

# **VIOLENCE AND MENTAL ILLNESS**

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***CPNP Annual Meeting***

**Phoenix, AZ**

**April 29, 2014**



Untreated mental illness?

Unregulated guns?

Violent culture?

Predictable?

Preventable

Newtown, CT  
December 2012



**THE AMAZING  
RETROSPECT-O-SCOPE!**



Accuracy of  
clinicians'  
prospective  
predictions of  
violence:  
0.41

**THE AMAZING  
RETROSPECT-O-SCOPE!**



What do we mean by  
**mental illness?**







What do we mean by  
**violence?**









What do we mean by

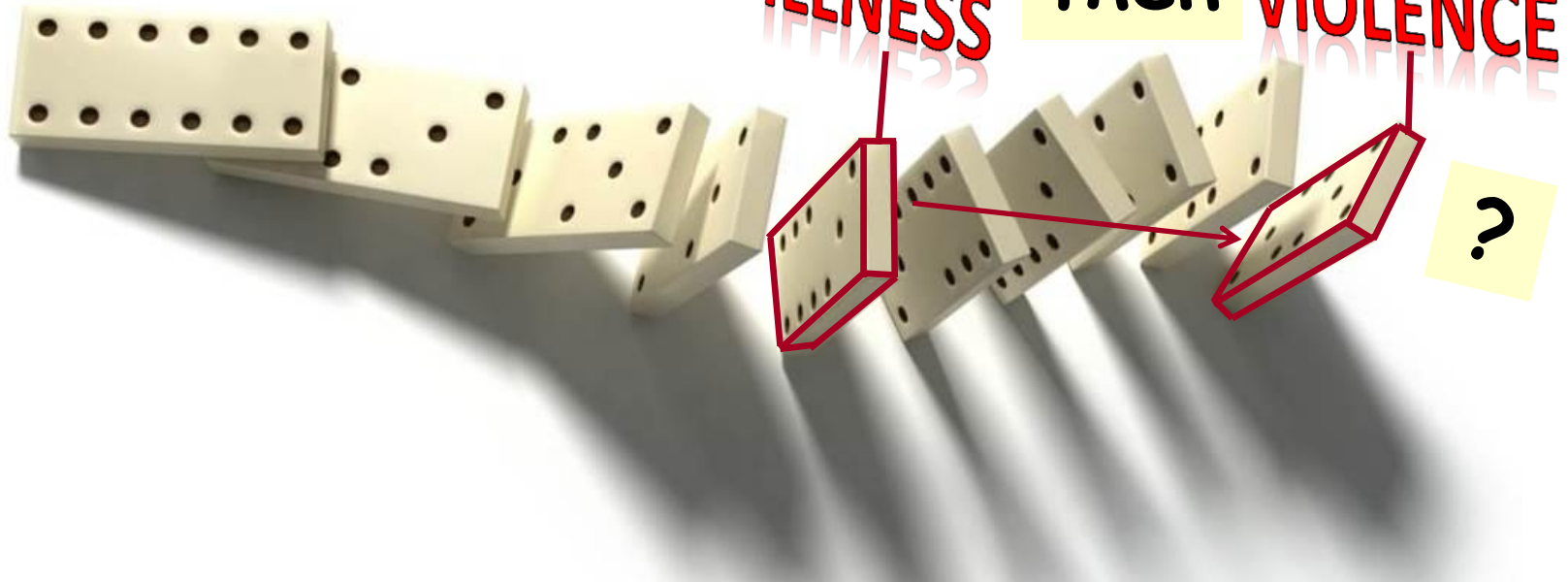
**cause?**

if

**MENTAL  
ILLNESS**

then

**VIOLENCE**



multiple precursors, co-determinants,  
mediators, moderators, interactions =  
**uncertainty**

Percent of US public that **believes** that people with **schizophrenia** are likely or very likely to act **violently**

**60%**

**PUBLIC PERCEPTION**

## **VIOLENCE RISK in SMI only**

Absolute:

**7%**

Relative:

**3.5**

Attributable:

**4%**

**Victimization:**

**25%**

Prevalence of **any minor or serious violent** behavior in people with **schizophrenia**

**12%**

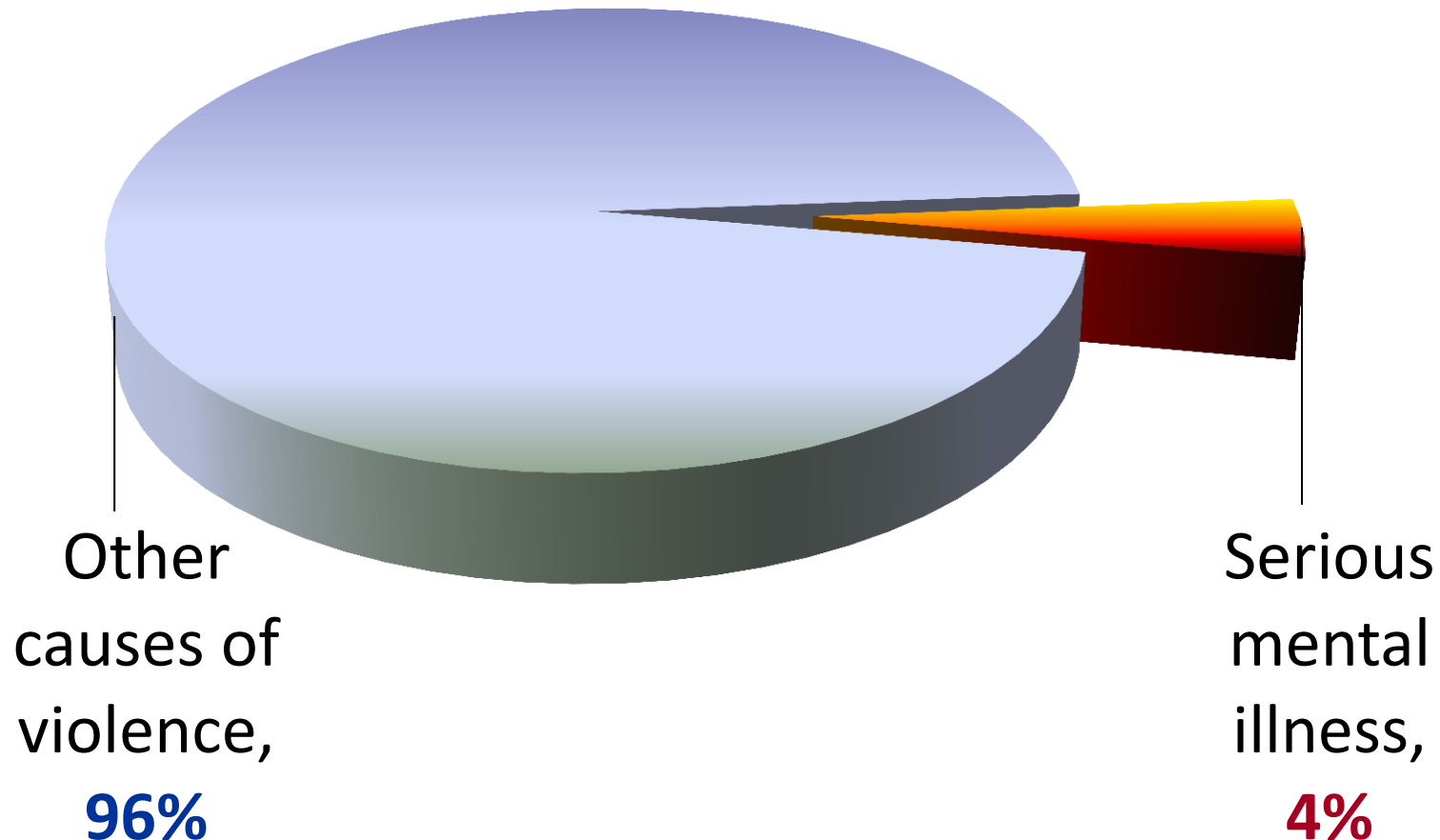
**REALITY**

Prevalence of **stranger homicide** by people with **schizophrenia**

**(1 IN 70,000)**

# Serious mental illness contributes very little to overall violence

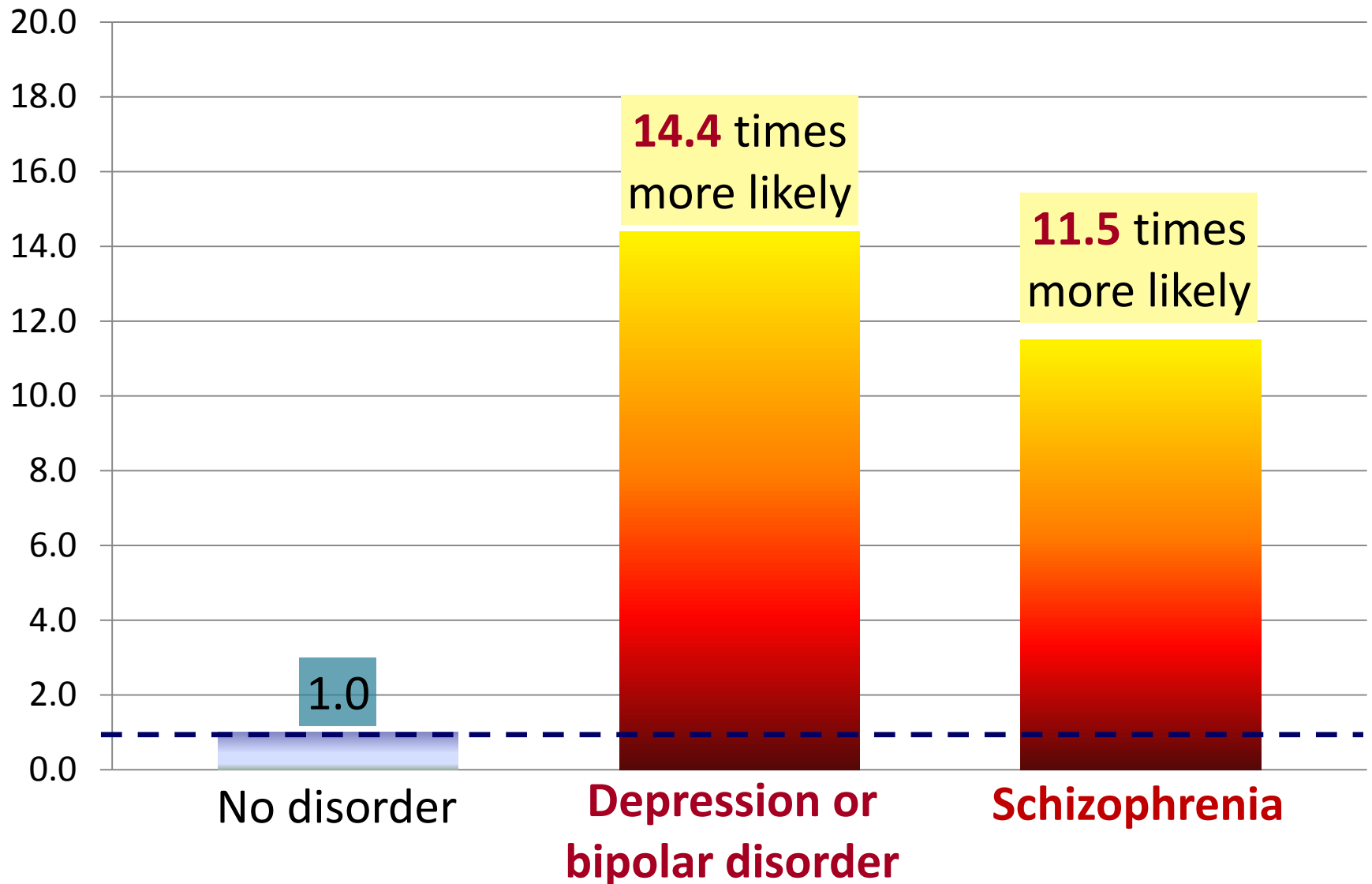
Attributable risk of minor or serious violent behavior towards others



Source: Swanson (1994) NIMH Epidemiologic Catchment Area data

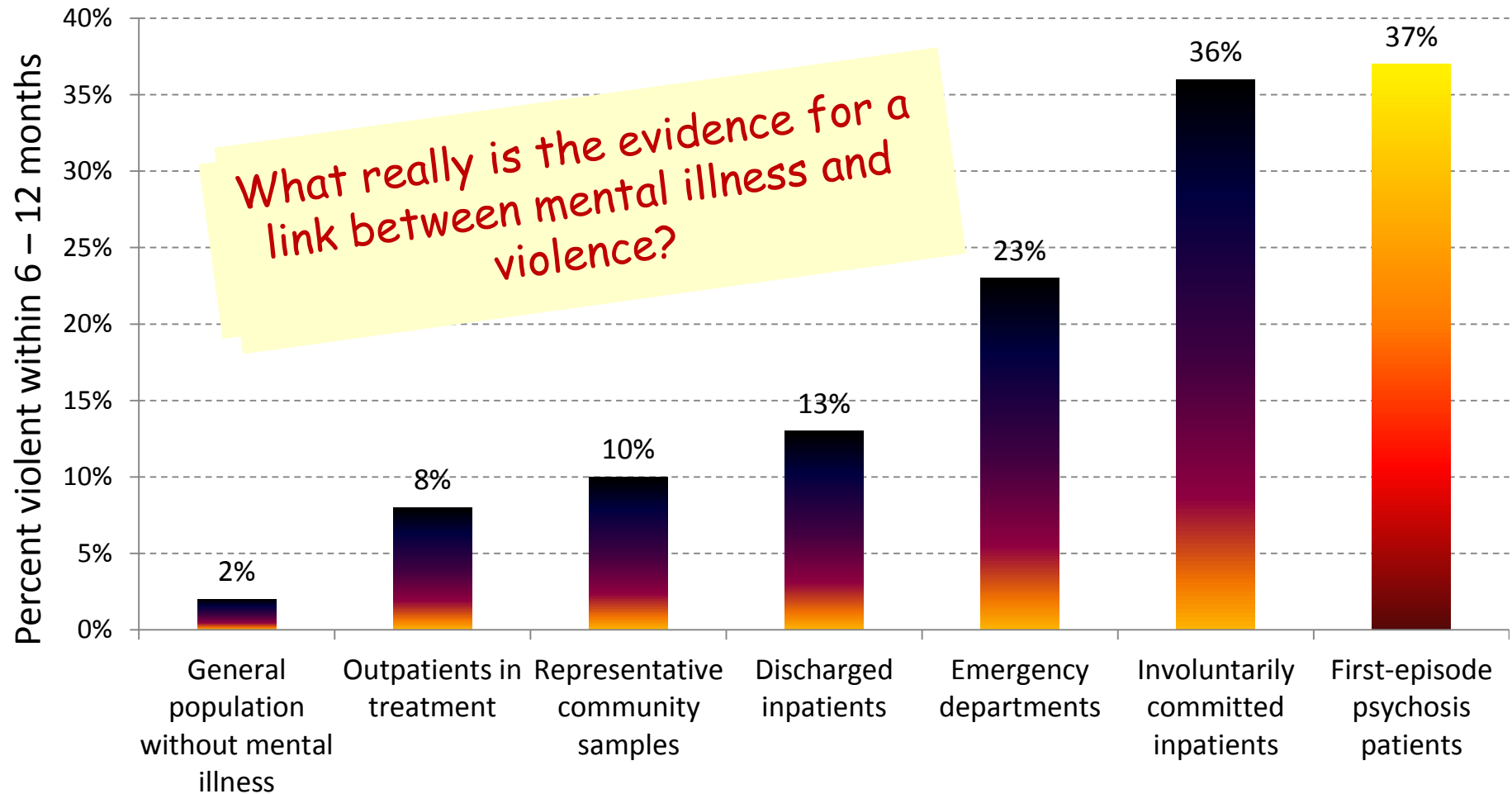
# Mental illness dramatically increases risk of suicide

Relative risk of suicide, by mental disorder (females under 35)





# Average prevalence of **minor to serious violence** among persons with serious mental illness by **setting of study** (meta-analysis of many studies)



Sources: Adapted from (1) Choe JY, Teplin LA, Abram KM (2008). Perpetration of violence, violent victimization, and severe mental illness: Balancing public health concerns. *Psychiatric Services* 59, 153-164; (2) Large MM, Nielssen O (2011). Violence in first-episode psychosis: A systematic review and meta-analysis. *Schizophrenia Research* 125, 209-220.

