Part I. Firearms and Suicide

Part II. Professor Sonja Swanson on Handgun Divestment and Suicide

Part III. The Safety Study: An ED-Based LMC Intervention to Prevent Adolescent Suicide

Matthew Miller, MD, ScD, Northeastern University

Research Connection

American Foundation for Suicide Prevention

Background

In 2021 there were 47,646 suicides (CDC provisional data)

~Half of all suicides (55%) were firearm suicides (26,328)

CFR Firearms ~90%; CFR pills and cutting <2%

Most firearms used in suicides:

- ✓ come from the victim's home
- ✓ not recently acquired (e.g., Kellerman=3%)
- ✓ 75% HG (90% among women; 50% rural male adolescents)

Most suicides on first attempt

1.Conner A, Azrael D, Miller M. Suicide Case Fatality Rates in the United States, 2007 to 2014: A Nationwide Population-Based Study. Ann Intern Med. 2019. doi:10.7326/M19-1324
2.Thomas N, Barber C, Miller M. A cohort study of initial self-harm events: method-specific case fatality of index events, predictors of fatal and nonfatal repetition, and frequency of method-switching. International Review of Psych. 2021
3..Barber C, Azrael D, Miller M, Hemenway D. Who Owned the Gun in Firearm Suicides of Men, Women, and Youth. Who owned the gun in firearm suicides of men, women, and youth in five US states? Preventive Medicine. 2022.
4. Hanlon T, Barber C, Azrael D, Miller M. Type of firearm used in suicides: findings from 13 states in the National Violent Death Reporting System. Journal of Adolescent Health. 2019

Personal vs. household-level exposure to guns in US

In 2021, 40% of adults (overall, and with children) live in households with firearms (2021 NFS)

- 29% personally own (~75 million)
- Additional 11% live w GO but don't own

In HH w guns and children: less than half store all HHG locked and unloaded (safest); 15% store ≥1 gun loaded and unlocked (least safe)

- HH w guns and kids w suicide risk factors ~1/3 all guns locked and unloaded (same as HH w kids and no suicide RF, 2015 NFS); 12% at least one gun loaded and unlocked

>80% men in HH w guns personally own; but fewer than half of the women personally own

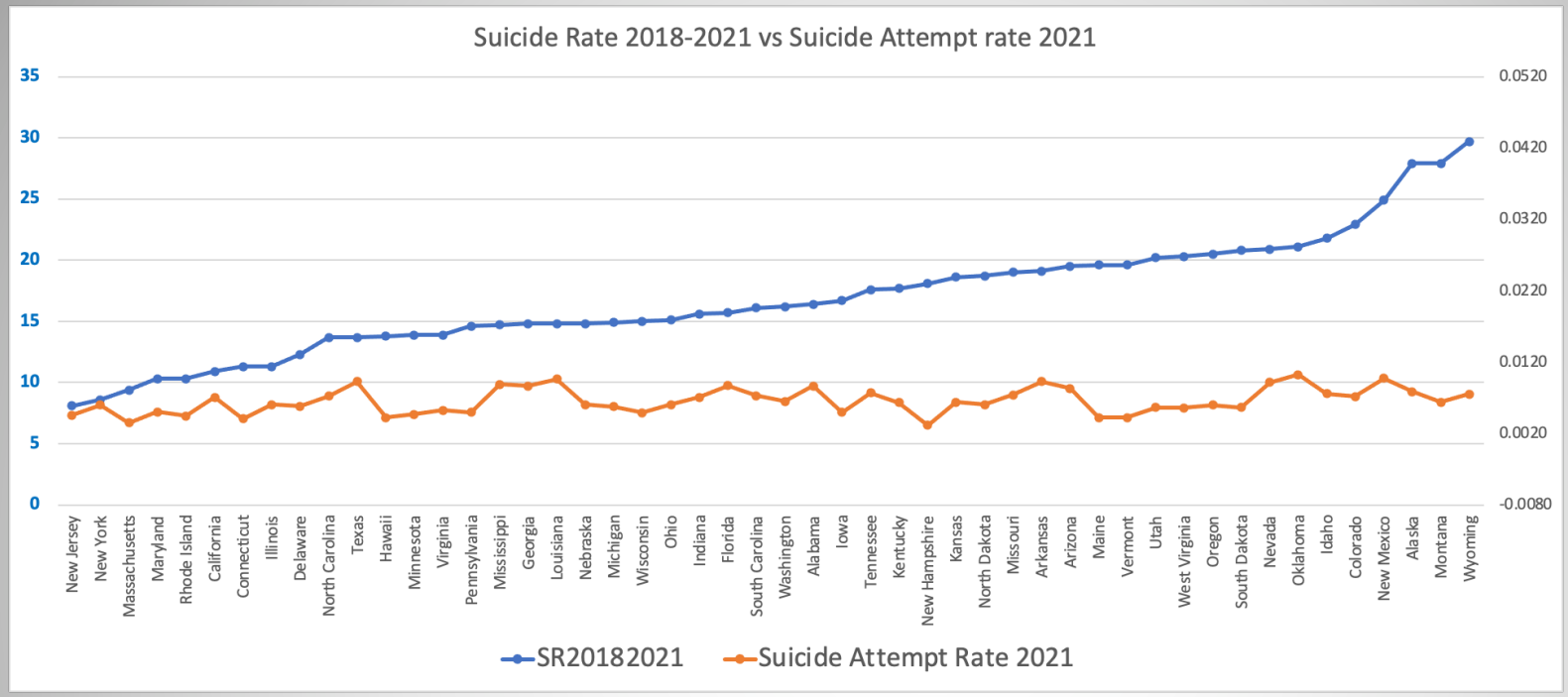
- ~ 85% of the adults who live in households with guns but do not own firearms themselves are women

~20 million US women (and 4 million US men) currently living in HHG+ but are nonowners
~31 million children live in HH w guns (~5 m in HH with ≥1 that is both loaded and unlocked)

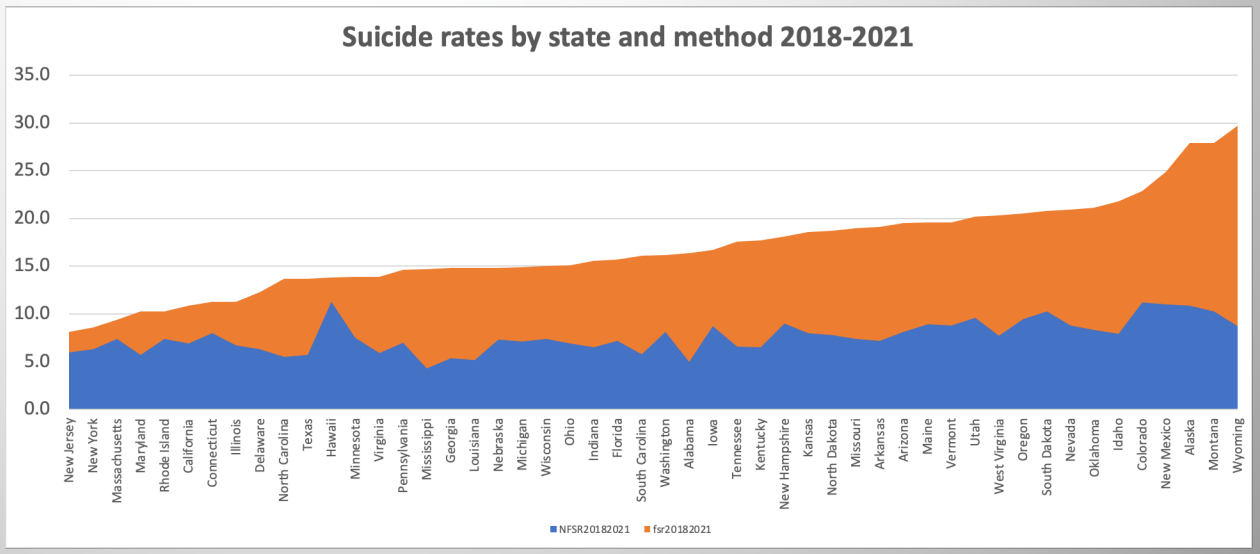
Miller M, Zhang W, Azrael D. Firearm Purchasing During the COVID-19 Pandemic: Results From the 2021 National Firearms Survey. Ann Intern Med. 2022.
Miller M and Azrael D. Firearm storage practices in households with children: findings from the 2021 NFS. JAMA Netw Open. 2022
Scott J, Azrael D, Miller M. Firearm storage in homes with children with self-harm risk factors. Pediatrics. 2018;

What We Know From Ecologic Data

SR 2018-2021



Same pattern
SI
MDD
Severe MI



Firearms and suicide: is risk independent of underlying suicidal behavior?

