MN STREET CRED? YOU BETCHA!
OBJECTIVES

- Provide some basic information about the epidemic of gun violence in America.
- Challenge you to consider that physicians have a special obligation to address gun violence.
- Suggest concrete things that you, individually and collectively, can do to actively address this public health issue.
CONFLICT OF INTEREST?

- Lena and successful ruffed grouse outing
- Own:
  - 3 shotguns
  - 2.5 rifles
  - 3 handguns [sort of]
REMINGTON 870 EXPRESS

10M+ since 1951
Ilion, NY
Pump action
Ammo capacity 4+1
SAVAGE AXIS .243 WIN

Bolt action

Ammo capacity 4
GLOCK 19

5M+ since 1982

Originally for Austrian military

Semi-automatic

Ammo capacity- 15 rounds with optional 33 round HCM
AR-15

Semi-automatic rifle

Designed for military purposes [M16 rifle]

Modular design with numerous accessories

Multiple magazine capacities - 30 round or more

Think Orlando, Newtown, San Bernardino, Parkland
FIREARM VIOLENCE BY THE NUMBERS

- 300+ million guns owned by civilians in the U.S.
  - <5% world population/50% civilian firearms
- 2015: 121,000 injuries or death
- 36,000 fatalities/year → ~100 per day
  - Homicides 13,000
  - Suicides 22,000
  - In last decade > all combat deaths WWII
- 85,000 annual non-fatal firearm injuries.
Access to Firearms Increases Injury/Death

- For every time a gun was legally used in self-defense, there were:
  - 11 attempted or completed suicides
  - 7 criminal assaults or homicides
  - 4 accidental shootings.


- Firearms in the home are a particular hazard for children and the elderly.
  - Having gun in home-22x more likely family homicide/suicide/accident than used self-defense*.

  * Kellerman and Ray. NEJM 1986 and many others
GUN HOMICIDES PER 100,000

- UNITED STATES: 3.61
- CANADA: 0.50
- PORTUGAL: 0.48
- IRELAND: 0.35
- ITALY: 0.35
- BELGIUM: 0.33
- FINLAND: 0.26
- FRANCE: 0.20
- NETHERLANDS: 0.20
- DENMARK: 0.20
- SWEDEN: 0.19
- SLOVOKIA: 0.19
- AUSTRIA: 0.18
- NEW ZEALAND: 0.16
- AUSTRALIA: 0.16
- SPAIN: 0.15
- CZECH REPUBLIC: 0.12
- HUNGARY: 0.10
- GERMANY: 0.06
- UNITED KINGDOM: 0.04
- NORWAY: 0.04
- JAPAN: 0.01
- REPUBLIC OF KOREA: 0.01
TWENTY FIVE TIMES

AMERICANS ARE
25 TIMES
MORE LIKELY TO
BE SHOT AND KILLED
WITH A GUN

THAN PEOPLE IN OTHER
DEVELOPED COUNTRIES

Erin Grinshteyn and
David Hemenway,
“Violent Death Rates:
The US Compared with
Other High-Income
OECD Countries: 2010,”
American Journal of
Medicine, 2015.
EVERYTOWN.ORG
GUN OWNERSHIP vs GUN DEATHS

CDC: 2013
Men are 6 times more likely than women to be involved in a firearms-related death.

Death rates per 100,000

Men: 20.5

Women: 3.4

Source: CDC Wonder Data, 2016

KFF.org
GUN DEATHS BY INTENT

- Homicide: 34%
- Suicide: 62%
- Unintentional: 2%
- Undetermined Intent: 1%
- Legal Intervention: 1%
TYPES OF GUNS USED IN HOMICIDES

- Handguns
- Rifles
- Shotguns
- Other guns

Source: FBI (2016)
WHY THIS UNIQUELY AMERICAN PROBLEM?

- Ambivalent Attitudes
  - Public
  - Physicians
- Partisan Politics
Support for a ban on handguns has been falling

Do you think there should or should not be a law that would ban the possession of handguns, except by the police and other authorised persons?

Note: Data from 1999-2016 is annual. Prior to 1999 the frequency is intermittent.

