### Gun Violence and Firearm Safety: The Physician's Role

### Jerry Walden, M.D.

James F. Peggs, M.D.

### Presenters

### •James Peggs, M.D.

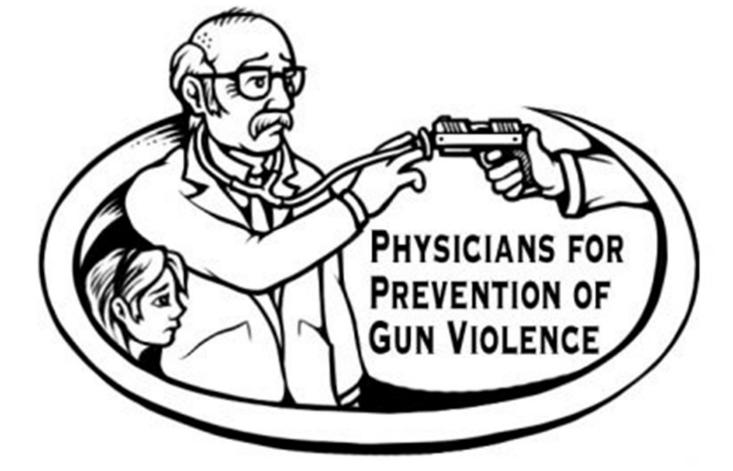
- Family Physician, Professor Emeritus, Family Medicine University of Michigan,
- Member, Physicians for Prevention of Gun Violence

### •Jerry Walden, M.D.

- Family Physician, Retired
- Founder, Physicians for the Prevention of Gun Violence

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#### ppgv.org



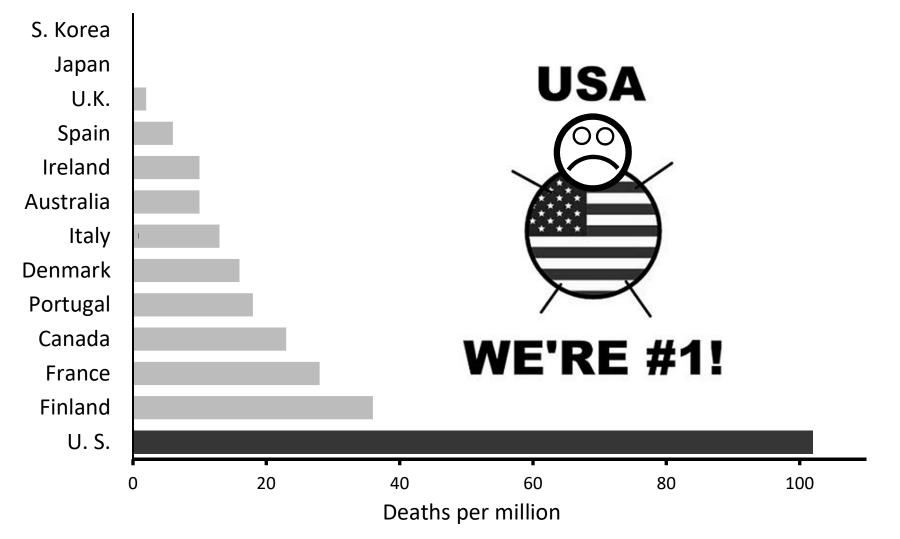
# America is (usually) Proud to Lead the World

# But <u>NOT</u> in gun deaths

# **Gun homicide rates** are 25 times higher in the US than other high-income countries

Let's compare.....

### Gun –Related Deaths in High-Income Countries per 1 million people, in 2010



Source: OECD, WHO, American Journal of Medicine, Grinshteyn and Hemenway, 2010

# U.S. = 80% of all gun deaths in world's 23 richest countries combined

Institute for Health Metrics and Evaluation (IHME)

### Fatal Gun Injuries - 2016

2016 FATAL GUN INJURIES - U.S.						
	NUMBER	PERCENTAGE				
Total	38,658					
Suicide	22,938	59.3				
Homicide	14,415	37.2				
Unintentional	495	1.28				

Content source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Analysis, Research, and Practice Integration (accessed March 30, 2017)

### Since 1968, more Americans died from GUNS than in ALL U.S. wars from American Revolution - present



US Dept. of Veterans Affairs and iCasualties.org

Why?

# Are Americans more violent by their nature?

NO !