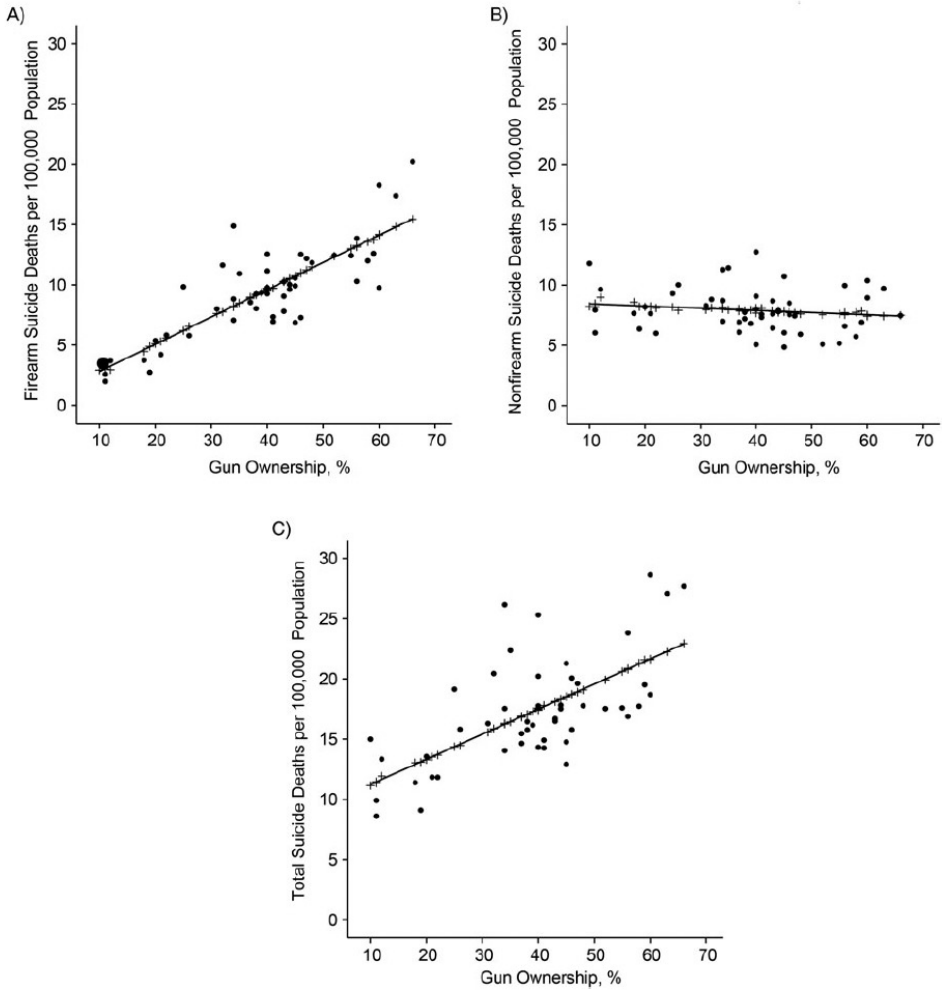


Figure 1. The visual discrepancy between the solid regression line (a model that examines the crude relationship between household firearm ownership and suicide mortality, A) by firearm suicides, B) by nonfirearm suicides, and C) overall) and a model that examines the simultaneous influence of suicide attempt and firearm ownership rates on suicide mortality (a line that can be visualized through the cross marks) is a representation of how little the association between firearm ownership and suicide mortality is affected by the covarying contribution of suicide attempt rates.

Miller M, Barber C, Azrael D, White R. Firearms and suicide in the United States: is risk independent of underlying suicidal behavior? *Am J Epidemiol* 2013

Firearms and suicide: is risk independent of underlying suicidal behavior?

Table 3. Suicides and Suicide Attempts in US States with the Highest and Lowest Gun Ownership Levels, 2008–2009

Population Group by State Gun Ownership Level	Person-Years	No. of Firearm Suicides	No. of Nonfirearm Suicides	Total No. of Suicides	Population With Suicidal Acts,[e] %
High–gun ownership states[a,b]					
All adults	62,383,037	7,275	4,153	11,428	0.41
Adult men	30,273,657	6,263	2,905	9,168	0.38
Adult women	32,109,380	1,012	1,248	2,260	0.44
Adults aged 18–29 years	13,829,694	1,303	960	2,263	1.04
Adults aged ≥30 years	48,553,343	5,972	3,193	9,165	0.24
Low–gun ownership states[c,d]					
All adults	62,447,876	1,697	4,341	6,038	0.49
Adult men	29,810,942	1,572	3,207	4,779	0.38
Adult women	32,636,934	125	1,134	1,259	0.60
Adults aged 18–29 years	13,335,648	219	778	997	0.97
Adults aged ≥30 years	49,112,228	1,478	3,563	5,041	0.26

Abbreviation: CI, confidence interval.

[a] High–gun ownership states are Alabama, Alaska, Arkansas, Idaho, Iowa, Kentucky, Louisiana, Mississippi, Montana, Nebraska, Oklahoma, South Dakota, Tennessee, West Virginia, and Wyoming.

[b] In high–gun ownership states, 51% of adults live in households with firearms.

[c] Low–gun ownership states are Connecticut, Hawaii, Massachusetts, New Jersey, New York, and Rhode Island.

[d] In low–gun ownership states, 15% of adults live in households with firearms.

[e] The percent of the population that engaged in fatal and nonfatal suicidal acts over the past year.

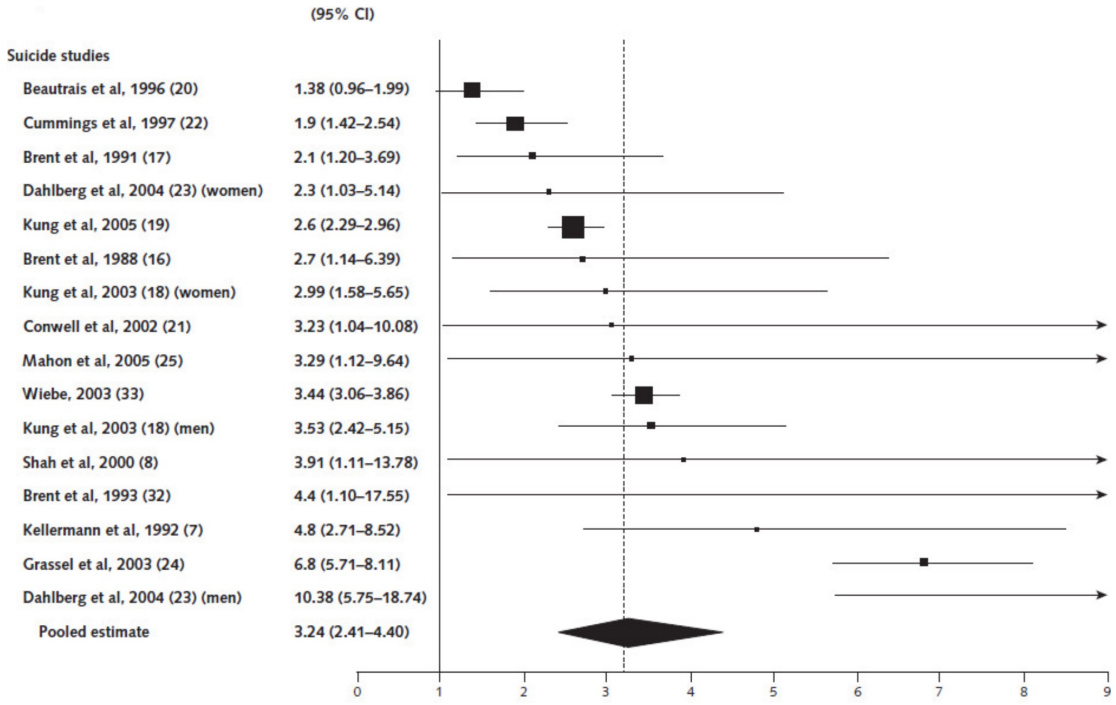
Miller M et al. Am J Epidemiology. 2013

BRFSS 2004

Prior individual-level studies: More than a Dozen US Case-Control studies *:

- Gun in home is a risk factor for suicide for gun owner, spouse, and children

- Factors held constant:
  - Age
  - Gender
  - Community
  - Living alone
  - Education
  - Alcohol
  - Depression medication
  - Illicit drug use
  - Psychiatric diagnosis



Anglemyer et al .The Accessibility of Firearms and Risk for Suicide and Homicide Victimization Among Household Members: A Systematic Review and Meta-analysis. Ann Intern Med. 2014;160(2):101-110. doi:10.7326/M13-1301

However, **household do not own guns, people do** –and nearly all studies that have assessed household-level risk report only aggregate risk, which is a weighted mean of the risks for firearm owners and nonowners residing in the same home.