Source: Gallup
DEMOCRATS vs REPUBLICANS

% who support each policy

- Preventing the mentally ill from purchasing guns
- Barring gun purchases by people on no-fly or watch lists
- Allowing concealed carry in more places
- Allowing teachers and officials to carry guns in schools

Source: Pew Research Center
NRA ANNUAL LOBBYING [$M]

Source: Centre for Responsive Politics
PHYSICIAN ATTITUDES

- February, 2013: survey mailed to 1014 US Internists
- 56.5% response—similar demographics non-respondents
  - 70% men
  - 57% white
  - 95% direct patient care (office 35%; academic 27%)
  - 64% had patients injured by firearms
  - 14% personally / family threatened or injured
  - 21%: they or someone in home owned a gun

Butkus, Ann Intern Med 2014
Public Health Issue

MD Involvement in Prevention

MDs to counsel patients

Stricter control will help

MDs should be trained

Butkus, Ann Intern Med 2014
Mandatory Background Checks

Mandatory Registration for All

Mandatory Safety Training Before Purchase

Ban Assault Weapons – except for military

Ban High Capacity Magazine – except military

Ban Armor-Piercing Bullets

Prevent Purchase if Mental Illness

Protect MD Right To Counsel Patients

Improve Mental Health Access

Require Safety Features – Child-Proof

Ban Firearm Sales < 21 yr old

Create Federal Database- Track Gun Sales

Favoring Measure, %

No Gun Owner in Home (n = 452)    Gun Owner in Home (n = 121)
A PUBLIC HEALTH CRISIS

Public health approach to firearm violence because:

- Is complex and frequent
- Is associated with high morbidity and mortality
- Has major impact on health and safety of U.S. residents

IOM and NRC; 2013, National Academies Press
Other Public Health Initiatives

Physicians have traditionally been powerful voices in threats to public health:

- Impaired (drunk) driving
- Motor vehicle injury - Seat belts
- Tobacco advertising
- Second-hand smoke
- Vaccination
- Climate change
Firearm Violence Public Health Dilemma

- Basic **data** about possession, distribution, ownership, acquisition, and storage **lacking**. Congress has declined to fund research at CDC, NIH, NIJ.
- **Disparities** across socioeconomic/ethnic/age groups in mortality rates
- Findings **mixed** on effectiveness of interventions
A THEORETICAL FRAMEWORK

- MASS SHOOTINGS
- HOMICIDES
- SUICIDES
- UNINTENTIONAL SHOOTINGS
Of the total **33,594** who died in 2014 there were...

- **21,386** Suicides
- **11,008** Homicides
  - of which **14** died in mass shootings
- **1,200** Other*

*Other includes accidental deaths and war casualties

Source: CDC/Mother Jones. All figures 2014
MASS SHOOTINGS HALL OF SHAME

<table>
<thead>
<tr>
<th>Location</th>
<th>Year</th>
<th>Casualties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Las Vegas, Nevada</td>
<td>2017</td>
<td>58</td>
</tr>
<tr>
<td>Orlando, Florida</td>
<td>2016</td>
<td>49</td>
</tr>
<tr>
<td>Virginia Tech, Virginia</td>
<td>2007</td>
<td>32</td>
</tr>
<tr>
<td>Sandy Hook, Connecticut</td>
<td>2012</td>
<td>27</td>
</tr>
<tr>
<td>Sutherland Springs, Texas</td>
<td>2017</td>
<td>26*</td>
</tr>
<tr>
<td>Killeen, Texas</td>
<td>1991</td>
<td>23</td>
</tr>
<tr>
<td>San Bernardino, California</td>
<td>2015</td>
<td>14</td>
</tr>
<tr>
<td>Fort Hood, Texas</td>
<td>2009</td>
<td>13</td>
</tr>
<tr>
<td>Columbine, Colorado</td>
<td>1999</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: FBI/Las Vegas police - *figure correct as of 6 Nov
Firearm Violence & Mental Health

- A particularly challenging issue
  - “Stranger homicide” uncommon
  - Vast majority (84%) will never become violent
  - Attributable risk in general population 3-5%
  - Suicide is the biggest risk.
  - Concurrent use of alcohol and/or drugs substantially increase the risk of firearm violence.
  - No accurate methods to predict which (or when) patients with mental health problems will become violent.
Mental Health

