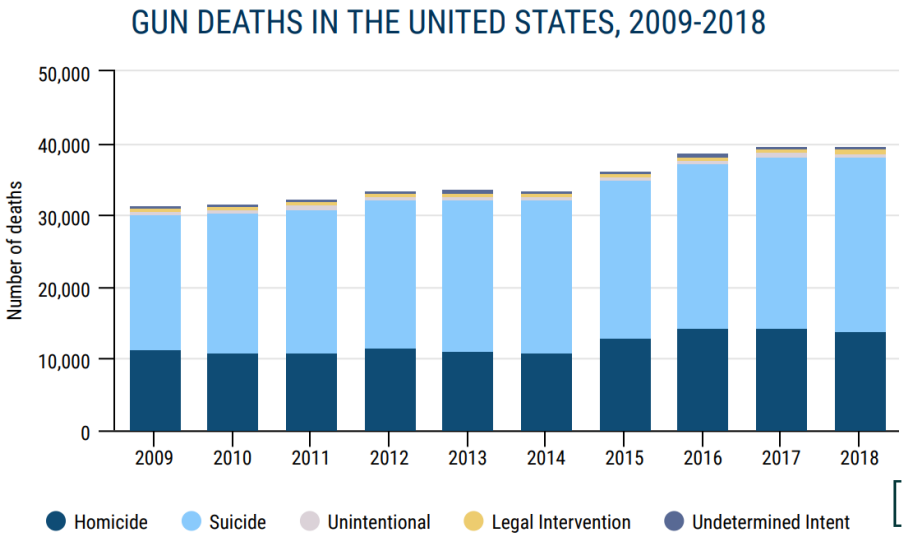
GOALS OF OUR CURRICULUM GUIDE

1. Explain the background and need to integrate firearm safety into medical school curricula
2. Describe how to incorporate firearm safety into a medical school curriculum
3. Provide examples of successful firearm safety curricula and resources

Future physicians call for more effective medical education on firearm violence prevention

FIREARM VIOLENCE IS A PUBLIC HEALTH CRISIS

Research on firearm incidents continues to show the pervasiveness of firearm violence as a public health crisis. From 2008 to 2017 there were approximately 340,000 firearm-related deaths in the United States. Of these deaths, 1,300 of them were accidental. Most concerningly, nearly 1,300 of these deaths involved children 18 years and younger [1].



[8]

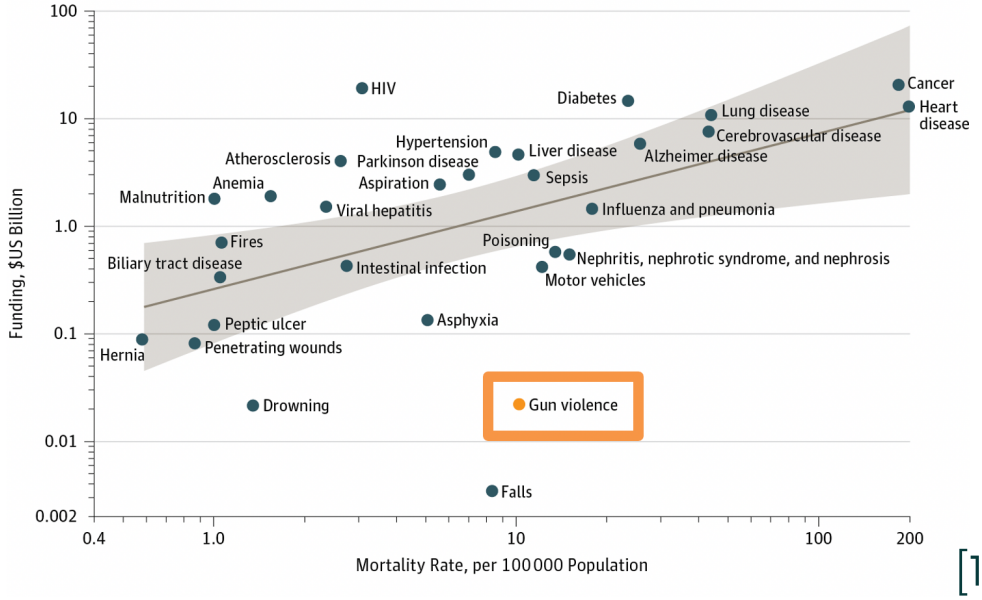
Additionally, access to firearms has been implicated as a significant risk factor for suicide. Research conducted by the American College of Physicians found that there is a 324% increased odds of suicide when given access to a firearm [2]. Suicide is the third leading cause of death among adolescents with gun incidents being implicated in 65% of these cases [3]. Mental health screenings are vital patient assessments, just as firearm safety screenings are, and providers should be taught to evaluate both regardless of the field they are in.

