

# Gun Violence Following Inpatient Psychiatric Treatment: Offense Characteristics, Sources of Guns, and Number of Victims

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**Objective:** This study presents data on the relative contribution to gun violence by people with a history of inpatient psychiatric treatment and on federal efforts to deter presumptively dangerous persons from obtaining firearms, information useful for analyzing the potential public health benefits of gun policies targeting people with serious mental illness. The study also estimates the reduction in gun violence victims that would be expected if individuals with a previous psychiatric hospitalization were prohibited from purchasing firearms.

**Methods:** Data from 838 violent gun offenders from a nationally representative sample of state prison inmates were analyzed. Those with and without a history of psychiatric hospitalization were compared on a range of offense characteristics, including relationship to the victim, number of victims, location of the offense, and source of firearms.

**Results:** Inmates with a history of hospitalization constituted 12% of all violent gun offenders and accounted for 13% of the sample's victims. They were less likely than those without a previous hospitalization to victimize strangers (odds ratio=.52) and were no more likely to commit gun violence in public or to have multiple victims. Among those with previous hospitalizations, 78% obtained guns from sources not subject to federal background checks. Of the total 1,041 victims of gun violence, only 3% were victimized by participants with a history of hospitalization who obtained guns from currently regulated sources.

**Conclusions:** Prohibiting all individuals with a history of psychiatric hospitalization from purchasing firearms, absent expanded background checks, was estimated to reduce the number of gun violence victims by only 3%.

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The Centers for Disease Control and Prevention recorded 33,559 fatalities and an additional 81,034 nonfatal injuries caused by firearms in 2014 (1). Although approximately two-thirds of these fatalities were suicides, the United States remains a significant outlier in rates of gun homicide. In a recent comparison of gun homicides across 23 high-income nations, the United States ranked first, accounting for 90% of all women killed by guns, 91% of all children under 14, and 92% of all youths ages 15 to 24 (2). At 3.6 per 100,000 population, rates of gun homicides in the United States were 25.2 times higher than in other developed nations. Striking statistics such as these, in addition to a wave of highly publicized mass shootings, have led the American Medical Association to declare gun violence a public health crisis (3).

According to many prominent media, advocacy, and political figures, the burden of gun violence in the United States is attributable largely to people with serious mental illness. Conservative pundit Ann Coulter concluded bluntly, “Guns don’t kill people—the mentally ill do” (4). In the wake of the mass shooting in Newtown, Connecticut, Wayne La Pierre, president of the National Rifle Association, suggested that

“monsters,” “lunatics,” and the “insane” were responsible for gun violence (5). Speaker of the House Paul Ryan, assessing America’s problem with gun violence after the mass shooting in San Bernardino, California, concluded, “People with mental illness are getting guns and committing these mass shootings” (6). Framing gun violence in these terms leads naturally to narrow policy efforts aimed at the identification of a class of ostensibly dangerous persons and strict, targeted prohibitions of firearm sales.

Strategies such as these, reflecting quintessential “dangerous persons” approaches (7), are aligned with recent U.S. Supreme Court decisions challenging broad bans on classes of “dangerous weapons” (8,9). Such policy suggests that the burden of gun violence in the United States would be meaningfully alleviated if the actions of those with serious mental illness could be managed, whether through registries, enhanced public mental health, or other avenues.

The empirical basis for mental illness as a causal factor in gun violence, however, is minimal (10,11). Epidemiologic research, for instance, has shown that mental illness accounts for only 3% to 5% of all violence in the United States

(11,12). Furthermore, although research shows that a history of psychiatric hospitalization is associated with nearly two-fold greater odds of making a threat with a gun (13), longitudinal findings for psychiatric inpatients indicated that approximately 98% committed no acts of violence with a gun in the year after discharge (14). Nevertheless, policies to reduce gun violence targeting people with mental illness receive a great deal of public support, and a recent public opinion survey found that 85.4% of the general public supported efforts to prohibit these individuals from purchasing or possessing firearms (15).