- Access to mental health care critical, requires improvement
- Prevent firearm access by **individuals** at risk – may harm themselves or others
- Early identification and treatment – less likely to harm
- **Caution** strongly against “blanket prohibition” of all persons with mental health issues
HOMICIDES

- Stranger homicide uncommon. More likely family member or intimate acquaintance.
- 2nd leading cause of death age 15-34
  - Black males: leading cause
- Two-thirds committed with firearms [handguns]
- Peaked in 1990s. Currently declining.
HOMICIDE AND DOMESTIC VIOLENCE

- 1800 victims of intimate partner violence per yr
  - 50% committed with firearms
  - Half of all female homicides related to IPV
- Federal legislation prohibits own gun if IPV-related felony, misdemeanor, or restraining order
  - Loophole - no requirement to surrender guns in their possession. Also, no enforcement mechanism.
- Some states passed “relinquishment” or “surrender” laws
  - One study 14% lower firearm-related homicides [*]

AIM 2017;167:536
SUICIDE

- 61% of people killed by guns ~20,000/year
- 85% attempts with gun are successful [3% drug OD]
- 90% survivors of suicide do not eventually die by suicide
GUN SUICIDE PREVENTION?

• Israel- 40% decrease in suicides when no military service weapons taken home on weekends
• Australia- 80% decrease post national gun buyback
• Safe storage of firearms and ammunition
  • Trigger locks, gun safes, store ammo separate and secure
• Waiting periods?
UNINTENTIONAL SHOOTINGS

- Particularly tragic in that should be 100% preventable
- 600 deaths/year [10% children < 14]
- States with most guns/least regulations -> most deaths
  - Massachusetts lowest rate: requires all firearms stored with gun locks
ACP and Firearm Violence: History

- **1995** [more than 20 years]:
  - ACP raised concern about the epidemic of firearm violence in the United States
  - ACP advocated for policies to reduce injuries and deaths related to firearms.

- **2013**: ACP began a comprehensive review of the relevant literature to inform a policy update.

- **April 2014 Policy Position paper released**:  
  - Reducing Firearm-Related Injuries and Deaths in the United States.
Position Paper

Reducing Firearm-Related Injuries and Deaths in the United States: Executive Summary of a Policy Position Paper From the American College of Physicians

Renee Batlin, BA; Robert Doherty, BA; and Hilary Daniel, BS, for the Health and Public Policy Committee of the American College of Physicians

In 1995, the American College of Physicians (ACP) issued its first statement that raised concern about the epidemic of firearm violence in the United States and advocated for policies to reduce the rate of firearm injuries and deaths (1). Nineteen years later, although rates of firearm-related death, injury, and disability have decreased, firearm-related mortality rates in the United States remain the highest among industrialized countries (2).

The mass shooting that occurred in December 2012 at Sandy Hook Elementary School in Newtown, Connecticut, which left 6 adults and 20 children dead, and other mass shootings have brought firearm violence to the forefront of national discussion. It is critical that strategies are developed to prevent massacres like those that occurred in Newtown; in Tucson, Arizona; at Virginia Tech University; in Aurora, Colorado; at Columbine High School; and at the Washington Navy Yard. Yes, the ACP is equally concerned about the deaths and injuries that affect our nation on a daily basis when persons are injured or killed or commit suicide with firearms. Each year, firearms kill more than 32,000 persons in the United States, or approximately 88 per day (3). These deaths include homicides, suicides, and unintentional fatalities. Firearm injury is the second leading cause of death due to injury after motor vehicle crashes (4). Homicide and suicide by firearms result in 11,000 and 19,000 deaths, respectively, each year (5).

The number of nonfatal firearm injuries in the United States is more than twice the number of fatal firearm injuries, with 73,883 nonfatal firearm injuries documented in 2011 (6). The ACP believes that immediate action is necessary to reduce those unnecessary injuries and deaths.

