## Reducing Suicide: The Means Matter Campaign

Innovations in Translating Injury Research Into Effective Prevention Millman School of Public Health Columbia University



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#### Unintentional Firearm Fatalities

Sara Solnick (UVM)



## Unintentional Firearm Deaths to Children

Importance of good data

Data from the NVDRS

## Unintentional Firearm Deaths to Children

Claims of gun advocates:

 "There are only 60 unintentional firearm deaths each year to children (age 0-14)"

 "About two thirds of accidental deaths to children are not shots fired by other little kids but rather adult males with criminal backgrounds"

John Lott

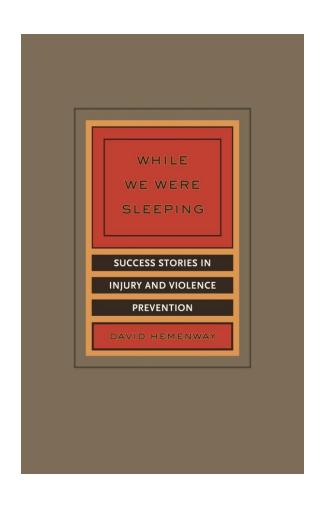
# Actual Unintentional Firearm Deaths to Children (age 0-14)

- 1. Some 110 deaths/year (80% more than Vitals reports) Vital Statistics good for overall gun deaths, not good classifying unintentional shootings vs. homicides of children.
  - 2. Children killing children
- 1/3 self inflicted;
- 1/3 other children as shooters;
- 1/6 older teenagers as shooters;
- most of the rest are parents as shooters

#### Unintentional Child Firearm Deaths

	Deaths/million years	% Male	% Other Inflicted	% At Friends House
0-1	0.4	29%	86%	0%
2-4	1.6	88%	29%	0%
5-10	1.1	72%	69%	0%
11-12	2.1	83%	67%	39%
13-14	2.5	95%	69%	45%  Hemenway & Solnick Injury Epidemiology 2015

#### Translating Injury Research Into Effective Prevention



"While We Were Sleeping"
Success Stories in Injury Prevention

U Cal Press (2009)

David Hemenway, PhD
Harvard Injury Control Research Center

### Suicide Prevention



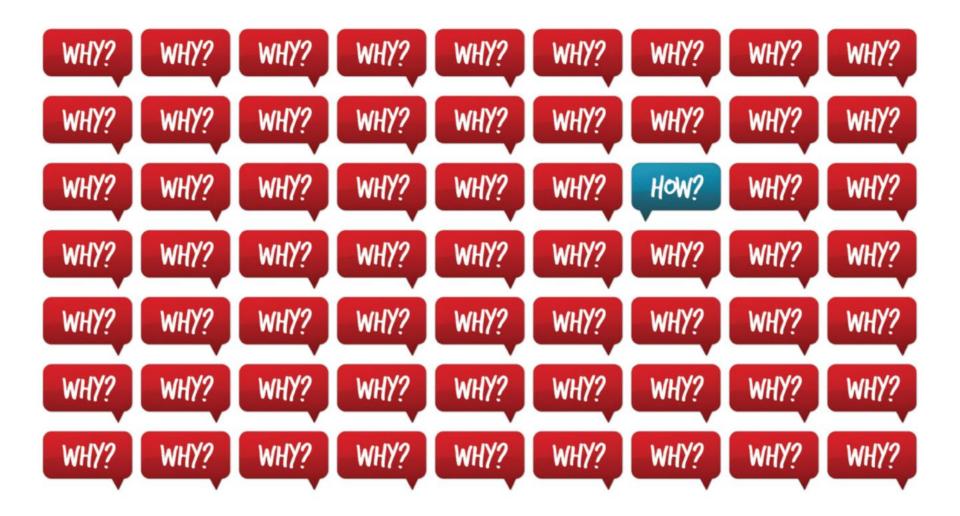
Without changing any laws,
Without changing anyone's mental health

## The Means Matter Campaign

- Suicide is the leading cause of injury death in the United States
- Half of all suicides are firearm suicides



Traditionally suicide prevention has focused on who takes their life, when, where, and especially <u>why</u>.



We are beginning to understand that <u>how</u> people attempt suicide plays a crucial role in whether they live or die.

#### Sri Lanka & Pesticides

- Pesticides are the leading suicide method in Sri Lanka.
- The most highly human-toxic pesticides were banned in the mid to late 1990s.
- Suicide rates dropped 50% from 1996 to 2005.
- Nonfatal pesticide attempts, and suicide by other methods, did not drop.



#### **Britain & Domestic Gas**

- Before 1960, domestic gas was the leading method of suicide in England and Wales.
- By 1970, almost all domestic gas in the UK was non-toxic.
- Suicide rates dropped by about a third.
- The drop was driven by a drop in gas suicides; non-gas suicides increased slightly.