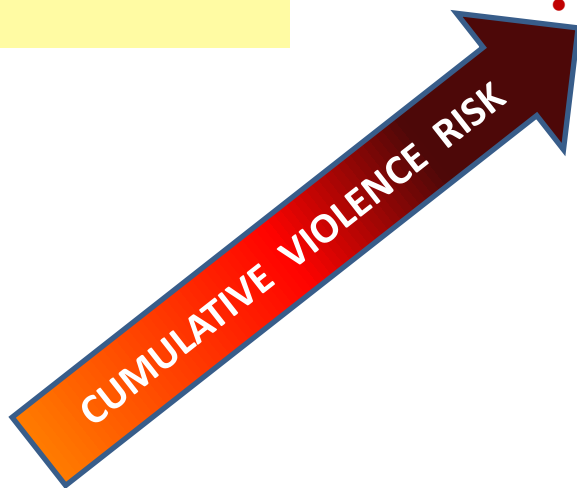
# Predicted probability of violence in year in lowest- and highest-risk profiles in NIMH Epidemiologic Catchment Area Surveys (Swanson, 1994)

Predicted probability of violent behavior in 1 year

Violence risk is multi-factorial and cumulative: Risk linked to mental illness is embedded in other factors

- Older
- Female
- Middle to upper SES
- No serious mental illness
- No substance abuse
  - No psychiatric hospitalization
- No arrest history

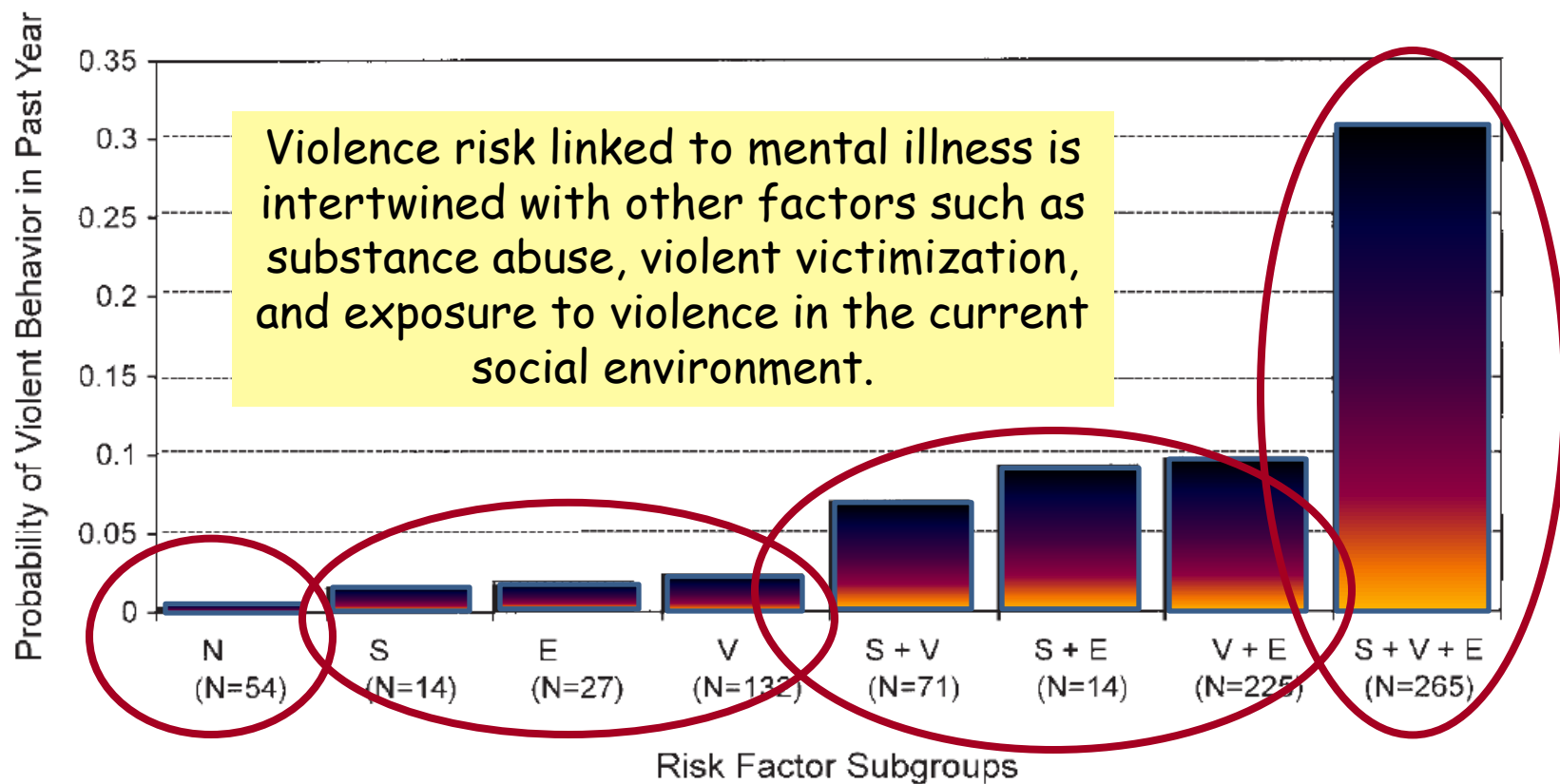
**<1 % violent**



- Younger
- Male
- Lower SES
- Serious mental illness
- Substance abuse
- History of psychiatric hospitalization
- History of arrest

**65 % violent**

Predicted **probability of serious violent behavior** in persons with serious mental illness by combined risk factors, controlling for significant covariates in logistic regression model (N=802)



*Note.* Risk factors are as follows: N = none; S = substance abuse; V = violent victimization history; E = exposure to violence in current environment.

Source: Swanson JW, Swartz MS, Essock SM, Osher FC, Wagner HR, Goodman LA, Rosenberg SD, Meador KG (2002). The **social-environmental context** of violent behavior in persons treated for severe mental illness. American Journal of Public Health, 92(9): 1523-1531.

# What about symptoms?

## [delusions and violence]

- **Definition**

- **Delusions** are disturbances of thought that produce false beliefs, often bizarre, held with conviction despite disconfirmatory evidence from everyday life.



# How might **delusions** cause violence?

## Conceptual mechanisms

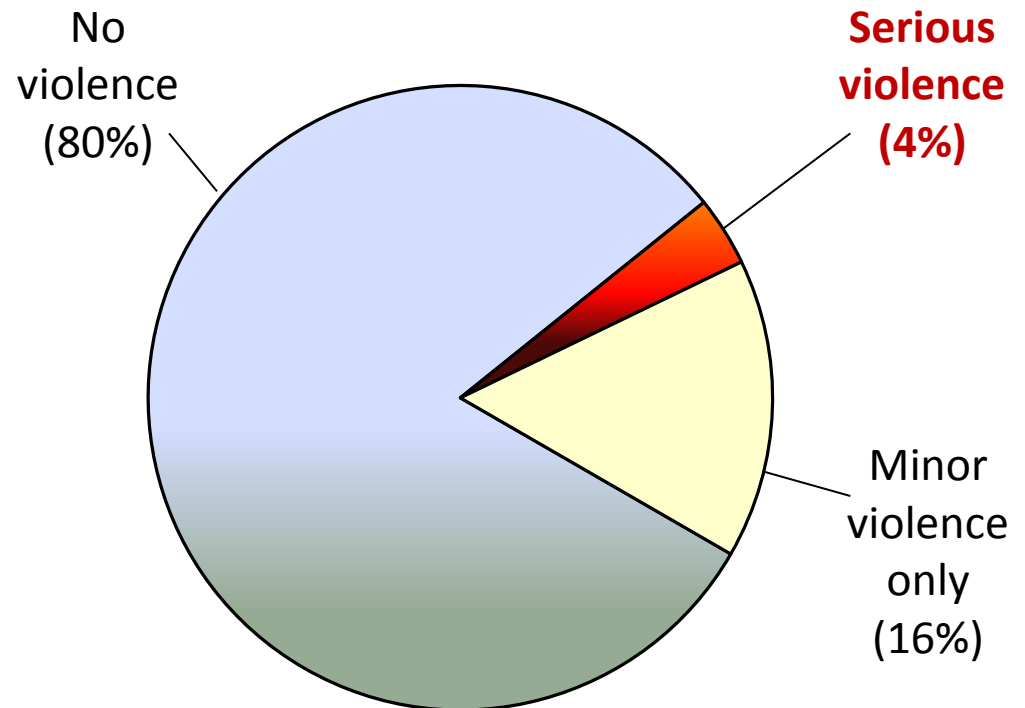
- **Motivating effect:** acts motivated by delusions may be complex, organized, and goal-oriented, even if appearing illogical to outside observers; “principle of rationality within irrationality” (Link & Stueve, 1994).
- **Destabilizing effect:** psychotic symptoms interfere with the ability of individuals to manage interpersonal conflicts; thought disturbance may frustrate psychotic individuals and increase likelihood of impulsive decisions to act violently; “tense situations” (Hiday, 1995); “disorganized/impulsive” violence (Baxter, 1997).
- **Disinhibiting effect:** thought disturbance may remove natural controls on impulses to act violently in certain situations (Douglas et al., 2009.)

# NIMH Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) study: N=1,460 patients with schizophrenia in community treatment; 57 U.S. clinical sites

## Measure : MacArthur Community Violence Interview (MCVI)

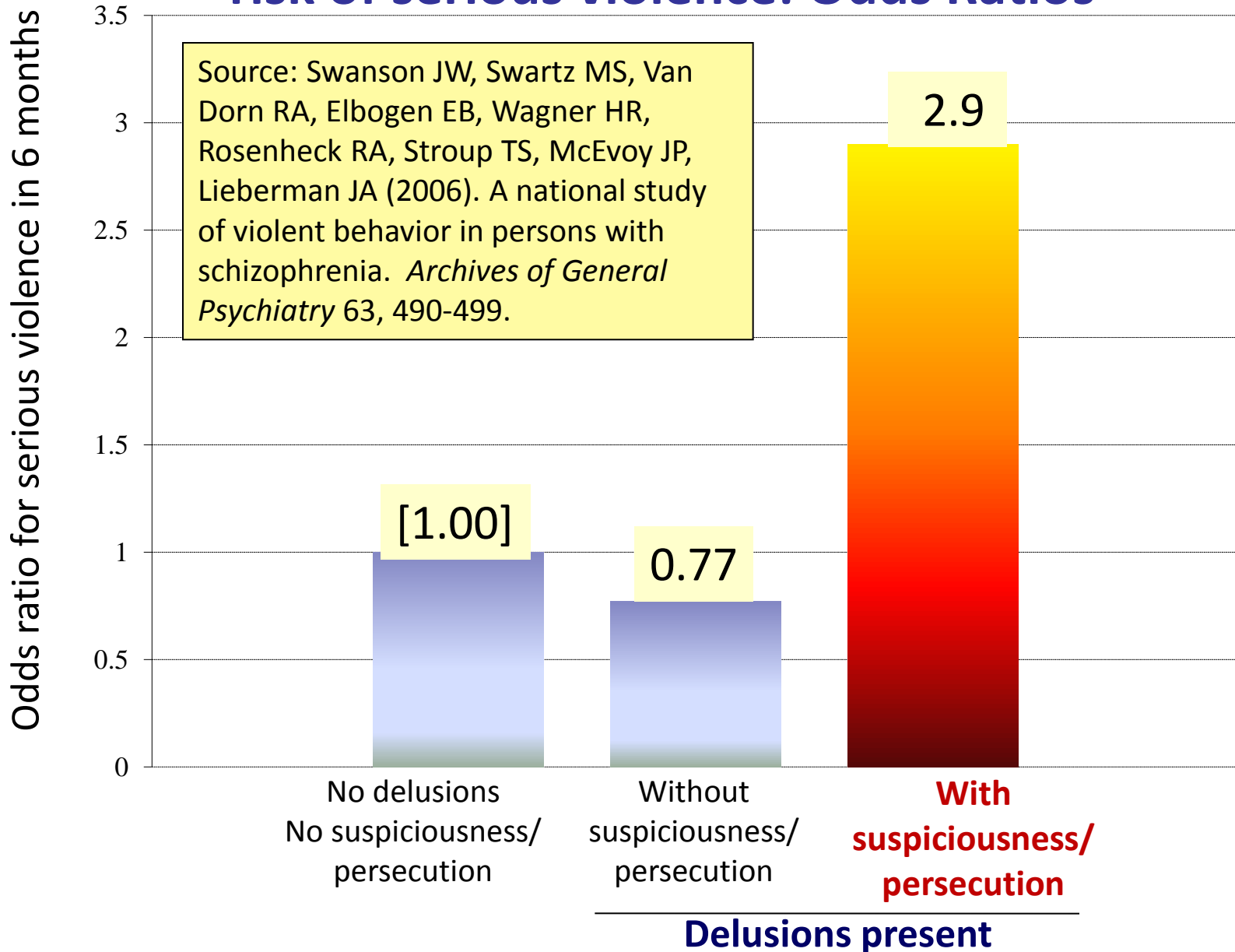
- Structured interview questions about violent behaviors; 2 levels of severity:
  - Minor violence: simple battery without injury or weapon use
  - Serious violence: use of a lethal weapon; acts resulting in physical injury; threats with a lethal weapon in hand; any sexual assault.
- Self-report information supplemented with family collateral reports on parallel questions.
- 6 month period of reference/recall.

