Army Public Health Center

Public Health Report

Surveillance of Suicidal Behavior
January through December 2015

PHR No. S.0008057-15

Approved for public release, distribution unlimited

General Medical: 500A, Public Health Data

December 2016

APHC

Clinical Public Health and Epidemiology Directorate
Behavioral and Social Health Outcomes Practice Division

Surveillance of Suicidal Behavior is published by the Behavioral and Social Health Outcomes Practice Division (BSHOP), Clinical Public Health and Epidemiology Directorate, Army Public Health Center. For questions concerning the content of this publication please send all correspondence to:

E-mail: usarmy.apg.medcom-phc.list.eds-bshop-ops@mail.mil

Nkechinyere Nweke
Anita Spiess
Elizabeth Corrigan
Keri Kateley
Trevor Mitchell
Kim Cevis
Jerrica Nichols
Eren Youmans Watkins
Joseph A. Pecko

Table of Contents

Public Health Report
Surveillance of Suicidal Behavior
PHR No. S.0008057-15
January through December 2015

1 Summary

1.1 Purpose

This publication presents characteristics of Soldiers with suicidal behavior during 2015. This includes suicides identified by the Armed Forces Medical Examiner System (AFMES), as well as suicide attempts and suicidal ideations reported in Department of Defense Suicide Event Reports (DoDSERs) among Active Army, activated National Guard, and activated U.S. Army Reserve Soldiers.

1.2 Findings

- During 2015, 143 Soldiers died by suicide, an increase from 135 in 2014, and a decrease from 150 in 2013. The suicide rate for Active Army Soldiers aged 17–59 was 24.4 per 100,000 persons.

- The number of suicide attempt cases reported for 2015 was 464, a decrease from 509 in 2014 and 478 in 2013. The suicide attempt rate for Active Army Soldiers aged 17–59 was 87.1 per 100,000 persons.

- The number of suicidal ideation cases was 1171, more cases than in 2013 (n=916) and 2014 (n=1035). The suicidal ideation rate for Active Army Soldiers aged 17–59 was 207.6 per 100,000 persons, the highest observed rate since suicidal ideation cases became available in 2007. The increase in 2015 may, in part, be a result of better reporting, with greater emphasis being placed on completion of DoDSERs for nonfatal suicidal events. In addition, the reduction in the number of required fields on DoDSERs for suicidal ideations has allowed for improved ease of completion.

- The largest number of Active Army suicide cases during 2015 occurred at Fort Hood (n=14), Fort Carson (n=12), and Fort Bragg (n=11), which have some of the largest populations of Soldiers.

- The demographic and military characteristics of Soldiers who engaged in suicidal behavior in 2015 reflect the distribution of the force: Most suicide cases were male (94%), 25–34 (48%), non-Hispanic white (63%), and from the E5–E9 ranks (50%). Most suicide attempt and suicidal ideation cases were male (76%), 17–24 (55%), non-Hispanic white (56%), and from the E1–E4 ranks (66%).

- The proportion of suicide attempts by women, Hispanic, and non-Hispanic black Soldiers increased significantly in 2015 when compared to 2013. The proportion of suicidal ideations by non-Hispanic black Soldiers increased significantly in 2015 when compared to 2013.

- Nearly three-fourths (73%) of suicidal behavior cases had been diagnosed with a behavioral health disorder before the suicidal event: 61% of suicide cases, 78% of suicide attempt cases, and 72% of suicidal ideation cases. Suicide cases were primarily diagnosed with adjustment (37%), mood (34%), and substance use disorders (29%). Suicide attempt and suicidal ideation cases were primarily diagnosed with adjustment (57%), mood (50%), and other anxiety disorders (34%).

- The principal personal and legal/administrative issues reported for 2015 suicide and suicide attempt cases included relationship problems (52%), work stress (41%), legal problems (28%), and physical health problems (22%).

- In the year before the event, 15% of suicide, 32% of suicide attempt, and 28% of suicidal ideation cases were diagnosed with a sleep disorder.

- In the year before the event, 4%, 10%, and 7% of suicide, suicide attempt, and suicidal ideation cases, respectively, received a chronic pain diagnosis.

2 References

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

3 Authority

Army Regulation (AR) 40-5 (Preventive Medicine, 25 May 2007), Section 2-19.

4 Introduction

The Army Public Health Center, Behavioral and Social Health Outcomes Practice Division (BSHOP) collects, analyzes, and disseminates surveillance data on suicidal behavior cases (suicide, suicide attempt, and suicidal ideation) among Active Army, activated National Guard, and activated Army Reserve Soldiers in the United States (U.S.) Army. Data related to suicidal behavior are stored in BSHOP's Army Behavioral Health Integrated Data Environment (ABHIDE, Appendix B), the most comprehensive data warehouse for information pertaining to suicidal behavior in the Army. *Surveillance of Suicidal Behavior*, published annually by BSHOP, describes the characteristics of Soldiers who engaged in 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 mitigating strategies, including actionable recommendations.

4.1 Publication Improvements

The following are new to this publication:

- The information for cumulative time periods (2001–2015 for suicide cases, 2004–2015 for suicide attempt cases, and 2007–2015 for suicidal ideation cases) is no longer presented in

the main text. This publication focuses on information for 2015 and notes significant differences relative to 2013 and 2014.

- The International Classification of Disease, 10th revision, Clinical Modification (ICD-10) is used to report all medical claims on or after October 1, 2015.[1] Medical claims before October 1, 2015 use codes from the International Classification of Disease, 9th revision, Clinical Modification (ICD-9).