#### Israeli Defense Force (IDF) & Firearms

- Almost all 18-21 year-olds Israelis serve.
- In the early 2000s, IDF focused on preventing suicides— 90% by firearm; many during weekend leave.
- In 2006, IDF required soldiers to leave weapons on base during weekend leaves.
- The suicide rate decreased by 40%.
- Weekend suicides dropped significantly.
- Weekday suicides did not.



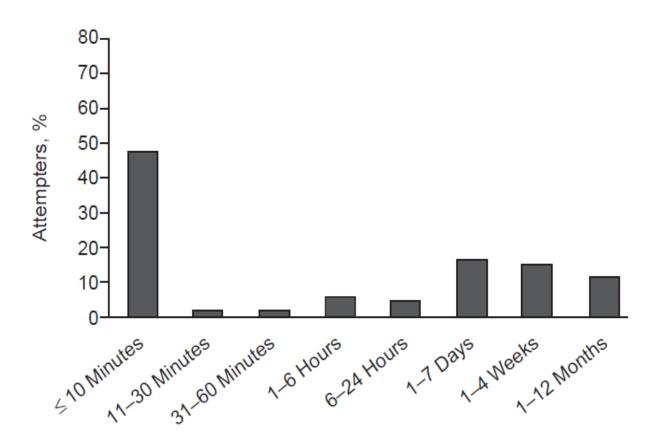
#### How could means possibly matter??



## 1. The acute phase of a suicidal crisis is *often* (not always) brief.

#### **Duration of Suicidal Crises**

Time Between 1stsThought of Suicide and Attempt



Deisenhammer et al. 2009. Journal of Clinical Psychiatry, 70(1):19-24.













#### When do people take their lives?

Among people who nearly died in a suicide attempt, 24% said less than 5 minutes elapsed between deciding on suicide and making the attempt.

Another 47% said under an hour.

Only 13% said one day or more.

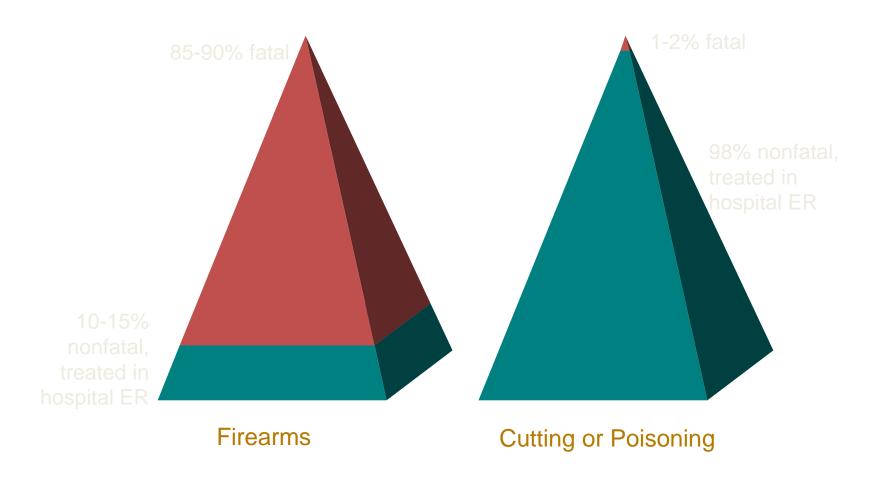


#### 2. Lethality varies greatly by method.

The lethality of the method easily at hand during a suicidal crisis plays a role in whether the person lives or dies. Intent matters, but means also matter.



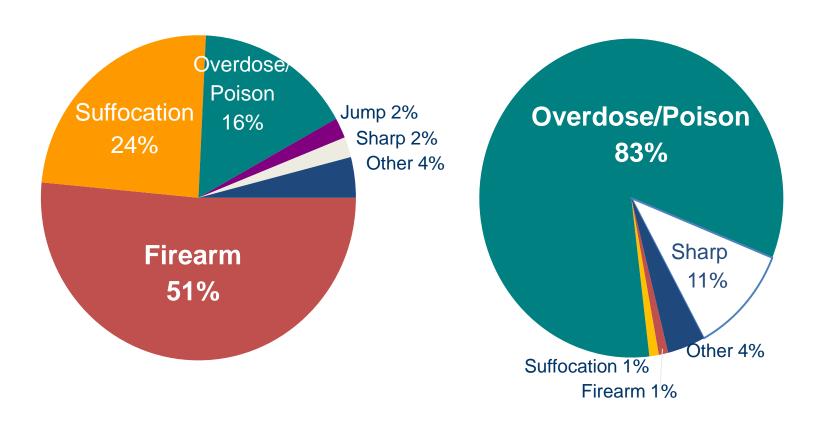
## Self-Harm Case Fatality Rates



NOTE: People's perception that overdose and cutting are more lethal may indirectly save lives. Broadly publicizing their actual lethality may be ill-advised.