### U.S. vs. Other First World Countries

### Similar rates of:

Crime

Violence

**Bullying rates** 

Aggression/Depression in school children

### Percentage of People Victimized in 2000 (from comparable victimization surveys)

Nation	Car Theft	Burglary	Robbery	Sexual Incident	Assault or Threat	11 Crimes**
United States	0.5	1.8	0.6	1.5	3.4	21.1
17 Industrialized Nations*	1.0	1.8	0.8	1.7	3.5	21.3

\*Australia, Belgium, Canada, Catalonia (Spain), Denmark, England & Wales, Finland, France, Japan, Netherlands, Northern Ireland, Poland, Portugal, Scotland, Sweden, Switzerland, USA

\*\*Additional crimes: theft from car, car vandalism, motorcycle theft, bike theft, attempted burglary, personal theft

Source: Van Kesteren et al. 2000

### *Consider this:*

# You're as likely to get punched in mouth in a bar in Sydney as in

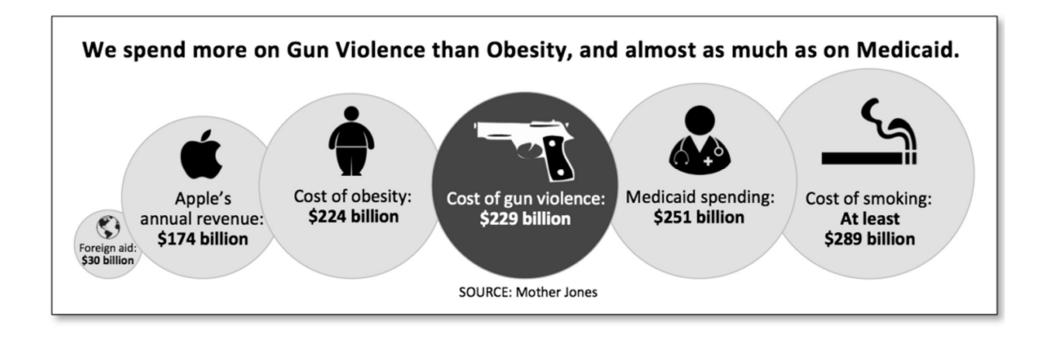
### Los Angeles, but 20 times more likely to

### get killed in the bar in L.A.





### Cost in Dollars



### Medical Costs of Gun Violence in the U.S.

- Public Health: years of productive life lost to gun violence > cancer, heart disease, and diabetes COMBINED! (CDC data 2013)
- Emotional Toll immeasurable

### Can't we DO SOMETHING?

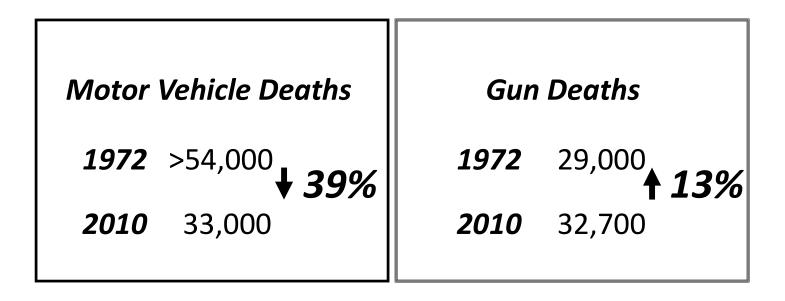
## Consider the *automobile*:

Motor-vehicle related deaths were regarded as unacceptably high in 1970s

Widespread research and development into auto safety has saved many lives

Americans demonstrated a public will to change

**Comparing deaths per year in the US** 



#### We have made progress in reducing traffic deaths, why not for gun deaths?

Violence Policy Center: http://www.vpc.org/studies/gunsvscars16.pdf

Gun Violence in the U.S. has become a

# Public Health Crisis

costing lives, heartache and money

JAMA, 2017 Nov.14; 318 (18)1763-64

# The Medical Profession has begun to speak out

### American Medical Association

- In the wake of the Pulse Nightclub shooting in Orlando the AMA declared gun violence to be a public health crisis.
- AMA will actively lobby Congress to lift ban on CDC gun violence research.

http://www.ama-assn.org/ama/pub/news/news/2016/2016-06-14-gun-violencelobby-congress.page

### *The Annals of Internal Medicine: the Call to Action*

# Executives from the country's major medical societies ask doctors to act

Weinberger, SE Ann Intern Med 2015;162

### Eight Medical Societies join American Bar Association in a Call to Action on Gun Violence

#### Most physicians are represented

- American College of Physicians
- The American Academy of Family Physicians
- American Academy of Pediatrics
- American Congress of Obstetrics and Gynecology

- American Academy of Surgery
- American College of Emergency Physicians
- American Psychiatric
  Association
- American Public Health
  Association

Joined by the American Bar Association and later by the American Medical Association

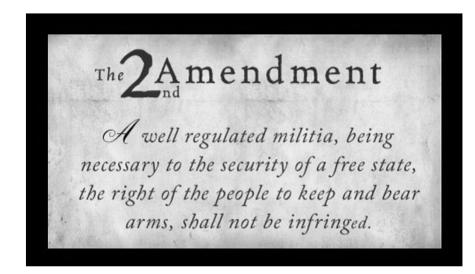
### Specific Recommendations

- Universal background checks of gun purchases
- The elimination of physician gag laws
- Restriction of the manufacture and sale of military style assault weapons and large capacity magazines for civilian use
- Research to support strategies for reducing firearm-related injures and deaths

### The American Bar Association

The American Bar Association reviewed all the recommendations and found

### No Conflict with the 2<sup>nd</sup> Amendment



# WANTING SENSIBLE GUN LAWS Doesn't make me anti-gun

JUST LIKE HOW

# WANTING SENSIBLE TRAFFIC LAWS DOESN'T MAKE ME ANTI-CAR

- QOlaBetiku

In 2013 Gallup poll:60% of firearm owners stated "Protection Against Crime" most important reason they owned a gun

https://www.justfacts.com/guncontrol.asp

But Do More Guns Really Make Us More Safe?