The perception of gun violence as a byproduct of psychiatric morbidity is likely influenced by media portrayals of gun violence, which tend to be particularly concentrated in the weeks after mass shootings (16). These salient images, which often include young male perpetrators with apparent mental illness, spur policy discussions ostensibly aimed at addressing the broad issue of gun violence. However, as Metzler and MacLeish (10) noted, such discussions often focus on “anecdotal distortions of, rather than representations of, the actions of ‘mentally ill’ people.” Furthermore, mass shootings, defined as single incidents with four or more victims, account for only .21% of all gun violence in the United States (17). By contrast, “everyday” gun violence with a single victim receives relatively minimal attention, even though it accounts for 95% of all gun violence (17). One consequence of a focus on statistically rare acts of gun violence, such as mass shootings of strangers perpetrated by individuals with mental illness, is that current policy priorities targeting the broad issue of gun violence appear to miss the mark by targeting the relatively narrow issue of mass homicides perpetrated by individuals with serious mental illness.

Policy efforts to prevent firearm purchases by classes of presumptively dangerous persons, including individuals who have been involuntarily committed to a mental institution (18), began with the 1968 Gun Control Act (19), which prohibits the purchase of firearms for several reasons related to mental health. Persons with a history of involuntary psychiatric hospitalization constitute a sizable majority of those prohibited by the law from purchasing firearms on the basis of mental health reasons, but the law also prohibits the purchase of firearms by persons adjudicated as “mental defectives,” including those acquitted as not guilty by reason of insanity, defendants found incompetent to stand trial, and certain individuals placed under guardianship. Under the 1993 Brady Act (20), gun sellers holding federal firearms licenses are required to conduct background checks through the National Instant Criminal Background Check System (NICS), a federal database of prohibited persons. However, estimates suggest that approximately 40% of all firearm sales occur through private transactions not subject to background checks (21), and this estimate is likely low if sales are limited to transactions that involve guns used in crimes.

Efforts to increase the reach of federal background check requirements have recently been accompanied by attempts to increase states’ reporting to the NICS database about state

residents prohibited from purchasing firearms for mental health reasons (22), raising concerns of a potential chilling effect on treatment seeking among individuals with mental illness worried about losing their right to purchase firearms (23). Although persons prohibited for mental health reasons now account for over 4.6 million records in the NICS database (24), making these persons the second largest prohibited group, the group accounts for less than 2% of all federal denials (25). Policy efforts seeking to balance the individual rights of those with mental illness with public safety should be informed by data on gun violence perpetrators broadly and by the relative contribution of those with a history of psychiatric hospitalization.

This study used a nationally representative sample of violent gun offenders to address four questions. First, given the rhetoric surrounding the role of persons with mental illness in America’s epidemic of gun violence, this study examined the relative contributions of those with and without a history of psychiatric hospitalization to the overall burden of gun violence and whether previously hospitalized individuals were more likely than other violent gun offenders to target strangers, engage in public gun violence, and victimize multiple people. Second, the study examined the sources of firearms used by inmates with and without a history of psychiatric hospitalization, with particular attention to whether these sources were subject to federal background check requirements. Third, it examined the victim burden of gun violence for those with and without a history of psychiatric hospitalization and for various sources of firearms.

Finally, the study tested the expected victim impact of a hypothetical policy with indirect relevance to current federal firearm policy targeting individuals with mental illness. To this end, the following question was tested: If firearm prohibitions targeted all individuals with a history of psychiatric hospitalization, whether voluntary or involuntary, but no changes were made to federal background check requirements, what impact would gun laws targeting those with mental illness be expected to have? In broadening the criteria of current policy to prohibit even those with a history of voluntary hospitalization, this inquiry overestimated the capacity of current policy to reduce the burden of firearm violence. As such, just as promising findings would need to be tempered to reflect this categorical expansion, findings showing minimal effects—even under these expanded conditions—would provide compelling evidence against the perspective that narrow firearm policies targeting individuals with mental illness would be expected to significantly reduce the overarching burden of gun violence.

