Turning Public Narrative Into Action

Gun Violence in America

Joseph V. Sakran, MD, MPH, MPA, FACS

#ShareAGunViolenceStory

October 16, 2018

PTSF 22nd Annual Meeting

Harrisburg, PA
Where it all began……

……..and where it all nearly ended

Inova Fairfax Hospital
At 17 it’s hard to see past Friday night…….
Inova Fairfax Hospital
General Surgery Residency
The Trauma Center at Penn
Ask What You Can Do....
A Reflection of So Many Mentors
A Reflection of So Many Mentors
Disclosures

Victim of Gun Violence

Board Member – Brady Campaign

Founder – Docs Demand Action

Care for The Injured Patient
Objectives

• Outline scope of the problem
• Assess the current situation nationally
• Challenges moving forward
• Telling your story
• Need for real leadership
Perception
HERE WE STAND just a few days from the inauguration of our 42nd President of the United States; a presidency that was won on a platform that called for “change” to set America straight on a new path toward goodness, righteousness, and justice for all. Our society, it seems, wanted new leadership—despite a decade that is unparalleled in history for world-wide change. Today, we enjoy less risk of full-scale international war than ever before. Yet at a time when Americans have never been as safe from the threat of nuclear war, we are at the greatest risk of harming ourselves and each other. Violence—doing harm and killing one another—is at epidemic proportions, and I hope to convince all of you that it is worse in scale than any previous war, and is truly American and grotesquely uncivil in its characteristics. It is a widespread epidemic in all communities, passively accepted by us, inspired by the media, no longer confined to our streets, no longer a minority problem—no longer a their problem. It is our problem.

Let me start by trying to define the magnitude of the problem. It is not simple, because there is no central repository for data on violence and largely we have to
44th William T. Fitts Jr., MD, Lecture

Damage Control and Firearm Deaths: “A Tale of Two Cities!”

C. William Schwab, MD, FACS, FRCS (H) Glas.
Emeritus Professor of Surgery
Perelman School of Medicine
Founding Chief, Division of Traumatology,
Surgical Critical Care and Emergency Surgery
Senior Consultant
Penn Medicine
University of Pennsylvania
Philadelphia, PA
Gun Violence Statistics

Overall Daily:
- 306 people shot
- 90 deaths
- 216 injuries

Overall Annually:
- 111,000 shot
- 33,000 killed
- 78,000 injuries

http://www.bradycampaign.org/key-gun-violence-statistics
Gun Violence Statistics

Children and Teens (0 – 19):
- 17,000 shot
- 2,600 killed
- 14,700 injuries

1 out of 3 Children have guns in home

1 million live in home with unlocked and loaded gun

4.6 Million

http://www.bradycampaign.org/key-gun-violence-statistics
Gun Deaths in 2014
Total-33,599

- Suicide: 21,334
- Homicide: 10,945
- Undetermined: 270
- Other: 464
- Unintentional: 586

http://hub.jhu.edu/2016/10/12/guns-in-america-facts-figures/
November 3, 2018
Homicide trends in the U.S. - Age trends”. Bureau of Justice Statistics.
Epidemiology of Gun Violence

U.S. gun deaths by type and race, 2011-2013

Note: These figures have all been calculated using a 2011-2013 average to smooth single-year fluctuations.
Source: CDC Injury Prevention & Control database.
Excluded armed conflict, unintentional, or self-harm

Source: Institute for Health Metrics and Evaluation
Homicide rate
per 100,000 people, data from 2012

- USA: 60%
- Canada: 10%
- Australia: 5%
- UK: 5%
June 17, 2015 – 9 Victims
Mother Emanuel AME Church
Charleston, SC
Mass Shootings in 2017

427 Shootings
Killed 590 people
Wounded 1,981
More people are **killed** and/or **wounded** in Active Shooter Incidents involving Semiautomatic Rifles vs. other firearms

- **killed per incident**: 5.48 vs. 4.25
- **wounded per incident**: 3.02 vs. 2.49

*comparing Active Shooter Incidents with and without semiautomatic rifles*

Mass shootings
United States, 1982-2017†, number of fatalities

- Individual incident
- Incident with more than ten fatalities

26 First Baptist Church, Sutherland Springs, TX
58 Las Vegas Strip, Las Vegas, NV
49 Pulse nightclub, Orlando, FL
14 Inland Regional Centre, San Bernardino, CA
12 Navy Yard, Washington, DC
27 Sandy Hook Elementary School, Newtown, CT
12 Movie theatre, Aurora, CO
13 American Civic Association Centre, Binghamton, NY
13 Army base, Fort Hood, TX
21 McDonald's restaurant, San Ysidro, CA
14 Post office, Edmond, OK
23 Luby's cafeteria, Killeen, TX
32 Virginia Tech, Blacksburg, VA
13 Columbine High School, Littleton, CO