# U.S. Ecological Studies & U.S. Case Control Studies

Data conclude:

- where more guns, more homicide because more gun homicide
- more suicide because more gun suicide

#### AMJPM Data

https://www.hsph.harvard.edu/hicrc/firearms-research/gun-ownership-and-use/

#### **SPECIAL ARTICLE**

#### GUN OWNERSHIP AS A RISK FACTOR FOR HOMICIDE IN THE HOME

Arthur L. Kellermann, M.D., M.P.H., Frederick P. Rivara, M.D., M.P.H., Norman B. Rushforth, Ph.D., Joyce G. Banton, M.S., Donald T. Reay, M.D., Jerry T. Francisco, M.D., Ana B. Locci, Ph.D., Janice Prodzinski, B.A., Bela B. Hackman, M.D., and Grant Somes, Ph.D.

# Case-control study of whether guns in home provided protection or risk in 3 metropolitan areas (TN, WA, OH)

Kellerman, et al., NEJM, 1993



### **Gun Ownership & Homicide Risk**

After controlling for other risk factors, keeping a gun in home independently and strongly increased risk for homicide

### Adjusted OR 2.7 (1.6-4.4)

Gun ownership most strongly associated with homicide by family member or intimate *Adjusted OR 7.8 (2.6-23.2)* 



Kellerman et al, NEJM, 1992



Arthur L. Kellermann, M.D., M.P.H., Frederick P. Rivara, M.D., M.P.H., Grant Somes, Ph.D., Donald T. Reay, M.D., Jerry Francisco, M.D., Joyce Gillentine Banton, M.S., Janice Prodzinski, B.A., Corinne Fligner, M.D., and Bela B. Hackman, M.D.

### Case-control study of suicides in TN, WA

After controlling for other risk factors, presence of one or more gun in home was associated with increased risk of suicide *Adjusted OR 4.8 (2.7-8.5)* 



Kellerman et al, NEJM, 1992

## Too Many Guns

## Too Weak Laws

### What does this mean for MY patients?



### Physicians must recognize those at risk

Special populations particularly vulnerable to gun violence:

- Children
- Victims of Intimate partner abuse
- Patients living in violent urban setting
- People experiencing a mental health crisis, e.g., depression, dementia, anxiety

## Children



• 35% of homes with children under age 18 contain at least one firearm

• Among these homes, 43% had at least one unlocked firearm

Schuster, M. A., Franke, T. M., Bastian, A. M., Sor, S., & Halfon, N. (2000). Firearm storage patterns in US homes with children. American Journal of Public Health, 90(4), 588-594.

- Children are inquisitive, curious and clever
- They will know where guns are stored
- Many will ignore warnings from adults
- Safe storage is critical to preventing accidental firearm discharge

Parents and Children (≤14 years old) Alabama Pediatricians/Family Practice Offices N=200 gun owners

#### Has your child handled gun in the home? Parents Report: Yes: 30% No : 70%

In homes where parents report "No", children report:

Boys:	Yes	36%
Girls:	Yes	12%

Baxley and Miller, Annals Ped Adolesc Med. 2006

#### American Academy of Pediatrics Policy

Safer storage of guns reduces injuries, and physician counseling linked with distribution of cable locks appear to increase safer storage. Nevertheless, the safest home for a child

or adolescent is one without firearms.

*Firearm-Related Injuries Affecting the Pediatric Population. (2012). PEDIATRICS, 130(5), e1416-e1423. doi:10.1542/peds.2012-2481* 

#### "A gun in the home is at least 30 times more

#### likely to be used to kill a friend or family

member than a burglar or other criminal."

Reference: Healthy Children.org, American Academy of Pediatrics

#### **Domestic Violence**



#### 50 women are shot to death by an intimate partner each month

Everytown: <u>https://everytownresearch.org/gun-violence-america/</u>, accessed 10/ Original Source: Uniform Crime Reporting Program: Supplementary Homicide Reports (SHR), 2012-2016. Washington, DC: Department of Justice, Federal Bureau of Investigation.