- Medical encounters and diagnoses for pain reported in this publication are now limited to ICD-9 and 10 codes used to document chronic pain. Therefore, results differ from previous publications.[2]

  According to the American Chronic Pain Association, "chronic pain can be described as ongoing or recurrent pain, lasting beyond the usual course of acute illness or injury or more than 3 to 6 months, which adversely affects the individual's well-being."[3] Chronic pain is "a complex experience that affects thoughts, moods, and behavior and can lead to isolation, immobility, and drug dependence."[4]

4.2 Definitions, Data and Caveats

This publication includes estimated counts and proportions of suicidal behaviors among Active Army, activated National Guard, and activated Army Reserve Soldiers. The Department of Defense defines suicide as "death caused by self-inflicted injurious behavior with any intent to die as a result of the behavior."[5] A suicide attempt is defined as "a nonfatal self-inflicted potentially injurious behavior with any intent to die as a result of the behavior."[5] Suicidal ideation is defined as "thoughts of engaging in suicide-related behavior."[5]

Suicide cases are identified by the Armed Forces Medical Examiner System (AFMES) and may differ from counts by G-1, which are identified primarily from the Casualty and Mortuary Affairs Operation Center. Counts of suicide cases include pending as well as confirmed cases. Although most suicide cases presented in this report are confirmed, formal confirmation by AFMES can take up to one year. Suicide attempt and suicidal ideation cases are identified by Department of Defense Suicide Event Reports (DoDSERs), which are completed only for cases serious enough to warrant hospitalization or evacuation. Therefore, the numbers presented in this publication may underestimate the full scope of suicidal behavior within the U.S. Army.

Data on suicide cases became available in 2001. Data on suicide attempt cases became available in 2004. Data on suicidal ideation cases became available in 2007.

U.S. Army rates presented in this report differ from rates presented in previous iterations of this publication. In previous reports, the U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center (DMDC) and included Active Army and activated National Guard and Army Reserve Soldiers. However, a change to the DMDC database has made it challenging to accurately identify the population for activated National Guard and Army Reserve Soldiers. Therefore, U.S. Army suicide rates presented in this publication include Active Army Soldiers, aged 17–59. Population counts used to calculate rates were provided by AFMES. Denominator data stratified by race and ethnicity or for Soldiers aged 60-64 were not available, so that information was omitted from this report.

Crude and stratified rates per 100,000 persons for each year were calculated using counts of suicidal events (suicides, suicide attempts, or suicidal ideations) and the count of Active Army

Soldiers aged 17–59. In order to calculate a denominator, BSHOP summed the Active Army population totals for each month and divided by 12 to calculate a monthly average of the population. Therefore, yearly changes in both the number of suicidal events and the number of Soldiers are reflected. To make appropriate comparisons between suicide rates in the U.S. Army and U.S. general population, rates should control for the higher prevalence of young and male Soldiers in the U.S. Army. Suicide rates (per 100,000 persons) of Active Army Soldiers aged 17–59, adjusted for age and sex using the direct adjustment method, were calculated for the U.S. Army and the U.S. general population, 2001–2014. The adjusted rates are rates that would have existed if the populations had the same age and sex distribution. The 2004 U.S. Army distribution was used as the standard population, but it is important to note that any population can be used as a standard population. Adjusted suicide rates for the U.S. general population are based on available suicide data from the Centers for Disease Control and Prevention (CDC)[6] and data from the US Census Bureau.[7]

Self-reported depression symptoms from the Post-Deployment Health Assessment and Reassessment (PDHA and PDHRA) refer to responding with "More than half the days" or "Nearly every day" for at least one of the two questions on the Patient Health Questionnaire-2 (PHQ-2).[8] Self-reported posttraumatic stress disorder symptoms from the PDHA and PDHRA refer to a "Yes" response to at least two of the four questions on the Primary Care Posttraumatic Stress Disorder Screen (PC-PTSD).[8]

Several caveats must be considered when reviewing this report. BSHOP is notified of a suicide attempt or suicidal ideation case when a DoDSER is completed. Missing (unreported) DoDSERs are not distributed evenly or randomly, and variation in reporting occurs by installation, time, and event type. Thus, an increase in the number of cases may be the result of increased documentation and not a true change in the number of cases for a specified time period. Since the last publication, event characteristics and personal and legal/administrative issues on the DoDSER were omitted for suicidal ideations to improve the ease of completion. Required fields are now limited to: event type, event date, name, social security number, date of birth, and sex.

DoDSERs for suicide cases are completed by behavioral health professionals within 60 days of AFMES confirmation of the suicide. Because this publication includes cases being investigated as probable suicides but that have not yet been confirmed, information on personal and legal/administrative history and other variables obtained from the DoDSER are not available for those cases.

DoDSER data for suicide cases are generally more complete because they are typically completed by a provider who is familiar with the case. However, some DoDSER data on suicide attempts are more complete because the Soldiers were alive and thus able to provide information about the event.

Additional caveats relate to interpreting surveillance data. Surveillance data typically improve as data collection becomes refined over time. This may result in frequencies and proportions appearing to increase in later years, although these increases may be the result of improved data capture. This publication presents proportions as well as rates. Although proportions are appropriate for public health planning, differences in the underlying U.S. Army population over time are not taken into account. Rates provide better comparisons across years and subpopulations. In addition, the data presented in this publication lack the context of similar data on the Army as a whole. For example, it is unclear to what extent finding 25% of suicide cases diagnosed with a substance use disorder indicates a difference from or mirrors the pattern of substance use disorders in the Army as a whole.

Deployment information in this publication is only for deployments in support of Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND), because deployments in support of earlier conflicts or other operations are not available in the data received. In addition, deployments are lifetime deployments to those operations while in any service; they are not limited to deployments during service in the Army.[9]

BH encounters and diagnoses (defined in Appendix C) are based on medical claims during the Soldier's time in service and only include claims from medical treatment facilities and claims from purchased care submitted for payment by the government.[10]

The Periodic Health Assessment (PHA) is a preventive screening tool designed to improve the reporting and visibility of Individual Medical Readiness (IMR) for all Soldiers. Although all active-duty Service Members 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.

DoDSER questions about personal and legal/administrative history ask whether the issue occurred and how recently. Issues described within a year of the event are reported. Variables related to having a family member or friend die by suicide and being the victim of abuse are also reported if they occurred at any time during the Soldier's life. Lifetime histories for these variables are reported due to their potential to have a lasting negative impact on Soldiers. Information on four variables—work problems, death of a family member or friend, and being the victim or perpetrator of abuse—combine answers from several DoDSER questions. Any indication of work problems includes workplace hazing, job problems, poor performance, and coworker issues. The death of a family member or friend includes the death of a spouse, other family member, or friend from any cause, including suicide. Being the victim or perpetrator of abuse includes emotional, physical, or sexual abuse or assault.