Sources: Mother Jones; press reports
* Shootings with three or more fatalities excluding perpetrator(s). Before January 2013, with four or more fatalities. Not comprehensive. † At 6am CST, November 6th
BREAKING NEWS
ANDRE CAMPBELL, M.D.
ZUCKERBERG SF GENERAL HOSPITAL TRAUMA SURGEON
1.4 Million Deaths ~ Firearms
1.2 Million Deaths ~ Every Conflict
Firearm Injury in the United States: An Overview of an Evolving Public Health Problem

Sotirios Tasigiorgos, MS, Konstantinos P Economopoulos, MD, PhD, Robert D Winfield, MD, FACS, Joseph V Sakran, MD, MPH, MPA

Firearm injury is a serious public health problem in the United States. The prevalence varies among different states and age groups. Firearm injuries represent a serious economic burden for the US health care system, costing more than $70 billion annually. The motives for gun purchase and the medical and socioeconomic background of gun owners vary among the US population, depicting the complexity of the problem. The increasing number of firearm-related incidents, including mass shootings in schools, justifies the urge for taking preventive measures in order to decrease the number of gun-related injuries and deaths. These measures entail the contribution of many disciplines within health care, including physicians, medical organizations, and immediate action from social and political parties.

this increase in the crude numbers of firearm-related deaths, homicide by discharge of firearms dropped out of the top 15 causes of death in the US in 2010, ending a 45-year period in which homicides had been among the top causes. Finally, overall mortality (ie, all gun-related deaths) was stable and ranged from 31,224 to 31,672 deaths between 2007 and 2010.

Two national public opinion surveys, conducted by the Department of Health Policy and Management and the Center for Gun Policy and Research at the Johns Hopkins Bloomberg School of Public Health in Baltimore, showed that 33% of respondents have a gun in their home or garage; of these, 22% are gun owners themselves and 11% live in an environment with a gun present.
The Myth of Mental Health

• Only 4% of Violence is associated with mental disorder
  – Bipolar Disease
  – Schizophrenia
  – Depression

• Higher correlation of when were discussing Suicides
Figure 2: Firearm Suicide Rates by Age Group and Sex (5 year)*

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
</tr>
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<tbody>
<tr>
<td>10–24</td>
<td>5.9</td>
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<td>25–34</td>
<td>11.2</td>
<td>1.8</td>
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<td>35–44</td>
<td>11.9</td>
<td>2.3</td>
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<td>45–54</td>
<td>15.3</td>
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<tr>
<td>55–64</td>
<td>17.0</td>
<td>2.7</td>
</tr>
<tr>
<td>65+</td>
<td>24.4</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Rate (per 100,000) *age-adjusted
Completed Suicide After a Suicide Attempt: A 37-Year Follow-Up Study

Kirsi Suominen, M.D., Ph.D.
Erkki Isometsä, M.D., Ph.D.
Jaana Suokas, M.D., Ph.D.
Jari Haukka, Ph.D.
Kalle Achte, M.D., Ph.D.
Jouko Lönnqvist, M.D., Ph.D.

Objective: Attempted suicide is the strongest known predictor of completed suicide. However, suicide risk declines over time after an attempt, and it is unclear how long the risk persists.

Risk estimates are almost exclusively based on studies of less than 10 years of follow-up.

Method: The authors followed a cohort of 100 consecutive self-poisoned patients in Helsinki in 1963, for whom forensically classified causes of death during the following 37 years were investigated.

Results: They found that suicides continued to accumulate almost four decades after the index suicide attempt.

Conclusions: A history of a suicide attempt by self-poisoning indicates suicide risk over the entire adult lifetime.