#### Nearly 1,000,000 women alive today

#### have been shot or shot at by an intimate

partner

#### Intimate Partner Violence is prevalent among our patients

5%-22% of women in Primary Care settings

#### Pregnancy imposes even greater risk

American J of Public Health, 2003, 93(7)

#### ACOG Recommendations

- 1) Routine screening for intimate partner violence
- 2) Periodic <u>injury prevention evaluation</u> and counseling regarding firearms
- 3) Opposes " Gag Laws" limiting discussions of gun safety

ACOG Statement of Public Policy, 2014

#### Female violent death in the home

#### Gun in home vs no gun:

#### • Homicide Odds Ratio 3.4

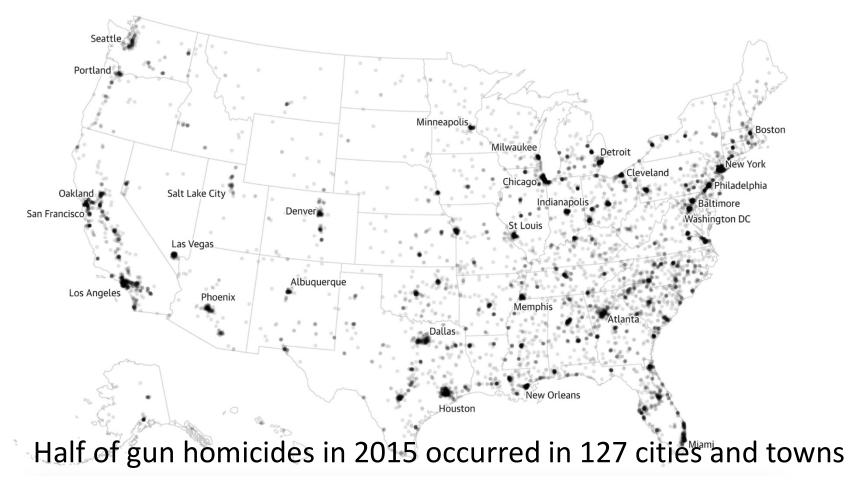
#### • Suicide Odds Ratio 4.6

James E. Bailey, MD, MPH, et al., "Risk Factors for Violence Death of Women in the Home," Archives of Internal Medicine 157, no. 7 (1997): 777-782.

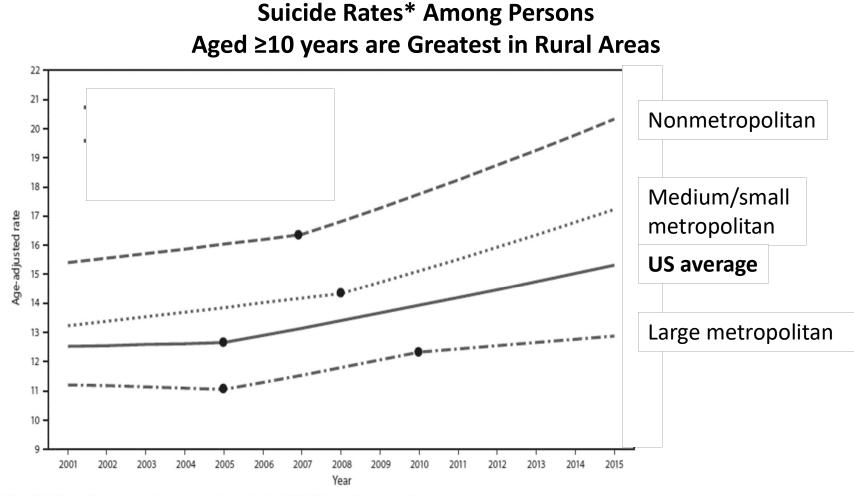
Mass shootings gather headlines However the daily toll of American lives tells the fuller tale of gun deaths: 100 every day

#### **Urban Violence**

**Gun Homicides Are Not Distributed Equally Geographically** 



#### ... Neither Are Suicides



\* Per 100,000 residents aged ≥10 years, age adjusted to the 2000 U.S. standard population.

Ivey-Stephenson AZ, Crosby AE, Jack SP, Haileyesus T, Kresnow-Sedacca M. Suicide Trends Among and Within Urbanization Levels by Sex, Race/Ethnicity, Age Group, and Mechanism of Death — United States, 2001–2015. MMWR Surveill Summ 2017;66(No. SS-18):1–16 How can physicians intervene to prevent recurrent gun violence?