Characteristics of cases from 2015 have been compared statistically with characteristics of cases from 2013 and 2014 using Chi-squared or Fisher's exact test analysis, as was appropriate. Significant differences are noted in the discussion of the characteristics. In the tables, p-values in bold indicate a significant difference, $p<0.05$.

4.3 Organization of the Report

In addition to the Summary, References, Authority, and this Introduction, this report is organized into three principal sections:

- Suicide Cases (Section 5)
- Suicide Attempt Cases (Section 6)
- Suicidal Ideation Cases (Section 7)

Sections 5 through 7 present counts and proportions of suicidal behaviors among Soldiers in the U.S. Army.

This report presents the prevalence of key characteristics and behaviors (e.g., demographic characteristics) for 2015 in a series of bulleted statements. Differences relative to 2013 and 2014 are noted only when they are significant. Tables and Figures providing analysis details can be found in Appendix D for suicides, Appendix E for suicide attempts, and Appendix F for suicidal ideations.

5 Suicide Cases

During 2015, 143 Soldiers died by suicide. This is 8 more cases than in 2014 and 7 fewer cases than in 2013. The 2015 crude suicide rate for Active Army Soldiers 17–59 years of age was 24.4 per 100,000 persons (95% CI: 20.1 – 28.8) (Figure 1).

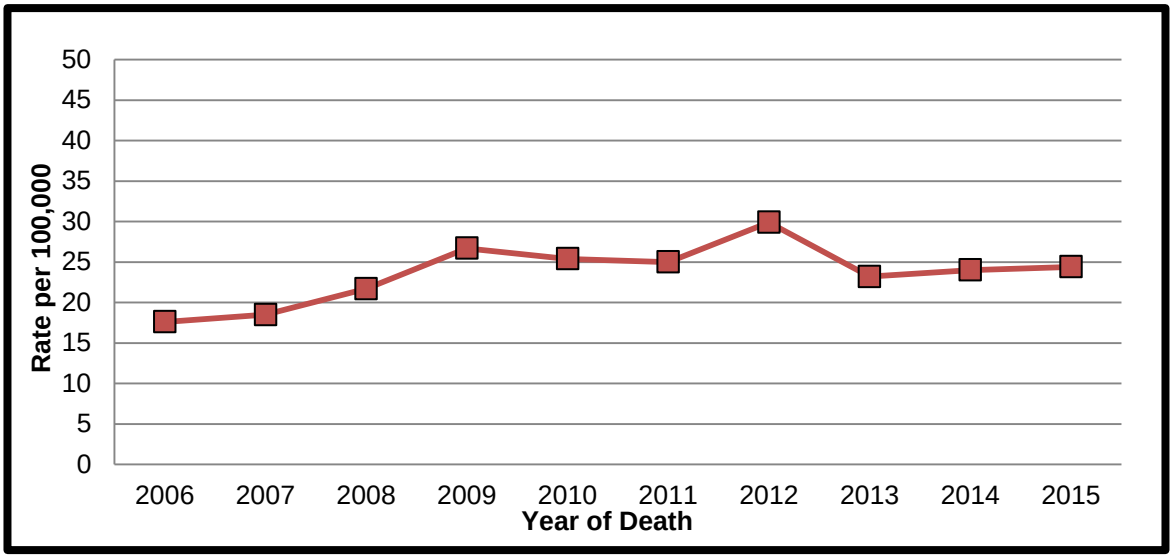


Figure 1. Crude Suicide Rate, per 100,000, Active Army Soldiers (17–59 years of age), 2006 – 2015

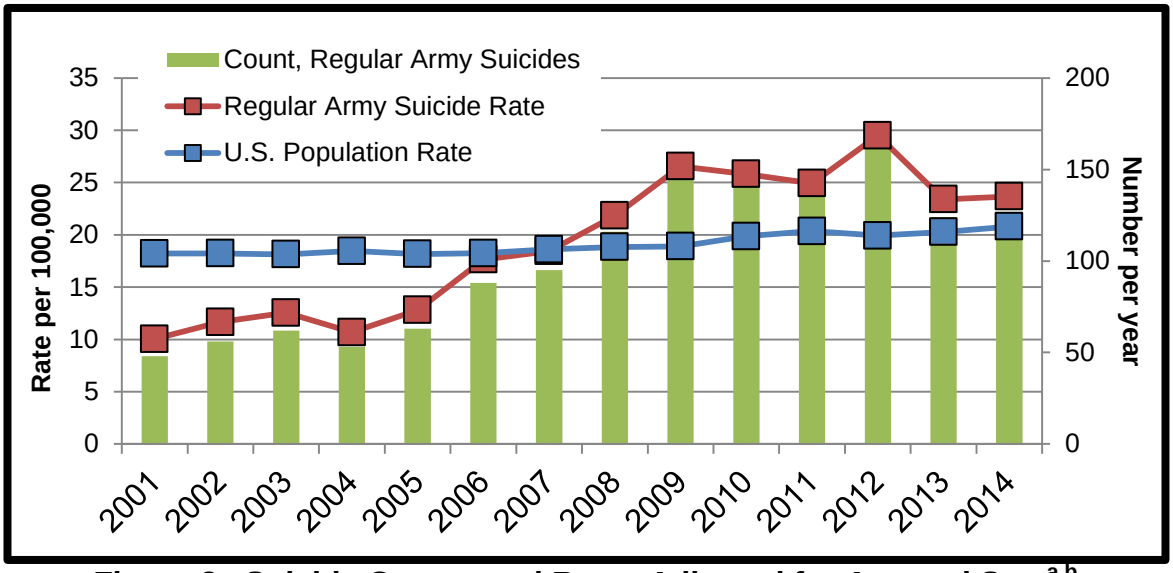


Figure 2. Suicide Counts and Rates Adjusted for Age and Sex,[a,b] 2001 – 2014

Notes: [a]Rates have been direct adjusted by age and sex, using the 2004 Active Army distribution as a standard population. [b]Army suicide rates and counts include Active Army Soldiers, aged 17–59.

From 2001 to 2007, the direct age- and sex-adjusted suicide rate among Active Army Soldiers aged 17–59 was lower than the U.S. Civilian rate (Figure 2, previous page). In 2008 through 2014, the Active Army rate surpassed the civilian rate. Active Army and U.S. Civilian rates differed statistically before 2006 and from 2009–2012.