(Am J Psychiatry 2004; 161:563–564)
Figure 4: Fatal and Nonfatal Suicide Attempts by Method (5 year)

- **Fatal Suicide Attempts**
  - 16.5% Poisoning
  - 25.2% Suffocation
  - 50.7% Firearm
  - 3.7% Other
  - 1.8% Cutting/Piercing
  - 2.2% Fall

- **Nonfatal Suicide Attempts**
  - 54.9% Poisoning
  - 21.9% Cutting/Piercing
  - 21.1% Other
  - 0.7% Suffocation
  - 0.8% Firearm
  - 0.6% Fall

Figure 6: Time Elapsed between Decision and Suicide Attempt

- Less than 5 minutes: 24%
- Less than 20 minutes: 48%
- Within an hour: 71%

Is gun violence really a problem?

The Human Cost
Domestic Violence

It's official: Pennsylvania lawmakers pass first tough gun law in years

Pennsylvania lawmakers have passed the first anti-violence legislation in years that deals directly with firearms. A measure to force people in Pennsylvania with a domestic violence ruling against them to more quickly surrender their guns cleared its last hurdle Wednesday. (John Locher / AP)

Emergency Department Visits For Firearm-Related Injuries In The United States, 2006–14

ABSTRACT Firearm-related deaths are the third leading cause of injury-related deaths in the United States. Yet limited data exist on contemporary epidemiological trends and risk factors for firearm-related injuries. Using data from the Nationwide Emergency Department Sample, we report epidemiological trends and quantify the clinical and financial burden associated with emergency department (ED) visits for firearm-related injuries. We identified 150,930 patients—representing a weighted total of 704,916 patients nationally—who presented alive to the ED in the period 2006–14 with firearm-related injuries. Such injuries were approximately nine times more common among male than female patients and highest among males ages 20–24. Of the patients who presented alive to the ED, 37.2 percent were admitted to inpatient care, while 8.3 percent died during their ED visit or inpatient admission. The mean per person ED and inpatient charges were $5,254 and $95,887, respectively, resulting in an annual financial burden of approximately $2.8 billion in ED and inpatient charges. Although future research is warranted to better understand firearm-related injuries, policy makers might consider implementing universal background checks for firearm purchases and limiting access to firearms for people with a history of violence or previous convictions to reduce the clinical and financial burden associated with these injuries.

Mean Charges

ED - $5,254
Inpatient - $95,887

Annual 2.8 Billion
Cost of Firearm Injuries

A Public Policy Approach
Regulation vs. Right

- Polarization of topic
- American Culture
The Epidemiology of Firearm Violence in the Twenty-First Century US

Garen J. Wintemute,

10.1146/annurev-publhealth-031914-122535

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Center for Gun Policy and Research

Daniel Webster, ScD, MPH
Director

Jon Vernick, JD, MPH
Co-Director
Public support for gun restrictions

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Gun Owners (%)</th>
<th>Non Owners (%)</th>
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</thead>
<tbody>
<tr>
<td>Favor background checks for all gun sales</td>
<td>84%</td>
<td>84%</td>
</tr>
<tr>
<td>Favor allowing lawsuits against negligent dealers</td>
<td>67%</td>
<td>74%</td>
</tr>
<tr>
<td>Favor child access prevention/safe storage law</td>
<td>50%</td>
<td>74%</td>
</tr>
<tr>
<td>Favor preventing sales to individuals with temporary domestic violence restraining orders</td>
<td>78%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Data from 2015 public opinion survey conducted by Johns Hopkins Center for Gun Policy and Research
Why is Changing Gun Policy So Difficult?

• Structure of Government
• Effectiveness of Gun Lobby
NRA Federal Election Spending

SOURCE: Center for Responsive Politics
Fix National Instant Criminal Background Check System (NICS) Act to Enhance Compliance

Senator John Cornyn (R-TX)  Senator Chris Murphy (D-CT)
The Importance of Research
Case Control Study
Matched 677 case participants that had been shot in assault to 684 population-based controls
Guns did not protect those who possessed firearms from being shot

Objectives. We investigated the possible relationship between being shot in an assault and possession of a gun at the time.

Methods. We enrolled 677 case participants that had been shot in an assault and 684 population-based control participants within Philadelphia, PA, from 2003 to 2006. We adjusted odds ratios for confounding variables.

Results. After adjustment, individuals in possession of a gun were 4.46 (P<.05) times more likely to be shot in an assault than those not in possession. Among gun assaults where the victim had at least some chance to resist, this adjusted odds ratio increased to 5.45 (P<.05).

Conclusions. On average, guns did not protect those who possessed them from being shot in an assault. Although successful defensive gun uses occur each year, the probability of success may be low for civilian gun users in urban areas. Such users should reconsider their possession of guns or, at least, understand that regular possession necessitates careful safety countermeasures. (Am J Public Health. 2009;99:2034–2040. doi:10.2105/AJPH.2008.143099)
Firearm Deaths in America: Can We Learn From 462,000 Lives Lost?