- Critics: these associations (from observational studies) can be explained by unmeasured confounding
  - Best → RCT, but that is not feasible

- Can try to understand the extent to which confounding matters
  - Survey studies
  - Bias analyses

Are people in HH with guns more suicidal?

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

Sorenson, 2008; Ilgen, 2008; Miller 2009; Betz 2011; Valenstein 2018 (Si/SA in VHA in mental health clinics)

Bias analyses

- ✓ Miller et al. took this to the extreme with a hypothetical binary confounder that might "explain away" i.e., nullify results

A nullifying unmeasured confounder would need to possess an **untenable combination of characteristics**: 1) as potent a suicide risk factor as (e.g., major depressive and substance use disorders), and also 2) an order of magnitude more imbalanced than is any known risk factor

- ✓ Swanson et al. asked how estimates would change, in magnitude and direction, if further adjusted for RF not available in the original study

Few differences by HHG status: Biggest --> substance use disorder (2.3% vs 0.8%, ETOH dep).

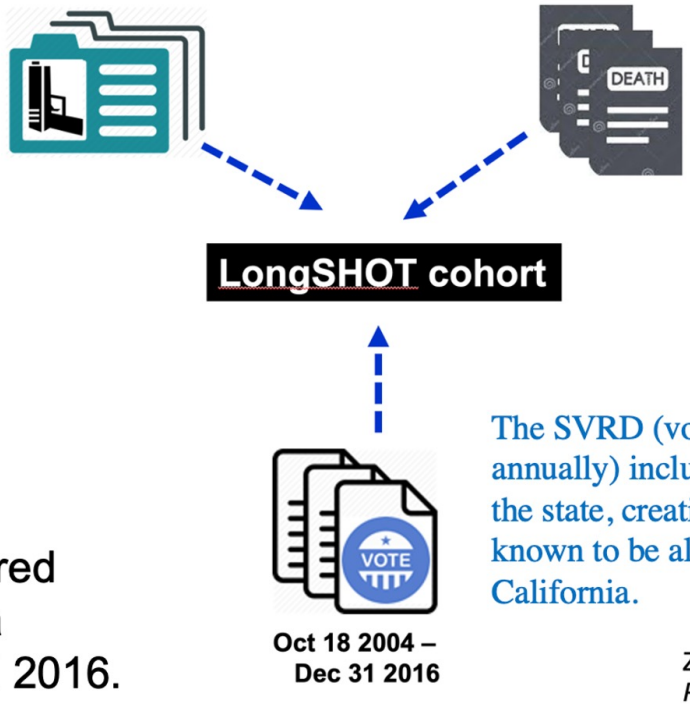
Updated relative risks >4.0 across most sensitivity analyses and at least 3.1 in even the most conservative estimates

Miller M, Swanson S, Azrael D. *Epidemiol Rev,* 2016.

Swanson S et al Injury Prevention. 2020.

The LongShot Cohort

Assembly of LongSHOT cohort



A cohort of registered voters in California between 2004 and 2016.

The SVRD (voter extracts, updated annually) includes all registered voters in the state, creating a large sample of adults known to be alive and residing in California.

Zhang et al *Injury Prevention* 2019

Personal and household-level exposure

Why CA?

The LongSHOT cohort

- 28,866,022 adults (≥21 yrs) followed for up to 12.2 years
- 1,196,382 cohort members purchased ≥1 handguns during follow-up
- 1,655,639 cohort members died
  - 13,868 from gunshot wounds
- Information on cohort members:
  - Age, sex, race
  - Geocoded place of residence *(time varying)*
  - Dates of all lawful handgun (+ some long gun) acquisitions during study period *(running tally)*
  - Prior handgun acquisitions (back to 1985)
  - Area level measures of SES and crime *(time varying)*

Two published studies about acquiring handguns (exposure in CC studies = living in HH w guns)

- How does my risk of suicide change if I become a handgun owner?
- What effect would my becoming a new handgun owner have on the suicide risk of a woman with whom I am currently living in a home without handguns?

One about divestment (AFSP funded, Swanson PI) (about which, even descriptively, almost nothing is known)

- What is the effect of my divesting and remaining divested versus never divesting on my risk of suicide?

These studies pose well-defined research questions of direct practical relevance, and use falsification strategies to more rigorously assess underlying assumptions (about exchangeability). These will now be discussed in more detail by my wonderful colleague Sonja Swanson…

Handgun divestment and suicide risk:

A case study in informing suicide prevention strategies using observational data when randomized trials are not feasible

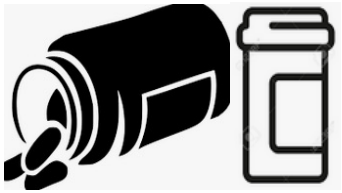
Sonja Swanson

University of Pittsburgh School of Public Health

Research Connection

American Foundation for Suicide Prevention

Part II. The Safety Study: LMC intervention in Colorado EDs to prevent adolescent suicide



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Research Connection

American Foundation for Suicide Prevention

Does intervening to affect availability of methods affect suicide rates?

- ✓ Population level restrictions:
- ✓ Coal Gas: England
- ✓ Pesticides: Sri Lanka
- ✓ Firearms: Israel

Is in home storage associated with lower risk of suicide?

- ✓ For youth, yes (Grossman 1995)

LMC in clinical practice

- ✓ Are we doing enough? Not yet!

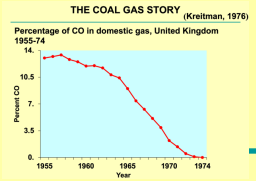
Adolescent Access to HH firearms

- ✓ >30% w/in 5 mins

Belief in preventing suicide by restricting firearm access

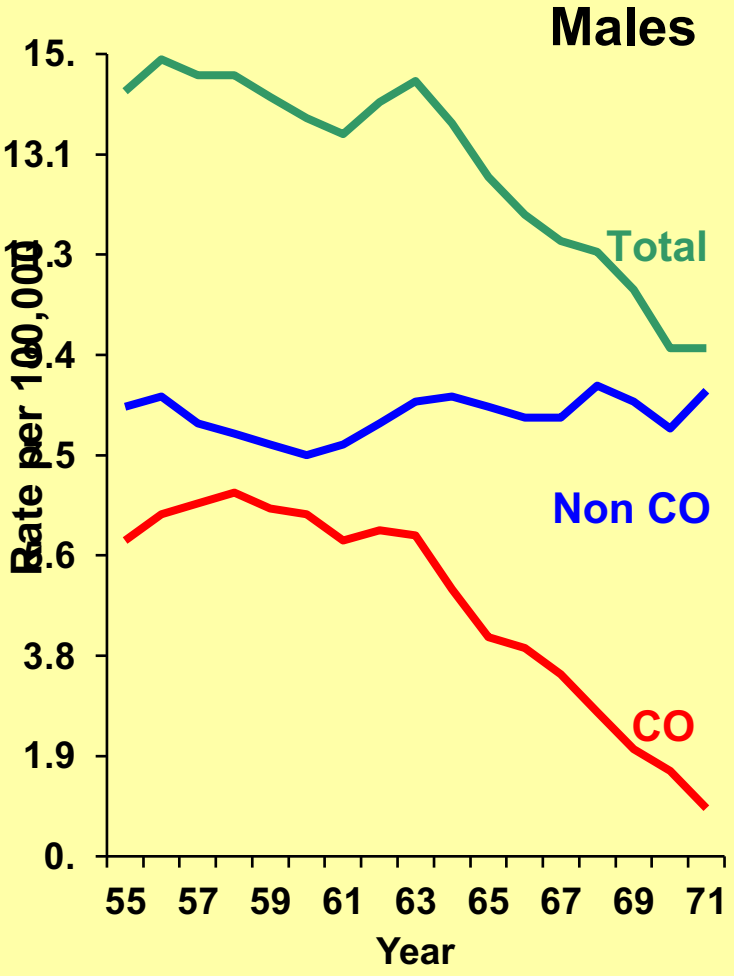
- ✓ Most do <u>not</u> think MR prevents suicide