## METHODS

### Database

Data were from the 2004 Survey of Inmates in State Correctional Facilities (SISCF), a survey of a nationally representative sample of state prison inmates conducted by the

U.S. Census Bureau for the Bureau of Justice Statistics. A total of 287 state prisons participated, and interviews of 14,499 inmates were conducted between October 2003 and May 2004. The SISCF utilized a two-stage sampling design, first identifying 287 state prisons stratified by region and representative of the 1,585 state prisons in the United States, followed by random selection of inmates within prisons. Participation was voluntary and confidential, and the overall response rate was 89.1%. All SISCF data were obtained through personal interviews and included information regarding inmates' history of psychiatric hospitalization prior to incarceration and the offense for which the inmate was currently incarcerated, including whether it was a violent offense, whether a firearm was used and whether it was fired, the inmate's relationship to the victim, the number of victims, the location of the offense, and the source of any firearms.

### Study Population

All participants who engaged in a violent gun offense were identified. Of the overall sample ( $N=14,499$ ), just under half (45%,  $N=6,535$ ) were incarcerated for violent offenses. Nearly one in four (24%,  $N=1,589$ ) violent offenders used a firearm in the commission of their crime. Of this group, over half (53%,  $N=846$ ) fired a gun in the commission of their crime. A total of 838 gun violence perpetrators, defined as those incarcerated for a violent offense during which they fired a gun, had data available regarding psychiatric hospitalization prior to incarceration and thus served as the primary study population.

### Independent Variable

All participants were asked whether they had ever been admitted to a mental hospital, unit, or treatment program prior to their incarceration because of an emotional or mental problem that resulted in an overnight stay. History of self-reported psychiatric hospitalization served as the primary independent variable.

### Outcome Measures

Primary outcomes included gun violence perpetrators' relationship to their victim (stranger versus known), the number of victims, the location of gun violence, whether the means by which the perpetrator obtained a gun was subject to federal background checks, and the proportion of victims of gun violence that would be reduced by successful firearms restrictions targeting those with a history of psychiatric hospitalization. To assess perpetrators' relationship to the victim, all participants were asked, "Was the [victim] someone you knew or a stranger you had never seen before?" Those who knew their victim were further asked about the nature of the relationship. We classified responses into domestic (spouse, former spouse, parent or stepparent, own child, stepchild, brother or sister or stepsibling, other relative, boyfriend or girlfriend, and former boyfriend or girlfriend) and nondomestic (friend or former friend and other nonrelative). The number of victims was

categorized into single victim and multiple victims. In addition, a third category—mass shooting—was included, defined as four or more victims. The location of gun violence included four categories, three of which were residential (residence shared by the victim and perpetrator, victim's residence, or perpetrator's residence) and one public (commercial or public). Gun violence perpetrators were asked which of ten options best described where they had obtained the gun used in their offense. Responses were divided into three categories, including "subject to federal firearms license regulations" (gun shop or store, pawnshop, and flea market), "unregulated—family or friends" (purchases or gifts from family or friends), and "unregulated—other" (black-market source, street-level purchase, burglary, from victim, gun show, or other). Finally, to contextualize the potential victim impact of the hypothetical policy restricting all individuals with a history of psychiatric hospitalization (voluntary or involuntary) from purchasing firearms, a comparison was conducted of the number of victims of gun violence associated with the various sources of firearms among perpetrators with and without a history of psychiatric hospitalization.

### Data Analysis

Prevalence estimates for each of the primary outcomes across levels of the primary exposure variable, psychiatric hospitalization, were calculated. Next, two binomial logistic regression models were constructed. In model 1, a series of binomial logistic regressions were constructed without adjustment. In model 2, these were recomputed and adjusted for sociodemographic variables, including sex, age, race-ethnicity, marital status, and alcohol and drug dependence. Odds ratios (ORs) were computed for each outcome, and the sample of gun violence perpetrators without a history of psychiatric hospitalization served as the reference group. Reported ORs greater than 1 reflect a greater probability of the outcome among those previously hospitalized; ORs less than 1 reflect a lesser probability. Differences in probabilities across outcomes based on the primary exposure variable were evaluated with the Wald chi-square statistic. When results of adjusted and unadjusted models differed, follow-up interaction analyses between the primary exposure variable and each covariate were conducted with the Wald chi-square statistic to isolate the cause of such differences.