6-month **prevalence of violence** at baseline

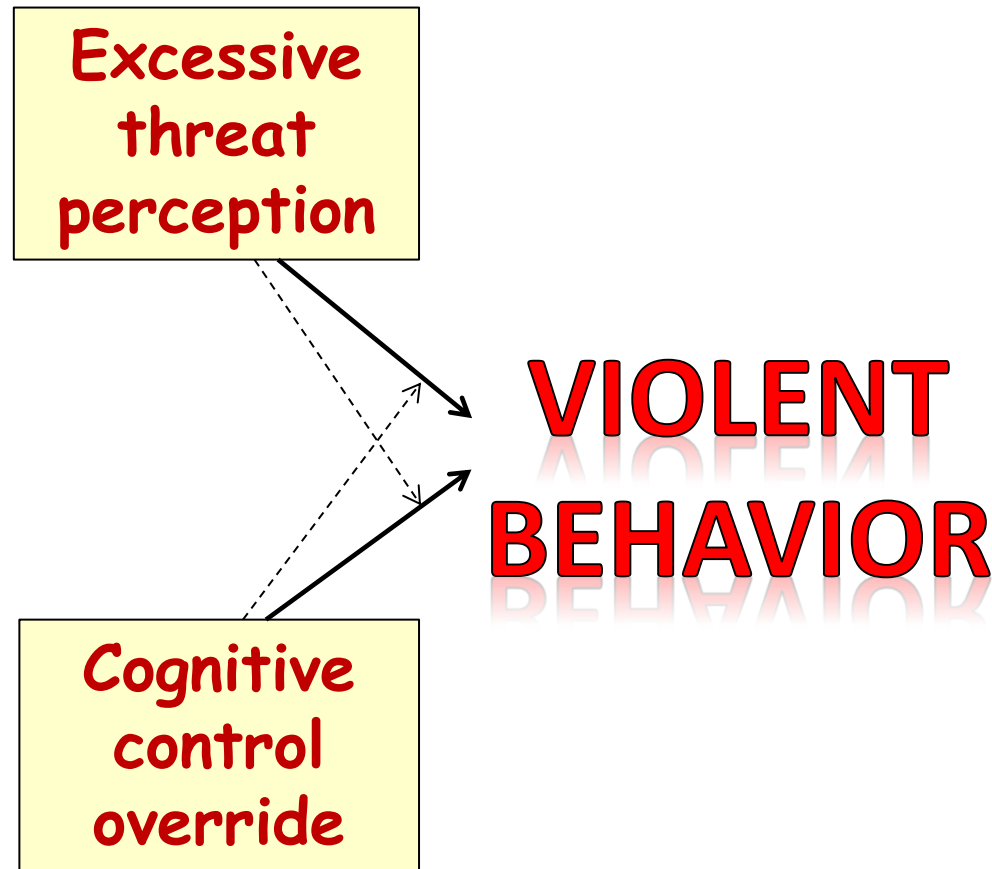


Source: Swanson JW, Swartz MS, Van Dorn RA, Elbogen EB, Wagner HR, Rosenheck RA, Stroup TS, McEvoy JP, Lieberman JA (2006). A national study of violent behavior in persons with schizophrenia. *Archives of General Psychiatry*, 63, 490-499.

# Delusions, suspiciousness/persecution interaction in risk of serious violence: Odds Ratios



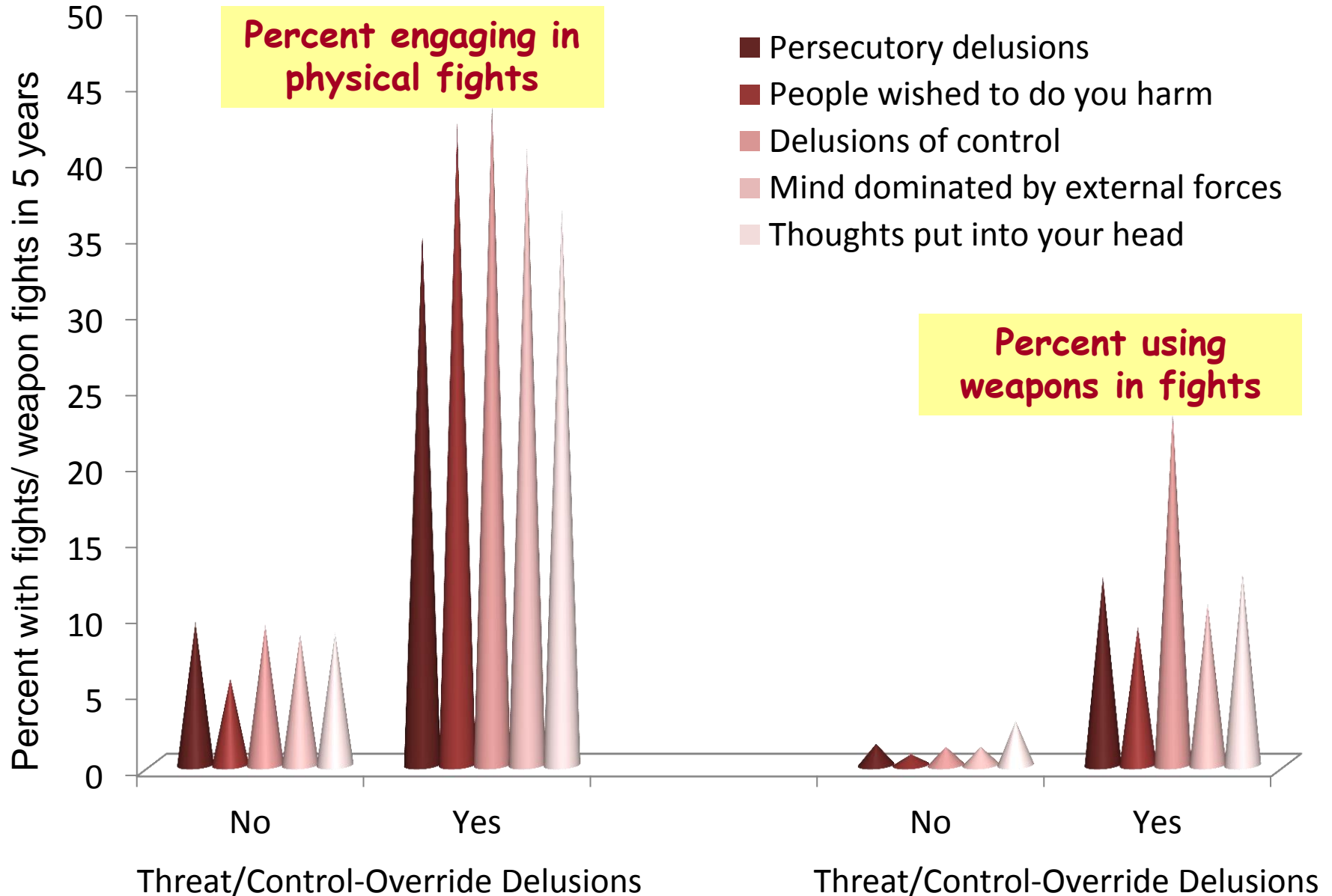
# Bruce Link's theory of delusional violence as “rationality within irrationality”



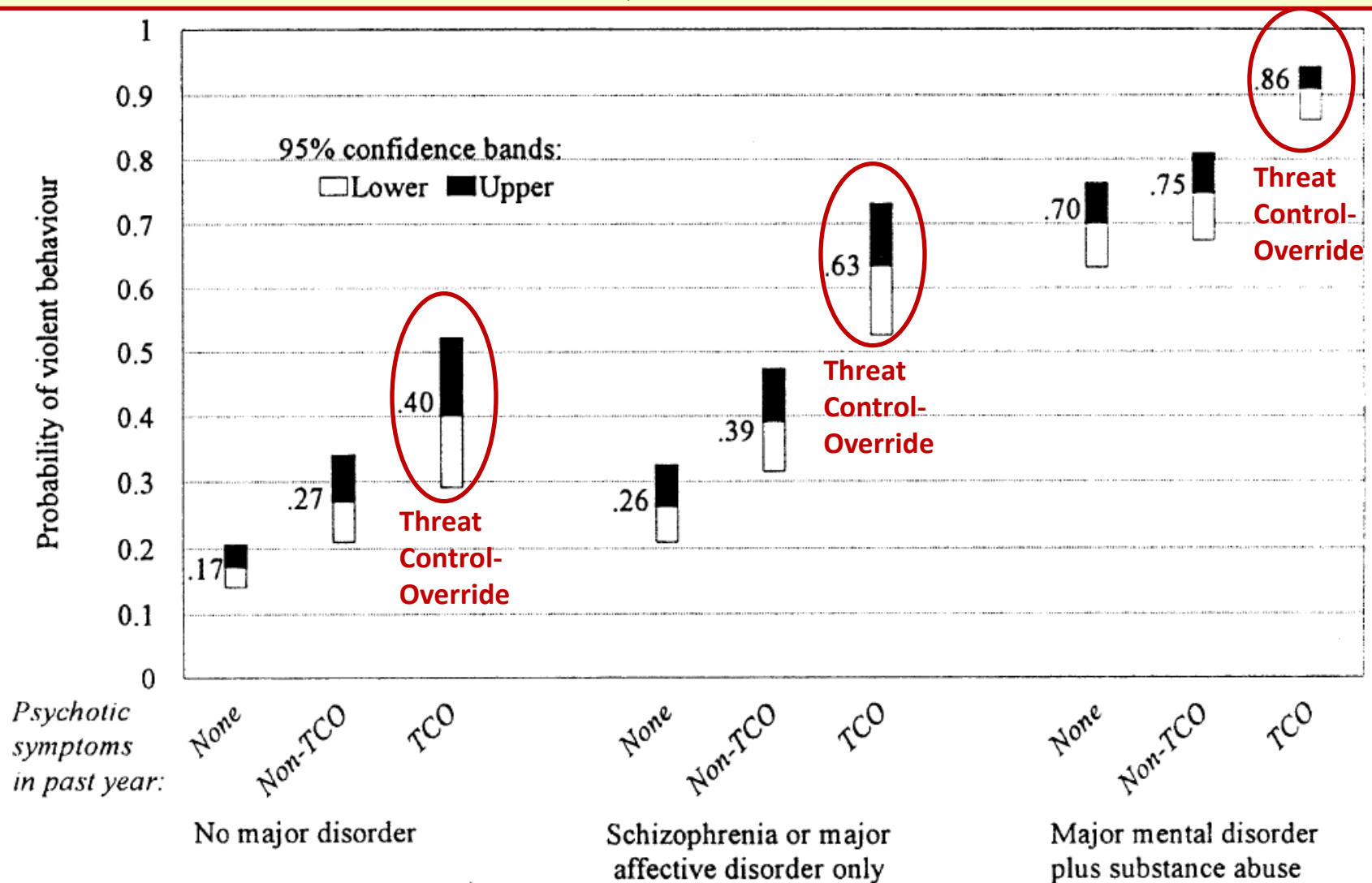
Source: Link BG, Stueve A, Phelan J (1998). Psychotic symptoms and violent behaviors: probing the components of "threat/control-override" symptoms. *Soc Psychiatry Psychiatr Epidemiol* 33: S55-S60



# Link's theory of delusional violence as "rationality within irrationality": Association of **threat/control-override delusions** and **violent behavior**



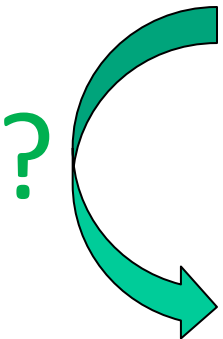
**Lifetime probability of any violence** for TCO and other symptoms, by presence of major mental illness and substance abuse disorder (Swanson et al., 1996, NIMH Epidemiologic Catchment Area data)



Swanson JW, Borum R, Swartz MS, Monahan J (1996). Psychotic symptoms and disorders and the risk of violent behaviour in the community. *Criminal Behavior & Mental Health*, 6, 317-338.

Subjective feelings when acting violently:

***“What were you feeling right before [violent act] happened?”*** (N=68 persons with serious mental illness)

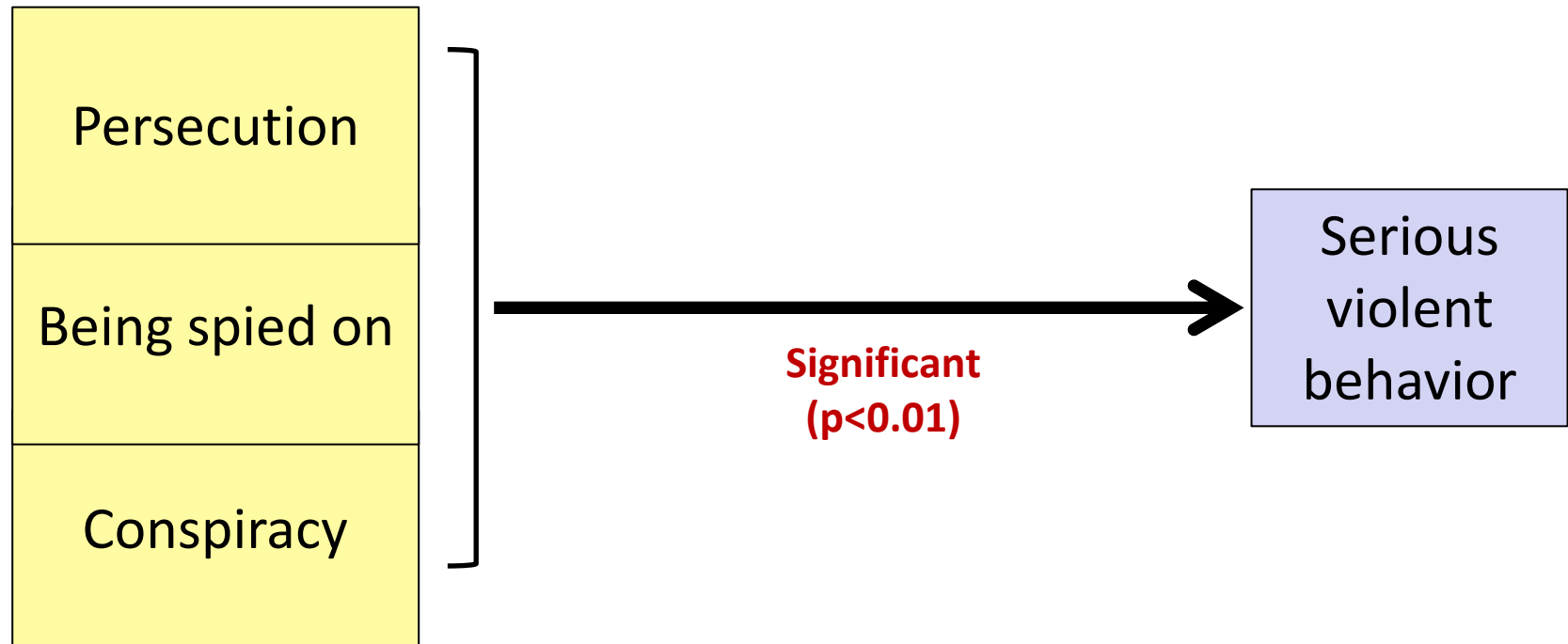


Feeling	Percent <sup>a</sup>
Afraid of being harmed	53
Controlled by outside forces, voices	32
Out of control	38
Nervous, anxious	54
Enraged, about to explode	68
Drunk	16
High on drugs	10

<sup>a</sup>Percent reporting each feeling prior to violent incident.

