Lethal Means Assessment in Psychiatric Emergency Services:

Frequency and Characteristics of Assessment

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Abstract

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Lethal means safety is an effective suicide prevention strategy with demonstrated results at the population and policy level, yet uptake at the individual-level is less well understood. Using automated data extraction methods, we conducted an investigation of psychiatric emergency service (PES) patients from 1/1/12 through 12/31/17 at one of the busiest emergency departments in the Pacific Northwest. Every patient received a Suicide Risk Assessment during which providers used an electronic template with standardized fields to record access to lethal means and other suicide risk factors. We assessed 32,658 PES visit records belonging to 15,652 patients. Among all patient visits, 69.9% (n=22,824) had some documentation of lethal means assessment. However, over one-half of all visits lacked some or all documentation. Despite the high-risk patient population, mental health specific focus of the facility, and presence of a standardized tool, lethal means documentation was suboptimal. In alignment with recent recommendations, our findings suggest that additional operational interventions may be required to improve lethal means assessment documentation frequency and detail to cultivate a more robust suicide prevention infrastructure.

INTRODUCTION

Suicide is a leading cause of death in the United States (US) with steadily increasing rates over the last two decades.[1,2] Since 2000, the national suicide rate increased by 35%; in 2017, over 47,000 people died by suicide in the US.[2] The state of Washington has an 11% greater rate of suicide than the national average; more than five times as many people die by suicide in this state than by homicide.[3] In Washington, 1 person dies by suicide every 8 hours with a combined lifetime medical and work loss cost of about 1 million dollars for each suicide death.[3]

One promising suicide prevention strategy is lethal means safety.[4-9] This approach involves health providers assessing whether a person at risk for suicide has access to firearms or other lethal means, such as prescription medications or chemicals, and working with them and their support system to restrict access to decrease their risk.[10,11] If a person in crisis has limited access to highly lethal means, they may substitute with less lethal means or delay the attempt entirely.[12] Creating time and distance between lethal means and a person at risk can save lives.

Lethal means safety is recommended by the Joint Commission and is a tenet of the Zero Suicide model, a component of the US Action Alliance's National Strategy for Suicide Prevention.[11,13-15] Zero Suicide is rooted in the concept that suicide death is preventable among individuals under the care of health systems and offers a framework and resources to improve suicide prevention infrastructure.[16] Highly acclaimed professional health organizations, such as the American Medical Association, also endorse risk assessment and counseling on safe firearm practices.[17,18]

Despite the demonstrated effectiveness of this strategy at the population and policy level,[19-25] uptake of lethal means safety in clinical settings is not well understood. A 2013 study found that emergency department (ED) providers were unlikely to assess means access unless patients indicated that they had a suicide plan involving firearms.[26] Two studies among adult ED patients at high risk of suicide found documentation of lethal means assessment in only 18% and 50% of patient charts, respectively.[8,27] Similarly, a 2019 investigation found that about 26% of pediatric ED patients with suicidal ideation, homicidal ideation, or suicide attempt had no documented screening for firearm access.[28] These striking findings from EDs highlight the need for such investigations in different clinical settings and

patient populations to better understand the current practice landscape and identify barriers and facilitators to increasing the frequency of lethal means assessment.

In 2014, Washington became the first state in the country to require that all health care providers receive training in suicide assessment, management, and treatment—including lethal means assessment.[29-30] Leading experts and health care organizations collaborated to develop training offerings for providers and implementation began in 2017.[30] Future evaluations of the effectiveness of these trainings in enhancing the uptake of lethal means safety and reducing the risk of suicide attempt and death in this state will depend on a rigorous understanding of clinical practice regarding lethal means assessment before the trainings went into effect. The existing body of research on the uptake of lethal means assessment consists primarily of chart reviews conducted in general ED settings outside of Washington, with samples that range from under 100 to almost 1,500 patients. To contribute additional context to this emerging issue, we conducted an investigation of six years of patient visits in a high-volume psychiatric emergency service (PES) located in an urban, county hospital in Washington.

We hypothesized that documentation of lethal means assessment would be higher in this investigation compared to previous studies due to the psychiatric-specific focus of the facility and the high-risk patient population. The aims of this study were to: 1) determine the overall frequency of documented lethal means assessment, and 2) characterize patient visits with and without documented lethal means assessment by demographic and suicide risk factors. Given the existing suicide prevention infrastructure in place at this institution, gaining a better understanding of uptake in this population could provide valuable and evidence-based recommendations for implementation and practice across a variety of clinical settings.