5.1 Demographic Characteristics

Demographic characteristics of suicide cases and stratified suicide rates during 2015 are described below and in Tables D-1 through D-3 and Figures D-1 and D-2.

- **Sex:** The greatest proportion of suicides were among male Soldiers (94%). The suicide rate for Active Army male Soldiers aged 17–59 was 26.8 per 100,000. The small number of suicides among female Soldiers resulted in rates too unstable to report.

During 2015,143 Soldiers died by suicide. Of these:

- 94% were male
- 48% were 25–34 years of age
- 63% were non-Hispanic white
- 84% were Active Army
- 50% were in the E5–E9 ranks

- **Age Group:** The greatest proportion of suicides was among Soldiers 25 to 34 years of age (48%), followed by Soldiers 17 to 24 years of age (28%). The rates for Active Army Soldiers aged 17–59 stratified by age group were: 17–24 years, 20.6 per 100,000; 25–34 years, 30.4 per 100,000; 35–59 years, 20.5 per 100,000.

- **Race-Ethnicity:** Almost two-thirds (63%) of suicides were among non-Hispanic white Soldiers (Figure 3).

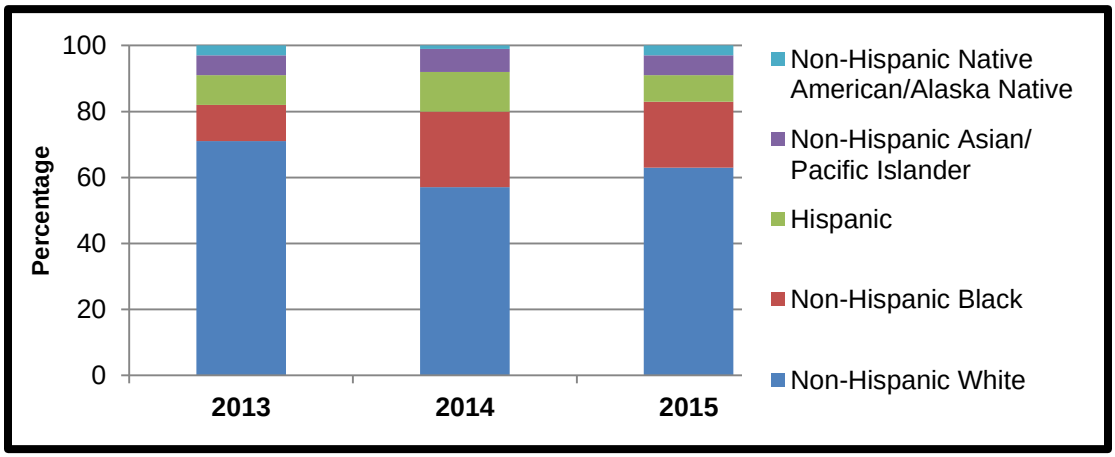


Figure 3. Race Distribution, Suicide Cases, U.S. Army, 2013 – 2015

- **Marital Status:** Over half (62%) of suicide cases were married.

5.2 Military Characteristics

Military characteristics of suicide cases from 2015 are described below and in Tables D-4 and D-5 and Figure D-3.

- **Component:** The greatest proportion of suicides occurred among Active Army Soldiers (84%).

- **Rank:** Most suicides occurred among Soldiers in the E5–E9 ranks (50%), followed by Soldiers in the E1–E4 ranks (36%). Suicide rates for Active Army Soldiers aged 17–59 in the enlisted ranks were: E1–E4, 21.4 per 100,000 and E5–E9, 32.5 per 100,000. The small number of suicides among Officers and Warrant Officers resulted in rates too unstable to report.

- **Lifetime History of OEF/OIF/OND Deployment:** Most (70%) of the suicide cases had a history of an OEF, OIF, or OND deployment. Among suicide cases, 27% had one deployment, 15% had two deployments, 17% had three deployments, and 10% had four or more deployments.

5.3 Event Characteristics

Event characteristics of suicide cases from 2015 are described below and in Tables D-6 through D-8.

- **Location:** Most (94%) suicides occurred in the United States.

- **Method:** The most common method of suicide was gunshot wound (65%), followed by hanging/asphyxiation (26%).

- **Alcohol or Drug Involvement:** The prevalence of alcohol or drug involvement during the suicide event was 20% and 6%, respectively.

- **Communication:** Just over one-fourth (27%) communicated suicidal intentions in advance.

- **Installation:** The greatest proportions of suicides were at Fort Hood (12%), Fort Carson (10%), and Fort Bragg (9%).

5.4 Personal and Legal/Administrative History

Personal and legal/administrative data are extracted from information reported in DoDSERs. The personal and legal/administrative history of suicide cases from 2015 are described below and in Table D-9 and Figure 4. Problems occurred within a year of the Soldier's death unless otherwise noted.

- **Any Problem:** Personal and legal/administrative problems were reported among 73% of suicide cases.

- **Relationship Problems:** Relationship problems were reported among over half (57%) of suicide cases.

- **Legal Problems:** Some type of legal problem was reported for 26% of suicide cases, the most common being civil legal problems (14%) and Article 15 actions (10%).

- **Health-Related Problems:** Physical health problems were reported among 20% of suicide cases, and 8% had been the subject of a medical evaluation board. Family health problems affected 1% of suicide cases. Additionally, 7% experienced the death of a family member or friend. Few (4%) suicide cases had ever experienced the suicide of a family member or friend, while 2% experienced the suicide of a family member or friend within a year before their death.

- **Work and Financial Problems:** Work-related stress was reported for 31% of suicide cases, and 6% of suicide cases had financial stress.

- **Victims and Perpetrators of Abuse:** Within a year before their death, few (1%) suicide cases were victims of abuse, and 11% were perpetrators of abuse. Nine percent of suicide cases were ever victims of abuse.