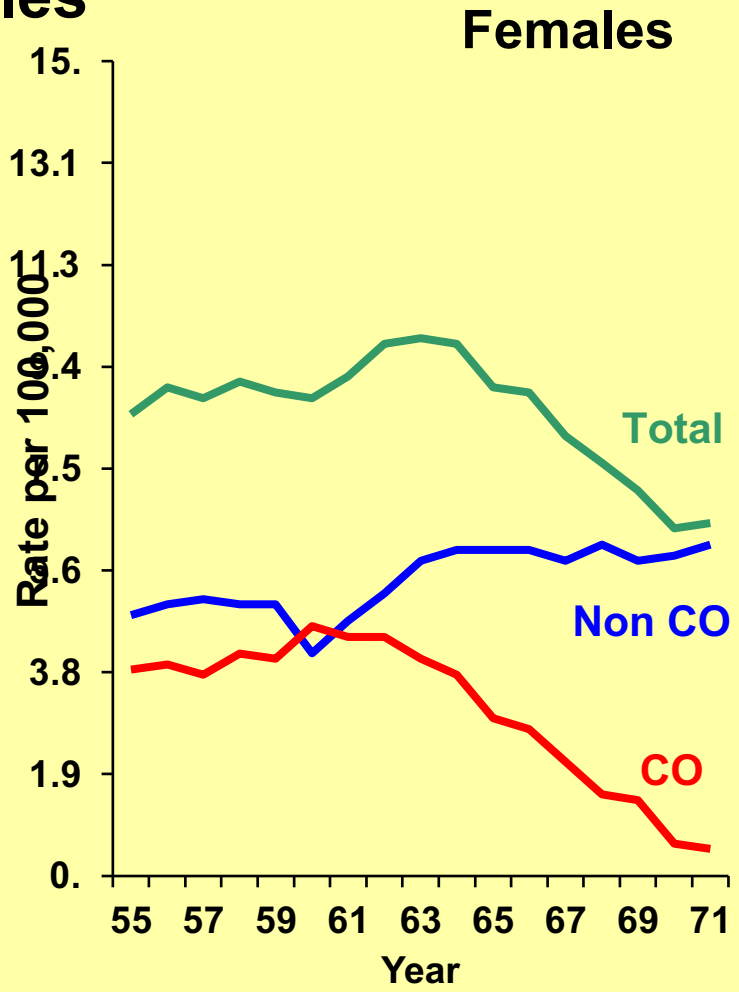
Safety Study



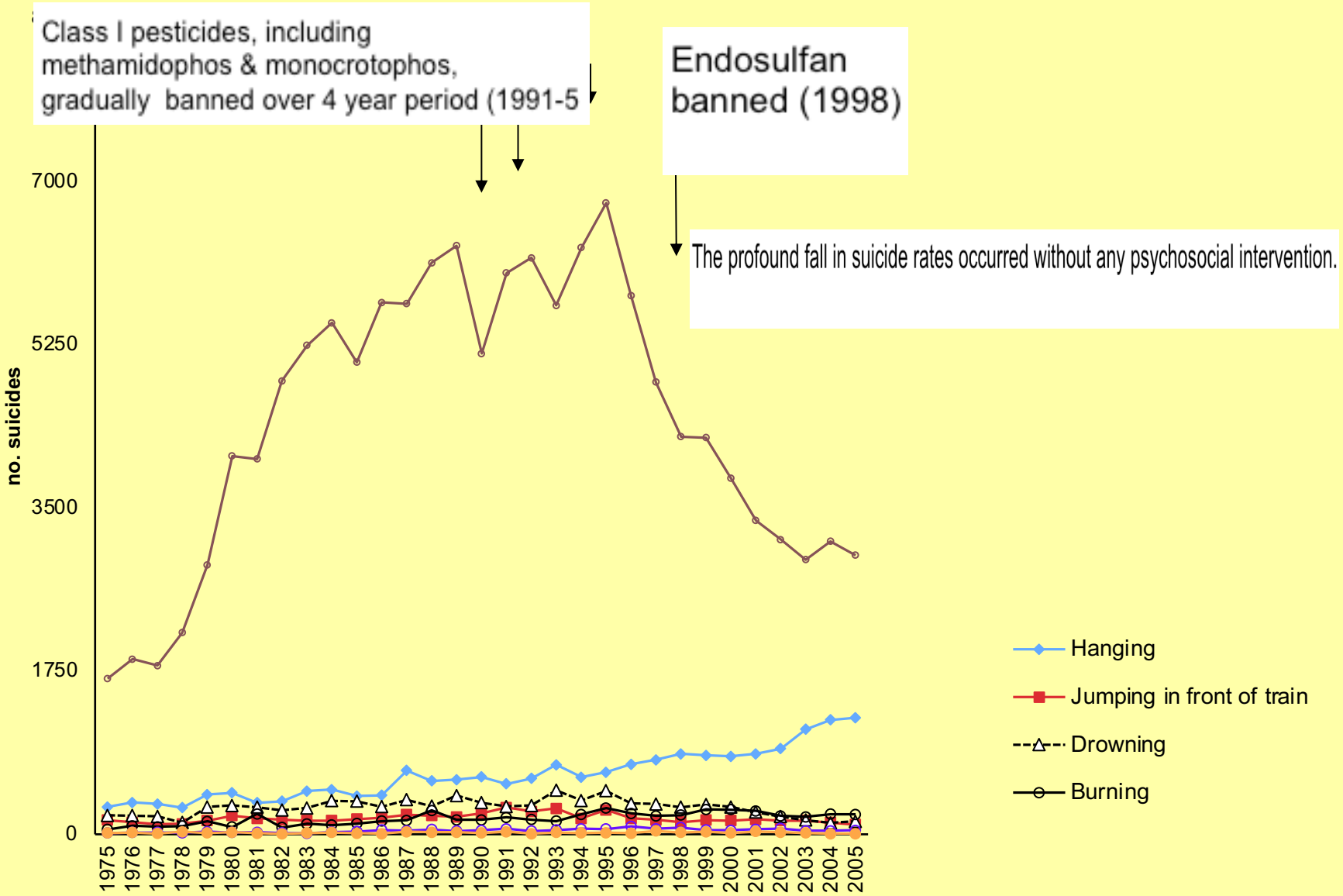
THE COAL GAS STORY (Kreitman, 1976)

Sex-specific suicide rates by mode of death: England & Wales





The profound fall in suicide rates in Sri Lanka occurred without any psychosocial intervention.



Firearms – Israeli Military

- Virtually all 18-21 year-olds in Israel serve in the Israeli Defense Force
- Early 2000s, IDF focused on preventing suicides, most of which were by firearm, many occurring on weekends while soldiers were on leave
- In 2006, IDF required soldiers to leave their weapons on base during weekend leaves
- The suicide rate decreased by 40%.
  - Weekend suicides dropped significantly
  - Weekday suicides did not

Lubin 2010, Suic & Life-Threat Behavior.

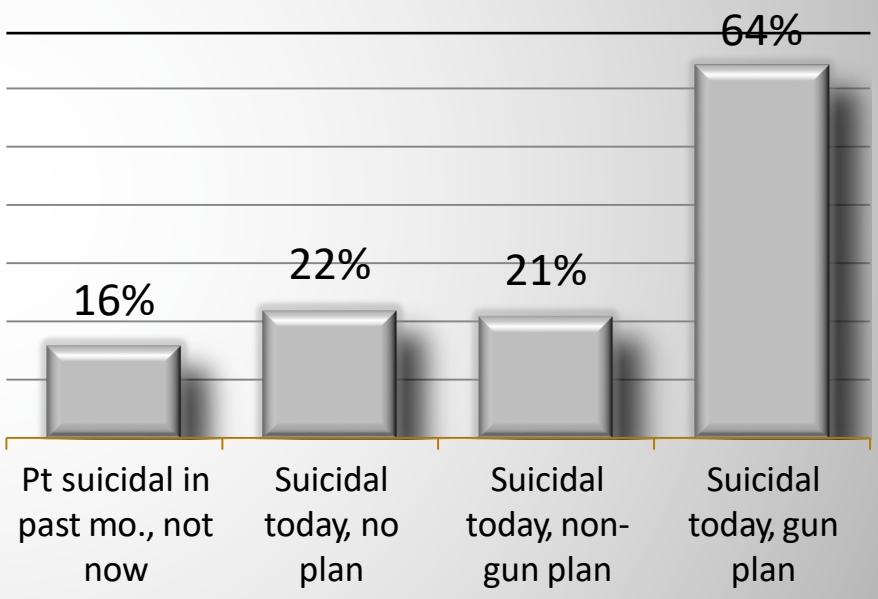
ARE WE ACTING ON WHAT WE ALREADY KNOW?