•Identify at-risk patients at the point of care ie Emergency Dept., primary care office

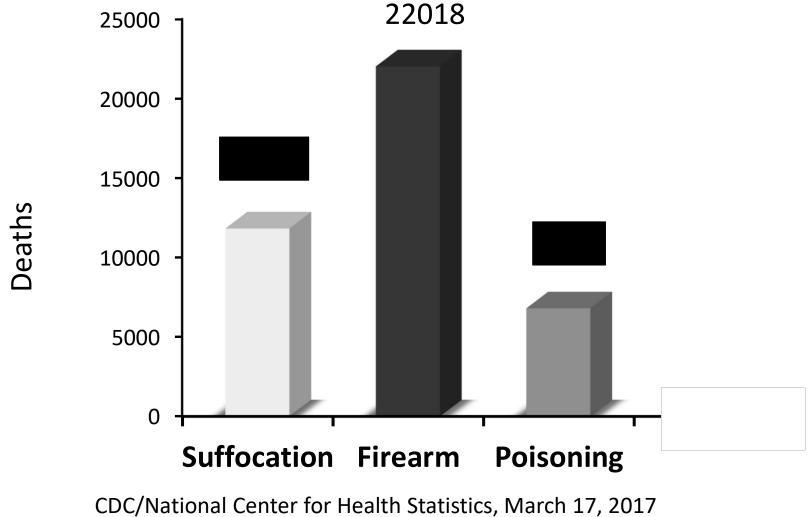
•e.g. Risk score, San Francisco program

#### SUICIDE

- Many suicides are impulsive (even if preceded by long period of contemplation/ideation)
- Vast majority happen within 1 hour of contemplation
- Easy access to guns raises the risk of successful suicidal attempt

Matthew Miller, M.D., Sc.D., and David Hemenway, Ph.D. N Engl J Med 2008; 359:989-991

#### Causes of Death From Suicide in the U.S., 2015



<u>https://www.cdc.gov/nchs/fastats/suicide.htm</u> (accessed 10/19/18)

#### SUICIDE

#### 75% guns used in suicide attempts

# by 10-19 year-olds were stored in the residence of the VICTIM, a RELATIVE, or a FRIEND.

Arch Pediatr Adolesc Med 1999 Aug: 153(8): 875-8

#### SUICIDE

### The risk of suicide increases in homes where guns are kept loaded and/or unlocked.



#### 54% of gun owners report unsafe storage of one or more guns in their home

Am J Public Health 108:532, 2018

#### Guns and Mental Illness

### Majority of gun violence is not attributable to mental illness

Patients with mental illness are more likely to be victims than perpetrators



#### Patients with mental illness are

#### more likely to be victims than

#### perpetrators

#### **Clinician's Role**

### Physicians should routinely ask about health risks during health maintenance exams

UNIVERSITY OF	MICHIGAN HOSPITAL	LS & HEALTH CENTERS
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Department of Family Medicine

#### Health History Questionnaire Family Medicine Patients 11 years of age and older

Have you ever had an "eye-oper	er" (an alo	oholic drink f	first thing in the mo	rning) to help you feel better?	]Yes □No			
Sexual History					•			
Are you sexually active?	es	□No	□Not current	ly				
If yes, is/are your partner(s):	ale	Female	□Both					
Type of birth control/protection currently used: (Check all that you use)								
□Not having sex □Condom □	njection	□IUD (Intra	auterine Device)	□Oral Contraceptives (Pill)	□Patch			
□Post-menopausal □None	□Othe	۲ <u> </u>						
Do you have a new sexual partner?	□Yes	□No						
Additional Social History								
Do you exercise?								
Do you use seat belts consistently?	□Yes	□No	· ·					
Do you use a bike helmet?	□Yes	□No						
Do you have a gun at home?	□Yes	□No						
Are you afraid of anyone close to you	? 🗆 Yes	⊡No						
Have you been hit, slapped, kicked, pushed, shoved or otherwise physically hurt by your partner or someone close to you?								

#### **Obstetrical Intake Screening Form**

Are you frequently upset, ashamed or embarrassed by someone close to you?

Is violence at home a concern for you?

Has anyone forced you to have sexual activities?

University of Michigan, MiChart/Stork record system

## Does Asking make a difference?

Yes

#### Evidence Shows that Physicians <u>Do</u> Have an Impact

- 64% of 127 patients counseled made safe changes compared to 32% controls
- 70% of patients were not upset by provider asking about guns

J Am Board Fam Pract 2003;16:40 – 6.

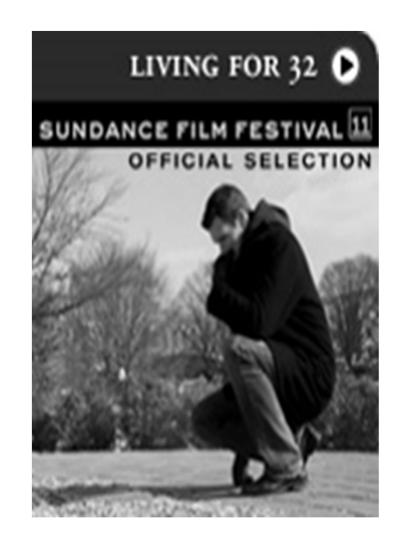


#### Off Site Storage Options

- Relative or friend (as long as they aren't prohibited by law)
- Self-storage facility (unloaded)
- Police Departments
- Gun shops
- Pawn shops
- Shooting Ranges
- Military may turn over to their base armory