# Coid 2013 study of **delusions, anger and violence** in N=458 **first-episode psychosis patients**

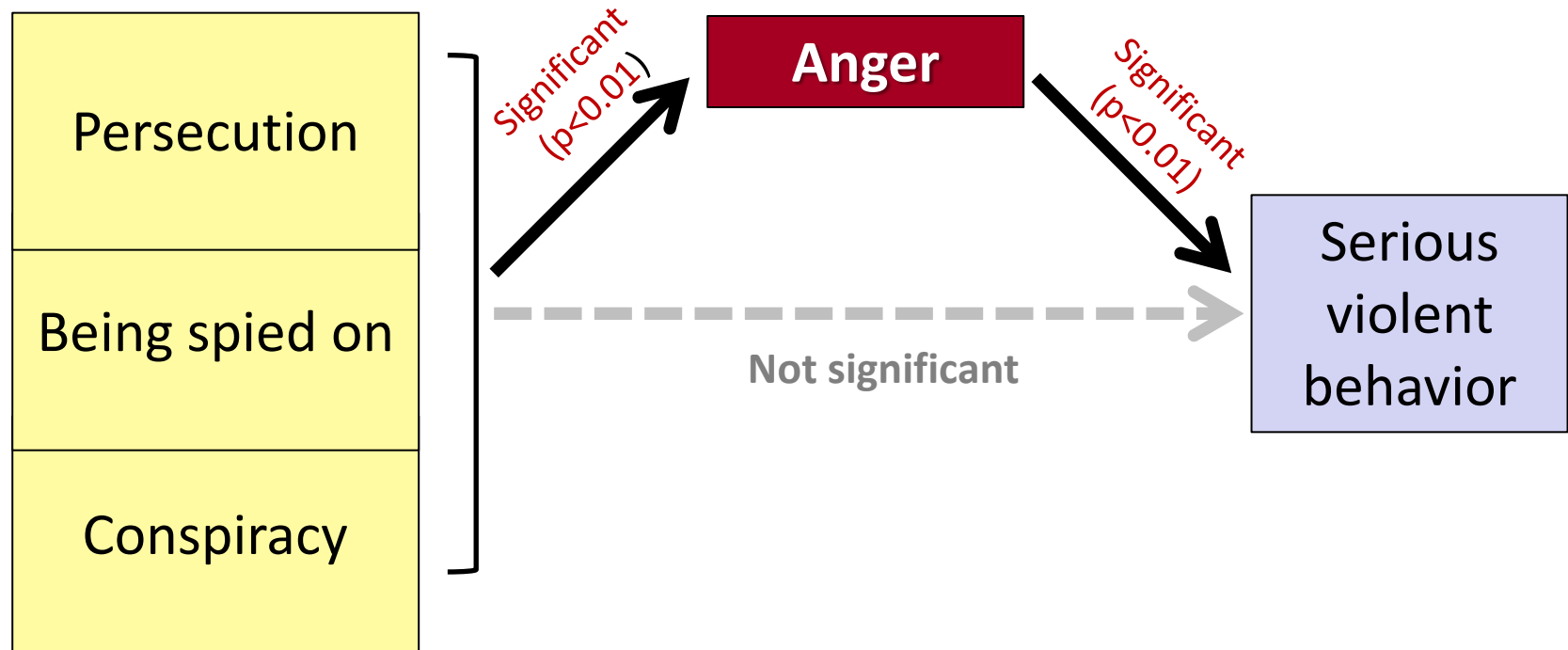
## Specific Delusions



Source: Coid JW, Ullrich S, Kallis C, et al. (2013). The relationship between delusions and violence: Findings from the East London first episode psychosis study. *JAMA Psychiatry*. 2013;70 (5):465-471.

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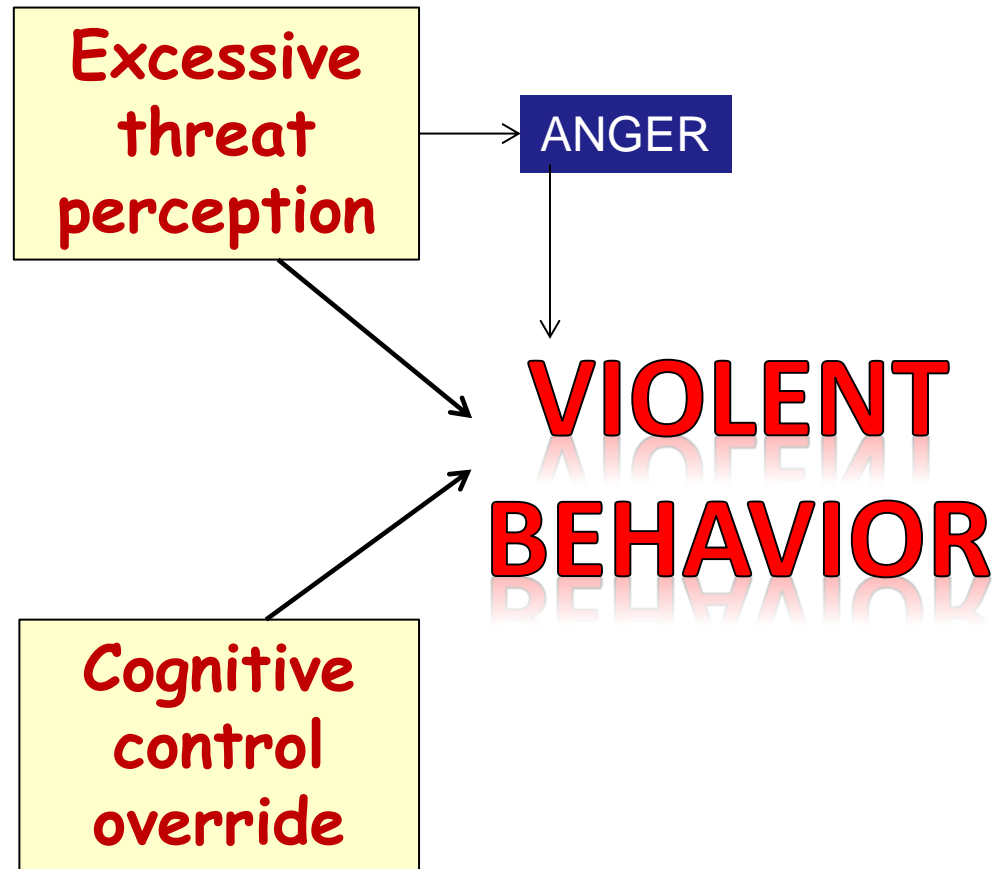
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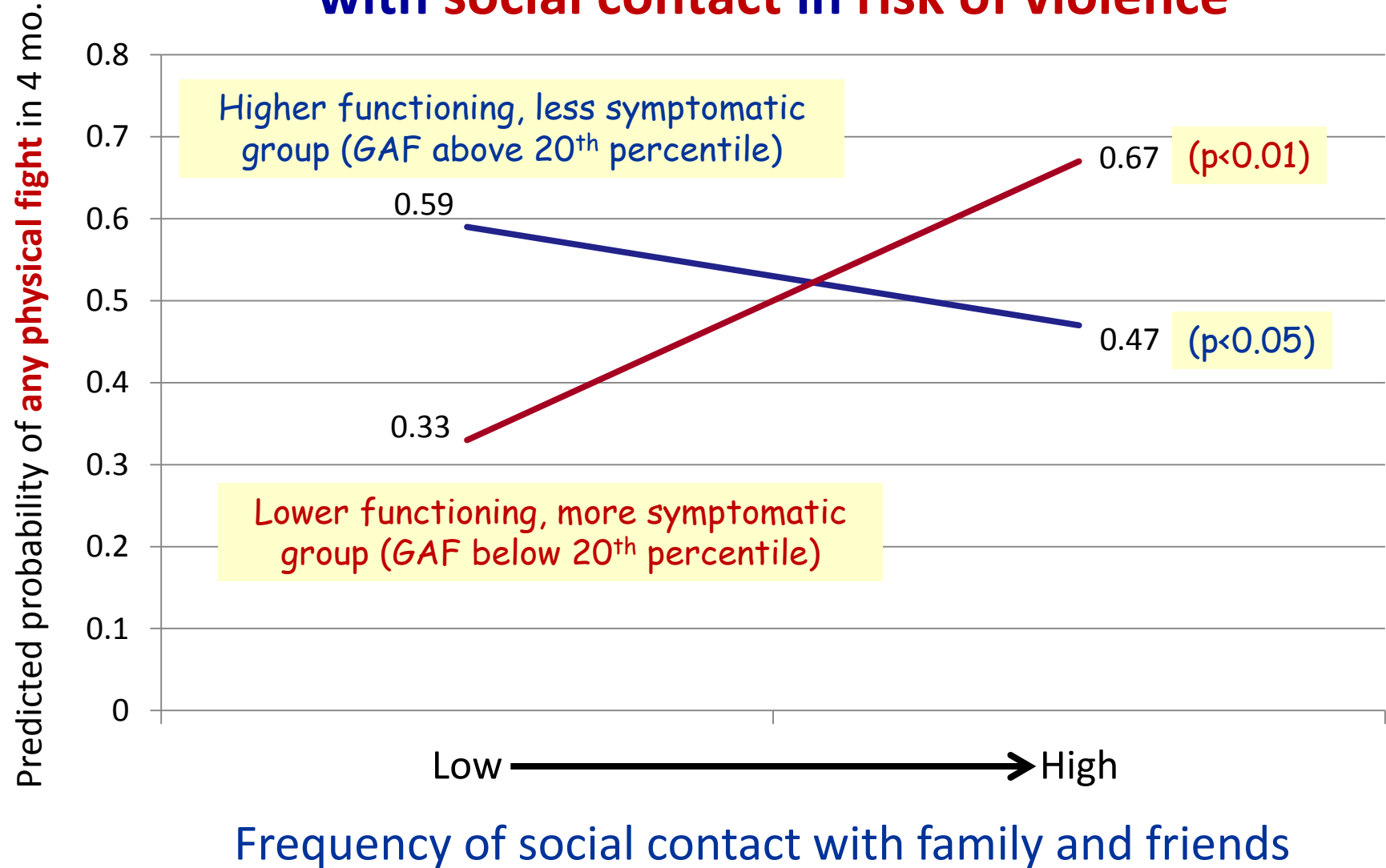


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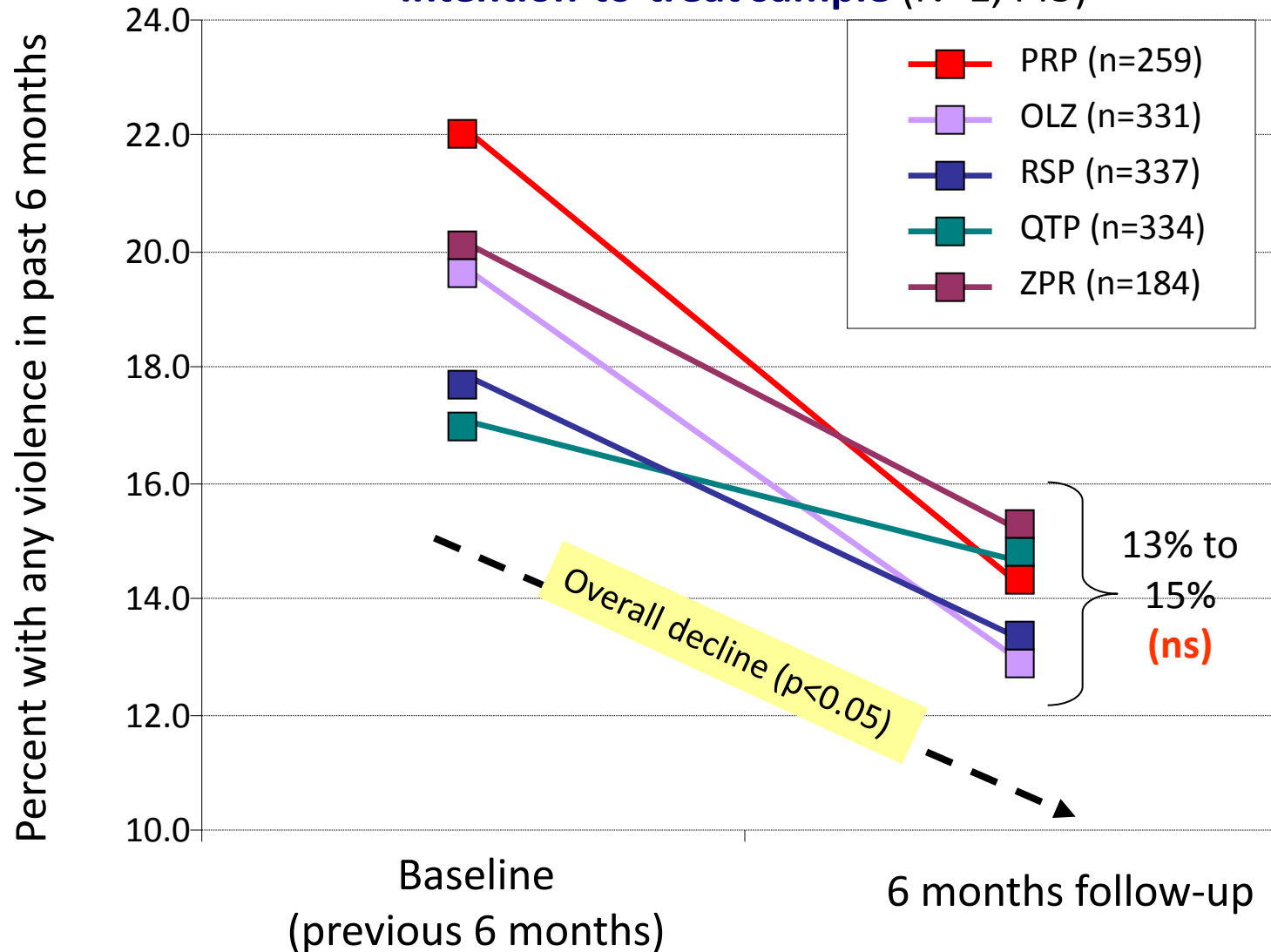
Source: Link BG, Stueve A, Phelan J (1998). Psychotic symptoms and violent behaviors: probing the components of “threat/control-override” symptoms. *Soc Psychiatry Psychiatr Epidemiol* 33: S55-S60

# Interaction of severity of psychiatric disturbance with social contact in risk of violence



Source: Swanson JW, Swartz MS, Estroff SE, Borum WR, Wagner HR, Hiday VA (1998). Psychiatric impairment, social contact, and violent behavior. *Social Psychiatry & Psychiatric Epidemiology* 33, S-86-94.