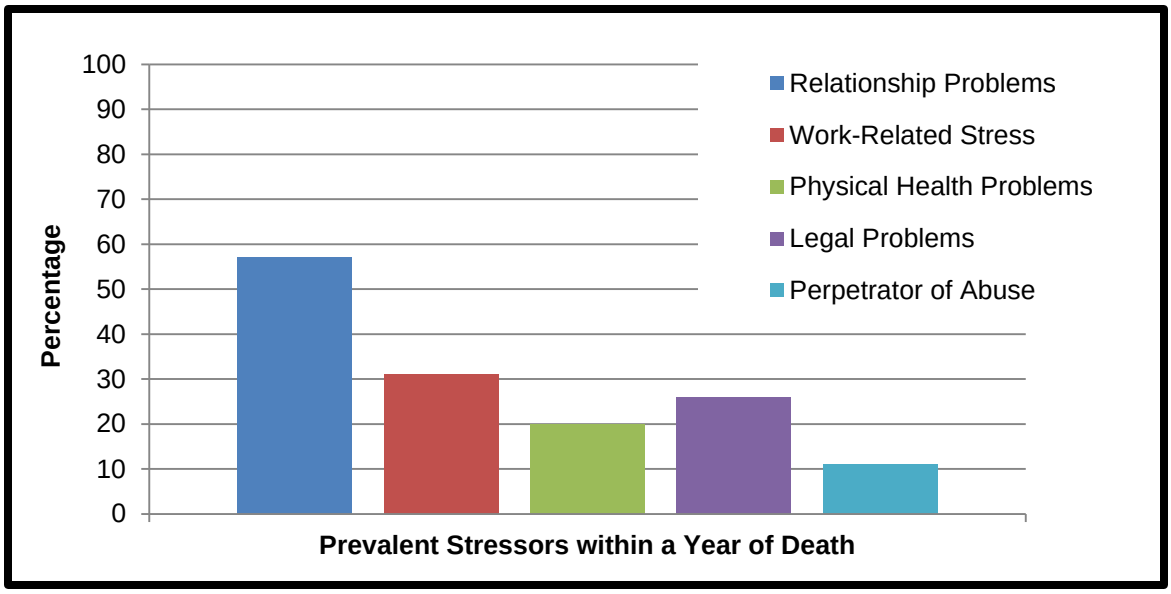


Figure 4. Prevalent Personal and Legal/Administrative Problems, Suicide Cases, U.S. Army, 2015

- **Suicide Prevention Training and Use of Army Counseling Services:** Approximately one-third (35%) of suicide cases had ever received suicide prevention training, whereas 69% of suicide attempt cases had ever received suicide prevention training. Thirteen percent of cases utilized the Army Substance Abuse Program (ASAP), and 10% used the Family Advocacy Program (FAP) within a year before their death.

5.5 Behavioral Health Indicators

Behavioral health (BH) indicators from the Post-Deployment Health Assessment (PDHA), the Post-Deployment Health Reassessment (PDHRA), and the Periodic Health Assessment (PHA) are described here and in Tables D-10 and D-11. The prevalence of BH encounters and specific diagnoses are also described below and in Table D-12. Previous suicidal events are also described. Differences relative to 2013 or 2014 are noted only when significant.

5.5.1 Post-Deployment Health Assessment

BH indicators for suicide cases from 2015 who had completed a PDHA in the previous year (n=20) are described below and in Table D-10. On average, 6 months elapsed between the PDHA and the event.

- **Depression Symptoms:** One-fifth (20%) reported depression symptoms.
- **Posttraumatic Stress:** Thirty percent reported symptoms of posttraumatic stress.
- **Suicidal Thoughts:** No Soldiers reported suicidal thoughts.
- **Referrals:** Providers referred 15% to BH care.

5.5.2 Post-Deployment Health Reassessment

BH indicators for suicide cases from 2015 who had completed a PDHRA in the previous year (n=22) are described below and in Table D-10. On average, 7 months elapsed between the PDHRA and the event.

- **Depression Symptoms:** Almost half (45%) reported depression symptoms.
- **Posttraumatic Stress:** Forty-one percent reported symptoms of posttraumatic stress, a significant increase compared to 2013 (13%, X^2=4.8, p=0.028).
- **Suicidal Thoughts:** No Soldiers reported suicidal thoughts.
- **Referrals:** Providers referred 18% to BH care.

5.5.3 Periodic Health Assessment

Alcohol screening results for 2015 suicide cases with a PHA completed in the previous 15 months (n=117) are described below and in Table D-11.

- **Unhealthy Drinking:** Nine percent of 2015 cases screened positive for unhealthy drinking.
- **Probable Alcohol Disorder:** Few Soldiers (1%) screened positive for a probable alcohol disorder.
- **Referrals:** Providers offered referrals to 6% of cases for their drinking behavior.

- **Alcohol Education:** Nearly half of cases (44%) received education about risks related to drinking.

5.5.4 Behavioral Health Encounters

BH encounters during military service among suicide cases from 2015 are described below and in Table D-12 (see Appendix C for encounter definitions).

- **Inpatient BH Encounters:** More than a quarter (27%) had an inpatient BH encounter during their military career.

- **Outpatient BH Encounters:** Almost three-fourths (72%) had an outpatient BH encounter since accession.

- **BH Encounter in Previous 30 Days:** In the 30 days preceding the event, 31% had a BH encounter.

5.5.5 Behavioral Health Diagnoses

BH diagnoses during military service among suicide cases from 2015 are described below and in Table D-12 and Figure 6 (see Appendix C for diagnosis definitions). Differences relative to 2013 or 2014 are noted only when significant.

- **Any BH Diagnosis:** Over half (61%) had received a BH diagnosis since accession. Of these, 41% were first diagnosed in the year preceding their death; 59% of cases had an initial BH diagnosis more than a year before their death (Figure 5).

