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This publication presents characteristics of activated and non-activated U.S. Army National Guard (NG) and Reserve (AR) Soldiers who died by suicide during 2016. This includes suicides identified by the Armed Forces Medical Examiner System (AFMES) and Army G-1.

During 2016, 108 NG and 41 AR Soldiers died by suicide. Crude suicide rates were 31 per 100,000 NG Soldiers and 21 per 100,000 AR Soldiers. Most cases were male, aged 17–34 years, non-Hispanic White, single, and were not on activated status (n=135) at the time of the event. There was a greater percentage of junior enlisted Soldiers among NG cases (61%) than AR cases (46%).

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U.S. Army Public Health Center

Surveillance of Suicide Cases (National Guard and Reserve) January through December 2016

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TABLE OF CONTENTS

1 PURPOSE 1

2 **REFERENCES** 1

3 INTRODUCTION 1

4 METHODS 1

5 RESULTS 2

6 CAVEATS 2

7 POINT OF CONTACT 3

TABLES 4

APPENDICES

A References.......... A-1
B Administrative Data Sources in the Army Behavioral Health Integrated Data Environment (ABHIDE) B-1

GLOSSARY GLOSSARY-1

PUBLIC HEALTH INFORMATION PAPER NO. 14-01-0618
SURVEILLANCE OF SUICIDAL BEHAVIOR (NATIONAL GUARD & RESERVE)
JANUARY THROUGH DECEMBER 2016

1 PURPOSE

This paper presents characteristics of activated and non-activated U.S. Army National Guard and Reserve Soldiers who died by suicide during 2016. This includes suicides identified by the Armed Forces Medical Examiner System (AFMES) and Army G-1.

2 REFERENCES

See Appendix A for a listing of references used in this report.

3 INTRODUCTION

Since 2008, the U.S. Army Public Health Center (APHC), Division of Behavioral and Social Health Outcomes Practice (BSHOP) has collected, analyzed, and disseminated surveillance data on suicidal behavior cases (suicides, suicide attempts, and suicidal ideations) among activated U.S. Army Soldiers. The *Surveillance of Suicidal Behavior Publication (SSBP)*, published annually by BSHOP, describes the characteristics of Active Army Soldiers who had a suicidal behavior and presents observed trends and changes in risk factors over time. Suicide surveillance data are used by key military leaders, public health practitioners, and behavioral health (BH) providers (e.g., psychologists, social workers, and psychiatrists) in the U.S. Army to focus prevention efforts, plan programs, allocate resources, develop policy, monitor trends, and suggest actionable recommendations in order to mitigate adverse outcomes.

Previously, BSHOP only reported suicidal behavior cases among activated Soldiers because the completion of the Department of Defense Suicide Event Report (DoDSER) is not required for non-activated Soldiers and comprehensive data for non-activated Soldiers is limited. However, to improve consistency in reporting among Department of the Army organizations, BSHOP adapted the current public health information paper to include activated and non-activated National Guard (NG) and Army Reserve (AR) suicide cases.

4 METHODS

Activated and non-activated NG and AR Soldiers who died by suicide during the 2016 calendar year (CY) are included. Suicide cases among activated Soldiers were obtained from the AFMES and cases among non-activated Soldiers were obtained from Army G-1. The DOD defines suicide as "death caused by self-inflicted injurious behavior with any intent to die as a result of the behavior."[1] Counts of suicide cases include pending and confirmed cases. Pending cases may take over two years to be confirmed. While suicide cases were identified using Army G-1 and AFMES, demographic, military and deployment data were obtained from the Defense Manpower Data Center (DMDC) and behavioral health and alcohol use data were obtained from the Periodic Health Assessment (PHA). Population counts used to calculate rates were obtained from AFMES. All of these data with the exception of Army G-1 data and population counts were obtained from the Army Behavioral Health Integrated Data Environment (ABHIDE, Appendix B), the most comprehensive data warehouse for information pertaining to suicidal behavior in the U.S. Army.