Annual Firearm Fatality Rate Unchanged

10.9 → 10.7 → 11.1

(FFR 1999-2003; 2004-2008; 2009-2013 p = 0.87)

Restrictive State Laws Effective for:
- Overall People
- White People
- Pediatric
- Suicide

As Compared by Brady Campaign to Prevent Gun Violence and Law Center to Prevent Gun Violence State Scorecards

Restrictive State Laws Ineffective for:
- Black People
- Homicide

As Compared by Brady Campaign to Prevent Gun Violence and Law Center to Prevent Gun Violence State Scorecards

SPECIAL ARTICLE

SUICIDE IN THE HOME IN RELATION TO GUN OWNERSHIP

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.

Abstract  Background. It has been suggested that limiting access to firearms could prevent many suicides, but this belief is controversial. To assess the strength of the association between the availability of firearms and suicide, we studied all suicides that took place in the homes of victims in Shelby County, Tennessee, and King County, Washington, over a 32-month period.

Methods. For each suicide victim (case subject), we obtained data from police or the medical examiner and interviewed a proxy. Their answers were compared with those of control subjects from the same neighborhood, matched with the victim according to sex, race, and age range. Crude and adjusted odds ratios were calculated with matched-pairs methods.

Results. During the study period, 803 suicides occurred in the two counties, 565 of which (70 percent) took place in the home of the victim. Fifty-eight percent (326) of these suicides were committed with a firearm. After excluding 11 case subjects for various reasons, we were able to interview 80 percent (442) of the proxies for the case subjects. Matching controls were identified for 99 percent of these subjects, producing 438 matched pairs. Univariate analyses revealed that the case subjects were more likely than the controls to have lived alone, taken prescribed psychotropic medication, been arrested, abused drugs or alcohol, or not graduated from high school. After we controlled for these characteristics through conditional logistic regression, the presence of one or more guns in the home was found to be associated with an increased risk of suicide (adjusted odds ratio, 4.8; 95 percent confidence interval, 2.7 to 8.5).

Conclusions. Ready availability of firearms is associated with an increased risk of suicide in the home. Owners of firearms should weigh their reasons for keeping a gun in the home against the possibility that it might someday be used in a suicide. (N Engl J Med 1992;327:467-72.)
NRA and Gun Violence Research

- 1996 goaded Congress to strip 2.6 million
- Dickey Amendment – Banned CDC to advocate or promote gun control
- President Obama – After Newton
  – Executive order for CDC to study or sponsor research cause of gun violence
Priorities for Research to Reduce the Threat of Firearm-Related Violence
## Firearms

<table>
<thead>
<tr>
<th>30 yrs NIH Research</th>
<th>Cumulative Mortality (cases)</th>
<th>NIH grants Awarded</th>
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<td>373</td>
<td>101</td>
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<td>54</td>
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<tr>
<td>Polio</td>
<td>266</td>
<td>106</td>
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<tr>
<td>Rabies</td>
<td>55</td>
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</tr>
<tr>
<td>Firearm Injury</td>
<td>&gt; 4 Million</td>
<td>6</td>
</tr>
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</table>
January 5, 2016
Common Sense Gun Safety Reform

1. Keep guns out of the wrong hands through background checks.
2. Make our communities safer from gun violence.
3. Increase mental health treatment and reporting to the background check system.
4. Shape the future of gun safety technology.
Australia ~ Port Arthur Massacre
April 28th, 1996
Australia ~ Port Arthur Massacre
April 28th, 1996

- 35 Dead, 23 Wounded
- National Firearms Agreement
  - Banned all semiautomatic rifles, all semiautomatic shotguns, and all pump-action shotguns
  - Established Firearm buyback Program
  - Created a National Firearm Registry
  - 28-day waiting period firearm sales
  - Age requirement over 18 for owners
- 700,000 guns taken off the streets

PM John Howard
Gun Deaths in Australia

59% Gun Homicides
65% Gun Suicides
An apolitical profession wakes up: Trauma surgeons speak out about gun violence

Bullet Holes in America: Political or Medical Problem? A Trauma Surgeon’s Perspective.