METHODS

Study design, setting, and population: We used automated methods to extract data from PES electronic health records (EHR) from January 1, 2012 through December 31, 2017**.** The PES is located in one of the busiest emergency departments in the Pacific Northwest. This facility is a critical safety net for patients with acute and chronic mental illness, often comorbid with substance abuse. The PES is located within a separate section of a general emergency department and staffed 24/7 by mental health

specialists including an attending psychiatrist, nurse practitioner, and residents. Annually, these PES providers conduct over 6,000 comprehensive mental health evaluations from about 4,000 unique patients. The PES population is at particularly high risk of suicide and includes both pediatric and adult patients. This population is also known to experience disproportionate homelessness and housing insecurity. All patients who received a comprehensive mental health evaluation by PES clinicians, regardless of chief complaint or diagnosis, were included in our sample. Institutional Review Board approval was obtained from the University of Washington (UW).

Measures: Programmers from UW's Institute of Translational Health Sciences identified our patient sample from a clinical data repository by searching for any patient with a comprehensive mental health assessment from PES providers in their EHR during our study timeframe. Visit data were extracted and organized using structured query language (SQL). Data were further subdivided via text mining and additional SQL queries.

Each patient evaluated at the PES received a Suicide Risk Assessment (SRA), which included standard fields in the EHR on suicidality, access to lethal means, and suicide risk factors. We used six data elements from the SRA to define our primary outcome: any documentation of lethal means assessment during a PES visit. The six data elements were: 1) any access to lethal means, 2) firearms available, 3) stockpile of pills available, 4) firearms and pills available, 5) unable to determine, and 6) other. We developed an algorithm to create a composite, dichotomous lethal means assessment documentation variable for use in our analysis. Any documentation was determined when there was a recorded response in at least one of the six fields; no documentation was determined when all six fields were blank.

We also obtained dichotomous suicide risk factor indicators from standardized fields in the SRA, specifically: current unemployment, previous inpatient psychiatric treatment, previous suicide attempts, psychotic symptoms, current alcohol and/or drug intoxication or withdrawal, living alone, severe anxiety and/or distress, hopelessness, poor physical health, continuing high suicide intent, family history of suicide, and previous near fatal suicide act. Severity was determined by the evaluating provider. Basic demographic information for each visit was also extracted from patient medical records.

Data analysis: We calculated proportions to characterize our overall study population and compare key demographic measures among visits with, and without, any documentation of lethal means assessment. Using standardized fields in the SRA, we developed additional composite variables to identify each potential level of documentation: 1) any documentation of lethal means assessment; 2) if so, whether means were available; 3) if so, was a specific type of means able to be determined; and 4) if so, what specific type(s) of means. We then calculated the proportion of documentation at each of the four levels.

We also subdivided our dataset by mutually exclusive and exhaustive potential levels of documentation: 1) documented access to firearms, pills, or firearms and pills; 2) documented access to means in which the specific type of means was not clarified; 3) documentation that the patient had no access to means; 4) documentation that the provider was unable to determine a patient's access to means, and 5) no documentation of any lethal means assessment. We then computed the proportion of visit notes indicating specific risk factors among each subset. Lastly, we used Wald and score methods to compute prevalence ratios and corresponding 95% confidence intervals comparing the prevalence of any documentation among visits indicating a patient had a given risk factor to the prevalence of any documentation among visits indicating a patient did not have that risk factor. All analyses were conducted using R version 3.5.3.

RESULTS

We reviewed 32,658 PES visit records belonging to 15,652 unique patients. The mean number of visits per patient during the study period was 2.1. Approximately two-thirds of patients were male, white, and used Medicare or Medicaid for insurance (Table 1). The vast majority of patients were non-Hispanic (92.4%) and English-speaking (94.9%). At the time of their index visit, 89.1% of patients indicated that they were non-partnered, 49.0% identified as non-religious, and the median patient age was 37 years (IQR: 27 years-49 years).

Overall, 69.9% (n=22,824) of visits had documentation of some lethal means assessment (Figure 1). Among visits with any documented assessment, 12.5% (n=2,857) indicated lethal means were available. Of those, the specific means were documented in 40.4% (n=1,155) of visits. Specific means indicated were firearms (n=392), pills (n=695), or both firearms and pills (n=68).