While DoDSER information and recent medical claims provide additional contextual information to better characterize stressors, BH indicators, and other medical problems, such data were only available for activated Soldiers (less than 10% of this population). Moreover, none of the non-activated Soldiers had a BH medical claim within 15 months of their event. Therefore, because the majority of suicide cases included in this analysis were non-activated Soldiers, this information was not available for inclusion in this paper. Instead, information from the PHA was reported. The PHA is a preventive screening tool designed to improve the reporting and visibility of Individual Medical Readiness for all Soldiers.[2] Although all Soldiers are required to complete a PHA annually, a PHA is considered current if less than 15 months have passed since the last PHA was completed.[3] Seventy-seven percent of NG and 65% of AR Soldiers completed a PHA within 15 months of their suicide event, all of which were included in this analysis.

Deployment history was obtained from the total deployments in the past 5 years reported by the Soldier on the PHA. Alcohol misuse was assessed using the PHA's Alcohol Use Disorders Identification Test – Consumption (AUDIT-C). Soldiers were considered to screen positive for symptoms of depression if they responded with "More than half the days" or "Nearly every day" for at least one of the two questions from the Patient Health Questionnaire-2[4]. Self-reported PTSD symptoms from the Primary Care Posttraumatic Stress Disorder Screen on the PHA refer to a "Yes" response to at least two of the four questions on the tool.[4]

Frequencies and percentages were calculated for all categorical variables and means and standard deviations were calculated for continuous variables. Crude suicide rates were calculated for National Guard and Army Reserve Soldiers. All data management and analytical procedures were performed using SAS 9.4 (SAS Institute, Cary, NC). Rate calculations were performed using Microsoft Excel (Microsoft Office Professional Plus 2013).

5 RESULTS

During 2016, 149 NG and AR Soldiers died by suicide (n =108, NG and n = 41, AR). Crude suicide rates were 31 per 100,000 National Guard Soldiers and 21 per 100,000 Army Reserve Soldiers. Most cases were male, aged 17–34 years, non-Hispanic white, single and were not on activated status (n=135) at the time of the event (Table 1). Moreover, AR cases were slightly older (Mean age: 30 years) than NG cases (Mean age: 27 years). The majority of cases were from the enlisted ranks (93%) and more than half had no history of deployment within the past 5 years (Table 2). There was a greater percentage of junior enlisted Soldiers among NG cases (61%) compared to AR cases (46%). On the PHA, alcohol misuse was reported among 10% of the cases, 6% of Soldiers reported depression symptoms, and 5% reported PTSD symptoms on the. Suicidal thoughts were reported for 3% of cases (Table 3).

6 CAVEATS

There are several caveats relating to interpreting surveillance data that should be considered when reviewing these results. First, the numbers in this paper are considerably greater than what was reported in the 2015 SSBP (NG - 15 cases and AR - 8 cases).[5] This is primarily due to the inclusion of both activated and non-activated suicide cases. Second, surveillance data typically improve as data collection becomes refined over time. This may result in frequencies and percentages appearing to increase in later years, although these increases may be the result of improved data capture and not a true change in suicide frequency.

8 POINT OF CONTACT

The APHC Division of BSHOP is the point of contact for this publication, e-mail: usarmy.apg.medcom-phc.list.eds-bshop-ops@mail.mil, or phone number 410-436-9292, DSN 584-9292.

Tables

Table 1. Demographic Characteristics, Suicide Cases,[a] National Guard (NG) and Army Reserve (AR), 2016

Characteristic	Suicide Cases n (%) NG (n = 108)	Suicide Cases n (%) AR (n = 41)
SEX		
Male	103 (95)	38 (93)
Female	5 (5)	3 (7)
AGE (YR)		
17–24	47 (44)	13 (32)
25–34	46 (43)	19 (46)
35–64	15 (14)	9 (22)
Mean (SD)	26.8 ± 7.3	30.0 ± 10.5
Mode	21	21
RACE-ETHNICITY		
Non-Hispanic White	85 (79)	30 (73)
Non-Hispanic Black	9 (8)	4 (10)
Hispanic	4 (4)	5 (12)
Non-Hispanic Asian/ Pacific Islander	6 (6)	1 (2)
Non-Hispanic American Indian/Alaska Native	4 (4)	1 (2)
MARITAL STATUS		
Single	74 (69)	23 (56)
Married	29 (27)	15 (37)
Divorced	5 (5)	3 (7)
ACTIVATION STATUS		
Not activated	96 (89)	39 (95)
Activated	12 (11)	2 (5)