Not Yet …

When Providers Ask about Gun Access

- Anonymous survey completed by nurses and physicians at eight emergency departments, 2010–11
- Item prompt says, "I ask if there are firearms at home … " and poses patient scenarios
- Response categories are "almost always," "often," "sometimes," "hardly ever"

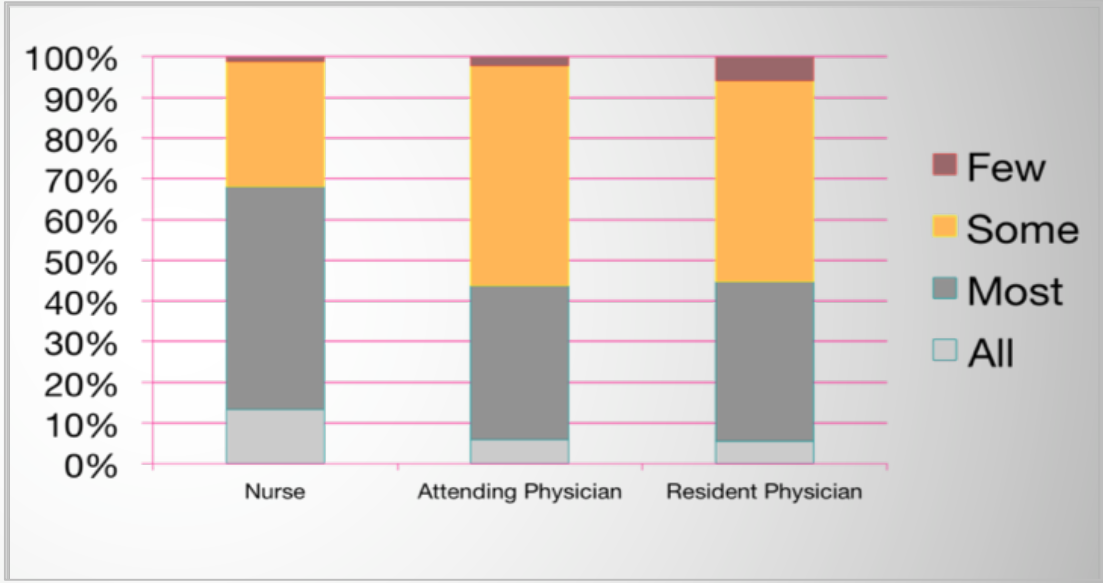
Percent reporting they almost always ask



Source: Betz, Miller, Barber et al. (2013). Lethal means restriction for suicide prevention: beliefs and behaviors of emergency department providers. *Depression and Anxiety,* https://doi.org/10.1002/da.22075

What Health Providers Think and Do about Means Restriction

- 67% of nurses, 43% of attending physicians, and 44% of resident physicians said that "most" or "all" firearm suicide decedents would have died by another method had a firearm been unavailable



"Each month in the United States, over 1,000 people die by suicide using firearms. Had a firearm not been accessible to them, how many do you think would have found another way to die by suicide?"

Source: Betz, Miller, Barber et al. (2013). Lethal means restriction for suicide prevention: beliefs and behaviors of emergency department providers. *Depression and Anxiety,* https://doi.org/10.1002/da.22075

Discussions Regarding Firearm Safety Between Clinicians and U.S. Adults Living In Households With Firearms

Results From a National Survey

7.5% (CI: 6.6% to 8.6%) of adults in homes with firearms had ever discussed firearm safety with a provider

- With children in HH: 12.0% (CI: 9.9% to 14.6%)
- Without children: 5.3% (CI: 4.4% to 6.3%)

No significant variation by sex, race/ethnicity, marital status, education level, region, MSA status, or personal firearm ownership status

Conner A, Azrael D, Miller M. Discussions Regarding Firearm Safety Between Clinicians and U.S. Adults Living in Households with Firearms: Results from a National Survey. *Annal Internal Medicine*. 2020. *https://doi.org/10.7326/M20-6314*

Brent et al OR=4.8, but what about storage?

ORIGINAL CONTRIBUTION

Gun Storage Practices and Risk of Youth Suicide and Unintentional Firearm Injuries

David C. Grossman, MD, MPH
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Table 3. Storage Devices and Practices Used for Case and Control Firearms at Reference Date*

Storage Device/Practice at Reference Date	No. (%) Cases (n = 106)	No. (%) Controls (n = 480)	Odds Ratio (95% Confidence Interval)
Storage practice†			
Gun unloaded	64 (66.0)	429 (90.7)	0.30 (0.16-0.56)
Gun locked	34 (32.4)	274 (57.7)	0.27 (0.17-0.45)
Ammunition locked	24 (24.2)	222 (48.2)	0.39 (0.23-0.66)
Gun, ammunition different locations	41 (41.4)	304 (65.2)	0.45 (0.34-0.93)
Access to gun and ammunition‡			
Both accessible	54 (56.3)	129 (28.0)	1.00
Gun locked/ammunition accessible	18 (18.8)	109 (23.7)	0.34 (0.17-0.66)
Gun accessible/ammunition not accessible	8 (8.3)	61 (13.3)	0.47 (0.19-1.16)
Neither accessible	16 (16.7)	161 (35.0)	0.22 (0.11-0.44)

Adolescent Access to HH Firearms

- 4,030 adults who lived in households with firearms completed the survey, of whom 2,950 personally owned firearms
- Gun owners and parents of 13-17 year olds were over-sampled
- Parent or legal guardians of a child between 13 to 17 years of age in their household were invited to have their child participate in a separate survey
  - Parents who agreed completed an additional survey module that focused on their participating child
  - If more than one 13-17 old child, parent asked to have the child with the most recent birthday participate

Salhi et al JAMA Network Open 2021

Adolescent Report of Access to a Loaded Household Firearm

	How long does it take to get to a loaded gun			
	< 5 min	95% CI	>5 min, <1 hr	95% CI
Full Sample	33.9%	(26.7% 41.2%)	17.4%	(12.1% 22.6%)
Children of non-owners	36.4%	(22.9% 50.0%)	18.4%	(9.3% 27.5%)
Children of owners	32.9%	(24.5% 41.4%)	16.9%	(10.5% 23.4%)
Number of household guns				
1 gun	18.8%	(1.0% 36.7%)	11.5%	(0.0% 24.6%)
2 to 4 guns	30.4%	(15.5% 45.3%)	21.8%	(3.2% 8.9%)
5 or more guns	43.0%	(30.3% 55.7%)	16.0%	(7.0% 25.1%)
Unlocked storage				
No	23.7%	(12.3% 35.1%)	11.7%	(3.7% 19.7%)
Yes	45.0%	(31.8% 58.2%)	22.2%	(11.3% 33.1%)
In homes with any unlocked guns, are any loaded & unlocked				
No	28.3%	(8.4% 48.1%)	32.0%	(13.4% 50.6%)
Yes	59.4%	(42.5% 76.2%)	13.8%	(1.6% 26.1%)

Sex and age did not have much affect on reported access

Dis/con-cordance

	Parent report of adolescent access to a household gun			
	No (n=227)	95% CI	Yes (n=89)	95% CI
Adolescent report of how long to get a gun and load it				
<5 min	21.8%	(13.8% 29.7%)	63.3%	(50.4% 76.2%)
>5 min, <1 hr	14.9%	(8.9% 20.9%)	22.2%	(11.6% 32.7%)
>1 hr, <2 hr	4.6%	(1.9% 7.3%)	3.6%	(0.0% 9.5%)
Can't in <2 hrs	58.7%	(50.0% 67.4%)	10.9%	(2.7% 19.2%)

Based on parent question, "As far as you know, can your child access any of the guns in your home independently, that is without you or another adult in your house accessing it for him/her?"

Suicide Risk: Does a Gun in the Home Increase the Risk of Suicide?

	All	Gun owner	Non-gun owner in gun home	Non-gun owner
Disagree	48%	68%	64%	37%
Neither agree nor disagree	37%	26%	27%	43%
Agree	15%	6%	9%	20%

Conner A, Azrael D, Miller M. (2017). Beliefs about the relationship between firearm availability and suicide: results from a national survey. *Ann Intern Med,* https://doi.org/10.7326/M17-2348

Clinical Trial of Lethal Means Counseling

- Will implementing a new "lethal means counseling" protocol in hospital EDs result in safer household firearm and medication storage by parents of adolescents seen in the ED for a behavioral health problem?
- Intervention: hospital level
- Outcome measurement: parent-level

The SAFETY study was the first controlled study to examine whether a LMC intervention could improve how caregivers of youth at risk for suicide store household firearms and medications.