## RESULTS

The overall likelihood of engaging in gun violence did not differ between persons with and without a history of psychiatric hospitalization. Among the 838 gun violence perpetrators, nearly one in eight (12%,  $N=104$ ) reported a history of psychiatric hospitalization. As shown in Table 1, male offenders constituted a large portion of the sample, although women were overrepresented among previously hospitalized gun violence perpetrators (22% of those with a history of psychiatric hospitalization versus 8% of those without,  $p<.001$ ). The mean  $\pm$  SD age across groups was

**TABLE 1. Characteristics of 838 gun violence perpetrators, by history of psychiatric hospitalization**

Characteristic	History of psychiatric hospitalization (N=104)		No history of psychiatric hospitalization (N=734)		$\chi^2$	df
	N	%	N	%		
Gender					18.67***	1
Male	81	78	672	92		
Female	23	22	62	8		
Age					2.00	3
<25	14	14	128	17		
25–34	36	35	275	38		
35–44	27	26	162	22		
≥45	27	26	169	23		
Race-ethnicity					23.70***	3
White	49	48 <sup>a</sup>	186	25 <sup>a</sup>		
African-American	38	37 <sup>a</sup>	381	52 <sup>a</sup>		
Hispanic	10	10 <sup>a</sup>	131	18 <sup>a</sup>		
Other	6	6 <sup>a</sup>	35	5 <sup>a</sup>		
Marital status					2.41	3
Never married	60	58	450	61		
Married	12	12	105	14		
Divorced or separated	24	23	139	19		
Widowed	8	8	39	5		
Substance dependence						
Drug	43	41	184	25	12.22***	1
Alcohol <sup>b</sup>	28	37	144	32	.85	1
Drug or alcohol	50	67	213	47	9.72**	1

<sup>a</sup> Values in a single row that share a superscript indicate a significant ( $p < .05$ ) difference.

<sup>b</sup> Established with a CAGE cutoff score of 3; CAGE data were available for only 526 participants.

\*\* $p < .01$ , \*\*\* $p < .001$

35.8±11.9 and did not differ between groups. There were significant racial group differences; among whites, the proportion of gun violence perpetrators with a prior psychiatric hospitalization was higher than the proportion who did not have a prior psychiatric hospitalization, but the opposite was true among African-American and Hispanic perpetrators, and the difference between the groups was significant. Across groups, most had never been married (61%), and no group differences regarding marital status were noted. Rates of drug dependence were significantly higher among gun violence perpetrators with a history of psychiatric hospitalization than among those without such a history (41% versus 25%).

### Characteristics of Gun Violence by Prior Hospitalization

Table 2 presents the prevalence estimates and the bivariate and adjusted ORs for participants with a history of psychiatric hospitalization for each outcome. In the adjusted models, previously hospitalized gun violence perpetrators were significantly less likely than those without a previous hospitalization to shoot a stranger (OR=.52) and more likely to shoot a known victim (OR=1.93). In the unadjusted (but not adjusted) model, among perpetrators who knew their victim, previously hospitalized participants were more likely than participants with no hospitalization history to victimize

a domestic relation (OR=1.95) and less likely to victimize a nondomestic relation (OR=.51).

Sex significantly moderated the link between psychiatric hospitalization and the likelihood of victimizing a domestic relation ( $\chi^2=8.97$ ,  $df=1$ ,  $p=.003$ ). Among persons with known victims, women were significantly more likely than men to victimize domestic relations, and this was true for persons with (women,  $N=15$  of 18, 83%; men,  $N=12$  of 34, 35%) and without (women,  $N=30$  of 38, 79%; men,  $N=71$  of 245, 29%) histories of psychiatric hospitalization. Because women were overrepresented in the previously hospitalized group, controlling for sex partially accounted for the nonsignificance in the adjusted model.

Contrary to media portrayals linking mental illness to mass shootings, gun violence perpetrators with a previous psychiatric hospitalization were not more likely to have multiple victims or to engage in a mass shooting. Although previously hospitalized gun violence perpetrators were significantly more likely than perpetrators without a previous hospitalization to perpetrate violence in a residence shared with the victim versus other settings (OR=2.20), the difference was rendered nonsignificant in the adjusted model. Sex significantly moderated the link

between hospitalization and perpetration of violence in a shared residence ( $\chi^2=14.47$ ,  $df=1$ ,  $p<.001$ ). Among persons with data available for location of shooting, women were significantly more likely than men to have perpetrated violence in a shared residence versus other settings, and this was true for persons with (women,  $N=11$  of 20, 55%; men,  $N=12$  of 60, 20%) and without (women,  $N=25$  of 45, 56%; men,  $N=58$  of 490, 12%) histories of psychiatric hospitalization.