The most common suicide risk factors indicated were unemployment (n=16,527), previous psychiatric treatment (n=13,449), and previous suicide attempts (n=10,336) (Table 2). Of the seven possible documentation levels, visits at which a patient had documented access to lethal means had the highest prevalence of every risk factor, except psychotic symptoms. Visits with documented access to firearms (n=359) had the highest proportion of patient visits indicating family history of suicide (12.0%, n=43) and a previous near fatal suicide act (7.2%, n=26). Visits with documented access to pills (n=639) had the highest proportion of patient visits indicating a previous suicide attempt (70.4%, n=450), living alone (34.3%, n=219), and poor physical health (25.8%, n=165). Visits with documented access to both firearms and pills had the highest proportion of patient visits indicating severe anxiety and/or distress (45.2%, n=28), hopelessness (50.0%, n=31), and continuing high suicide intent (41.9%, n=26).

Among visits with no documentation of lethal means assessment, almost half (46.9%, n=3,020) indicated the patient had a previous suicide attempt and almost one-tenth (9.8%, n=628) indicated the patient had continuing high suicide intent. Visits with documentation that the patient had no access to lethal means had the lowest prevalence of two-thirds of the suicide risk factors, including previous suicide attempt (28.5%, n=2,729) and near fatal suicide act (0.5%, n=51). This group also had the lowest proportion of visits indicating severe anxiety and/or distress (17.7%, n=1,699), hopelessness (4.1%, n=395), and continuing high suicide intent (0.7%, n=68). The prevalence of any lethal means documentation among visits indicating a given risk factor was not different from the prevalence of any lethal means documentation among visits without that given risk factor (Table 3).

DISCUSSION

In this large record review of patients assessed by mental health clinicians over a six-year period, we found that almost 70% of visit notes included some documentation of lethal means assessment. As predicted, this finding is higher than previous observations among general ED patients.[8,27] We suspect the increased documentation is attributable to the mental health specific focus of both the clinicians and institution, as well as the high-risk patient population in our study. However, this finding indicates that even in a psychiatric emergency service setting, frequency of lethal means assessment documentation is suboptimal. Despite ample evidence regarding the effectiveness of lethal means safety, our findings align

with previous research and demonstrate that implementation remains a persistent problem across diverse clinical settings, geographic regions, and patient populations.

Recent research suggests bolstering operations, such as electronic templates and written protocols, may improve lethal means assessment frequency.[27,31] The standardized SRA template used by our clinicians likely contributed to the higher frequency of documentation observed in our study. The templated form fields allowed us to systematically assess documentation detail, in addition to overall frequency. Despite the presence of a standardized tool, over one-half of all visits lacked some or all documentation of lethal means assessment.

Of particular note are the 59.6% of visits in which a patient had documented access to lethal means, yet the specific means available were not indicated. Lethal means safety hinges on this key detail; subsequent safety planning is severely limited in the absence of known means. This finding highlights the importance of documentation detail, in conjunction with overall frequency. It also suggests that the presence of a standardized tool alone is not sufficient to produce consistently comprehensive lethal means assessment documentation.

Our investigation of suicide risk factors among documentation subtypes revealed notably lower prevalence of previous suicide acts among visits which documented the patient had no access to lethal means. This finding may indicate a relationship between means availability and suicide acts. However, the markedly lower prevalence of hopelessness, severe anxiety and/or distress, and continuing high suicide intent in this subgroup suggests that these patients may actually be less severely ill than our overall study population. This association between no access to lethal means and decreased risk factor severity warrants further exploration.