SAFETY STUDY
SAFEGUARDING THE HOMES OF KIDS IN CRISIS

THE SAFETY STUDY

Matthew Miller Northeastern Univ.
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John Berrigan (Northeastern Univ)
Catherine Barber, Harvard Univ.
Deborah Azrael (Harvard)
Carol Runyan, Colorado SPH
Sara Brandspigel (Colorado SPH)
Marian Betz (U of Colorado)

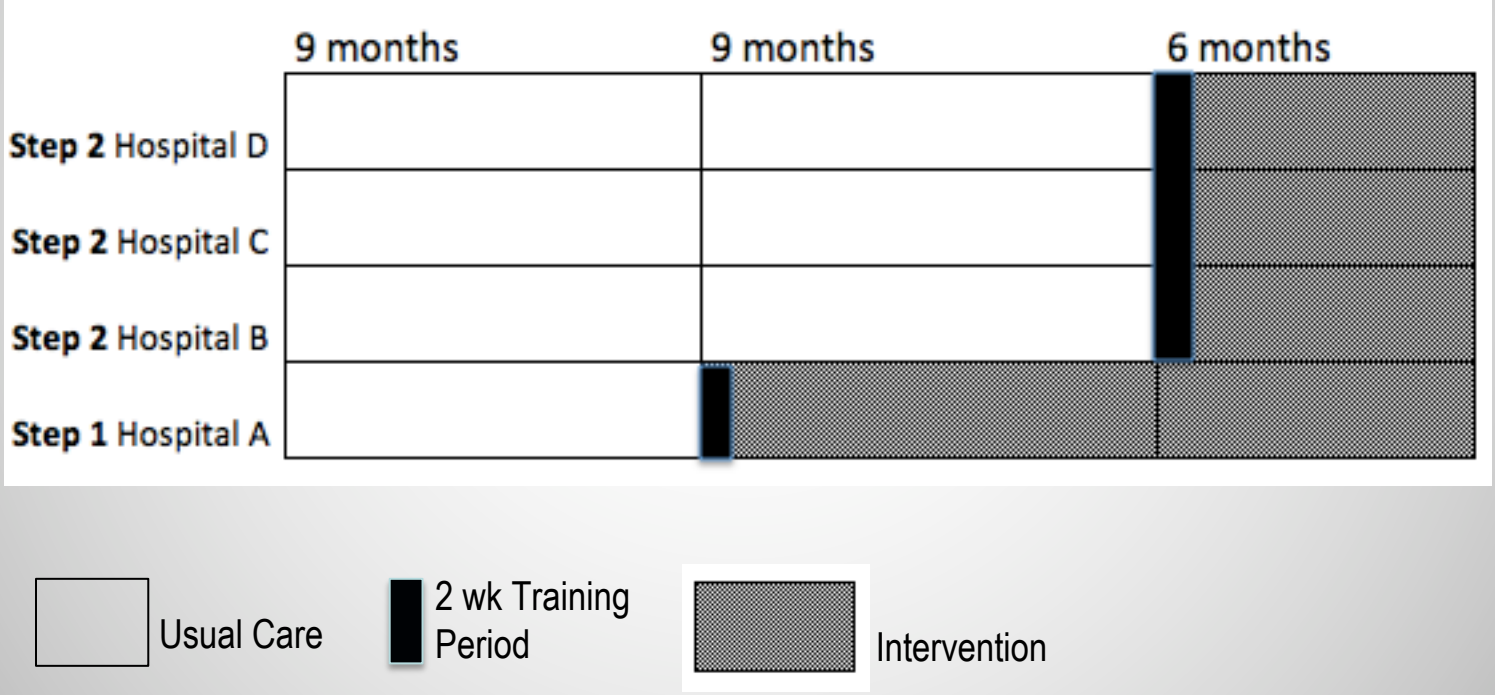
Funding: American Foundation for Suicide Prevention

Study design

- Modified stepped wedge design (2 stages)
- Four hospitals in CO (7 EDs), agreeing to change protocol
- **SUBJECTS:** Adults accompanying patients age 10-17 seen for mental health crisis or screened in

Study Design

- Stepped wedge design; usual care vs. intervention (August 2017-August 2019)



Intervention

- ED behavioral health clinicians trained in:
  - Lethal means counseling (1 hour online course)
  - SAFETY Protocol (counseling, locking devices, literature)

- Supplied hospitals with free locking devices and family handouts

- $10K incentive for hospitals ($5K start, $5K end)

The one-hour online training→ medications and firearms should be made inaccessible, overview LMC protocol, rationale for why means restriction works and why we emphasize firearms and medications, video enactment of a clinical encounter, information on out-of-home firearm storage options.

SAFETY Protocol

Advise all parents/caregivers of youth experiencing psych crisis to:

- Remove guns from home (second best: otherwise make guns inaccessible to the youth at min. triple safe storage)
- Lock up medications (priority lock up all but rescue medications if possible and, if not, to prioritize locking/removing prescription analgesics (including opioids), other prescription medications, over-the counter analgesics, and sleeping medication.

Supply free locking devices for guns (to gun-owning families) and medication lockboxes (all families)

Distribute and discuss literature with all families:

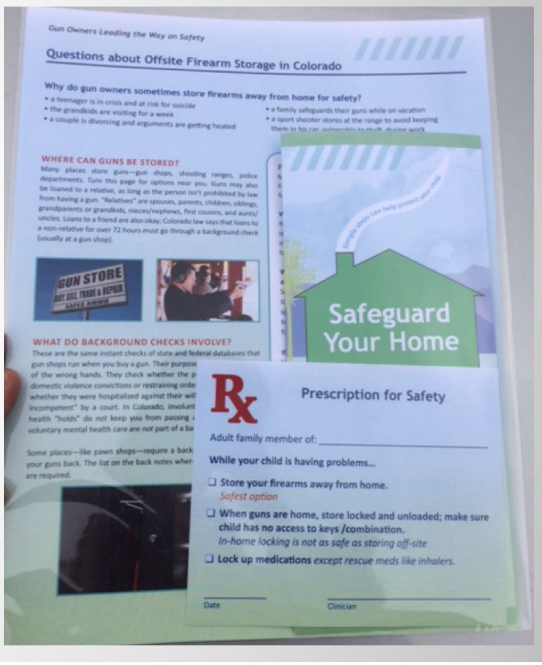
- Brochure about safe storage of guns and medications and supporting youth in crisis
- Listing of local offsite gun storage options
- Link to info about medication disposal locations

Materials/devices handed out to families

Handgun Lockbox

Medication Lockbox

Cable Locks



Local Info on Off-Site and In-Home Safe Storage Options

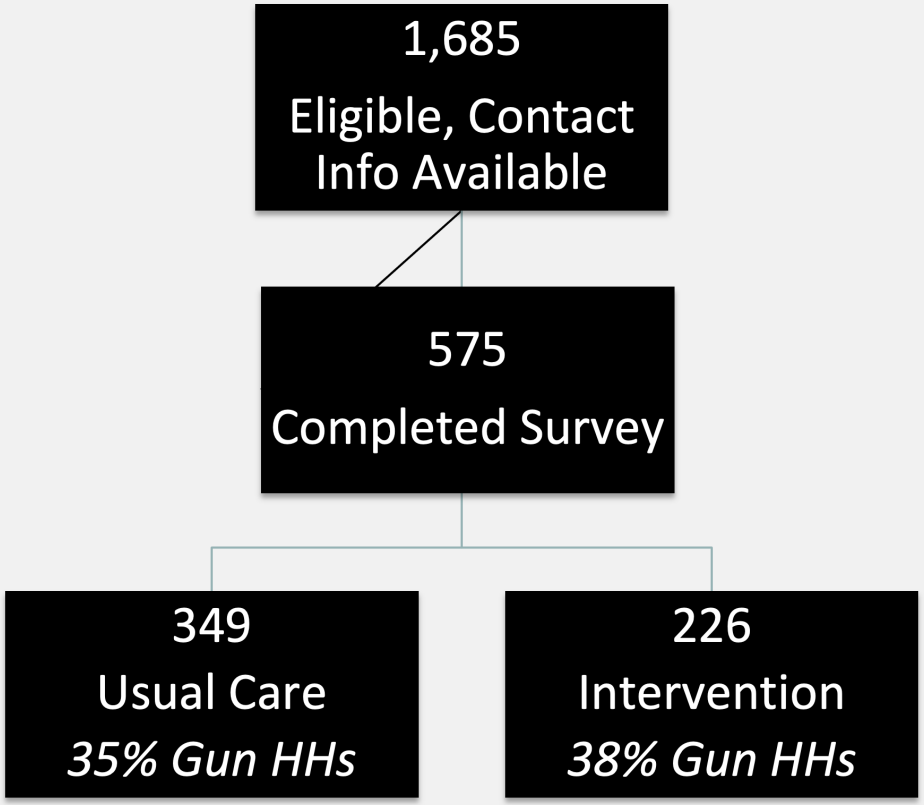
Outcome Measurement

Follow-up interviews

- WHO: Parents (or caregivers in parent role) who accompanied child ages 10-17 evaluated in ED for behavioral health problem
- HOW: Telephone or online survey
- WHEN: ~2 weeks post-ED visit
- WHAT: Questions re
  - Counseling received
  - Storage behaviors (before ED visit & “today”)
  - Satisfaction with services