Notes: [a]Activated suicide cases include those confirmed by the Armed Forces Medical Examiner System (AFMES) or pending confirmation. Non-activated cases were obtained from G-1.SD: Standard Deviation

Table 2. Military Characteristics, Suicide Cases,[a] National Guard (NG) and Army Reserve (AR), 2016

	Suicide Cases n (%)	
	NG	AR
Characteristic	(n = 108)	(n = 41)
RANK		
E1–E4	66 (61)	19 (46)
E5–E9	35 (32)	19 (46)
W1–W5	1 (1)	0 (0)
Cadets	0 (0)	0 (0)
O1–O3	5 (5)	1 (2)
O4–O8	1 (1)	2 (5)
NUMBER OF DEPLOYMENTS		
0	61 (56)	24 (59)
1	28 (26)	8 (20)
2	11 (10)	5 (12)
3	4 (4)	3 (7)
4+	4 (4)	1 (2)

Legend: DoDSER – Department of Defense Suicide Event Report,

E – Enlisted, O – Officer, W – Warrant Officer.

Notes: [a]Activated suicide cases include those confirmed by the Armed Forces Medical Examiner System (AFMES) or pending confirmation. Non-activated cases were obtained from G-1.

Table 3. Alcohol Misuse Indicators[a], Behavioral Health Screeners[b], and Suicidal Thoughts[c] among Suicide Cases[d], National Guard (NG) and Army Reserve (AR), 2016

	Suicide Cases n (%)[e]	
	NG	AR
Indicator	(n = 84)	(n = 29)
ALCOHOL MISUSE		
Unhealthy Drinking[f]	9 (11)	2 (7)
Probable Alcohol Disorder[g]	1 (1)	0 (0)
Referred to ASAP	5 (6)	0 (0)
Received Alcohol-Related Education	43 (51)	14 (48)
BEHAVIORAL HEALTH SCREENERS		
Positive Depression Screening[h]	4 (5)	3 (10)
Positive PTSD Screening[i]	2 (2)	4 (14)

Legend: ASAP – Army Substance Abuse Program, AUDIT-C – Alcohol Use Disorders Identification Test - Consumption, PHQ-2 – Patient Health Questionnaire – 2, PTSD – Post-traumatic stress disorder, PHA – Periodic Health Assessment.

Notes: [a]Based on AUDIT-C scores from the most recent PHA in the 15 months before the suicide. [b]Based on PHQ-2 and PTSD scores from the most recent PHA in the 15 months before suicide. Responding with “More than half the days” or “Nearly every day” for at least one of the two questions results in a positive depression screen. Responding “Yes” to at least two of the four questions on the PTSD tool results in a positive PTSD screen. [c]Based on responses from most recent PHA in 15 months before suicide. [d]Activated suicide cases include those confirmed by the Armed Forces Medical Examiner System (AFMES) or pending confirmation. Non-activated cases were obtained from G-1. [e]Completed PHAs were available from all but 24 NG and 12 AR Soldiers. [f]The threshold for a positive screen indicating unhealthy drinking is 5 or more for men and 4 or more for women. [g]A high positive screen, indicating probable alcohol disorder, is 8 and above. [h]Depression screening data were available for all but 3 NG Soldiers with complete PHAs. [i]PTSD screening data were available for all but 8 NG and all but 4 AR Soldiers with complete PHAs. [j]Suicidal thoughts data were available for all but 8 NG Soldiers and all but 5 AR Soldiers with complete PHAs.

Appendix A

References

1. Office of the Under Secretary of Defense–Personnel and Readiness. 2011. Standardized Suicide Nomenclature (Self-Directed Violence Classification System) Policy. Washington, DC: Department of Defense.