Firearm violence is not only a criminal justice issue but also a public health threat. A comprehensive, multifaceted approach is necessary to reduce the burden of firearm-related injuries and deaths on individuals, families, communities, and society in general. Strategies to reduce firearm violence will need to address culture, substance use and mental health, firearm safety, and reasonable regulation, consistent with the Second Amendment, to keep firearms out of the hands of persons who intend to use them to harm themselves and others, as well as measures to reduce mass casualties associated with certain types of firearms.

As an organization representing physicians who have firsthand experience with the devastating impact firearm-related injuries and deaths have on the health of their patients, the ACP has a responsibility to participate in efforts to mitigate these needless tragedies. Because patients trust their physicians to advise them on issues that affect their health, physicians can help to educate the public on the risks of firearms and the need for firearm safety through their encounters with their patients. This Executive Summary provides a synopsis of the full position paper, which is available in Appendix 1 (available at www.annals.org).

Methods

The ACP’s Health and Public Policy Committee, which is charged with addressing issues affecting the health care of the U.S. public and the practice of internal medicine and its subspecialties, developed these recommendations. The committee reviewed available data on the impact of access to firearms on health-related outcomes, the association of mental health conditions and firearm violence, state and federal firearm laws, and the effect of efforts to reduce firearm violence. The ACP also surveyed its members on their attitudes on firearms and firearm injury prevention (7). Draft recommendations were reviewed by ACP’s Board of Governors, Board of Regents, Council of Early Career Physicians, Council of Resident/Fellow Members, Council of Student Members, and Council of Subspecialty Societies, as well as non-ACP members with expertise in mental health and firearm safety. The policy paper and related recommendations were reviewed by the ACP Board of Regents and approved on 7 April 2014.
Reducing Firearm Injuries and Deaths in the United States: A Position Paper From the American College of Physicians

Renee Butkus, BA; Robert Doherty, BA; and Sue S. Bornstein, MD*; for the Health and Public Policy Committee of the American College of Physicians

For more than 20 years, the American College of Physicians (ACP) has advocated for the need to address firearm-related injuries and deaths in the United States. Yet, firearm violence continues to be a public health crisis that requires the nation's immediate attention. The policy recommendations in this paper build on, strengthen, and expand current ACP policies approved by the Board of Regents in April 2014, based on analysis of approaches that the evidence suggests will be effective in reducing deaths and injuries from firearm-related violence.

Ann Intern Med. doi:10.7326/M18-1530
For author affiliations, see end of text.
This article was published at Annals.org on 30 October 2018.
ACP Approach to Firearm Violence

ACP ETHICS MANUAL:

• “Physicians should help the community and policymakers recognize and address the social and environmental causes of disease, including human rights concerns, discrimination, poverty, and violence.” AIM 2012;156:73
“Just as physicians worked to safeguard public health by promoting smoking bans in public places, we should draw on similar motivations and strategies to promote sensible, evidence-based laws to decrease the harms associated with gun violence. It is our responsibility to do so.”

Annals of Internal Medicine 2013;158:493-494
ACP Recommendations

1. ACP recommends a public health approach and supports the development of coalitions that bring different perspectives together.

2. The medical profession has a special responsibility to speak out on prevention of firearm-related injuries and deaths.
   - Non-interference in doctor-patient relationship
   - Medical Education-students/residents/CME
   - Advocate-national/state/local.
ACP Recommendations (2)

3. ACP supports appropriate regulation of the purchase of legal firearms (consistent with the 2\textsuperscript{nd} Amendment).

- Universal Background Checks.
- Waiting periods?
- Concealed carry legislation?
Background Checks

- All purchases: dealers, sales at gun shows, private sales
- 96% of prisoners convicted of gun offenses prohibited from possessing at time of crime obtained from unlicensed dealer
- 22% of gun owners obtained most recent weapon on previous two years **w/o** background check [*]
- 2010: 153,000 of 14 million submitted to check were prohibited
- NICS/National Instant Criminal Background Check System
  - AIM 2017; 166:233
4. ACP recommends that guns be subject to consumer product regulations regarding access, safety, and design as well as law enforcement measures to aid in the identification of weapons used in crimes—gunlocks, load indicators...