Over the course of our study we observed several barriers that we suspect impacted both documentation frequency and detail. First, PES providers regularly assess patients who are severely intoxicated or being evaluated involuntarily. In these situations, lethal means assessment may be un- or under-documented due to the patient's inability or unwillingness to participate. Second, the standardized form fields are not representative of the breadth of means patients report (e.g., knives, bridges, motor vehicles). Third, constraints imposed by predetermined ordering of data elements and auto-populating functions in the SRA introduce challenges in terms of measuring constructs of interest optimally. For

example, radio buttons are both more restrictive than checkboxes and auto-generate responses for other fields; the latter may force more liberal, less precise documentation than is reflective of a given mental health evaluation. Interestingly, a 2019 qualitative study of PES providers also noted frustrations with existing EHR systems, as well as a strong sentiment that screening tools are not a replacement for clinical decision making.[32]

This study suggests several ways to improve the documentation process. For example, adding or adapting form fields on the SRA would allow providers to systematically document: 1) when assessment attempts cannot be completed due to patient presentation, and 2) specific means available other than firearms or pills. Further leveraging the EHR system and emphasizing assessment documentation during training are also key opportunities.[33] Additionally, the Agency for Healthcare Research and Quality recommends that regular progress measurement accompany clinical quality improvement activities.[34] Understanding current levels of documentation frequency and detail are therefore necessary first steps towards subsequent progress monitoring and improvement efforts.

To our knowledge, this investigation examined over fifteen times more patient visits than previous comparable studies. We believe it is also the first to assess documentation detail using standardized form fields designed for lethal means assessment. However, there are several limitations. We deliberately studied only form fields given recent research suggesting standardization as an important component of suicide prevention operations.[27,35-36] Free text lethal means assessment may have existed in some charts and would not have been revealed by our automated data extraction methods. As a result, our findings almost certainly underestimate overall documentation frequency. Given that the proportion of documentation we observed in our study was already higher than findings from recent relevant studies, potential unmeasured free text assessments do not alter our conclusions.

Generalizability is also a consideration in our study. We chose to investigate a high-risk population presenting to a psychiatric emergency service in the Pacific Northwest to strategically address multiple gaps in the emerging body of literature on documentation of lethal means assessment. Though our quantitative findings should only be interpreted in the context of this population, we believe the barriers and facilitators we identified are more widely generalizable as our population likely suffers from the same sociocultural and mental health issues prevalent in many US cities. Specifically, our findings

could be applicable for institutions with existing standardized assessment practices or facilities taking a first step towards building a culture of suicide prevention into their operations.

Lastly, we do not know to what extent the trusted support network was engaged and the means were removed among patients with documented access to lethal means. While frequency and thoroughness of documentation regarding access is critical, the ultimate effectiveness of lethal means safety requires distancing the person at risk from the means of concern. Incorporating evidence-based individualized strategies that facilitate limiting means availability for patients with identified access, such as distributing safety devices and providing structured telephone follow-up, may offer promising mechanisms to further bolster the effectiveness of lethal means assessment in clinical settings.[17,37-39]

As suicide rates continue to rise, capitalizing at every possible intervention point is increasingly important. Health care institutions present an important touchpoint for intervention and emerging strategies like Zero Suicide emphasize the need to make system-wide transformations.[16] Scaling suicide prevention operations requires increasing the uptake of lethal means assessment via improved documentation as well as inclusion of less traditional roles in assessment practices, such as nurses.[35] Though we observed some documentation of lethal means assessment in nearly 70% of visit notes, we found significant opportunity to improve frequency, detail, and follow-up to ensure means were secured. We identified several barriers and facilitators to consistent, comprehensive lethal means assessment documentation. Further investigation is needed to formally test the effectiveness of these strategies—and determine how to best improve uptake across the health care workforce—to develop more robust, evidence-based suicide prevention systems.

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TABLES & FIGURES

Table 1. Demographic characteristics of PES patients at index visit.

		Total (n=15,652) n(%)
Male*		9,750 (62.3)
Age (years)		
7-25		2,679 (17.1)
25-34		4,240 (27.1)
35-44		3,337 (21.3)
45-54		3,081 (19.7)
55-64		1,744 (11.1)
65+		571 (3.6)
Race*		
White		10,289 (67.9)
Black		3,198 (21.1)
Asian		902 (5.9)
American Indian or Alaska Native		434 (2.9)
Other[a]		337 (2.2)
Non-Hispanic*		12,565 (92.4)
Relationship Status*		
Not Partnered		13,620 (89.1)
Partnered		1,671 (10.9)
Insurance*		
Medicare / Medicaid		5,263 (64.2)
Private		2,455 (30.0)
Other[b]		477 (5.8)
Language*		
English		14,839 (94.9)
Spanish		259 (1.7)
Other[c]		531 (3.4)

Religion*		
Christian		4,532 (30.3)
Catholic		1,464 (9.8)
Muslim		315 (2.1)
Buddhist		222 (1.5)
Jewish		127 (0.9)
Other[d]		954 (6.4)
No Religion		7,319 (49.0)

*NOTE: We did not have complete information on these characteristics. The amount of missing data is as follows: Sex (<1%, n=1), race (3.1%, n=492), ethnicity (13.2%, n=2,060), relationship status (2.3%, n=361), insurance (47.6%, n=7,457), language (0.1%, n=23), religion (4.6%, n=719).