#### Methods of Self-Harm, U.S.



Suicide

Nonfatal Self-harm

Sources: Suicide: CDC WONDER (2013)

Inpatient: HCUP-NIS (2005)



#### 3. But Is It Truly a Life Saved?

- History of suicide attempt is a risk factor for suicide.
- What proportion of serious attempters eventually die by suicide?

75% 45% 25%



Review of 90 studies: 90% or more of attempters did not later kill themselves, even those making very serious attempts like jumping in front of a train. 20-25% made a nonfatal reattempt.

#### What is it about Firearms?

Leading U.S. method
 Highly lethal.
 Accessible Leadi

#### - lethal. Leading U.S. method.

- Highly lethal.
- Accessible. >1/3 of homes have guns

•

- Culturally "acceptable." Some methods, like fire, are accessible but unacceptable to most U.S. attempters.
- Fast, irreversible. No chance for rescue or change of heart once the trigger is pulled--unlike nearly all other methods.
- **Risk factor.** All U.S. case control studies that have examined it (15+) find firearm access a risk factor for suicide.

Accessible. >1/3 of homes have guns.

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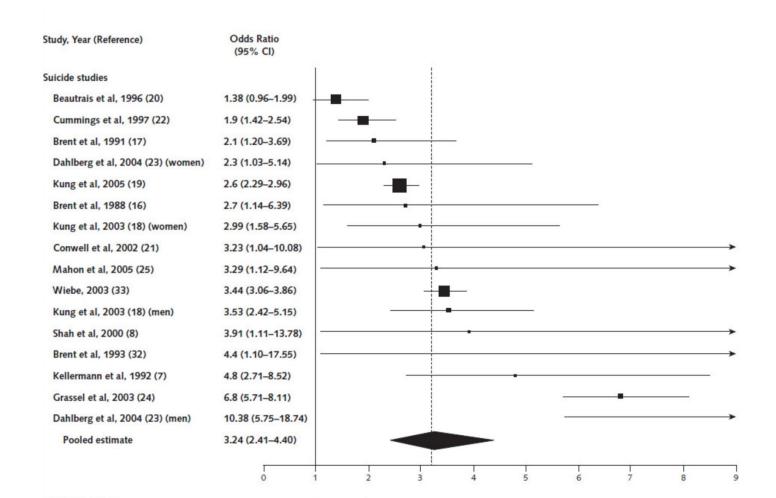
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### Scientific Evidence Overwhelming

Sixteen case-control studies



### Ecological Studies: State Suicide Rates

	High Gun States*	Low Gun States**
Population	31.5 million	31.3 million
% household with firearms***	50%	15%
Suicides 2008-2009		
Firearm suicides	?	?
Non-firearm suicides	4,397	4,341
Total suicides	?	?
Suicide attempts (est.) 2008-2009	246,000	303,400

<sup>\*</sup> LA, UT, OK, IA, TN, KY, AL, MS, ID, ND, WV, AR, AK, SD, MO, WY

<sup>\*\*</sup> HI, NJ, MA, RI, CT, NY

<sup>\*\*\*</sup> Estimate based on 2004 BRFSS. No more recent state-level data are available.

#### Variation in State Suicide Rates

	High Gun States*	Low Gun States**
Population	31.5 million	31.3 million
% household with firearms***	50%	15%
Suicides 2008-2009		
Firearm suicides	7,492	1,697
Non-firearm suicides	4,397	4,341
Total suicides	11,889	6,038
Suicide attempts (est.) 2008-2009	246,000	303,400

 $<sup>^{*}</sup>$  LA, UT, OK, IA, TN, KY, AL, MS, ID, ND, WV, AR, AK, SD, MO, WY

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#### Maybe it's not the guns...

• Perhaps the higher suicide risk has nothing to do with gun access. Maybe people who have guns are at higher risk for suicide for another reason, like living in a rural area.

