Reducing Suicide:
The Means Matter Campaign

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

David Hemenway
Harvard TH Chan School of Public Health
June 16, 2016
Harvard Injury Control Research Center

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• Cathy Barber
• Matthew Miller
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

Hemenway & Solnick Injury Ept 2015
# Unintentional Child Firearm Deaths

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Deaths/million years</th>
<th>% Male</th>
<th>% Other Inflicted</th>
<th>% At Friends House</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
<td>0.4</td>
<td>29%</td>
<td>86%</td>
<td>0%</td>
</tr>
<tr>
<td>2-4</td>
<td>1.6</td>
<td>88%</td>
<td>29%</td>
<td>0%</td>
</tr>
<tr>
<td>5-10</td>
<td>1.1</td>
<td>72%</td>
<td>69%</td>
<td>0%</td>
</tr>
<tr>
<td>11-12</td>
<td>2.1</td>
<td>83%</td>
<td>67%</td>
<td>39%</td>
</tr>
<tr>
<td>13-14</td>
<td>2.5</td>
<td>95%</td>
<td>69%</td>
<td>45%</td>
</tr>
</tbody>
</table>

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 why.
We are beginning to understand that how 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 1st Thought of Suicide and Attempt

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

**Firearms**
- 85-90% fatal
- 10-15% nonfatal, treated in hospital ER

**Cutting or Poisoning**
- 1-2% fatal
- 98% nonfatal, treated in hospital ER

**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:
- Firearm: 51%
- Suffocation: 24%
- Overdose/Poison: 16%
- Jump: 2%
- Sharp: 2%
- Other: 4%

Nonfatal Self-harm:
- Overdose/Poison: 83%
- Suffocation: 1%
- Firearm: 1%
- Sharp: 11%
- Other: 4%

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%
  - 10%

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.
- High lethality.
- 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.
Scientific Evidence Overwhelming

- Sixteen case-control studies
### Ecological Studies: State Suicide Rates

<table>
<thead>
<tr>
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<th>High Gun States*</th>
<th>Low Gun States**</th>
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<tbody>
<tr>
<td>Population</td>
<td>31.5 million</td>
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</tr>
<tr>
<td>% household with firearms***</td>
<td>50%</td>
<td>15%</td>
</tr>
<tr>
<td>Suicides 2008-2009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firearm suicides</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Non-firearm suicides</td>
<td>4,397</td>
<td>4,341</td>
</tr>
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<td>Total suicides</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Suicide attempts (est.) 2008-2009</td>
<td>246,000</td>
<td>303,400</td>
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* LA, UT, OK, IA, TN, KY, AL, MS, ID, ND, WV, AR, AK, SD, MO, WY
** HI, NJ, MA, RI, CT, NY
*** Estimate based on 2004 BRFSS. No more recent state-level data are available.
## Variation in State Suicide Rates

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<td>Firearm suicides</td>
<td>7,492</td>
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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...

<table>
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<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
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<td>a mental health problem?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>seriously considered suicide?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>attempted suicide?</td>
<td>Yes</td>
<td>No</td>
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Sorenson, 2008; Ilgen, 2008; Miller, 2009; Betz, 2011.
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 older white men, people with family history of suicide, etc., 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.
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
- Going through a relationship breakup, legal trouble, or other setback
- Using drugs or alcohol more
- Withdrawing from things they used to enjoy
- Talking about being better off dead
- Losing hope
- Acting recklessly
- Feeling trapped

SUICIDES IN NH for every 100 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

www.nhfc.org

MeansMatter
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 suicide prevention module (Utah, MA, New England)

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

Cathy Barber:

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

Cathy Barber  cbarber@hsph.harvard.edu
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