5. Firearm owners should adhere to best practices to reduce the risk of accidental or intentional injuries or deaths from firearms—trigger locks, gun safes, ammo safes
6. ACP cautions against broadly including those with mental illness in a category of dangerous individuals.

- Enhanced physician training in how to respond to patients who might be a risk to themselves/others.
- Ensuring access to mental health services.
- Enhance community understanding of mental illness.
- Mandatory reporting laws should have safeguards to protect confidentiality and not create a disincentive for patients to seek mental health treatment. Physicians should be able to use their professional judgment in deciding when to report.
7. ACP favors legislation to ban the sale and manufacture for civilian use of assault weapons and large-capacity magazines while retaining the current ban on automatic weapons for civilian use.

8. ACP supports efforts to improve and modify firearms to make them as safe as possible.

9. Federal agencies (CDC, NIH, NIJ) should receive adequate funding to study the impact of gun violence on the public’s health and safety.
Private ownership of military-style assault weapons and large-capacity magazines presents a grave danger to public health.

Recognize limited evidence regarding the effectiveness of Federal Assault Weapons Ban (1994).

Common-sense approach compels restrictions for civilian use.
ACP and the ABA

Annals of Internal Medicine

Medicine and Public Issues

Firearm-Related Injury and Death in the United States: A Call to Action From 8 Health Professional Organizations and the American Bar Association

Steven E. Weinberger, MD; David B. Hoyt, MD; Hal C. Lawrence III, MD; Saul Levin, MD, MPA; Douglas E. Henley, MD; Errol R. Alden, MD; Dean Wilkerson, JD, MBA; Georges C. Benjamin, MD; and William C. Hubbard, JD

Deaths and injuries related to firearms constitute a major public health problem in the United States. In response to firearm violence and other firearm-related injuries and deaths, an interdisciplinary, interprofessional group of leaders of 8 national health professional organizations and the American Bar Association, representing the official policy positions of their organizations, advocate a series of measures aimed at reducing the health and public health consequences of firearms. The specific recommendations include universal background checks of gun purchasers, elimination of physician “gag laws,” restricting the manufacture and sale of military-style assault weapons and large-capacity magazines for civilian use, and research to support strategies for reducing firearm-related injuries and deaths. The health professional organizations also advocate for improved access to mental health services and avoidance of stigmatization of persons with mental and substance use disorders through blanket reporting laws. The American Bar Association, acting through its Standing Committee on Gun Violence, confirms that none of these recommendations conflict with the Second Amendment or previous rulings of the U.S. Supreme Court.


For author affiliations, see end of text.
This article was published online first at www.annals.org on 24 February 2015.
WHAT YOU CAN DO

- IN YOUR HOME
- IN YOUR OFFICE/HOSPITAL
- IN YOUR COMMUNITY
IN YOUR HOME

• If gun owner:
  • -trigger locks, gun safe, ammo safe
• If not gun owner:
  • -educate your children/grandchildren
  • -youth hunter safety programs
IN YOUR OFFICE

- Educate yourself
  - Counsel best practices safe firearm/ammunition storage
- Educate your staff
- Screen for depression and intimate partner violence
- Reporting individuals at risk to self or others?
What Can I Do as a Physician to Prevent Firearm Injury?

This issue of *Annals* includes an important position paper from the American College of Physicians on preventing firearm injuries and deaths in the United States (1). The updated policy paper and its appendix provide a mountain of evidence on the serious, epidemic-level crisis of firearm violence. Firearm-related violent deaths is an extraordinary problem (2) made even more alarming by the prevalence of guns in the households of persons with dementia (3) and the variation in firearm injuries related to racial disparities (4). Yet, many physicians have been unengaged or silent during this epidemic. Why? Perhaps we think firearm violence is outside our realm of influence. Like others, health professionals do not realize that firearm suicides are more common than firearm homicides; indeed, a second article in this issue documents this misconception (2). I am left struggling with this question: What can I do as a physician to reduce gun violence in an effective and efficient manner? It turns out that we can do what we normally do. We can speak with our patients about gun safety in their homes (5, 7).