[a]Includes Hispanic or Latino, Native Hawaiian or Other Pacific Islander, or Multi-Racial.

[b]Includes Tricare, self-insured, charity, financial assistance, and other alternate insurance types.

[c]Includes 40+ additional languages.

[d]Includes 10+ religious categories such as Wicca and Scientology.

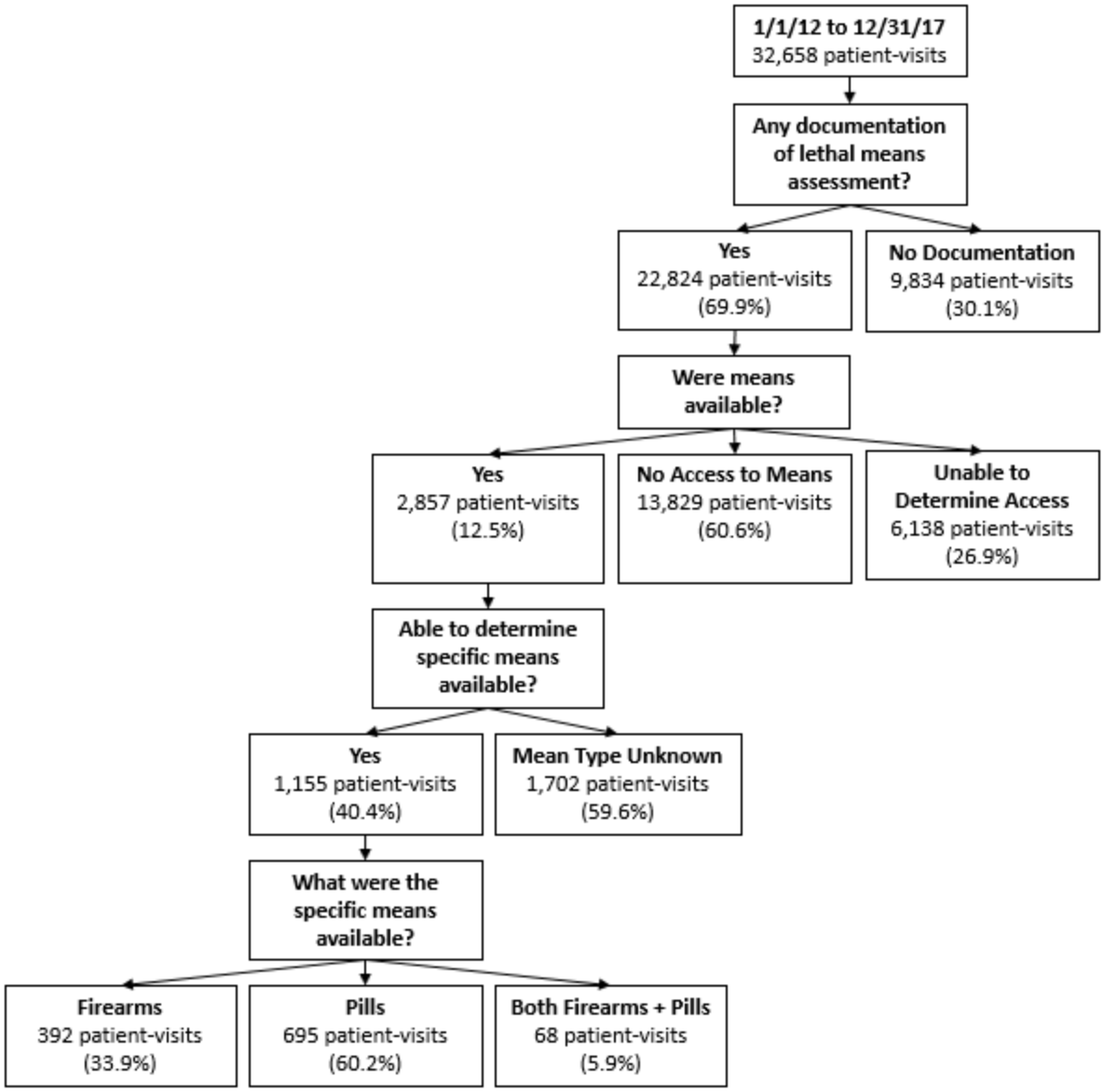

Figure 1. Documentation of lethal means assessment among psychiatric emergency service patient visits; January 1, 2012 through December 31, 2017.