### Estimated Impact of Prohibitions Targeting All Psychiatric Inpatients

The potential for a hypothetical firearm prohibition targeting all previously hospitalized individuals to reduce the overall burden of gun violence hinges both on the contribution to gun violence of those with a history of hospitalization and on the reach of federal regulations into the types of gun transactions typical of those at risk of committing gun violence. Among the 754 gun violence perpetrators in the sample for whom data were available, only 16% ( $N=122$ ) obtained their gun from a source subject to federal background check requirements (Table 3). The most common means of acquisition was from family or friends (39%,  $N=296$ ), followed by street-level purchases (25%,  $N=191$ ). Despite a recent focus on the “gun show loophole,” very few perpetrators reported obtaining guns in this manner (1%,

**TABLE 2. Regression models of variables related to gun violence, by history of psychiatric hospitalization among gun violence perpetrators<sup>a</sup>**

Variable	History of psychiatric hospitalization (N=104)		No history of psychiatric hospitalization (N=734)		Unadjusted model			Adjusted model <sup>b</sup>		
	N	%	N	%	Wald $\chi^2$	OR	95% CI	Wald $\chi^2$	OR	95% CI
Relationship to victim <sup>c</sup>										
Stranger	23	28	237	42	5.85*	.53	.32–.89	3.83*	.52	.27–1.00
Known <sup>d</sup>	59	72	324	58	5.85*	1.88	1.13–3.13	3.83*	1.93	1.00–3.74
Domestic	27	52	101	36	4.80*	1.95	1.07–3.53	.78	1.44	.64–3.21
Nondomestic	25	48	182	64	4.80*	.51	.28–.93	.78	.70	.31–1.56
N of victims <sup>e</sup>										
Single	82	79	569	78	.02	1.04	.63–1.71	.13	1.13	.59–2.15
Multiple victims	22	21	158	22	.02	1.08	.59–1.60	.13	.89	.47–1.69
Mass shooting <sup>f</sup>	5	5	32	4	.04	1.11	.42–2.90	.00	.98	.27–3.58
Location of gun violence <sup>g</sup>										
Shared residence	23	29	83	16	8.23**	2.20	1.28–3.76	2.18	1.75	.83–3.67
Victim residence	11	14	97	18	.92	.72	.37–1.41	.05	.92	.44–1.94
Perpetrator residence	7	9	45	8	.01	1.04	.45–2.40	.10	.84	.73–1.64
Commercial or public setting	39	49	310	58	2.38	.69	.43–1.11	.75	.76	.41–1.41
Source of gun <sup>h</sup>										
Subject to federal regulation	22	24	100	16	.00	1.00	.64–1.55	.00	.99	.58–1.72
Unregulated—family or friends	39	42	257	42	.00	1.00	.64–1.55	.00	.99	.58–1.72
Unregulated—other	32	34	255	42	1.75	.73	.47–1.16	.67	.78	.43–1.39

<sup>a</sup> Gun violence perpetrators without a history of psychiatric hospitalization served as the reference group in both models.

<sup>b</sup> Adjusted for sex, age, race-ethnicity, marital status, alcohol dependence, and drug dependence

<sup>c</sup> Data available for 643 perpetrators (history of psychiatric hospitalization: yes, N=82, 79%; no, N=561, 76%)

<sup>d</sup> Data on the specific type of relationship was available for 335 of 383 perpetrators with known victims (history of psychiatric hospitalization: yes, N=52, 88%; no, N=283, 87%)

<sup>e</sup> Data available for 831 perpetrators (history of psychiatric hospitalization: yes, N=104, 100%; no, N=727, 99%)

<sup>f</sup> Defined as shootings with four or more victims

<sup>g</sup> Data available for 615 perpetrators (history of psychiatric hospitalization: yes, N=80, 77%; no, N=535, 73%). Pearson chi-square values for omnibus results for row,  $\chi^2=8.88$ ,  $df=3$ ,  $p\leq .05$

<sup>h</sup> Data available for 705 perpetrators (history of psychiatric hospitalization: yes, N=93, 89%; no, N=612, 83%). Pearson chi-square values for omnibus results for row,  $\chi^2=3.54$ ,  $df=2$ , ns

\* $p\leq .05$ , \*\* $p< .01$

N=6), and none of the previously hospitalized participants did so. As shown in Table 2, no differences were found in the source of firearms between those with and without a history of hospitalization.