**Does treatment work?** Violence by assigned CATIE treatment group:  
**Intention-to-treat sample (N=1,445)**



Swanson JW, Swartz MS, Van Dorn RA, Volavka J, Monahan J, Stroup S, McEvoy JP, Wagner HR, Elbogen EB, Lieberman J (2008). Comparing antipsychotic Medication effects on reducing violence in persons with schizophrenia. British Journal of Psychiatry 193, 37-43.

# CATIE findings on role of premorbid childhood conduct problems in conditioning adult violence risk

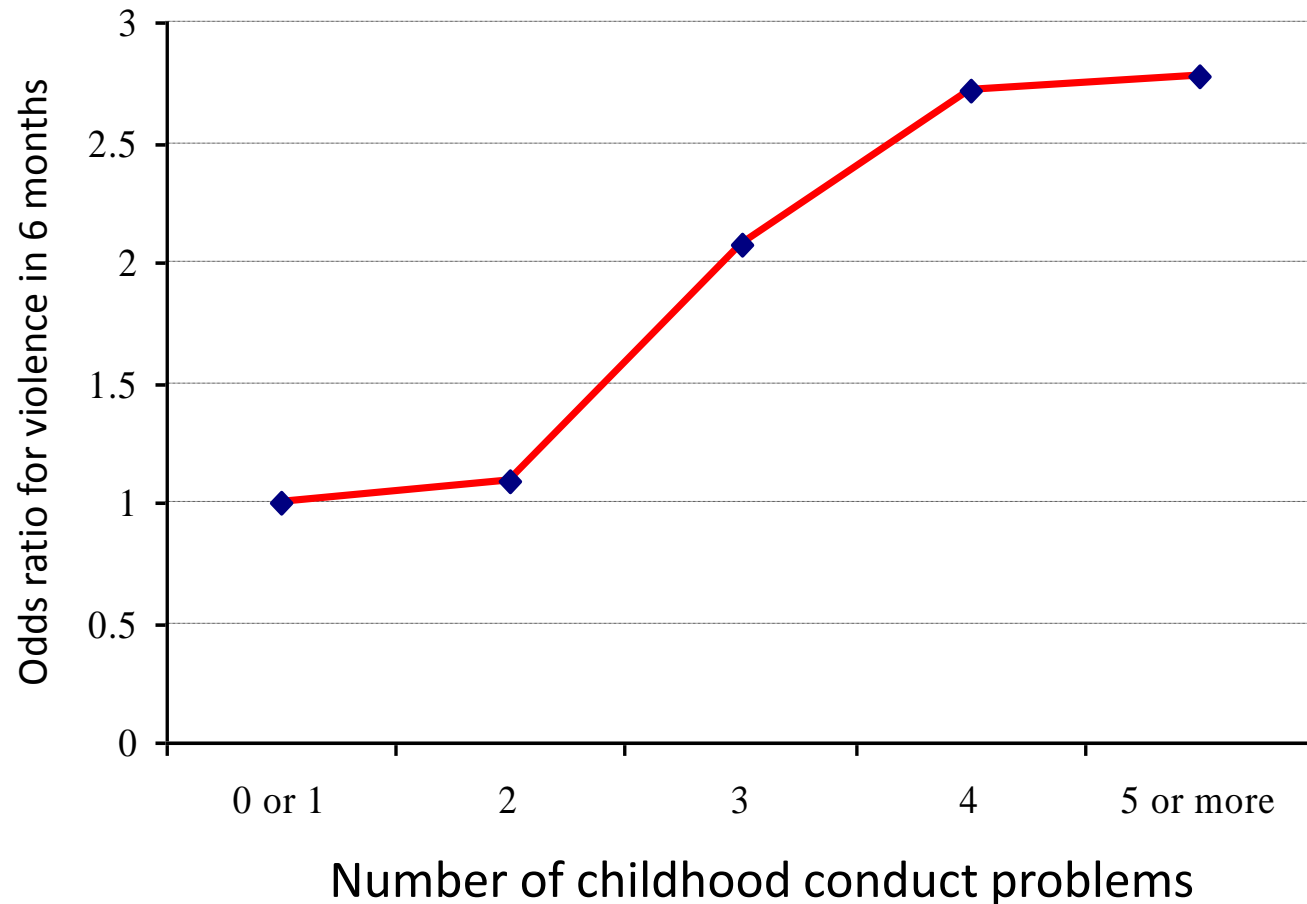
Measure of conduct problems

- Skip school a lot
- Run away from home more than once
- Ever deliberately destroy someone else's property
- Often start physical fights
- Arrested or sent to juvenile court
- Ever suspended from school

**This group was  
DIFFERENT...**

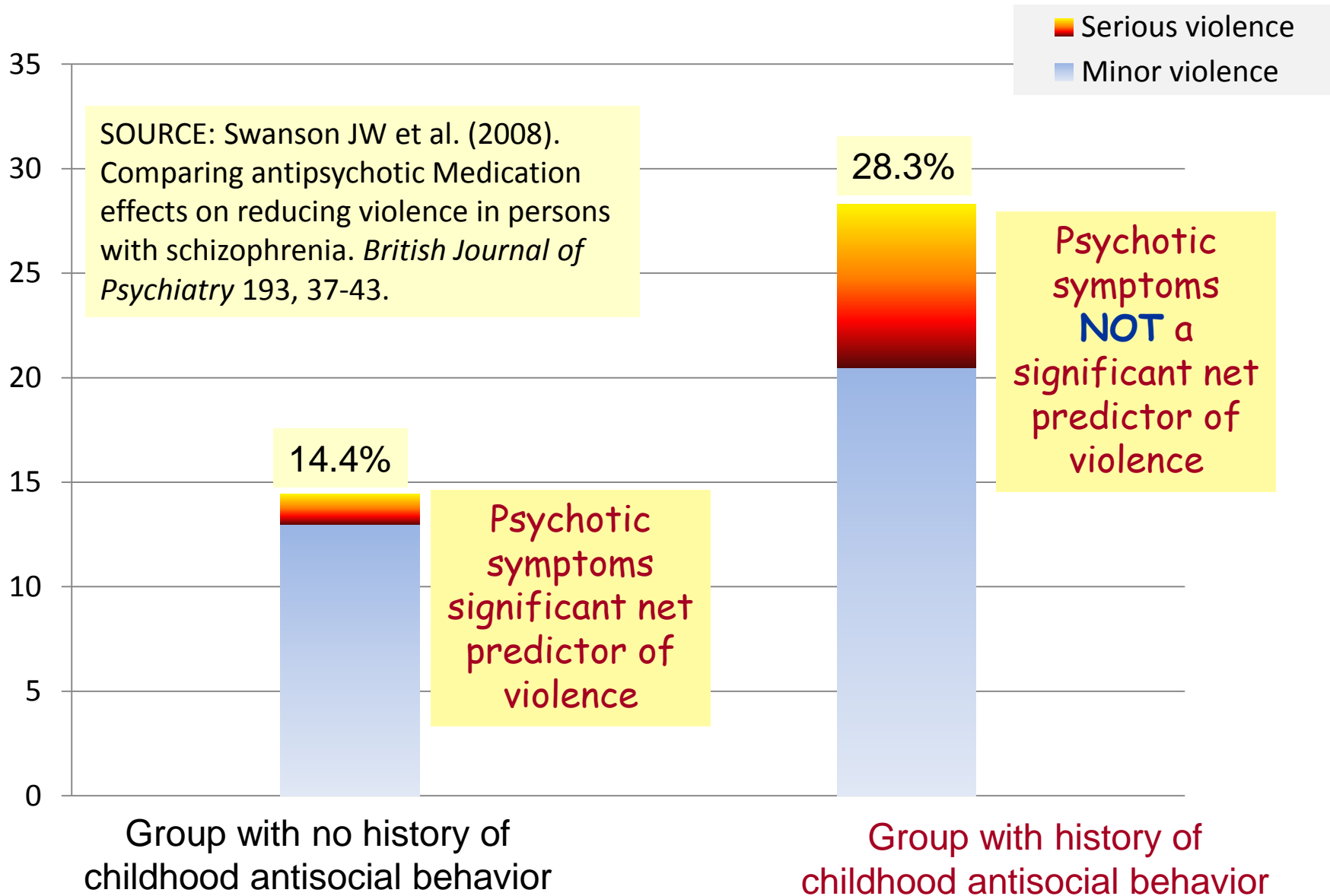
Source: Swanson JW, Van Dorn RA, Swartz MS, Smith A, Elbogen E, Monahan J (2008). Alternative pathways to violence in persons with schizophrenia: The role of childhood antisocial behavior problems. *Law & Human Behavior* 32, 228-40.

# Number of childhood antisocial problems and risk of adult violence in CATIE participants

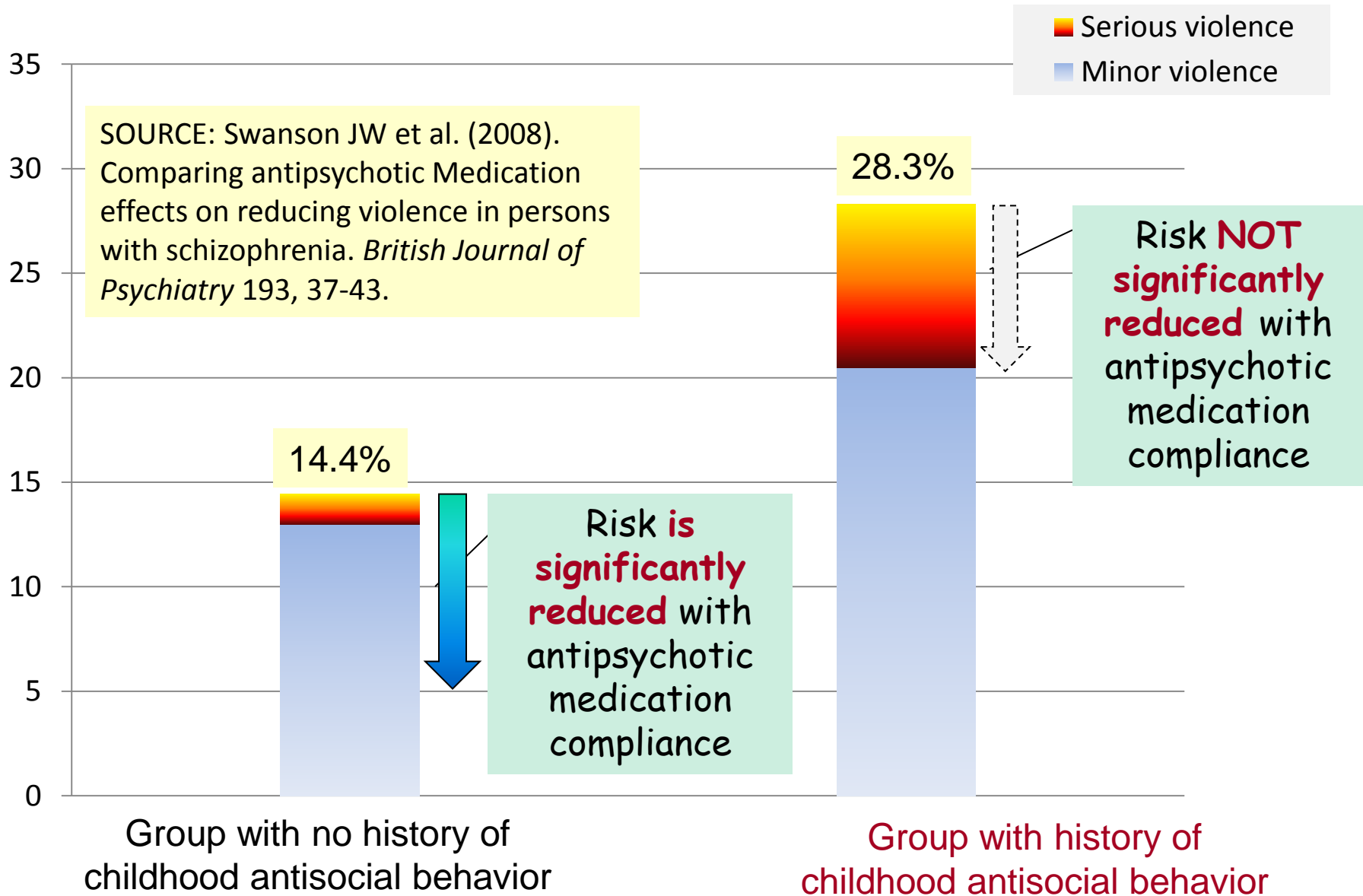


Source: Swanson JW, Van Dorn RA, Swartz MS, Smith A, Elbogen E, Monahan J (2008). Alternative pathways to violence in persons with schizophrenia: The role of childhood antisocial behavior problems. *Law & Human Behavior* 32, 228-40.

# 6-month prevalence of minor and serious **violent behavior** in schizophrenia patients, by history of **childhood antisocial behavior**

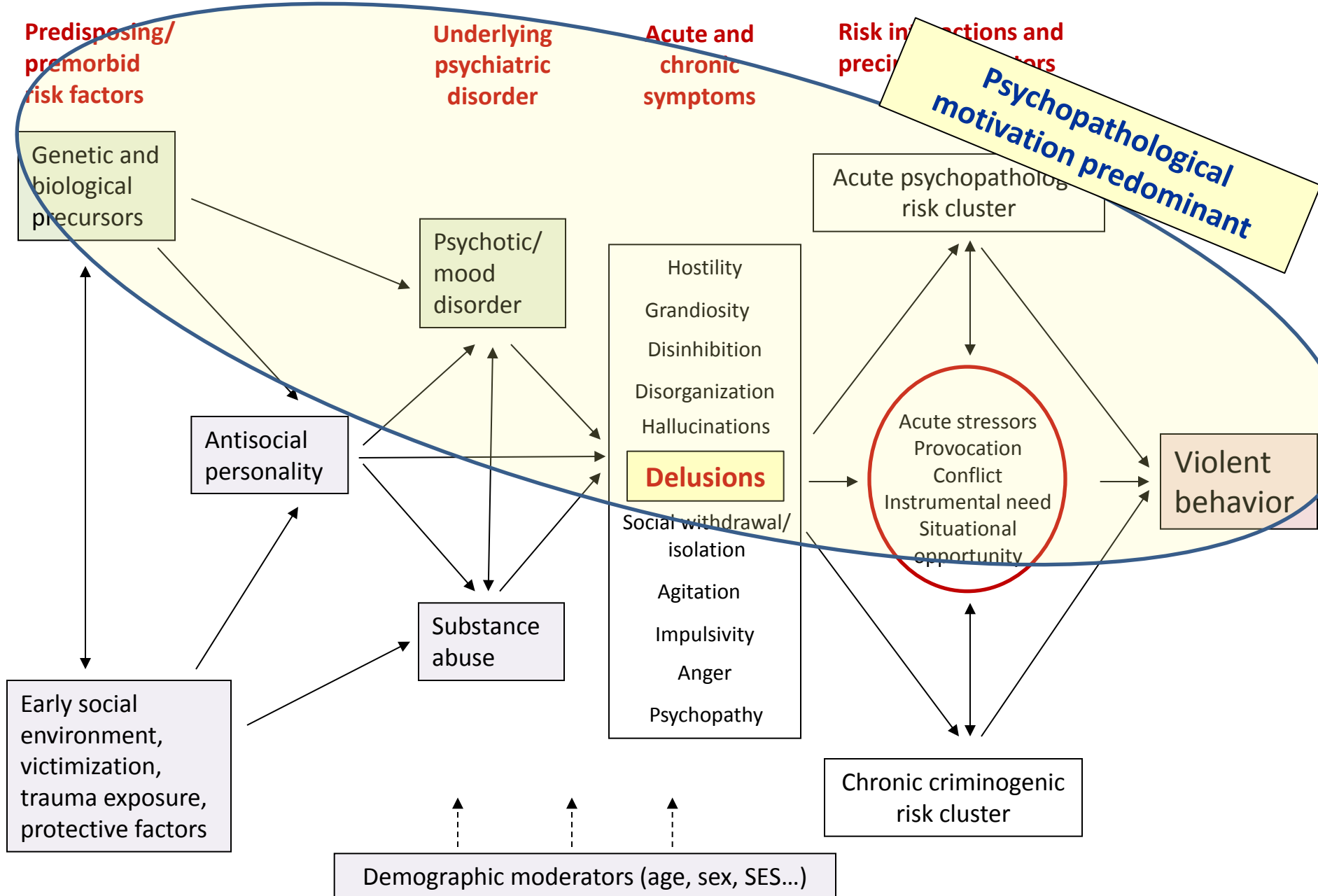


# 6-month prevalence of minor and serious **violent behavior** in schizophrenia patients, by history of **childhood antisocial behavior**