SAFETY STUDY
SAFEGUARDING THE HOMES OF KIDS IN CRISIS

Results



Patient Characteristics (all phases)	n=575
Mean pt. age	14.4
Reason for visit	
Suicide attempt	26%
Suicidal ideation	45%
Other	28%
Patient admitted	68%

Miller et al, Annals Emerg Med, Apr 2020

SAFETY STUDY
SAFEGUARDING THE HOMES OF KIDS IN CRISIS

Clinician Behavior (per parent)

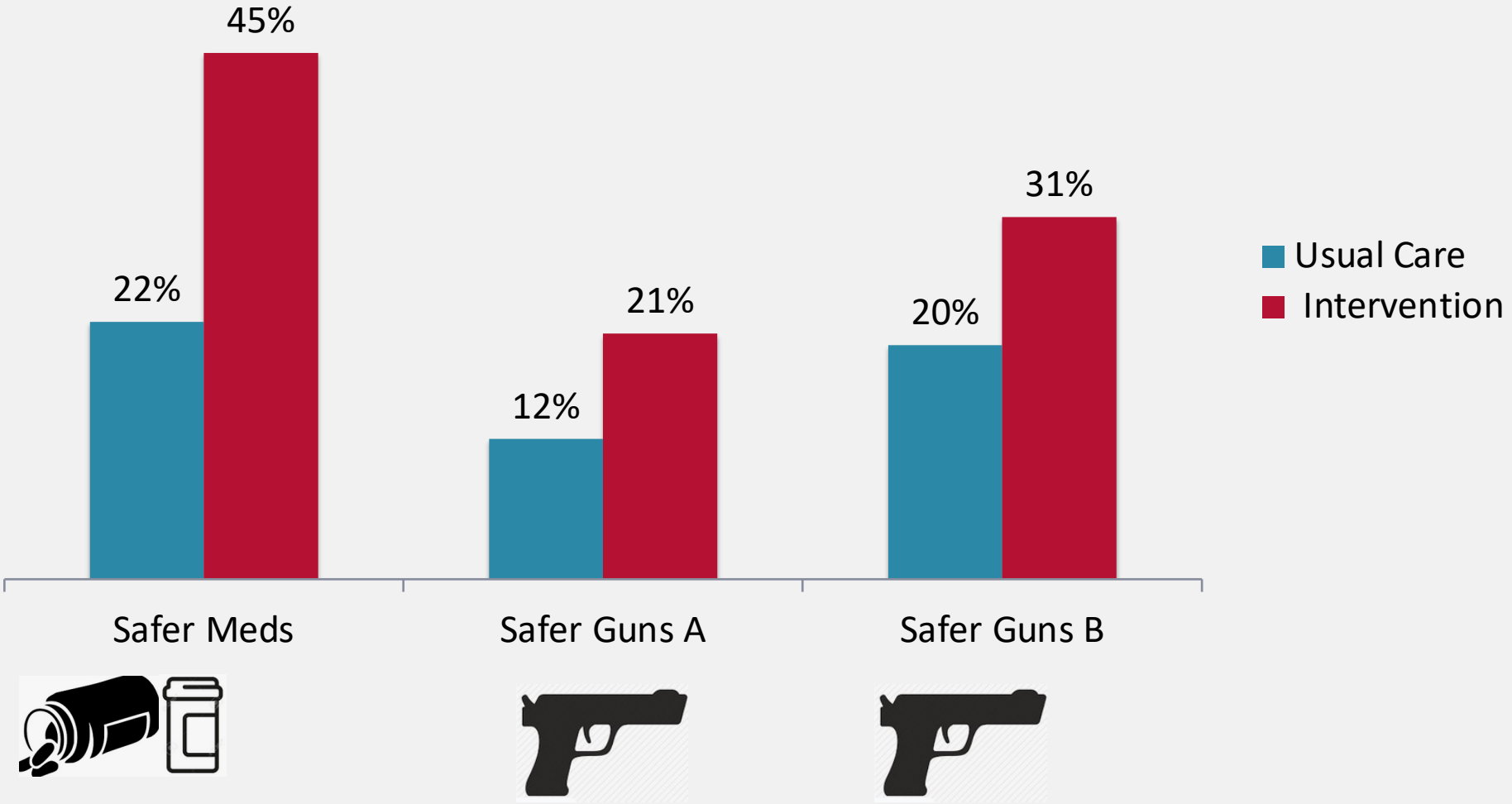
	Usual Care	Intervention
Gun counseling (all)	19%	57%
Gun counseling (gun owners)	29%	71%
Medication storage counseling	32%	80%
Offered medication lockbox	n/a	75%
Offered gun safe (gun owners)	n/a	59%

Counseling about firearm safety and medication safety were more often reported by caregivers during the intervention phase

However, not all caregivers recalled receiving the counseling, suggesting some gaps in counseling practices

Particular gap noted in counseling ALL families about firearm safety vs. only gun owners

Parent Behavior (safer storage now vs before ED visit)



A – Stored all guns offsite or locked unlocked guns or unloaded previously loaded guns

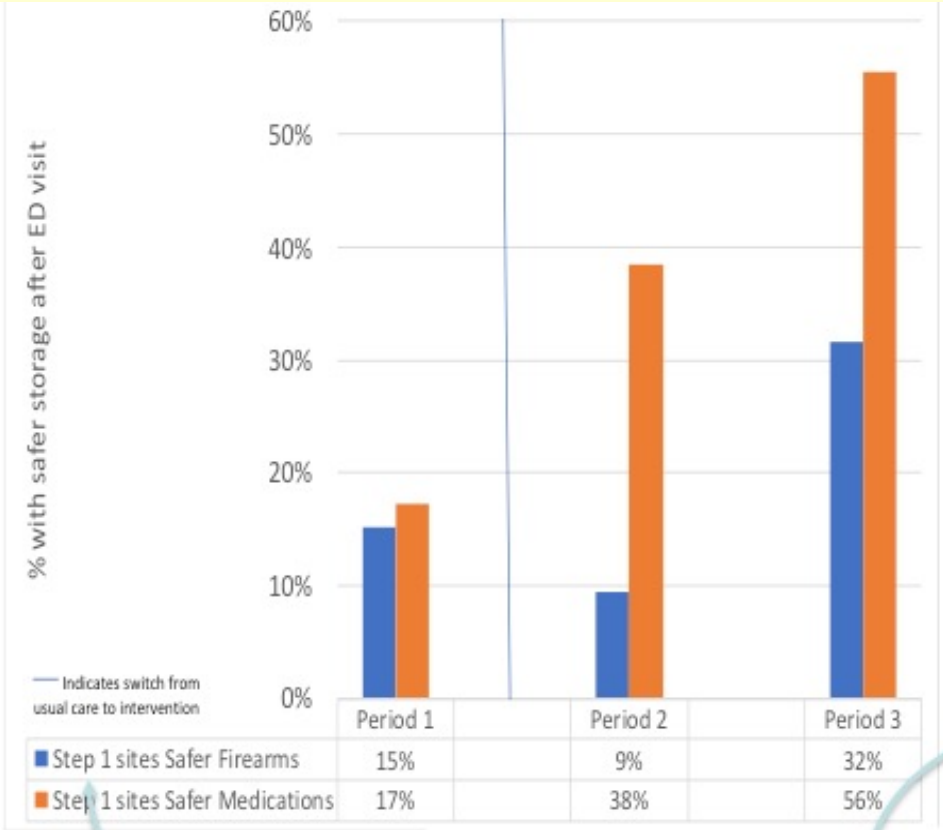
B – Same as A, or locked all ammo, changed locks, changed combo, disassembled guns, removed ammo from home, etc.