Next, data were examined from 705 gun violence perpetrators for whom data regarding psychiatric hospitalization history, source of firearms, and number of victims were available. This group of 705 perpetrators accounted for 1,041 victims. As shown in Figure 1, previously hospitalized inmates accounted for 13% (N=136) of all victims. Of these victims, 78% (N=106) were victimized by guns obtained from unregulated sources. More broadly, across all gun violence in this study, persons with a history of psychiatric hospitalization who purchased firearms through channels potentially remedied by federal background checks accounted for only 3% (N=30) of the 1,041 victims of gun violence.

## DISCUSSION

This study adds to the literature on mental illness and gun violence and provides evidence indirectly relevant to current policy efforts aimed at reducing the burden of gun violence by targeting individuals with mental illness. Central to

understanding the potential public health impact of current policy efforts, such as the NICS Improvement Act aimed at increasing states' reporting of individuals prohibited from purchasing firearms for mental health reasons, is the recognition that such policies hinge both on the relative contribution of persons with mental illness to the problem of gun violence and on the potential reach of federal regulations to deter at-risk individuals from obtaining firearms. The study's findings suggest that such efforts face challenges on both fronts.

In a nationally representative sample of state prison inmates, the study found that those with a history of psychiatric hospitalization represented approximately one in eight violent gun offenders and accounted for 13% of overall gun violence victims. Contrary to media portrayals, persons with a history of hospitalization were less likely than those without such a history to target strangers and were no more likely to engage in public shootings or to have multiple victims. In addition to contextualizing the role of previously hospitalized individuals in the overall burden of gun violence, the study also found that over 75% of violent gun offenders with a history of psychiatric hospitalization obtained firearms from sources not required by federal law to conduct background checks. In this national survey of state prisons, only 3% of all



**TABLE 3. Source of gun used by gun violence perpetrators, by history of psychiatric hospitalization<sup>a</sup>**

Source	History of psychiatric hospitalization (N=99)		No history of psychiatric hospitalization (N=655)	
	N	%	N	%
Subject to federal regulations	22	22	100	15
Gun shop or store	15	15	71	11
Pawnshop	4	4	25	4
Flea market	3	3	4	1
Unregulated	77	78	555	85
Unregulated—family or friends	39	39	257	39
Black market	1	1	47	7
Street-level purchase	21	21	170	26
Burglary	1	1	12	2
Victim	9	9	20	3
Gun show	0	—	6	1
Other	6	6	43	7

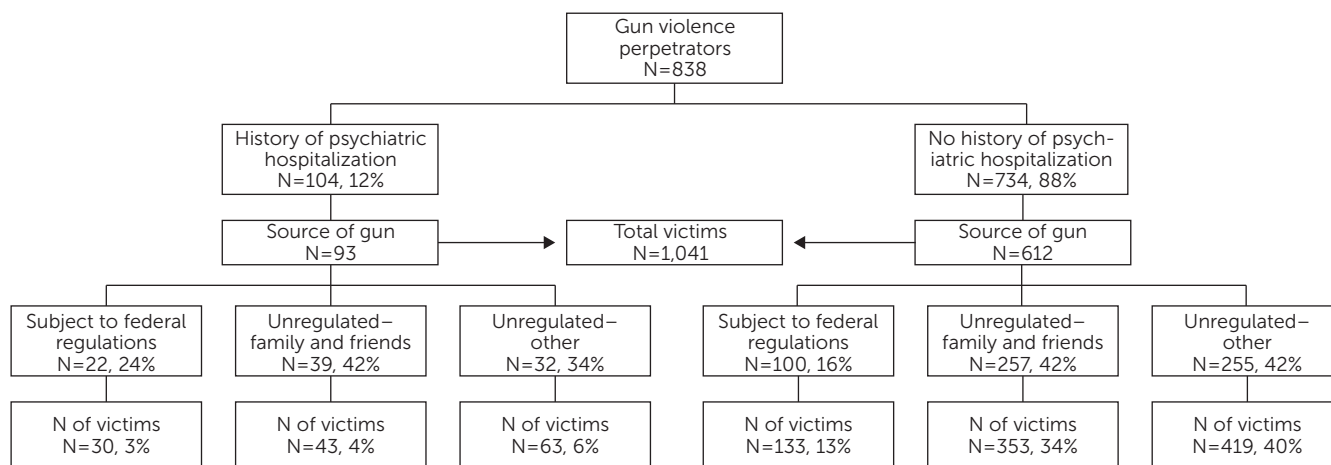
<sup>a</sup> Data on source of gun were missing for five perpetrators with a history of psychiatric hospitalization and 79 without.