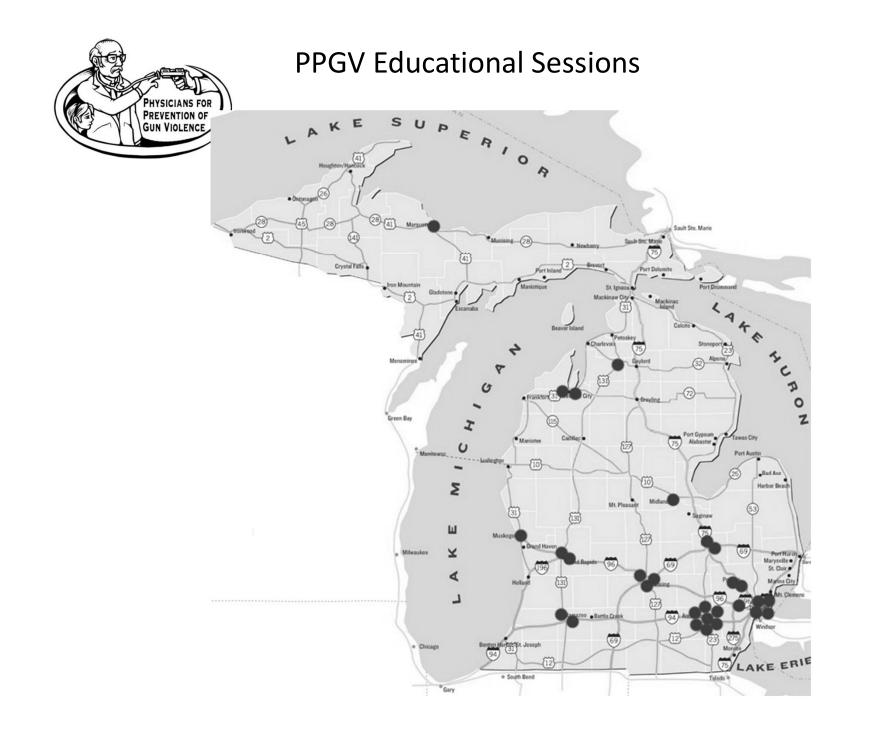




Jan 2012 https://www.kktv.com/home/headlines/Tuscon\_Victims\_Remembered\_One\_Year\_Later\_136902008.html



PPGV is 700 physicians today. Our Mission: Michigan Physicians: Educated and Empowered to Advocate for Gun Violence Prevention.











Emma Gonzalez https://twitter.com/emma4change





SHUTDOWN THE DAN RYAN https://saintsabinapeacemakers.org/brave-youth-leaders/









Responding to the recent NRA warning to "Stay in our lane". Hundreds of doctors are replying that public health is our lane. Share it or pull over.

#### Slide 71

**JW1** Jerry Walden, 11/13/2018

JW2 These comments are similar to the recent warning from the NRA to stay in our lane instead of trying public health approaches to decreasing gun violence. PPGV says "NO". Jerry Walden, 11/13/2018



Kyle Glover 10 Nov 2018 https://twitter.com/2000\_kyle/status/1061228580494065665



Marianne Hardman 10 Nov 2018 https://twitter.com/wercozy/status/1061301784184971265



Robert Lyons https://twitter.com/ScrubbedCTSurg/status/1061805823695904768



Kristin Gee, MD 9 Nov 2018 https://twitter.com/kmgee9/status/1061113518496325632

PERSPECTIVE

strong response to the NRA's minedly nonpartisan and inclu-rulings. misguided assertion. Over recent sive. After the Sandy Hook shootyears, health care and public ing, a joint position statement health professionals and others have concertedly built a consensus that it's essential to resume the science of firearm-injury prevention. This science had all but stalled in the United States, owing to a 1996 rider on an omnibus spending bill, the Dickey Amendment, prohibiting the use of Centers for Disease Control and Prevention (CDC) funds for advocacy or promotion of gun control. Although firearm-injury prevention is not synonymous with gun control, and although this amendment did not explicitly ban federal funding for firearm-related research, Congress has since appropriated \$0 for the CDC to study gun-violence prevention. Related funding from the National Institutes of Health (NIH) has been less than 2% of what would be predicted on the basis of the burden of disease.2 Over the past two decades, junior researchers - including two of us - had received advice from well-meaning mentors to "stay away from" the subject of firearm injury. Only a brave few investigators continued to examine causes, correlates, and prevention of firearm injury in the face of these funding limiresearch on preventing firearm injuries in the pediatric population. But we all know that more is needed.