Given this reality, it is clear that incidents related to firearm use pose a serious threat to public health, particularly to the wellbeing of adolescents and children. Physicians should be educated on ways to recognize risks for firearm violence and on ways to mitigate these risks. This education should begin in medical school itself.

RELEVANT LEGISLATION

Many of the existing barriers to acknowledging firearm violence as an epidemic are due to past and current legislation. The federally-based Dickey Amendment of 1996, a product of National Rifle Association lobbyists' efforts, effectively prohibited funds to be used for firearm safety research. The passing of this amendment was accompanied by a redirection of $2.6 million in funding away from firearm injury research for the subsequent year [4]. This dearth of funding affected research on firearm violence as a public health crisis, as researchers did not have the means to evaluate the situation nor investigate potential solutions. While a recent 2018 amendment within the Omnibus Spending Bill clarified that the Dickey Amendment cannot restrict CDC research related to firearm violence, it did not specifically address the lack of funding in this area [5]. Every year, Congress must now approve allocation of federal funds to support research related to firearm violence prevention.

MORTALITY RATE VS FUNDING FOR 30 LEADING CAUSES OF DEATH IN THE UNITED STATES



[11]

Physicians utilize evidence based medicine to support their decisions with patients. With legislation that blocks this research, and in turn, access to evidence, physicians cannot adequately provide for their patients in regards to firearm ownership safety.

One piece of legislation that public health research does support is H.R.8, The Bipartisan Background Checks Act of 2021, which mandates a background check on the sale of any firearm in the United States. However, despite its approval in the House of Representatives and arrival in the Senate in March of 2021, the bill has yet to be acted upon in the Senate.

WHY HAVING FIREARM SAFETY AS PART OF MEDICAL SCHOOL CURRICULA IS IMPORTANT

The inability to incorporate firearm safety screening as part of medical school curricula leaves students lacking the knowledge on how to communicate about the topic with the population who chooses to own firearms. Medical school is where future physicians adopt core history taking skills. Therefore, a major reason why physicians today do not ask about firearms along with standardized questions about tobacco product, recreational drug, and alcohol use boils down to a gap in the U.S. medical school curricula. In an article written by Gielen et al. [6] regarding pediatric visits, it was noted that "in 178 well child visits conducted via pediatric residents, firearms were not discussed in a single encounter." Discussion regarding firearm safety in medical school could address this disparity. Furthermore, in medical school we are taught to ask questions pertinent to high-risk causes of morbidity and mortality, such as colorectal cancer. According to the CDC, there were 52,163 deaths due to colon and rectal cancer in 2018 [7]. Similarly, according to the CDC, 39,740 Americans died by gun violence in 2018 [8]. Though there is nearly only a 10,000 person difference, there are various recommended screenings for colorectal cancer such as colonoscopies, sigmoidoscopies, and fecal occult blood tests. There are no recommended screening guidelines for firearm safety, which kills nearly as many Americans.

Moreover, there is evidence that a large percentage of medical students and residents would like firearm safety to be a part of their education. In an article written by Sandra Gray for the UMASS MED News [9], Deniz Cataltepe, the president of their Scrubs Addressing the Firearm Epidemic (SAFE) chapter, mentions that medical students are "struck by the lack of medical education and research funding available for such a devastating issue." This highlights the desire that medical students have to protect all of their patients from both mental and physical harm, including a firearm related injury. This desire seems to also extend to all levels of medical education. For example, in an article written by Yanes [10], 74% of residents agreed somewhat or to a great extent that more education geared towards increasing knowledge and patient counseling skills in the prevention of firearm injury is necessary.