# Psychotic disorder and risk of violence: Complex comparisons and causal pathways



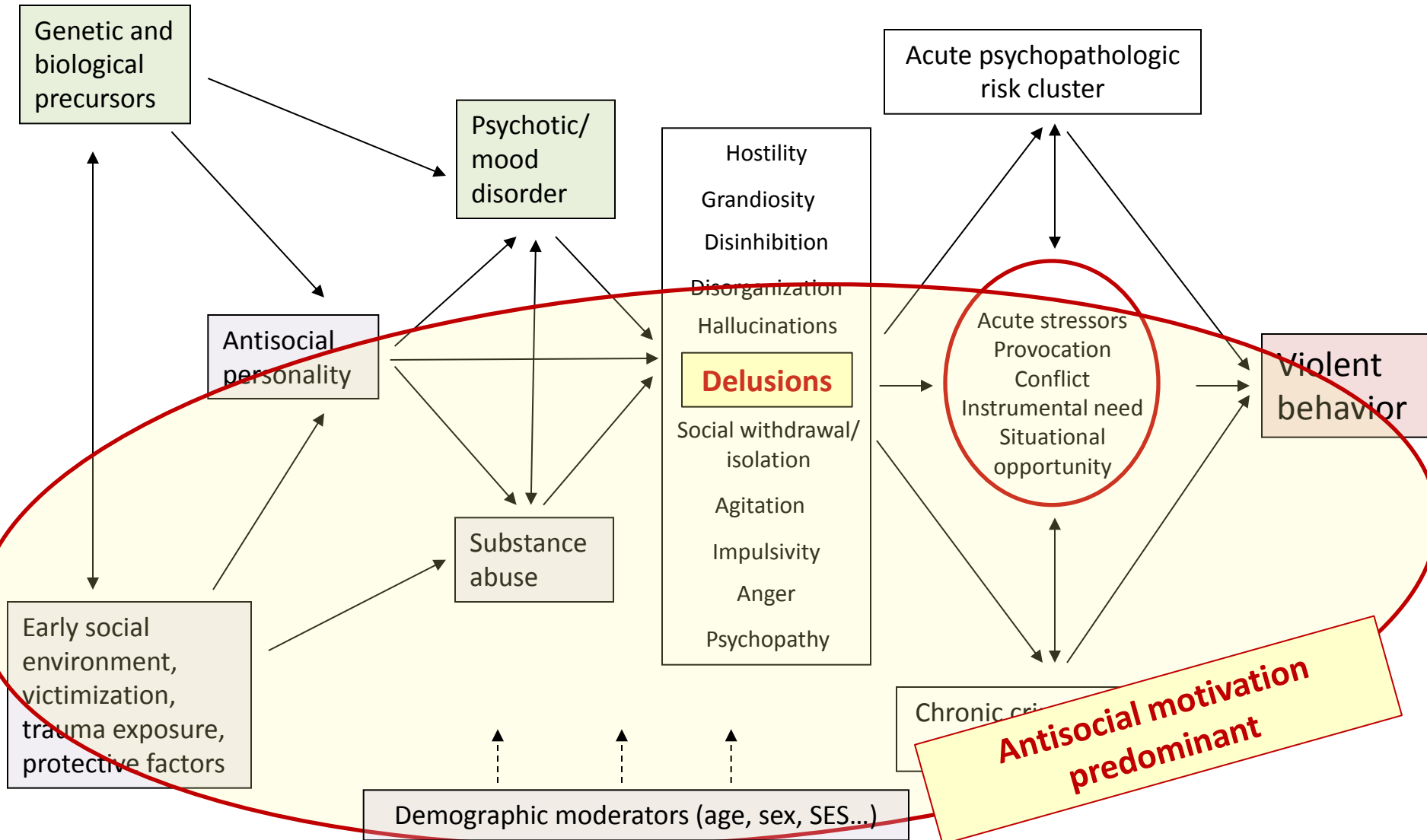
# Psychotic disorder and risk of violence: Complex comparisons and causal pathways

## Predisposing/ premorbid risk factors

## Underlying psychiatric disorder

## Acute and chronic symptoms

## Risk interactions and precipitating factors



# 5 factors common to school rampage shooters

## (Newman et al, 2004)

1. the shooter's perceptions of himself as extremely **marginal** in the social worlds that matter to him;
2. psychosocial problems—including **mental illness**—that magnify his perceptions of social exclusion;
3. **'cultural scripts'**—prescriptions for behavior—that point the way toward an armed attack as a model for problem solving, particularly for altering the shooter's reputation from that of a loser to that of a notorious antihero;
4. the **failure of the surveillance system** intended to identify troubled teens, leaving the shooter to fly 'below the radar' even as he is emitting signals of trouble to come; and
5. the **availability of guns** and other weapons (especially bombs).

# 5 factors common to school rampage shooters

## (Newman et al, 2004)

1. the shooter's perceptions of himself as extremely **marginal** in the social worlds that matter to him;
2. psychosocial problems—including **mental illness**—that magnify his perception of marginality;
3. 'cultural' factors—such as **peer rejection** and **antisocial behavior**—that point the way toward the shooter's adoption of a **model for problem solving** that involves the use of violence; the shooter's reputation from the school as a **bully** or **antihero**;
4. the **failure** of school personnel intended to identify troubled students and intervene, allowing the shooter to fly 'below the radar' even as he is emitting signals of trouble to come; and
5. the **availability of guns** and other weapons (especially bombs).

Newman:  
"...necessary but  
**not sufficient**  
conditions."

# **Mass shootings: Statistical profile of N=34 subjects age 19 or younger who intentionally killed at least 3 people in single event, 1958-1999**

Meloy et al. (2001) Offender and offense characteristics of a nonrandom sample of **adolescent mass murderers.**

All male

Average age 17 years

Described as a “loner” 70.4%

Substance abuse 61.5%

Weapons preoccupation 48.0%

Violent fantasies 44.0%

Victim of bullying 43.5%

**Documented psychiatric history 23.3%**

**Psychotic at time of incident 5.9%**

# If you can't predict, describe:

After-the-fact statistical profile of stranger-homicide perpetrators with schizophrenia (Nielsson et al., 2009)

**78 incidents**

## **“Troubled young men”...**

- 95% male
- Average age 32 years
- 79% unemployed
- 40% displayed repeated antisocial conduct as adults

## **not receiving the mental health treatment they need...**

- 88% not taking antipsychotic medication at time of homicide
- 74% not in contact with any mental health services
- 62% never admitted to a psychiatric hospital

Source: Nielssen et al., 2009, Homicide of strangers by people with a psychotic illness. Schizophrenia Bulletin.

**PUBLIC  
HEALTH  
ANGLE**





# IT'S YOUR CONSTITUTIONAL RIGHT.

Number of  
privately-  
owned  
firearms in  
US:  
**310,000,000**





3.5 million people with serious mental illness  
go without treatment

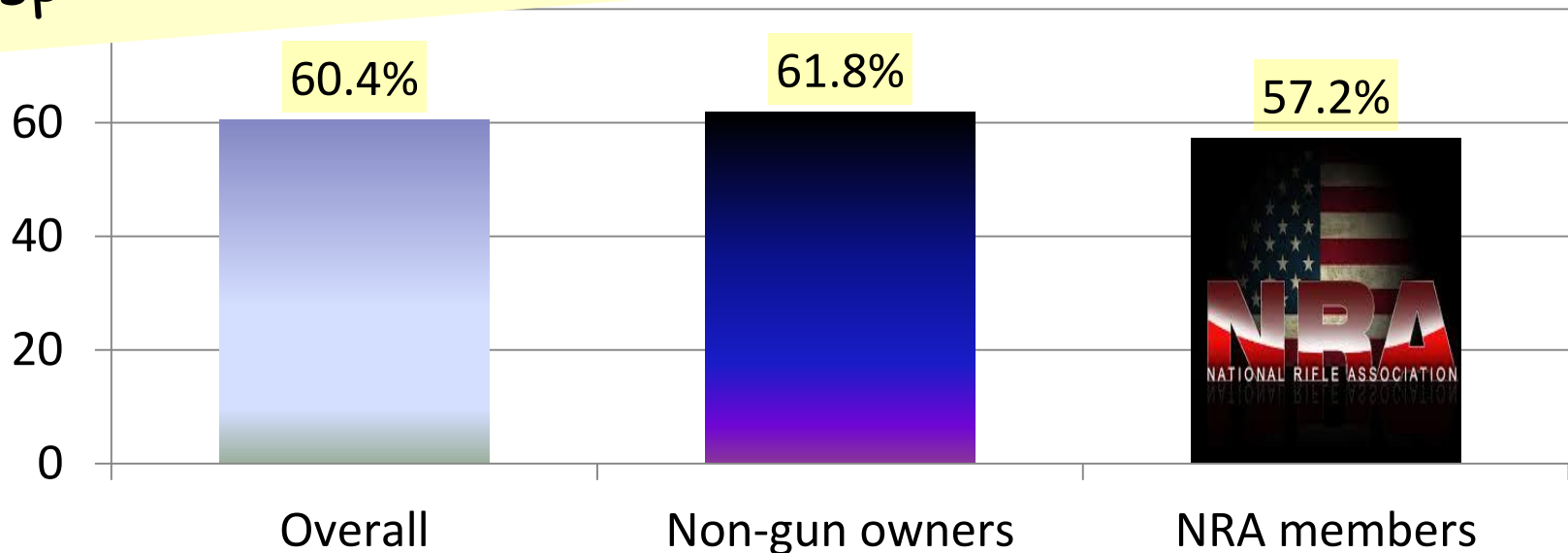


# National Opinion Poll 2013

- Do you favor or oppose increasing government spending on **mental health screening and treatment as a strategy to reduce gun violence?**

Percent favor

Majorities across the political and gun-owning spectrum think **gun violence is a mental health issue.**



# CRISIS-DRIVEN POLICY RESPONSE



**New York**

## **Secure Ammunition and Firearms Enforcement Act (2013)**

Swanson J (2013). Mental illness and new gun law reforms: The promise and peril of crisis-driven policy. *JAMA*. 309, 1233-1234.

- requires universal background checks
- increases penalties for people who use illegal guns
- bans assault weapons and high capacity ammo magazines

- requires mental health professionals to report persons at risk of harming self or others
- expands Assisted Outpatient Treatment (Kendra's Law)

# Big Picture: How laws and policies can reduce gun violence

## Legal and policy interventions

Laws and policies to reduce violent behavior

Laws and policies to limit gun access

Laws and policies to improve gun safety

## Mechanisms and mediators

### Determinants

Less poverty, substance abuse, and untreated mental illness

### Deterrence

Fewer guns in the hands of people at risk of harming others or themselves

### Dangerousness

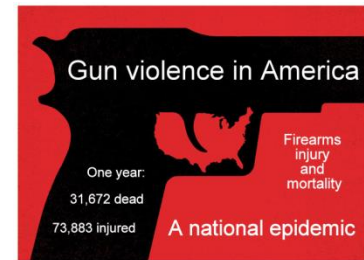
Less lethal guns = reduced harm

## Causes of the problem

"Dangerous people"

Guns

## Public health problem





# Brady Campaign Scorecard

Measure of state gun laws' restrictiveness on a 100-point scale

Firearms trafficking: 35 points

Background checks: 25 points

Child safety: 35 points

Ban assault weapons: 10 points

Guns in public places: 35 points

		Pts	ALABAMA	ALASKA	ARIZONA
<b>CURB FIREARM TRAFFICKING (35 Points)</b>					
Gun Dealer Regulations (12 Points)	State license required	3	0	0	0
	Record keeping and retention	3	0	0	0
	Background check required	3	0	0	0
Total Points: 35			9	0	0
<b>STRENGTHEN BRADY BACKGROUND CHECKS (25 Points)</b>					
Universal Background Check (17 Points)	All firearms	17	0	0	0
	Handguns only	10	0	0	0
	Fingerprinting required	2	0	0	0
Permit to Purchase (8 Points)	Safety training/testing required	2	0	0	0
	Extend three-day limit for background checks	2	0	0	0
	Permit process involves law enforcement	2	0	0	0
Closed Gun Show Loophole** (7 Points) <small>**States with universal background checks on all firearms not eligible for gun show loophole points</small>	Background check on all firearms for each purchase	7	0	0	0
	Background check on handguns only for each purchase	5	0	0	0
	Background check on long guns only for each purchase	4	0	0	0
	Permit for all firearms, no background check per purchase	3	0	0	0
	Permit for handguns, no background check per purchase	2	0	0	0
	Permit for long guns, no background check per purchase	1	0	0	0
	Total Points: 25		0	0	0
<b>CHILD SAFETY (20 Points)</b>					
Childproof Handguns (7 Points)	Only authorized users are able to operate new handguns	7	0	0	0
Child Safety Locks (6 Points)	Integrated locks sold on all handguns	3	0	0	0
	External locks sold with all handguns	2	0	0	0
	Standards on all external locks	1	0	0	0
Child Access Prevention (5 Points)	Ages 18/17 and under	5	0	0	0
	Ages 14/15 and under	3	0	0	0
	Ages 13 and under	2	0	0	0
Juvenile Handgun Purchases (2 Points)	Must be 21	2	0	0	0
Total Points: 20			0	0	0
<b>BAN MILITARY STYLE ASSAULT WEAPONS (10 points)</b>					
Assault Weapons Ban (5 Points)	1 feature test	5	0	0	0
	2 feature test	3	0	0	0
	2 feature test on assault pistols only	1	0	0	0
Large Capacity Magazine Ban (5 Points)	10 rounds or less	5	0	0	0
	15 rounds or less	3	0	0	0
Total Points: 10			0	0	0
<b>GUNS IN PUBLIC PLACES AND LOCAL CONTROL (10 Points)</b>					
No Guns in Workplace (2 Points)	Employers not forced to allow firearms on premises	2	2	0	2
No Guns on College Campuses (2 Points)	Colleges are not forced to allow firearms on campus	2	2	2	2
Not A CCW Shall Issue State (2 Points)	Law enforcement discretion when issuing CCW permits	2	2	0	0
No Shoot First Law (2 Points)	Deadly force not allowed to be a first resort in public	2	0	2	2
No State Preemption (2 Points)	Local control of firearm regulations(2)/gun shows only(1)	2/1	0	0	0
Total Points: 10			6	4	6
<b>OVERALL POINTS: 100</b>			15	4	6
<a href="http://www.StateGunLaws.org">www.StateGunLaws.org</a>			<a href="http://www.BradyCampaign.org">www.BradyCampaign.org</a>		
			<a href="http://www.MillionMomMarch.org">www.MillionMomMarch.org</a>		