After every shooting - daily private tragedies and increasingly frequent mass shootings alike ----

406

The hashtag's power reflected the medical community's compump had been primed for a This movement has been deter- ment and recent Supreme Court



was published by eight medical specialty organizations - the American College of Physicians (ACP), the American College of a nonpartisan group committed Surgeons (ACS), the American Congress of Obstetricians and Gynecologists, the American Public Health Association, the American Psychiatric Association, the meeting in November, Surgeon tations. Recently, the NIH funded American Academy of Family a large initiative, the Firearm- Physicians, the American Acadsafety Among Children and Teens emy of Pediatrics, and the Amerconsortium (FACTS), to restart ican College of Emergency Physi-Bar Association, calling for implementation of several public policies (such as universal background checks), improved research funding, and improved mental health care.3 It specifically stated that the

recommended steps were compliant with both the Second Amend-

FIREARM SAFETY AS HEALTH CARE'S HIGHWAY

health care professionals have collectively worked toward solutions to the gun violence epidemic. The numerous examples include the following. The ACS worked with surgeons from across the political spectrum to create, and publish, nonpartisan and actionable recommendations. It has also developed the #StopTheBleed campaign, which trains laypeople to mitigate the consequences of shootings.4 The American Medical Association (AMA) has declared gun violence to be a public health problem and is developing continuing medical education programs to help physicians have culturally competent discussions with patients at risk for firearm injury. The American Academy of Pediatrics has been a consistent leader in developing physician guidance and intraspecialty funding opportunities. Health care leaders from multiple specialties came together to create the American Foundation for Firearm Injury Reduction in Medicine (AFFIRM), to creating change through evi-

dence generation and collaborative action. And at the American Public Health Association annual "As a trauma anesthesiologist, if I want to talk to my patients about gun safety, it's totally within my lane." As a profession, we have become determined not just to develop solutions to this epidemic, but to make sure they're imple-

mented. The broad and rapid response to #ThisIsOurLane reflects not a

N ENGLJ MED 380;5 NEJM.ORG JANUARY 31, 2019

"Hey @NRA! Wanna see my lane? Here's the chair I sit in when I tell parents that their kids are dead. How dare you tell me l can't research evidence based solutions."

#### Jan 31, 2019Bonne, S. NEJM

#### Lockdown



#### Extreme Risk Protection Order "Red Flag Law"

A temporary court-issued civil order

families and law enforcement

prevent gun tragedies

#### *individuals at risk of endangering themselves or others.*

Educational Fund to Stop Gun Violence & Giffords Courage to Fight Gun Violence, 2017

#### Universal Background Checks

This law is popular. In recent 2019 Gallup poll 2/3 want stricter gun laws. But can it get passed?

https://news.gallup.com /poll/1645/guns.aspx



# October is Domestic Violence Month





- 50 women are shot to death by an intimate partner each month
- Nearly 1,000,000 women alive today have been shot or shot at by an intimate partner

Everytown: <u>https://everytownresearch.org/gun-violence-america/</u>, accessed 10/ Original Source: Uniform Crime Reporting Program: Supplementary Homicide Reports (SHR), 2012-2016. Washington, DC: Department of Justice, Federal Bureau of Investigation.



### Domestic Violence

- Women in the U.S. who are killed by an intimate partner are more likely to be killed with guns than by all other methods combined.<sup>1</sup>
- Women are twice as likely to be shot and killed by an intimate partner as they are to be murdered by a stranger using any type of weapon.<sup>2</sup>
  - 1. Journal of the American Medical Women's Association, 2005
    - 2. National Violence Against Women Survey, US DOJ: 2000



## Intimate Partner Violence is prevalent among our patients

#### Intimate Partner Violence affects 5%-22% of women in Primary Care settings

Pregnancy imposes even greater risk

American J of Public Health, 2003, 93(7)

#### **Extreme Risk Protection Order**

Connecticut law introduced in 1999

# Estimated that approximately one life saved for every 10-20 gun seizures.

https://scholarship.law.duke.edu/cgi/viewcontent.cgi?referer= &httpsredir=1&article=4830&context=lcp

#### Michigan ERPO Bill: HB 4283

### Introduced by Rep. Robert Wittenberg (D)



Sitting in Judiciary Committee since June, 2017

#### U.S. House of Representatives H.R. 5717 - Jake Laird Act of 2018



Introduced by MI Reps. Debbie Dingell (D-MI) & Fred Upton (R-MI) as well as Susan Brooks (R-IN), Ted Deutch (D-FL)

Federal funding for states that pass ERPO style laws

#### **Comment Sections**

2404

# Guest column: Firearm safety conversations vital for physicians to provide proper childhood care



http://www.mlive.com/opinion/ann-arbor/index.ssf/2015/09/gun\_violence\_and\_michigan\_chil.html

Guest columnist, Dr. Natalie Schellpfeffer, Pediatric Resident at Univ. of Michigan

# *"Firearms are none of a doctors business." -robertg222*

"Amazing how such an idiot can become a doctor. Gun safety has nothing to do with healthcare..." -Howard