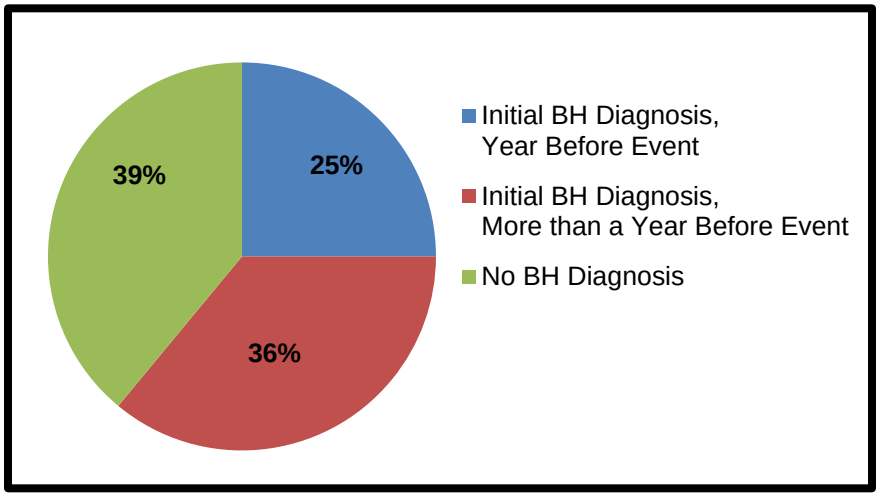


Figure 5. Time of Behavioral Health Diagnosis, Suicide Cases, U.S. Army, 2015

- **More Than One BH Diagnosis:** Two-fifths (41%) received more than one BH diagnosis over the course of their military career. Eleven percent of suicide cases first received more than one BH diagnosis in the year before their death.

- **Mood Disorders:** A mood disorder was diagnosed in 34% of 2015 suicide cases; 10% of cases were first diagnosed in the year before their death.

- **Major Depression and Other Depressive Disorders:** The prevalence of major depression and other depressive disorders was 19% and 29%, respectively, among 2015 suicide cases. Eight percent of cases were first diagnosed with major depression in the year before their death. The proportion of cases first diagnosed with other depressive disorders in the year before their death was 11%.

- **Bipolar Disorder:** Few (5%) were diagnosed with bipolar disorder; 3% of cases were first diagnosed in the year before their death.

- **Posttraumatic Stress Disorder:** Eighteen percent of cases from 2015 had received a PTSD diagnosis, a significant increase compared to 2013 (10%, X^2=4.1, p=0.044). Few suicide cases (6%) received an initial diagnosis in the year before their death.

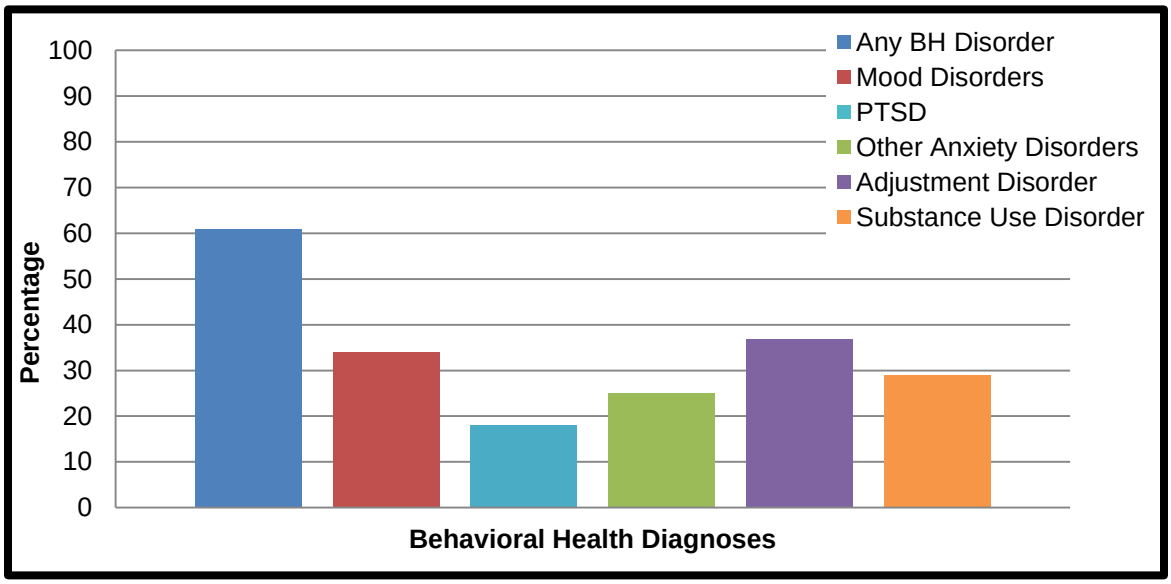


Figure 6. Behavioral Health Diagnoses, Suicide Cases, U.S. Army, 2015

- **Other Anxiety Disorders:** One quarter (25%) of cases from 2015 had been diagnosed with other anxiety disorders; 6% of cases were first diagnosed in the year before their death.

- **Adjustment Disorders:** Adjustment disorder was diagnosed in 37% of cases from 2015; 11% of cases were first diagnosed in the year before their death.

- **Substance Use Disorders:** Over a quarter of cases (29%) from 2015 were diagnosed with a substance use disorder; 8% of cases were first diagnosed in the year before their death.

- **Personality Disorders and Psychoses:** Few 2015 suicide cases had been diagnosed with personality disorders or psychoses (3% and 4%, respectively); 2% were first diagnosed with personality disorders or psychoses in the year before their death.

- **Previous Suicide Attempt, Self-Harm, and Suicidal Ideation:** Previous suicide attempt or self-harm was documented by an ICD-9 E-code or ICD-10 X-, T-, or Z-code in 11% of 2015 suicide cases, a significant increase compared to 2013 (5%, X^2=4.3, p=0.038). Eight percent of 2015 cases had a suicide attempt or self-harm in the year before their death, a significant increase compared to 2013 (2%, X^2=6.2, p=0.013). An ICD-9 V-code or ICD-10 R-code indicated that 15% of 2015 suicide cases had a history of suicidal ideation. Eight percent of cases had a suicidal ideation in the year before their death.

5.6 Other Medical Indicators

Indicators of traumatic brain injury (TBI), pain, and sleep problems are described here and in Tables D-13 through D-15. Polypharmacy is also described below and in Table D-16.

5.6.1 Traumatic Brain Injury

TBI among suicide cases from 2015 is described below and in Table D-13.

- **Medical Encounters for TBI:** During their military career, 5% of suicide cases had an inpatient TBI encounter and 20% an outpatient TBI encounter. In the year before their death, 11% had a medical encounter for TBI. Few (4%) had a medical encounter for TBI in the 30 days before their death.

- **TBI Diagnoses:** TBI was diagnosed in one-fifth (20%) of 2015 suicide cases some time in their military career; 8% were first diagnosed within a year of their death.

5.6.2 Chronic Pain Indicators

Chronic pain indicators among 2015 suicide cases are described below and in Table D-14.