Table 2. Suicide risk factors by documentation of lethal means assessment detail.

	Any Documentation (n=22,824)						No Documentation (n=6,441) n(%)	Total (n=24,115) n(%)*
	Firearms (n=359) n(%)	Pills (n=639) n(%)	Both Firearms + Pills (n=62) n(%)	Mean Type Unknown (n=1,503) n(%)	No Access to Means (n=9,587) n(%)	Unable to Determine Access (n=5,524) n(%)		
All Patients	1.5	2.6	0.3	6.2	39.8	22.9	26.7	100.0
Suicide Risk Factors**								
Unemployment	226 (63.0)	437 (68.4)	44 (71.0)	1,075 (71.5)	6,464 (67.4)	3,783 (68.5)	4,498 (69.8)	16,527 (68.5)
Inpatient Psychiatric Treatment	167 (46.5)	404 (63.2)	34 (54.8)	958 (63.7)	5,010 (52.3)	3,149 (57.0)	3,727 (57.9)	13,449 (55.8)
Previous Suicide Attempts	193 (53.8)	450 (70.4)	41 (66.1)	972 (64.7)	2,729 (28.5)	2,931 (53.1)	3,020 (46.9)	10,336 (42.9)
Psychotic Symptoms	114 (31.8)	175 (27.4)	17 (27.4)	543 (36.1)	4,145 (43.2)	2,021 (36.6)	2,699 (41.9)	9,714 (40.3)
Current Alcohol or Drug Intoxication or Withdrawal	165 (46.0)	187 (29.3)	30 (48.4)	734 (48.8)	3,319 (34.6)	2,017 (36.5)	2,467 (38.3)	8,919 (37.0)
Living Alone	113 (31.5)	219 (34.3)	17 (27.4)	415 (27.6)	2,462 (25.7)	1,877 (34.0)	2,124 (33.0)	7,227 (30.0)
Severe Anxiety / Distress	121 (33.7)	280 (43.8)	28 (45.2)	509 (33.9)	1,699 (17.7)	1,569 (28.4)	1,974 (30.6)	6,180 (25.6)
Hopelessness	118 (32.9)	308 (48.2)	31 (50.0)	569 (37.9)	395 (4.1)	1,500 (27.2)	1,304 (20.2)	4,225 (17.5)
Poor Physical Health	65 (18.1)	165 (25.8)	12 (19.4)	311 (20.7)	1,059 (11.0)	1,007 (18.2)	1,163 (18.1)	3,782 (15.7)
Continuing High Suicide Intent	93 (25.9)	204 (31.9)	26 (41.9)	479 (31.9)	68 (0.7)	808 (14.6)	628 (9.8)	2,306 (9.6)
Family History of Suicide	43 (12.0)	59 (9.2)	3 (4.8)	105 (7.0)	208 (2.2)	334 (6.0)	284 (4.4)	1,036 (4.3)
Near Fatal Suicide Act	26 (7.2)	46 (7.2)	3 (4.8)	67 (4.5)	51 (0.5)	184 (3.3)	170 (2.6)	547 (2.3)

*Percentages are column percentages.
**Information on suicide risk factors was missing for 26.2% (n=8,543) of patients.

Table 3. Frequency of lethal means documentation did not differ given the presence of suicide risk factors. The prevalence of risk factors varied across the sample (Prevalence of Risk Factor) but the prevalence of any lethal means documentation among visits indicating a given risk factor did not differ from the prevalence among visits without the given risk factor (Prevalence Ratio).