victims of gun violence were the victims of gun violence offenders with a history of psychiatric hospitalization who purchased firearms through channels subject to federal background checks. Therefore, the findings suggest that prohibiting all individuals with a history of psychiatric hospitalization (voluntary and involuntary) from purchasing firearms, absent expanded background checks, would reduce the victim burden of interpersonal gun violence by very little. Even though firearm legislation targeting individuals with mental illness showed little ability to reduce rates of firearm homicide, it is worth noting that this legislation might nonetheless meaningfully reduce rates of firearm suicide (26).

The findings provide another compelling counterpoint against tendencies among lawmakers to take comfort in having “done something” to combat gun violence if their efforts have focused exclusively on supporting firearm

legislation targeting people with mental illness. Rather, these findings show that under even the best of circumstances, such efforts are likely to exert only a modest influence on a small proportion of individuals genuinely at risk of perpetrating gun violence.

This study had several notable strengths and limitations. Among the strengths, the use of an inmate sample permitted analysis of rarely examined data, including specific information on the sources of guns used in crimes by gun violence perpetrators with and without a history of psychiatric hospitalization. In addition, the use of a nationally representative survey of state correctional inmates to examine the issue of gun violence and mental illness expands on prior work from individual states (27,28), longitudinal studies involving discharged psychiatric inpatients (14), and national samples of noninstitutionalized adults (13,29,30). Among the limitations, we were unable to distinguish voluntary from involuntary psychiatric hospitalizations, which is relevant because only persons with involuntary psychiatric hospitalizations are prohibited from purchasing firearms under current federal law. Previous research has suggested that approximately one in four commitments is voluntary (31). As a result, these findings should be understood as overestimating the potential impact of current policy. It is important to note, however, that inclusion of offenders with any history of psychiatric hospitalization (voluntary or involuntary) erred in favor of supporting current policy; it is likely that current prohibitions targeting only those who have been hospitalized involuntarily would demonstrate even smaller effects than those observed in this study. A second limitation is that all data were self-reported, and the inherent limitations of such data should be considered. Finally, no data on participants' history of prior criminal convictions were included. Research has shown that nearly three of four discharged psychiatric patients who engage in gun violence have a history of prior arrests (14). In addition, violent offenders have been found to be far more likely to be prohibited from purchasing firearms because of prior criminal convictions rather

**FIGURE 1. Source of firearms and number of victims among 838 gun violence perpetrators, by history of psychiatric hospitalization<sup>a</sup>**

<sup>a</sup> Data on the number of victims were unavailable for six perpetrators with a history of hospitalization and 43 without. Thus the numbers of perpetrators with valid data regarding source of firearms are lower than in Table 2.

than a history of psychiatric hospitalization (28). For these reasons, it is likely that many previously hospitalized study participants would have been prohibited from purchasing a firearm because of a criminal history. As such, the incremental value of mental health prohibitors beyond restrictions already in place—such as prior felony convictions—remains unknown.

## CONCLUSIONS

Individuals with a history of psychiatric hospitalization constituted a small minority of all violent gun offenders in this sample, and federal prohibitions on firearm purchasing lacked sufficient reach to deter a sizable majority of these presumptively dangerous individuals from obtaining firearms. Firearm prohibitions targeting discharged psychiatric patients, absent further restrictions on private transactions, is unlikely to reduce the number of victims of gun violence by more than 3%.

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