A more granular accounting…

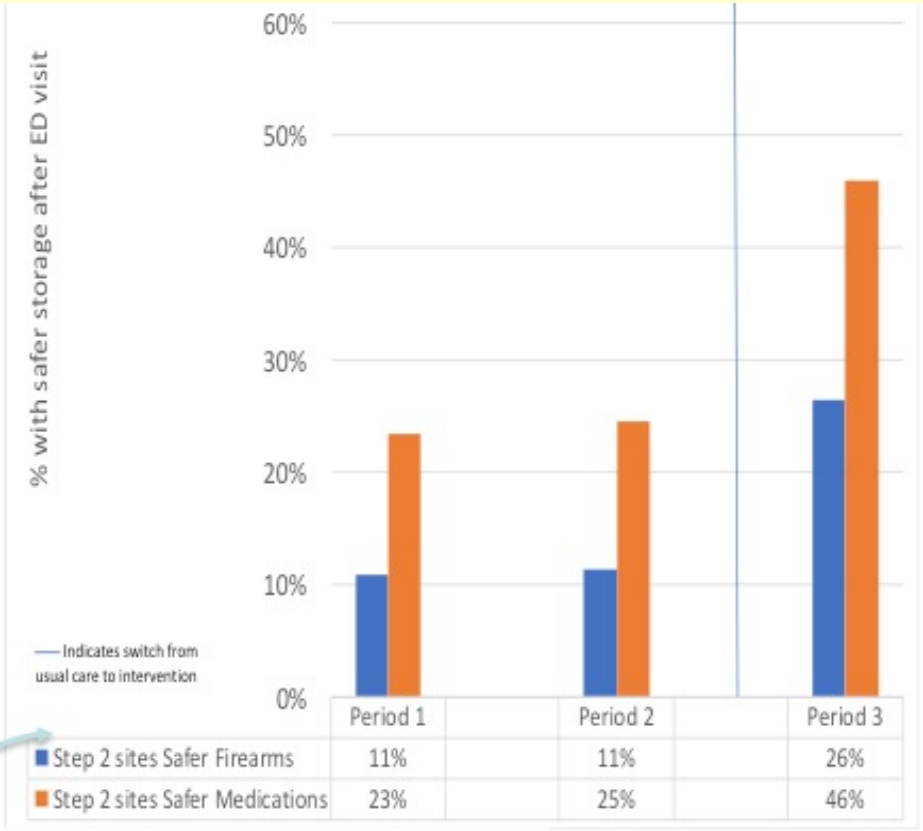
Table 2. Changes in firearm and medication storage, usual care versus intervention phase.

	Usual Care		Intervention	
	No.	**%**	**No.**	**%**
Survey respondents	349		226	
Any guns at home before ED visit	123	35	85	38
Any medications at home before ED visit	337	97	221	98
Firearm storage change				
Firearm storage is safer after ED visit (primary outcome)*	15	12	18	21
Moved all guns out of home	4	3	6	7
Locked all previously unlocked firearms (unlocked before)	11	37	11	69
Unloaded all previously loaded firearms (loaded before)	0	0	2	11
Firearm storage is safer after ED visit (secondary outcome)*	24	20	26	31
Changed combination or key location	4	3	10	12
Removed or locked ammunition	10	8	12	14
Disassembled firearms	3	2	4	5
Other storage change to reduce child's access	10	8	14	16
Medication storage change				
Medication storage is safer after ED visit (primary outcome)	73	22	98	45
Locked or removed all previously unlocked medications	66	20	75	34

Examining Period Effect



	Period 1	Period 2	Period 3
Step 1 sites Safer Firearms	15%	9%	32%
Step 1 sites Safer Medications	17%	38%	56%



	Period 1	Period 2	Period 3
Step 2 sites Safer Firearms	11%	11%	26%
Step 2 sites Safer Medications	23%	25%	46%

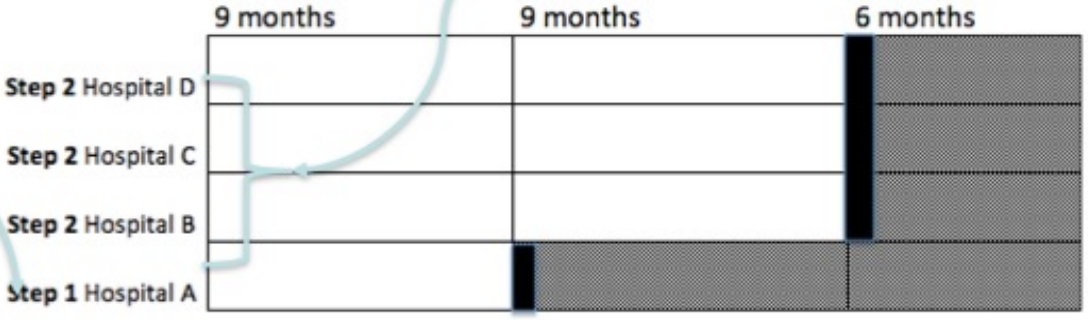


Table 3. Treatment effect under different modeling assumptions, OR (one-sided 95% CI).*

	Primary Medication Outcome:				Primary Firearm Outcome:				Secondary Firearm Outcome:			
	Post–ED Visit Increase in Locking Medications				Removing All Guns, Locking All Previously Unlocked Guns, Unloading All Previously Loaded Guns				Any Post–ED Visit Change in Firearm or Ammunition Storage to Reduce Child's			
	n	OR	95% CI	1-Sided *P* Value	n	OR	95% CI	1-Sided *P* Value	n	OR	95% CI	1-Sided *P* Value
Model 1: intervention regressed on outcome	557	2.88	2.11–∞	<.001	208	1.93	1.03–∞	.04	208	1.82	1.06–∞	.03
Model 2: model 1+hospital fixed effects	557	3.00	2.15–∞	<.001	203[†]	2.06	1.04–∞	.04	203[†]	2.15	1.19–∞	.02
Hosmer-Lemeshow χ^2 (*P* value)				0.66 (.995)				3.26 (.78)				2.84 (.83)
Model 3: model 2+period adjustment[‡]	557	1.96	1.00–∞	.049	203[†]	0.65	0.14–∞	.32	203[†]	0.85	0.24–∞	.42
Hosmer-Lemeshow χ^2 (*P* value)				4.13 (.85)				1.18 (.997)				1.38 (.995)

Limitations

- Outcomes based on self-report
- 34% response rate
- Cannot disentangle effect of LMC vs. handouts (locking devices)
- Many parents did not improve storage
- No power to examine firearm outcomes by presenting complaint or other factors

SAFETY STUDY
SAFEGUARDING THE HOMES OF KIDS IN CRISIS

Clinician Comments

(23 semi-structured interviews)

- "I noticed when I did the training with you guys that there were so many good statistics there and it made me feel more confident …it's easier for me to have those conversations [now]."

- being able to give them something, a parting gift [firearm and medication lock boxes] ... I've liked that part of it. I feel like it has made me be more mindful and more thorough in my assessment."

- "I think it's important that we keep it up. What's going to be really important is passing this on …to explain to [new hires] how important it is to talk about gun safety and medicines"

- "My hope is that the entire team would continue to engage in these conversations at the level that we are at this point. I think it'd be great if we continued to have medication boxes available and lock boxes for guns available, and locks for the rifles…. when we give them something, it's a message... It's a concrete example of how serious the concerns are."

Salhi C, Berrigan J, Azrael D, Beatriz E, Barber C, Runyan C, Miller M. It's changed how we have these conversations: Emergency Department Clinicians' Experiences Implementing a New Lethal Means Counseling Protocol for Caregivers of Adolescents. 2021. International Review of Psych.

Caregiver comments

21 semi-structured interviews with primary caregivers (almost always parents) of adolescents who came into the ED. Recruited at the end of the primary survey. All had guns in the home prior to their ED visit.

All caregivers expressed how important they felt it was to talk about firearms and medications in an acute pediatric setting

No caregiver in our sample expressed generalized concerns about counseling about firearms or medications in a pediatric ED setting.

Caregivers who felt clinician tried to explain the reasoning behind LMC and understand their particular situation tried to reduce firearm access at home

"No one ever provides any counseling...It's always been in the hands of the parents to deal with it. This time, it was definitely a conversation that was really good to have…It forced me to rethink and consider the setup we have at our home."

Caregivers who felt clinicians were going off rote scripts/giving generic advice (e.g., "Lock all medications, get all guns out of the home") were generally unsure of how LMC applied to their household and felt alone in creating a safety plan for their home

"I just was told to lock them up, which is a pretty hard thing to do...And how do you lock up all that stuff? We got clever, but it is a little bit inconvenient. We didn't have any other information about how to do it, or how long to do it"

Lockboxes played a helpful, supplemental role: supported caregivers' sense of agency in positive conversations but added to caregivers' sense of uncertainty in rotely delivered advice

"The fact that she handed [the lockbox] to me, and I walked out the door with it, was really nice...It was just really helpful to actually have something to physically put them in and get this problem immediately dealt with."

Salhi et al. SSM. 2023. R&R. “Your son needs help…and we’re gonna help him”: A Qualitative Study of the Experiences of Gun-owning Caregivers of Adolescents Receiving Lethal Means Counseling in the Emergency Department

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Research Connection

American Foundation for Suicide Prevention