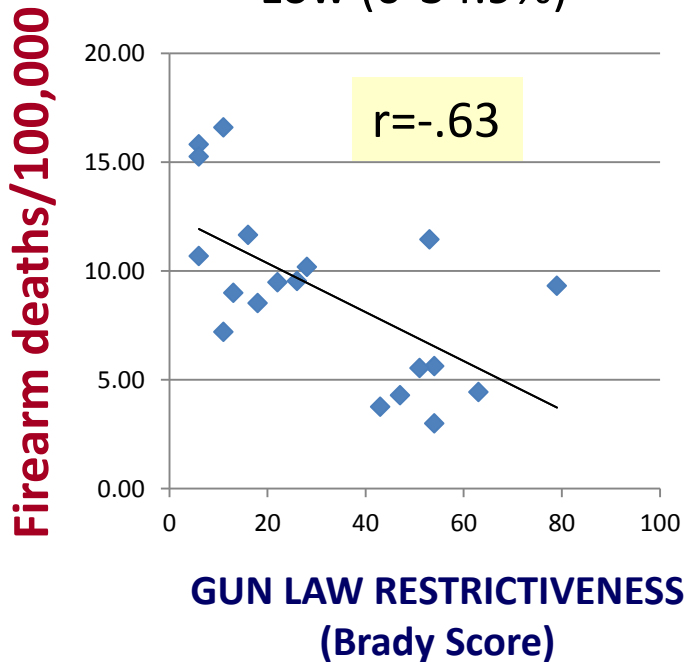
Do more restrictive gun laws WORK?

# DO GUN LAWS WORK?

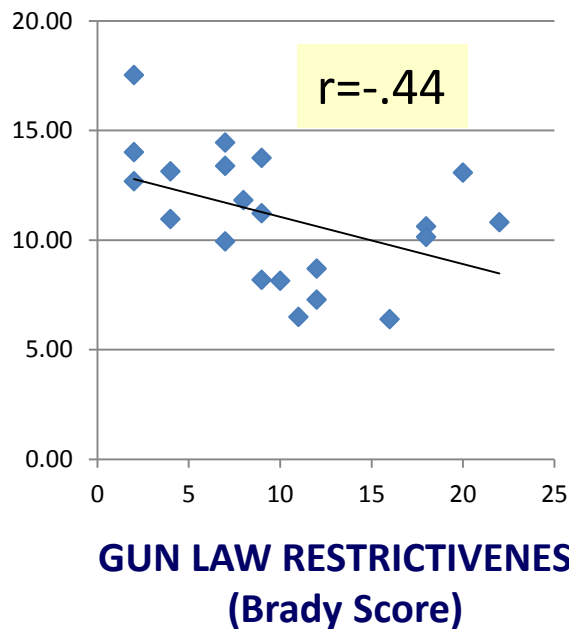
Correlation of states' **GUN FATALITY RATE** with **GUN LAW RESTRICTIVENESS**, controlling for household gun ownership rate

Percent of households with guns (low, medium, high)

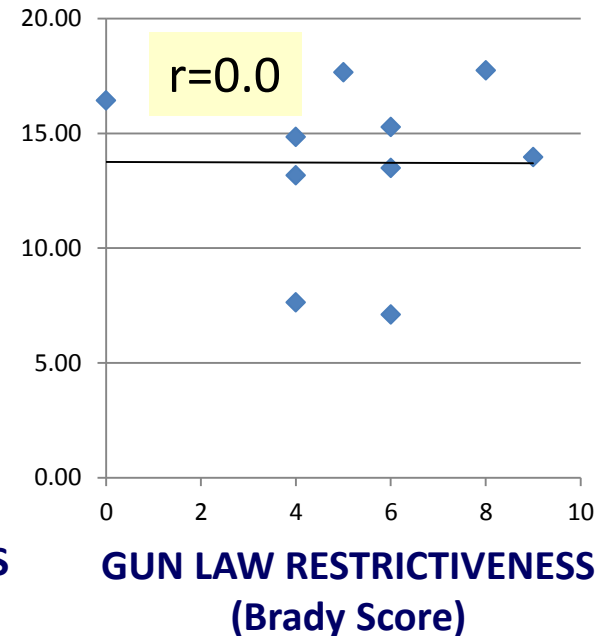
Low (0-34.9%)



Medium (35-49.9%)



High (>50%)





# Current starting point for firearms policy

## – Constitutional right:

- Recent landmark US Supreme Court decisions striking down across-the-board handgun bans -- *District of Columbia v. Heller*, 554 U.S. 570 (2008) and *McDonald v. Chicago*, 561 U.S. 3025 (2010) -- affirmed that the Constitution **confers an individual right to keep and bear arms, albeit “not an unlimited right.”**

## – There’s a “*however*”:

- Court emphasized that “nothing in our opinion should be taken to cast doubt on **longstanding prohibitions on the possession of firearms by felons and the mentally ill.**”

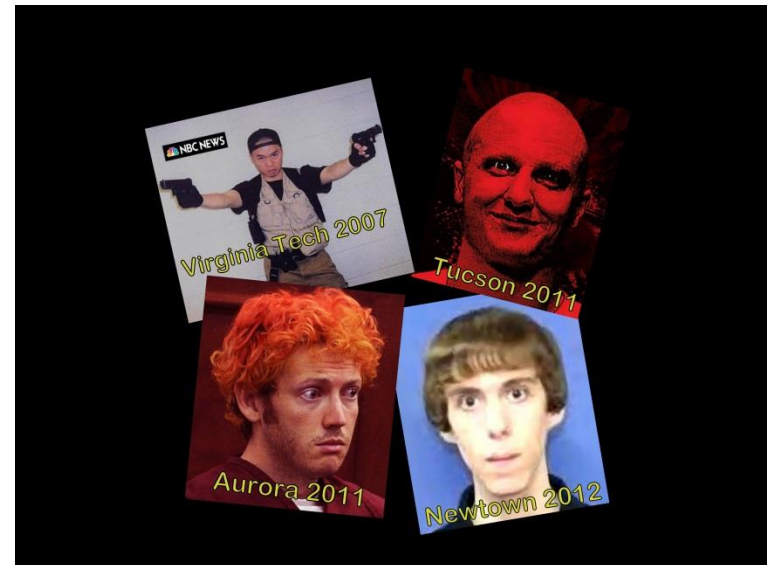
## – *Focus on “dangerous people,” not the guns*

- Court’s decision seems to imply: In this country, we are prevented from solving the problem of gun violence by broadly limiting the public’s legal access to firearms. Instead, we must focus more narrowly on **how best to identify and limit “dangerous people” who should not have access to guns.**

# Federal law **categorically excludes** some people with mental illness from accessing firearms

- 18 U.S.C. 922(d):
  - Prohibited from possessing or purchasing a firearm if (among other things)
    - committed to a mental institution
    - “adjudicated as a mental defective”
      - Legal authority determines: dangerous or incompetent to manage own affairs due to a mental illness; incompetent to stand trial or acquitted by reason of insanity

**Question: Can these laws keep guns out of the hands of people like this?**



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...when people with  
mental illness  
actually look like  
this?



**Suicidality**

**Mental illness**

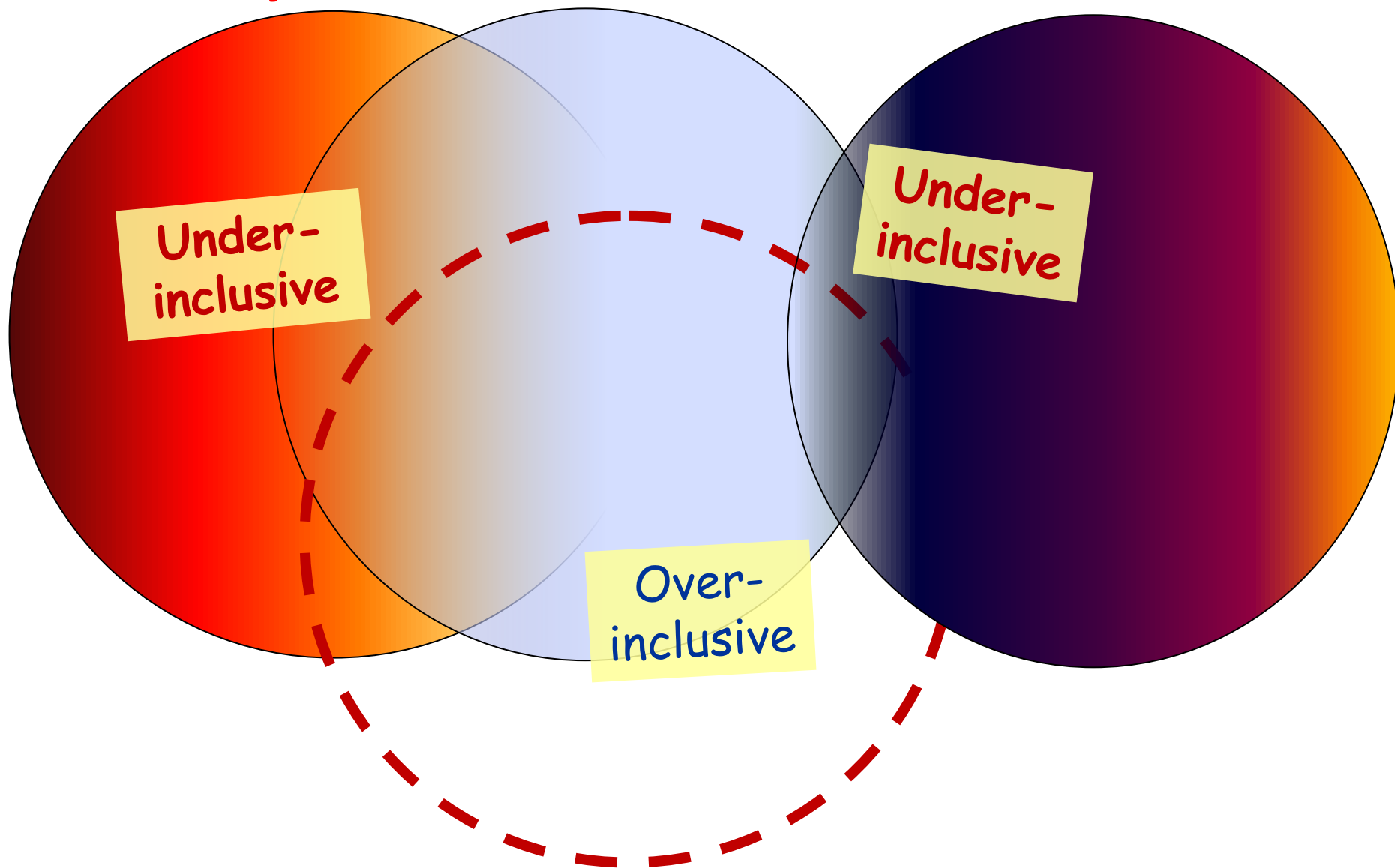
**Violence**

Under-  
inclusive

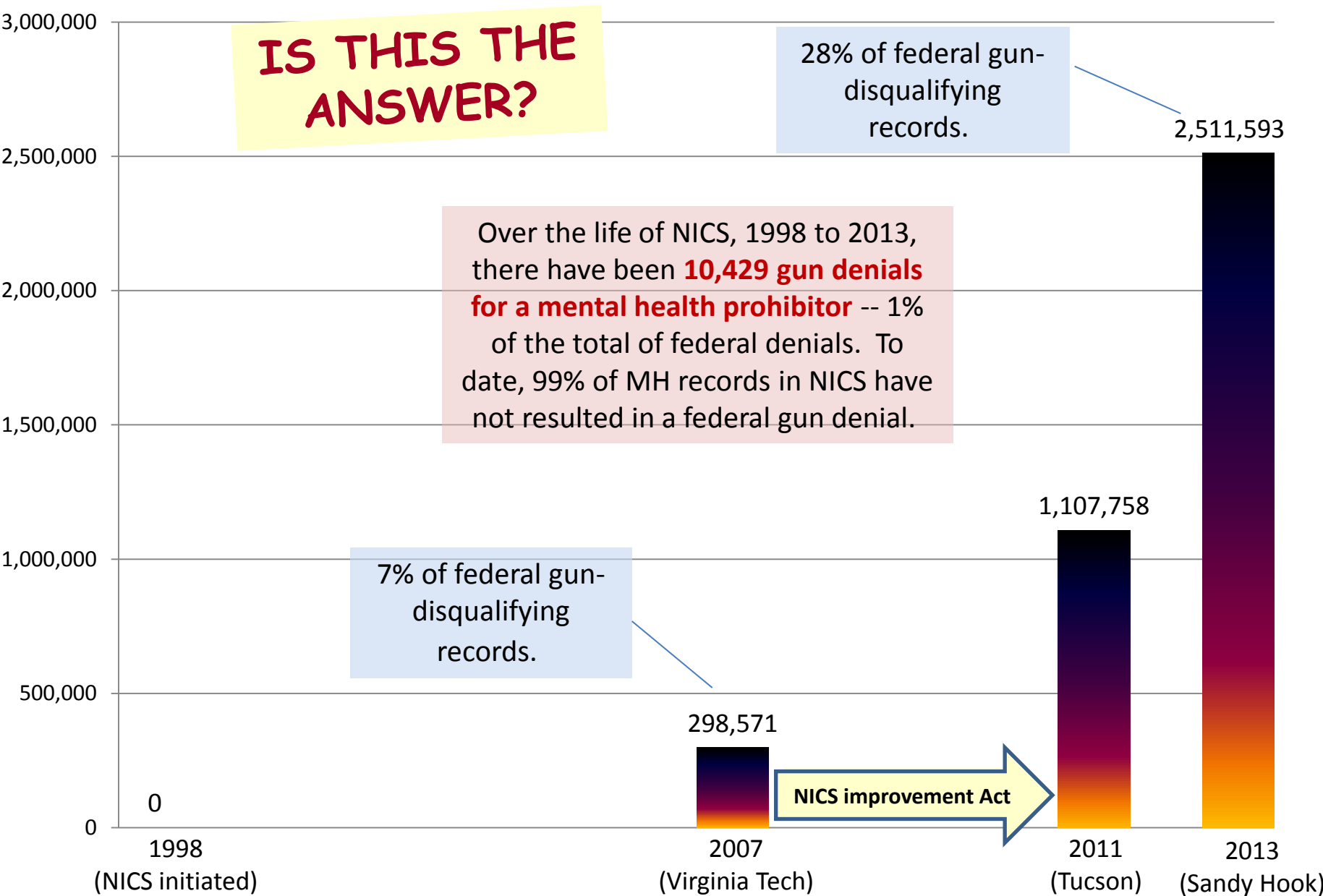
Under-  
inclusive

Over-  
inclusive

**Gun prohibition**



# Accumulation of MH records in National Instant Check System



# Using the NICS for mental health background checks in gun purchases:

## **5 reasons why it might not work as currently implemented**

1. Prohibiting criteria correlate poorly with risk (over- and under-inclusive)
2. Wide variability in commitment policy at the state level
3. Spotty reporting to NICS
4. Saturation of existing guns
5. Unregulated transfers

# Percent of individuals with gun-disqualifying records: criminal, mental health, and overlapping prohibited categories

N=23,292 people with at least  
1 hospitalization 2002-2009

**Not disqualified**  
**14,406 (60.3%)**

Had mental illness,  
but no record of  
mental health  
adjudication or  
disqualifying criminal  
conviction.