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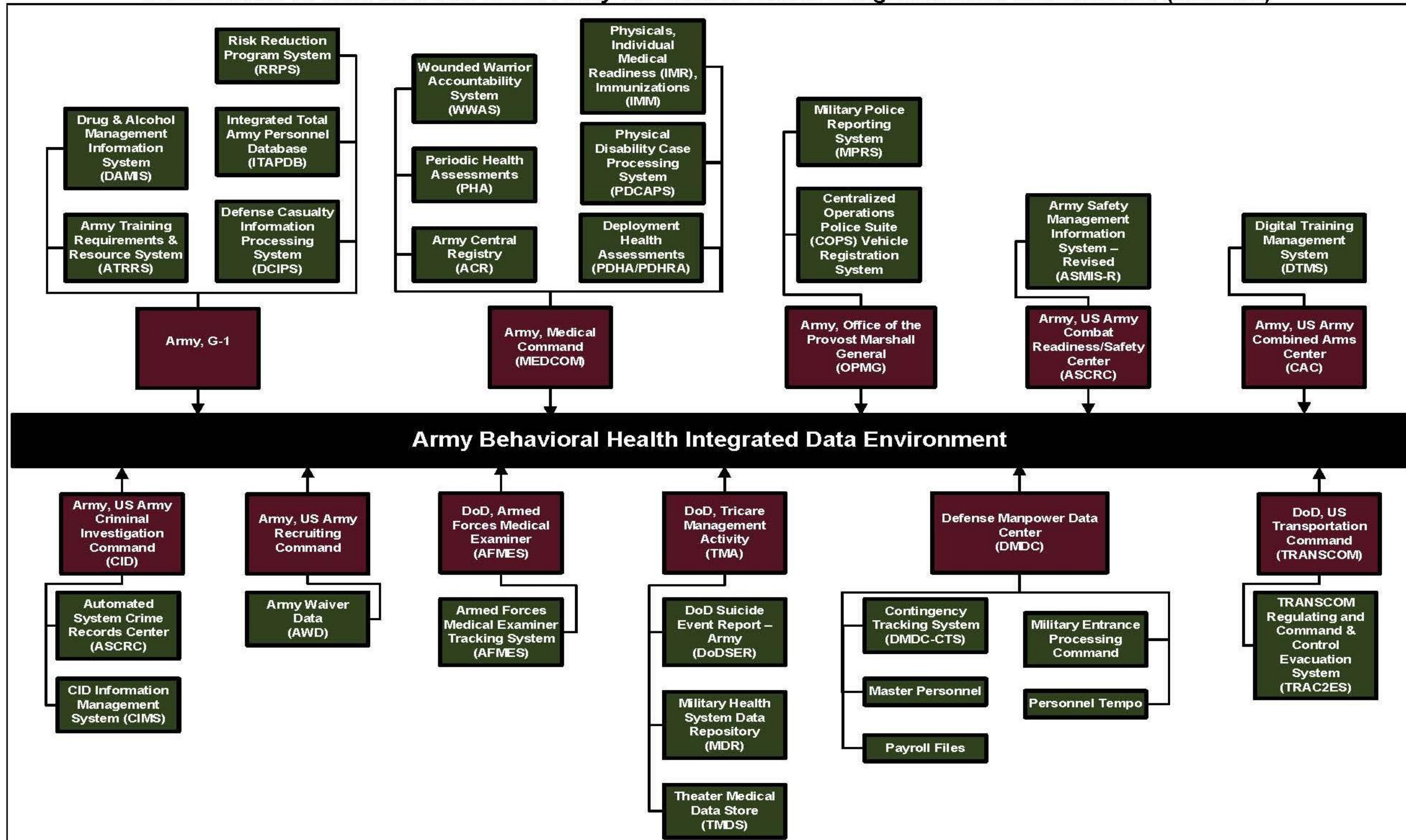
Appendix B

Administrative Data Sources in the Army Behavioral Health Integrated Data Environment (ABHIDE)



Glossary

ABHIDE

Army Behavioral Health Integrated Data Environment

AFMES
Armed Forces Medical Examiner System

APHC
U.S. Army Public Health Center

AR
Army Reserve

ASAP
Army Substance Abuse Program

BH
Behavioral Health

BSHOP
Division of Behavioral and Social Health Outcomes Practice

CY
Calendar year

DMDC
Defense Manpower Data Center

DOD
Department of Defense

DoDSER
Department of Defense Suicide Event Report

E1–E9
Enlisted rank

NG
National Guard

O1–O8
Officer rank

PHA
Periodic Health Assessment

PHQ-2
Patient Health Questionnaire-2

PTSD
Posttraumatic Stress Disorder

SSBP
Surveillance of Suicidal Behavior Publication

W1–W5
Warrant Officer rank