To address this paucity of information, students at various medical schools nationwide have stepped up to create a call to action for increased firearm violence prevention education. Some medical schools that have begun the discussion regarding firearm safety include, but are not limited to, Florida International University Herbert Wertheim College of Medicine, University of Massachusetts Chan Medical School, Emory School of Medicine, Stanford University School of Medicine, Tulane University School of Medicine, and Frank H. Netter School of Medicine.

STEPS TO INCORPORATE FIREARM SAFETY INTO YOUR CURRICULUM

1. DO YOUR RESEARCH

Conducting background research and generating a proposal for curriculum integration are important initial steps that should be taken. The background section of this guide highlights aspects of the research we utilized when generating our proposal. There are also resources that MSGS has to offer, such as our White Coat Card, that could be used as tangible teaching tools. We also recommend researching the current practices and legislation within your own state to evaluate the rules and regulations of physician involvement in firearm safety conversations.

2. GAIN STUDENT AND FACULTY SUPPORT

The next step is to find passionate faculty and student support to help propel the idea of integrating firearm safety education into standard curriculum forward. We recommend reaching out to students in your class or through your AMSA Interest Group to gauge who would like to get involved. Finding a faculty member at your institution who either has clinical experience with or interest in firearm safety is an important factor in guiding the development of your curriculum.

3. LOOK FOR COURSES FOR INTEGRATION

Once your student group and faculty advisor are established, find where firearm violence prevention and safety education fit best into your institution's curriculum. We recommend looking for courses that discuss the topics of patient safety or community health. An example of courses that provided us with an opportunity for incorporation are Clinical Skills and Community Engaged Physician, both of which run during the first and second years of our curriculum. We have also begun to incorporate firearm safety resources into certain third year clerkships. Once courses have been decided on, we recommend sending out the proposal to the directors of such courses with the help of your faculty advisor to see if this can be implemented at your institution.

STEPS TO INCORPORATE FIREARM SAFETY INTO YOUR CURRICULUM

4. PREPARE A GUN SAFETY SESSION FOR PRESENTATION

If respective course directors accept a proposal to incorporate presentations into your curriculum, organize all of the relevant data in a presentable and interactive way with guidelines from the course directors. This can include powerpoint presentations, role playing activities, clicker questions to test knowledge, etc. Our group of students created two powerpoint presentations with interactive techniques to foster student engagement. Topics may include but are not limited to:

1. Current legislation allowing or barring physicians from discussing firearm safety and available statistics
2. Characteristics of patients at high risk for firearm injury
3. How to incorporate firearm safety questions into a patient health-safety interview appropriately with the White Coat Pocket Cards
4. Discussion of techniques patients can use to store firearms safely
5. What to educate the patient who owns a firearm on
6. Community involvement and advocacy

Pre-existing presentations for sessions on injury prevention and on community engagement developed at FIU HWCOM are available in the helpful links section.

5. PASS IT ON

Whenever student-run programs are developed, it is important to ensure their longevity, as we end up transitioning into the clinical years and beyond. We recommend including peers in an earlier stage in training in these initiatives so that they have the opportunity to present in the established courses year after year. If your institution has an AMSA Interest Group, we also suggest developing an MSGS Chair position so that your firearm safety group can have a liaison to foster communication with MSGS and see what resources may be available to you.

HELPFUL LINKS & RESOURCES

1. Presentations, Modules:

- Firearm Incident and Injury Prevention (HWCOM Florida International University)
- Prevention of Injuries and Accidents from Firearms (HWCOM Florida International University)
- An HWCOM Student's Guide to Firearm Violence Prevention (HWCOM Florida International University)
- Physicians and Firearms: A Curriculum on Firearm Injury Prevention in Medical Practice (Scrubs Addressing the Firearm Epidemic)

2. Resources

- MSGS White Coat Card Front and Back
- Firearm Safety: The 5L's of Safety Patient Handout

Want to get involved in work like this? Reach out to msgs.chair@amsa.org.

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