- **Medical Encounters for Chronic Pain:** In the year preceding the suicide, 7% of 2015 suicide cases had a medical encounter for chronic pain. Few (2%) cases had a medical encounter for chronic pain within 30 days of their death.

- **Chronic Pain Diagnoses:** In the year before their death, 4% of 2015 suicide cases received a chronic pain diagnosis.

5.6.3 Sleep Problems

Sleep indicators for 2015 suicide cases are described below and in Table D-15.

- **Medical Encounters for Sleep Problems:** In the year before the suicide, almost one-fourth (22%) of 2015 suicide cases had a medical encounter for sleep problems, 8% within 30 days of their death.

- **Sleep Disorder Diagnoses:** In the year before their death, 15% of 2015 suicide cases were diagnosed with a sleep disorder.

5.6.4 Polypharmacy

Soldiers may meet criteria for polypharmacy under one or more of three definitions (see Figure D-4 for details). Polypharmacy of suicide cases from 2015 is described below and in Table D-16.

- **Any Polypharmacy:** At the time of the event, 6% met criteria for polypharmacy (Figure 7).
- **Polypharmacy by Multiple Definitions:** Three-fourths (75%) of suicide cases met polypharmacy criteria under a single definition; 25% of cases met polypharmacy criteria under two or more definitions.

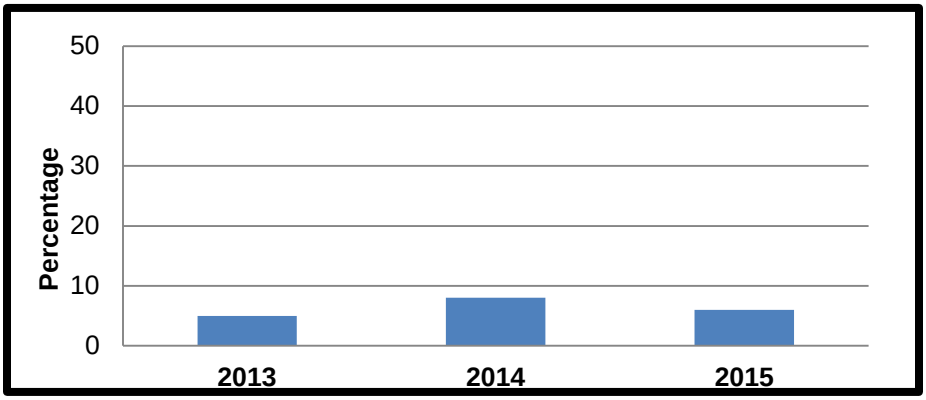


Figure 7. Any Polypharmacy at Time of Event, Suicide Cases, U.S. Army, 2015

5.7 Drug Testing and ASAP Screening

Drug testing and ASAP screening of suicide cases from 2015 are described below and in Tables D-17 and D-18. Only significant differences are noted.

- **Positive Drug Tests:** Of suicide cases with drug testing data (n=140), 4% had a positive drug test at some time during their military career (excluding positive tests for drugs for which the Soldier had a prescription). Of these, 40% had two or more positive drug tests, and 40% had a positive drug test within a year of their death.
- **Drugs with Positive Tests:** Positive tests were primarily for cannabis (40%) and oxycodone/oxymorphone (40%).
- **ASAP Screening & Enrollment:** In the year preceding the suicide, 13% of cases were screened for intake into the ASAP program, a significant increase compared to 2013 (5%, X^2=5.5, p=0.019). Of these, 74% enrolled in the program.

6 Suicide Attempt Cases

During 2015, 464 Soldiers attempted suicide, as documented by DoDSERs. This is 45 fewer cases than in 2014 and 14 fewer cases than in 2013.

The crude suicide attempt rate for Active Army Soldiers 17–59 years of age was 87.1 per 100,000 persons (95% CI: 78.9 – 95.4) for 2015. The rate for 2014 was 90.72 per 100,000 persons (95% CI: 82.5 – 99.0); for 2013, the rate was 82.4 per 100,000 persons (95% CI: 74.7 – 90.1). Attempt rates for 2013–2015 are higher than in previous years, although not as high as in 2006 through 2008 (Figure 8). This may, in part, be a result of better reporting, with greater emphasis being placed on completion of DoDSERs for nonfatal suicidal events.

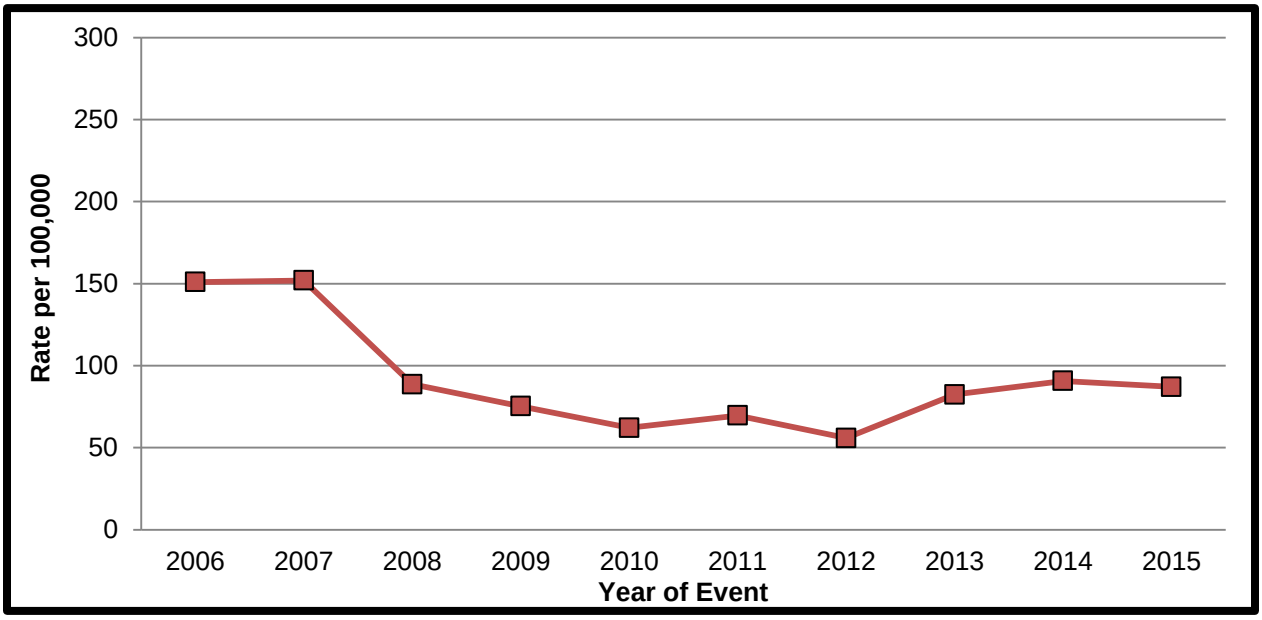


Figure 8. Crude Suicide Attempt Rate, per 100,000, Active Army Soldiers (17–59 years of age), 2006 – 2015