My wake-up call on gun violence was not a horrifying mass casualty or an astonishingly high rate of firearm-related violence in a specific community. It involved a patient sitting in front of me in my examination room and expressing feelings of confusion and sadness. I was worried about him and his behavior, so I asked him some standard questions about his risk for suicide and homicide. I asked him whether he had guns at home. He said he did. Thankfully, he did not have any urges or plans to harm himself or others, and his guns were stored and locked appropriately. Here was my "aha" moment: Why don’t I routinely ask questions about firearms in a patient’s home? Why wait until I am confronted with a patient in crisis? Why don’t we ask these questions every time we obtain a medical history? This is something we can do. We can ask, “Do you have guns in the home?”

Every day, physicians ask patients about their unsafe activities, risky exposures, and ongoing addictions. These questions identify unsafe behaviors and help patients determine whether they should change them. It is this intimate discussion between a physician (without an axe to grind) and a patient (looking for improved health) about preventing self harm or harm to others that contributes to behavior change. Nicotine abstinence programs, alcohol reduction plans, and HIV prevention efforts begin with questions being asked about a person’s behavior and are successful when physicians provide information to empower patients, motivating them to prevent disease and avoid disability or death.

Guns should be no different. It would be so easy to normalize this line of inquiry and add these questions to an electronic medical record along with questions about alcohol consumption, drug use, and sexual practices. And it is not difficult to learn how to talk to patients about guns and how to counsel them about safety (8-10). We need to routinely ask, “Do you have guns in the home?”

Discussing gun ownership might be difficult at times. Some patients might fear the question is political. That is not my intention, and I tell patients, “I am only asking this to enhance your home’s safety.” Initiating a conversation by asking, “Do you have guns in your home?” potentially unleashes the conversation. Most of my patients say “no,” and that is as far as the discussion goes. If a patient says “yes,” a follow-up question might be, “How or where do you typically store your guns?” If they store their guns in a locked safe, I congratulate them. A patient recently told me that his guns were not locked up but were out of his children’s reach. We looked at each other, and he quickly realized that nothing is ever out of children’s reach and understood that changes were needed to create a safe home. I did not have to say anything else to him, and it started when I asked, “Do you have guns in the home?”

This line of inquiry allows for a discussion about guns and violence. If my patients say their guns are not secured or locked, then we can talk about how they might protect themselves and others from unintentionally finding and firing the guns. We discuss what to teach children to do if they encounter a gun: Stop what they are doing, never touch the gun, leave the area, and tell an adult right away. We also talk about how to create a safe environment: remove the ammunition from the gun, lock the gun in a secure location, lock the ammunition in a separate location from the gun, store the keys in a different area from household keys, keep the keys out of reach of children, lock up gun-cleaning supplies, and never leave the gun unattended when handling it or cleaning it. These positive changes begin when we ask a simple question: “Do you have guns in the home?”

Much to my surprise, patients welcome this conversation. An older patient of mine, a former gun collector, told me he no longer had guns at home but appreciated my asking him this question. He said something to the effect of, “Maybe it will make us a bit safer.” Maybe it will. There is something we can do as physicians. We can ask, “Do you have guns in the home?” and we can be prepared to answer our patients’ calls for help and assist them in creating a safe environment.

*Annals of Internal Medicine*

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**Read This!**

AIM 10/30/18
IN YOUR COMMUNITY

- Letters to editor
- Public speaking
- Vet candidates for political office [ACP advocacy page]
- Advocacy at state and national levels
  - Universal background check
  - Improved access to mental health services
  - Restrict use, manufacture and sale of LCMs, assault rifles.
  - Research to support strategies to reduce firearm-related injuries and death.
Commitment to help reduce firearm-related injuries and deaths

Annals of Internal Medicine®

MY COMMITMENT: When risk factors for harm to my patients or others are present, I will ask my patients about firearm ownership and safety.

Make Commitment
For more evidence-based information:

http://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-gun-policy-and-research/

http://annals.org/article.aspx?articleid=1860325
THANKS
AS PERCEIVED IN THE REST OF THE WORLD

Preview of Coming Attractions!

- MEDICAL CONSEQUENCES OF CLIMATE CHANGE
  - Coming soon to a Grand Rounds near you