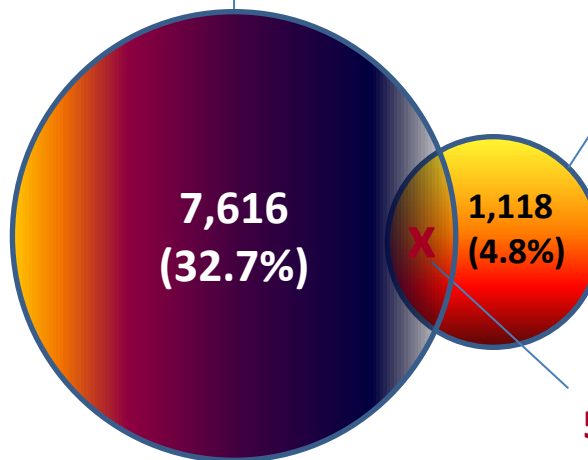
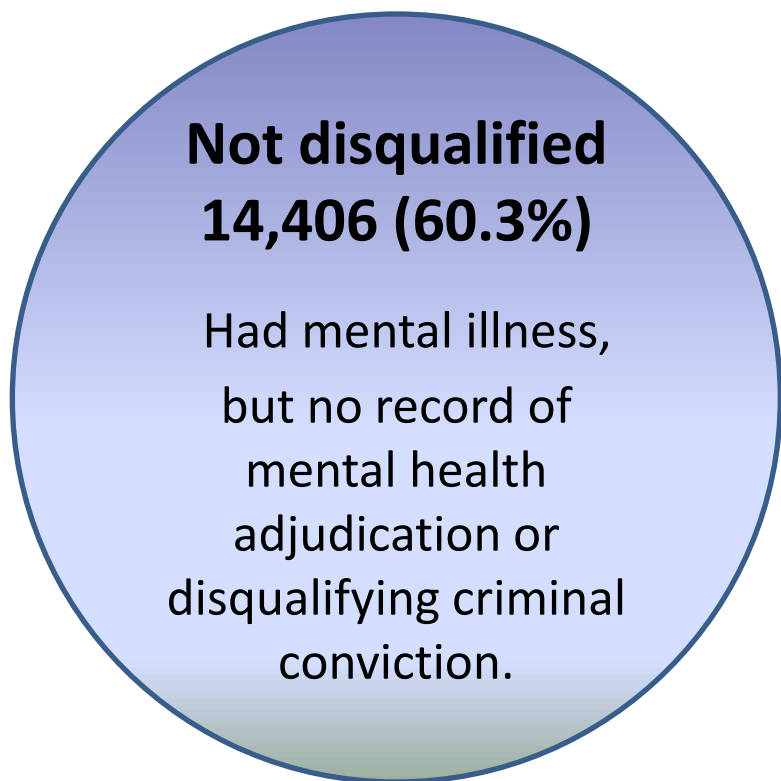
Disqualifying  
criminal history  
8,129 (34.9%)

Disqualifying mental  
health history  
1,630 (7.0%)

**7,616**  
**(32.7%)**

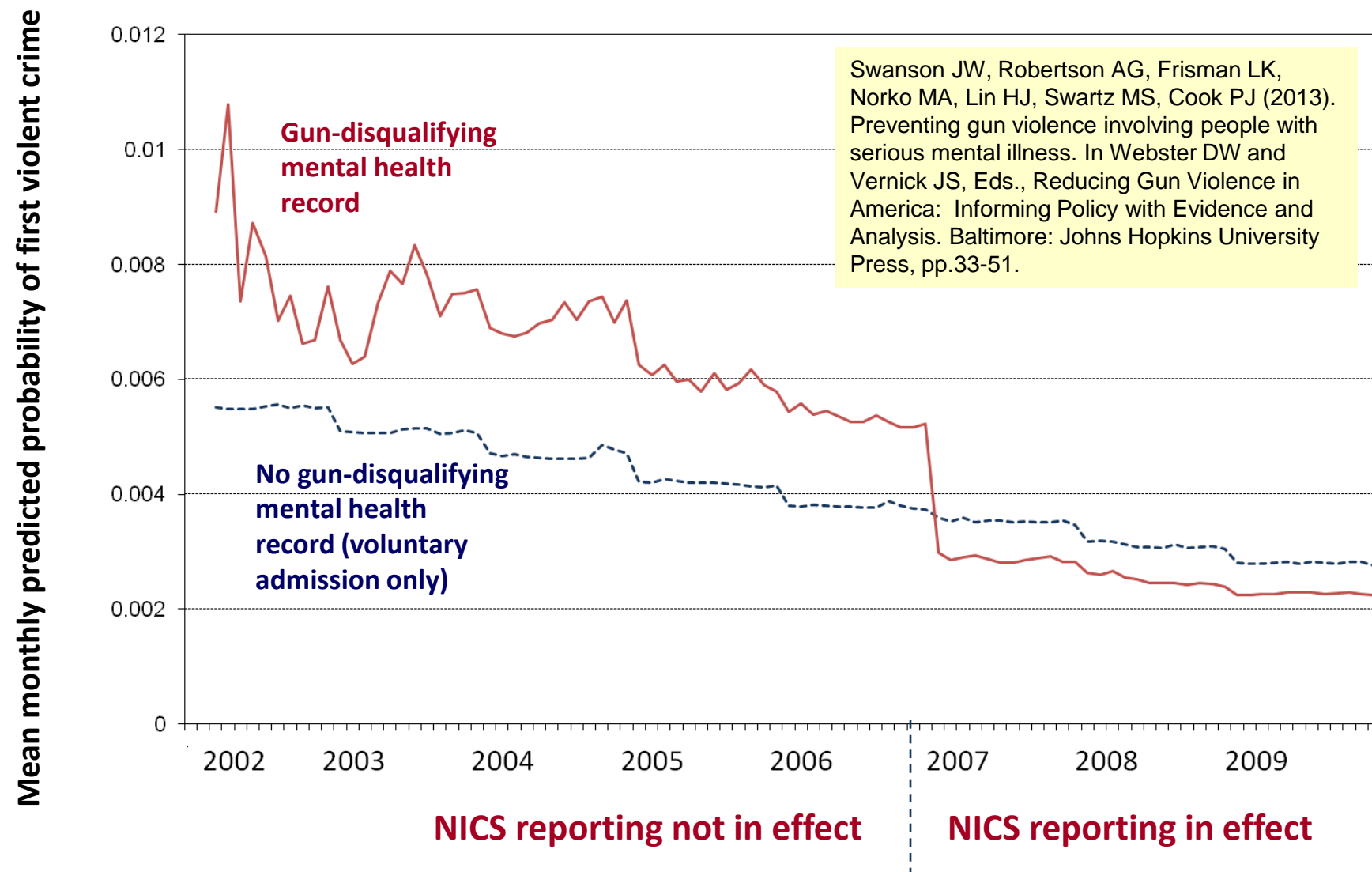
**1,118**  
**(4.8%)**

**512 (2.2%)**  
Had both a  
disqualifying  
criminal history and  
mental health  
history





## Mean monthly predicted probabilities of first violent crime for SMI individuals with and without a gun-disqualifying mental health record, before and after NICS reporting began in Connecticut (n=23,282)



Note: analysis excludes persons with disqualifying criminal records and only includes those susceptible uniquely to the effects of mental health gun disqualification.

# Principles to guide gun policy reforms related to mental illness

- **Prioritize** contemporaneous risk assessment, not mental illness or treatment history per se as a category of exclusion
- **Preempt** existing gun access, rather than simply thwarting a new gun purchase by a dangerous person
- **Provide** due process, not just legal authority
- **Preserve** confidential therapeutic relationships
- **Prevent** the unpredictable by reducing the social determinants of violence and investing in better mental health systems, thus improving access and adherence to prescribed treatment

# Examples of policy approaches

- **Expanded gun disqualification**
  - Emergency commitments (Pennsylvania)
  - Involuntary hospitalizations that convert to voluntary (Florida)
  - All psychiatric hospitalizations (Connecticut)
- **Dangerous persons gun seizure**
  - Warrantless, pending judicial hearing (Indiana)
  - With warrant (Connecticut)
  - Emergency mental health commitments (California)
- **Screening, surveillance, reporting**
  - Mandated provider reporting (New York SAFE Act)
  - Threat Assessment Teams (mandated for colleges in Virginia)
- **Mandated outpatient treatment**
  - New York Expansion of “Kendra’s Law”; Maryland’s AOT bill
- **Public mental health and human service system investment**
  - “Prevent the unpredictable” (Federal and state policy reform)

# Examples of policy approaches

WHERE'S THE EVIDENCE?!

- Expanded gun disqualification**

- Emergency commitments (Pennsylvania)
- Involuntary hospitalizations that convert to voluntary (Florida)
- All psychiatric hospitalizations (Connecticut)

- Dangerous persons gun seizure**

- Warrantless, pending judicial hearing (Indiana)
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- New York Expansion of “Kendra’s Law”; Maryland’s AOT bill

- Public mental health and human service system investment**

- “Prevent the unpredictable” (Federal and state policy reform)

Effective?	Not Harmful?
✓	?
✓	?
✓	?
?	?
?	?
?	?
?	?
?	?
✓	?
✓	✓

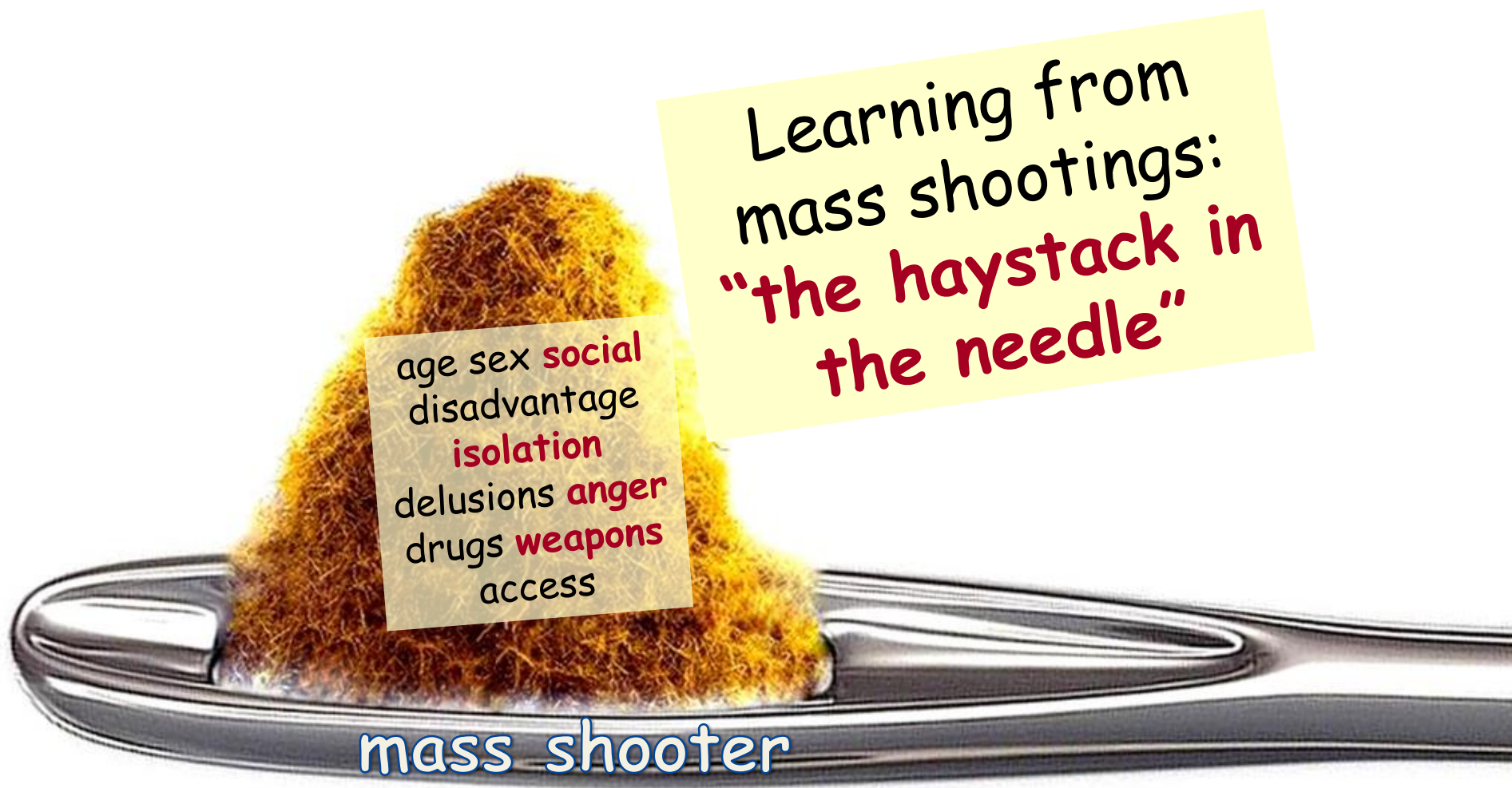
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Predicting mass  
shootings:  
"needle in a  
haystack"







Learning from  
mass shootings:  
"the haystack in  
the needle"

age sex **social**  
disadvantage  
**isolation**  
delusions **anger**  
drugs **weapons**  
access

mass shooter

# Preventing the unpredicted