10/05/2017 10:23 am ET
What Gunshots Do to Bodies: Docs Speak Out

Robert Glatter, MD; Heather Sher, MD; Amy J. Goldberg, MD; Joseph V. Sakran, MD, MPA, MPH

DISCLOSURES  |  April 17, 2018
Telling Your Story.............
Public Narrative

Dr. Marshall Ganz

story of self
- call to leadership

story of now
- strategy & action

story of us
- shared values & shared experience

PURPOSE

COMMUNITY

URGENCY
IF I AM NOT FOR MYSELF, who will be for me?
ואם אני לא עני, מי לי?

BUT WHEN I AM ONLY FOR MYSELF, what am I?
וכשאני לעצמי, מה אני?

AND IF NOT NOW, when?
ולא לעכשיו, אימתיי?

RABBI HILLEL | PIRKEI AVOT 1:14
Uncertainty
Public Narrative

Dr. Marshall Ganz

HARVARD Kennedy School
The Golden Circle

Why = The Purpose
What is your cause? What do you believe?

How = The Process
Specific actions taken to realize the Why.

What = The Result

Simon Sinek
www.ted.com/talks/simon_sinek_how_great_leaders_inspire_action?language=en
The key to motivation is understanding that values inspire action through emotion.

Source: Marshall Ganz
Evaluating the Scope of Leadership

- Are leaders born or made?
- Is leadership artful or analytical?
- What’s the difference between technical and adaptive leadership?
- Is input or training more important?
- Are you still a leader if you fail?
- Are you a leader?
Was he a Leader?

Herbet Hoover
31st President of the United States
The Practice of Leadership

- Innate talent
- Upbringing
- Training

INPUT vs. External Factors

Ronald Heifetz, MD
Musicians

- Great talent without great training
- Average talent plus great training

Good Talent + Great Training

Artful Work

Vanessa Mae
Technical Challenge

• Authoritative Command
  – Many problems can be solved……but those are largely technical
  – Applying expertise, knowledge, technique
Failure

• Leadership not an enterprise where you succeed all the time
• Success some days, failure others?
• Apply lessons from one situation to another…..not easy!

“The greatest teacher, failure is.”

Yoda
Star Wars: The Last Jedi
Why You Lead Determines How Well You lead!!

By Tom Kolditz
July 22, 2014
To love what you do and feel that it matters—how could anything be more fun?
Telling Your Public Story

“If you are in public life you must learn to tell your own story. If you don’t others will.”

- Dr. Marshall Ganz
What's your story?
It takes a Village............
Gunshot Victim to Provider

Students at Lake Braddock Secondary high school in Burke, Va., were celebrating the first football game of the season on Sept. 21, 1994, when a 38-cal. bullet fired into the crowd by a local gang member hit Joseph Salamone, a 17-year-old senior, in the neck. The shot severed an artery, filling his throat with blood, and ruptured his trachea, puncturing one of his vocal chords. Even as medical teams on the scene and at the hospital worked frantically to save him, Salamone understood nothing would ever be the same.

“I knew if I had a second chance at life,” Salamone says. “I had to really make it into something that would prevent others from having to go through such a traumatic event.”

And he has. As a trauma surgeon and director of emergency general surgery at the Johns Hopkins Hospital, Salamone, 46, owes the lives of hundreds of gunshot victims in Baltimore — but is also focusing on preventing gun violence nationwide. He spends much of his year traveling the country, advocating for expanding background checks, closing loopholes that allow people with criminal records to acquire guns, and increasing federal funding for firearm-related research. At Johns Hopkins, Salamone is also spearheading research to prove that gun violence — a leading cause of death of Americans under the age of 46 — is a growing epidemic and health crisis. “You’re in a very strong voice,” says friend Dr. Patrick Healy, a researcher at the American College of Surgeons. “He really makes it a personal mission to do everything that he can to really make a difference in this.”

Salamone, who speaks of the bullet that pierced his throat, says he keeps the bullet that hit him in his back pocket as a reminder of every thing he can testify to, the shootings. “I’ll look at it and I’ll think, ‘This nearly ended my life,’” he says. “But now it’s the inspiration for what I do.”
A Reflection of So Many Mentors
Acknowledgments

- Juliet Altenburg, RN, MSN
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- Patrick Reilly, MD, FACS
- Andrew B. Peitzman, MD, FACS
- C. William Schwab, MD, FACS
- Samir Fakhry, MD, FACS
- Ronny Stewart, MD, FACS
- David Hoyt, MD, FACS
- Patricia Turner, MD, FACS
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Traumatic Injury: The Unsung Pandemic