Are people who live in homes with guns more likely to have	
a mental health problem?	Yes No
seriously considered suicide?	Yes No
attempted suicide?	Yes No

#### Disseminating the Message

- Providers
- Gatekeepers
- Gun-owning Community

**Lethal Means Counseling** 

Expanding firearm safety to include suicide prevention



#### Training: CALM-Online

 Counseling on Access to Lethal Means — Free online training by Harvard, Dartmouth, & SPRC http://training.sprc.org



#### **Engaging Gun Owners**

- Gun owners and their families are dying by suicide at higher rates than non-gun owners
  - Like olderGun owners and their families are dying by suicide at higher rates than non-gun owners
  - Like older white men, people with family hx of suicide, etc., gun owners are "our" people.
- Do we reachth an anti-gun agenda? No
- That's like sending an anti-gay group to do suicide prevention in the gay andGun owners and their families are dying by suicide at higher rates than non-gun owners
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- Gun owners and their families are dying by suicide at higher rates than non-gun owners.
- Like older white men, people with family history of suicide, gun owners are "our" people.
- Do we reach them with an anti-gun agenda? No.
- That's like sending an anti-gay group to do suicide prevention in the gay and lesbian community.
- If you don't trust the messenger, you don't trust the message.
- If you don't trust the messenger, you don't trust the messag Means Matter
- lesbian community.
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#### **Finding Common Ground**

- Gun organizations are very safety oriented.
- Emphasis on preventing gun accidents
   (~500 deaths a year) and family protection.
- Expand focus to include preventing firearm suicides (21,000 deaths a year); falls within the safety culture of gun groups.
- Some gun-owner groups have already begun.

#### New Hampshire Gun Shop Project

- Coalition of gun retailers, suicide prevention people, and gun rights activists met together to examine whether there was a role for gun shops in preventing suicide.
- Jointly developed customer education materials for gun shops in NH with input from gun shop owners.







# CONCERNED ABOUT A FAMILY MEMBER OR FRIEND?

#### ARE THEY SUICIDAL?

- Depressed, angry, impulsive 8
- Going through a relationship break-up, legal trouble, or other setback?
- Using drugs or a bohol more 8
- -Withdrawing from things they used to enjoy?
- Talking about being better off dead?
- Losing hope?
- -Acting reckless 8
- Fee ling trapped?

#### SUICIDES IN NH

far outnum ber homicides

FIREARMS ARE THE LEADING METHOD

ATTEMPTS WITH A GUN ARE MORE DEADLY

than attempts with other methods

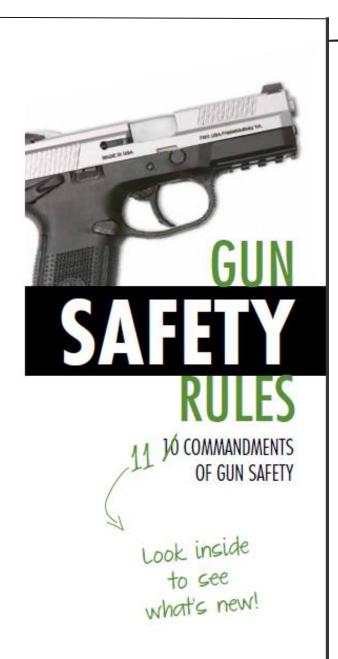


#### **HOLD ON TO THEIR GUNS**

— Putting time and distance between a suicidal person and a gun may save a life.

—For other ways to help, call the National Suicide Prevention Lifeline: 1-800-273-241K [8255]

**Means** Matter



11. Consider temporary off-site storage if a family member may be suicidal. When an emotional crisis (like a break-up, job loss, legal trouble) or a major change in someone's behavior (like depression, violence, heavy drinking) causes concern, storing guns outside the home for a while may save a life. Friends as well as some shooting clubs, police departments, or gun shops may be able to store them for you until the situation improves.

## **Gun Training**



## **Training**

A) What is actually being taught?

B) Develop and disseminate <u>suicide prevention</u> <u>module(Utah, MA, New England)</u>

C) Forge relationships between injury prevention and firearm instruction field to improve research and practice Means Matter website: <a href="www.meansmatter.org">www.meansmatter.org</a>
Take CALM-Online—<a href="http://training.sprc.org/">http://training.sprc.org/</a>
Download gunshop materials: <a href="www.nhfsc.org">www.nhfsc.org</a>

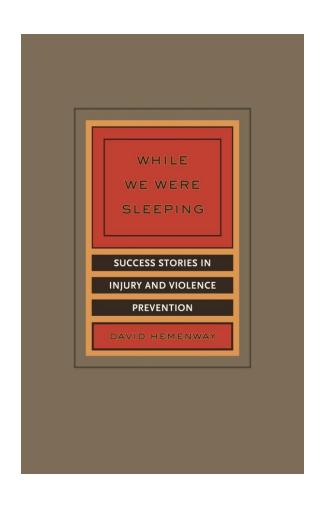
Cathy Barber:

Thanks to Elaine Frank, NH Firearm Safety Coalition, Matt Miller, Deb Azrael, and

Cathy Barber <a href="mailto:cbarber@hsph.harvard.edu">cbarber@hsph.harvard.edu</a>



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