### "Quite a little God Complex you've got going there, lady." -Yardpilot



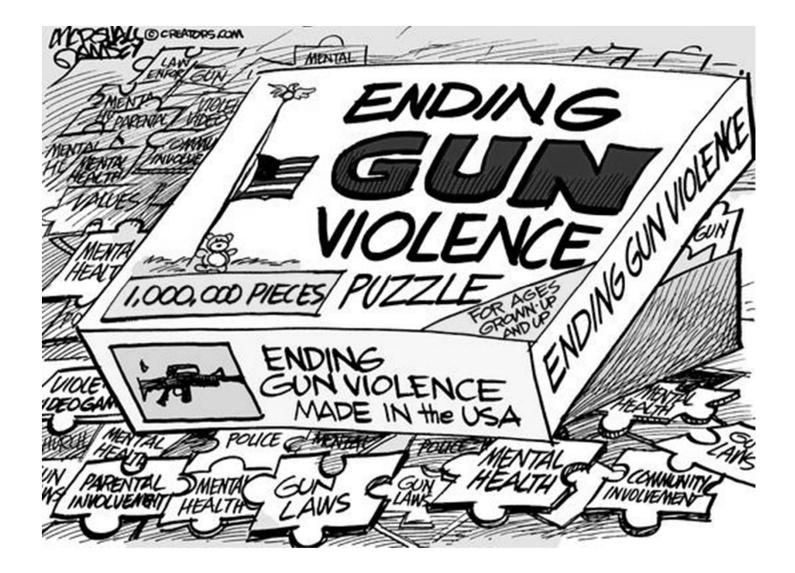
#### Recent NRA warning to American physicians to "Stay in your lane"

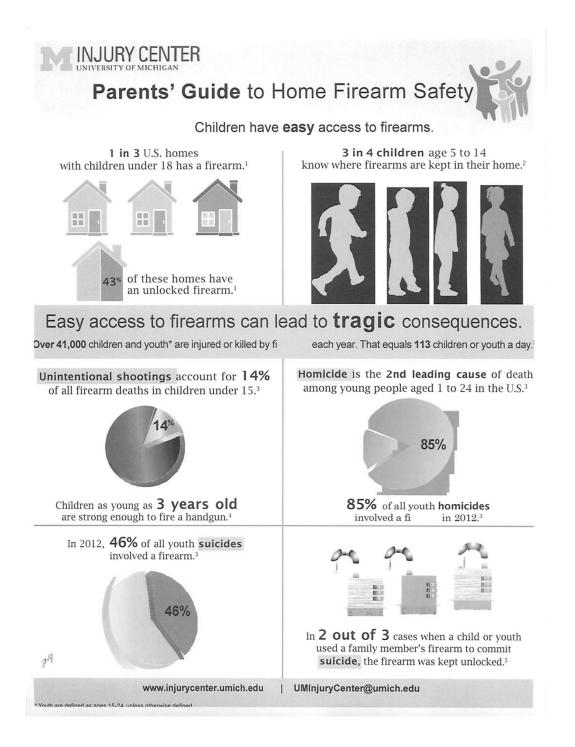
# "Public health safety IS our lane. Share it or pull over."

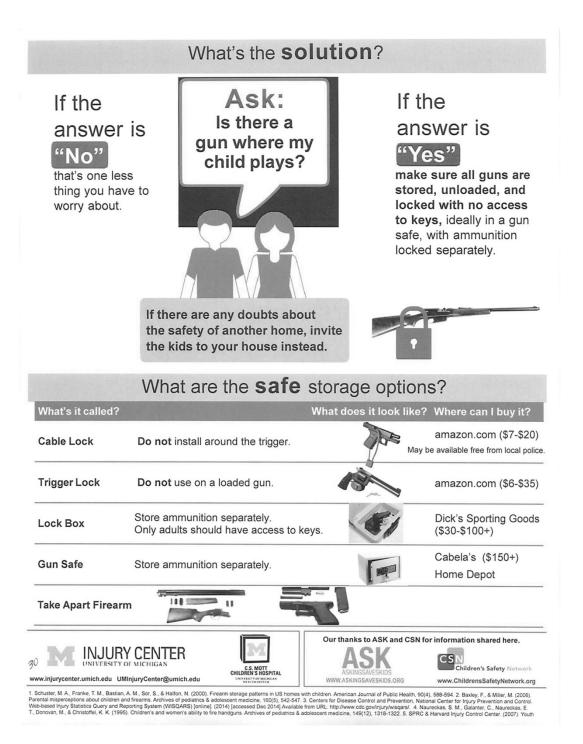
#### Slide 90

**JW1** Jerry Walden, 11/13/2018

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# Thank you!

#### Discussion/Questions

Join PPGV at ppgv.org or sign today

Physicians for the Prevention of Gun Violence ppgv.org