Suicide Risk Factor Indicated in Visit Note*		Prevalence of Risk Factor (n=24,115) (%)	Prevalence Ratio (95% CI)**
Unemployment		68.5	0.98 (0.96, 0.99)
Inpatient Psychiatric Treatment		55.8	0.97 (0.95, 0.98)
Previous Suicide Attempts		42.9	0.94 (0.93, 0.96)
Psychotic Symptoms		40.3	0.98 (0.96, 0.99)
Current Alcohol or Drug Intoxication/Withdrawal		37.0	0.98 (0.96, 1.00)
Living Alone		30.0	0.95 (0.93, 0.97)
Severe Anxiety / Distress		25.6	0.91 (0.89, 0.92)
Hopelessness		17.5	0.93 (0.91, 0.95)
Poor Physical Health		15.7	0.94 (0.91, 0.96)
Continuing High Suicide Intent		9.6	0.99 (0.97, 1.02)
Family History of Suicide		4.3	0.99 (0.95, 1.03)
Near Fatal Suicide Act		2.3	0.94 (0.89, 0.99)

*Information on suicide risk factors was missing for 26.2% (n=8,543) of patients.

**The reference groups used to calculate prevalence ratios were visits which indicated patients did not have the given risk factor.

SUPPLEMENTARY APPENDIX

Table 4. Demographic characteristics by documentation of any lethal means assessment in psychiatric emergency services visit notes.

	Any Documentation (n=22,824) n(%)	No Documentation (n=9,834) n(%)	Total (n=32,658) n(%)
All Patients	69.9	30.1	100.0
Male*	15,185 (66.5)	6,404 (65.1)	21,589 (66.1)
Age (years)			
7-25	2,934 (12.9)	1,297 (13.2)	4,231 (13.0)
25-34	6,352 (27.8)	2,624 (26.7)	8,976 (27.5)
35-44	5,461 (23.9)	2,294 (23.3)	7,755 (23.7)
45-54	4,843 (21.1)	2,183 (22.2)	7,026 (21.5)
55-64	2,595 (11.4)	1,151 (11.7)	3,746 (11.5)
65+	639 (2.8)	285 (2.9)	924 (2.8)
Race*			
White	14,568 (65.2)	6,197 (64.3)	20,765 (64.9)
Black	5,352 (24.0)	2,418 (25.1)	7,770 (24.3)
Asian	1,176 (5.3)	529 (5.5)	1,705 (5.3)
American Indian or Alaska Native	810 (3.6)	289 (3.0)	1,099 (3.4)
Other[a]	435 (1.9)	201 (2.0)	636 (2.0)
Non-Hispanic*	19,517 (93.0)	8,456 (93.0)	27,973 (93.0)
Relationship Status*			
Not Partnered	20,725 (92.0)	8,961 (92.1)	29,686 (92.1)
Partnered	1,797 (8.0)	764 (7.9)	2,561 (7.9)
Insurance*			
Medicare / Medicaid	9,527 (62.9)	4,059 (62.2)	13,586 (62.7)
Private	4,619 (30.5)	2,071 (31.8)	6,690 (30.9)
Other[b]	992 (6.6)	392 (6.0)	1,384 (6.4)
Language*			

English		21,775 (95.5)	9,403 (95.7)		31,178 (95.5)
Spanish		295 (1.3)	121 (1.2)		416 (1.3)
Other[c]		738 (3.2)	302 (3.1)		1,040 (3.2)
Religion*					
Christian		7,624 (34.4)	3,284 (34.4)		10,908 (34.4)
Catholic		2,338 (10.5)	985 (10.3)		3,323 (10.5)
Muslim		563 (2.5)	204 (2.1)		767 (2.4)
Buddhist		356 (1.6)	163 (1.7)		519 (1.6)
Jewish		227 (1.0)	107 (1.1)		334 (1.1)
Other[d]		1,457 (6.6)	688 (7.2)		2,145 (6.8)
No Religion		9,604 (43.3)	4,123 (43.2)		13,727 (43.3)

*We did not have complete information on these characteristics. The amount of missing data is as follows: Sex (<1%, n=3), race (2.1%, n=683), ethnicity (7.9%; n=2,585), relationship status (1.3%, n=411), insurance (33.7%, n=10,998), language (0.1%, n=24), religion (2.9%, n=935).

[a]Includes Hispanic or Latino, Native Hawaiian or Other Pacific Islander, or Multi-Racial.

[b]Includes Tricare, self-insured, charity, financial assistance, and other alternate insurance types.

[c]Includes 40+ additional languages.

[d]Includes 10+ religious categories such as Wicca and Scientology.