6.1 Demographic Characteristics

Demographic characteristics of suicide attempt cases from 2015 and stratified suicide attempt rates for 2015 are described below and in Tables E-1 through E-3 and Figures E-1 and E-2. Differences relative to 2013 or 2014 are noted only when significant.

- **Sex:** Most (71%) suicide attempts were among male Soldiers, which is to be expected since most Soldiers are male. This was a significant decrease compared to 2013 (77%, X^2=4.2, p=0.040). Female Active Army Soldiers aged 17–59 have higher suicide attempt rates: 172.1 per 100,000 compared to 73.1 per 100,000 for male Soldiers. The count of suicide attempts among female Soldiers is lower than the count among male Soldiers, but because the population of women in the Army is much smaller, the rate is higher.

During 2015, 464 Soldiers attempted suicide. Of these:

- 71% were male
- 59% were 17–24 years of age
- 56% were non-Hispanic white
- 92% were Active Army
- 73% were in the E1–E4 ranks

- **Age Group:** The greatest proportion of suicide attempts were made by Soldiers 17 to 24 years of age (59%). This was a significant increase compared to 2013 (51%, X^2=10.2, p=0.006) and 2014 (52%, X^2=9.0, p=0.011). In contrast, the greatest proportion of suicide cases were among Soldiers 25–34 years of age (48%). Suicide attempt rates for Active Army Soldiers stratified by age group were: 17–24 years, 145.6 per 100,000; 25–34 years, 73.7 per 100,000; 35–59 years, 24.6 per 100,000.

- **Race-Ethnicity:** The majority (56%) of suicide attempts were among non-Hispanic white Soldiers (Figure 9). This was a significant decrease compared to 2013 (65%, X^2=11.1, p=0.025), with increases in the proportions of Hispanic and non-Hispanic black Soldiers.

- **Marital Status:** Approximately half of Soldiers with suicide attempts were single (45%), and half were married (46%).

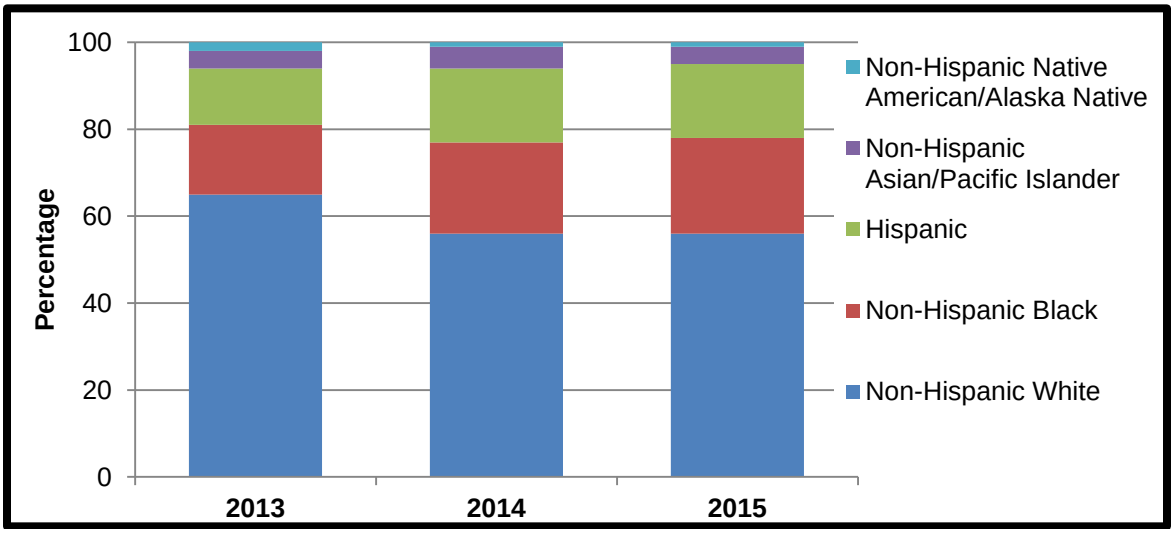


Figure 9. Race-Ethnicity, Suicide Attempts, U.S. Army, 2013 – 2015

6.2 Military Characteristics

Military characteristics of suicide attempt cases and stratified rates of suicide attempts for 2015 are described below and in Tables E-4 and E-5 and Figure E-3. Differences relative to 2013 or 2014 are noted only when significant.

- **Component:** The greatest proportion of suicide attempts occurred among Active Army Soldiers (92%), with an increase in the proportion of Activated Army Reserve Soldiers in 2015 (4%) when compared to 2013 (1%, X^2=6.6, p=0.036). It is important to note that suicide attempts among Army Reserve Soldiers are impossible to capture when Soldiers are hospitalized in non-military facilities. The suicide attempt rate among Active Army Soldiers aged 17–59 was 87.1 per 100,000 persons.

- **Rank:** Most suicide attempt cases were from the E1–E4 ranks (73%; Figure 10). This was a significant increase compared to 2013 (66%, p=0.026, Fisher's exact test [FET]) and 2014 (65%, p<0.001, FET). In contrast, most suicide cases occurred among Soldiers in the E5–E9 ranks (50%). Suicide attempt rates for Active Army Soldiers aged 17–59 stratified by rank were: E1–E4, 148.2 per 100,000; E5–E9, 60.0 per 100,000. The small numbers of suicide attempts among Officers and Warrant Officers resulted in rates too unstable to report.

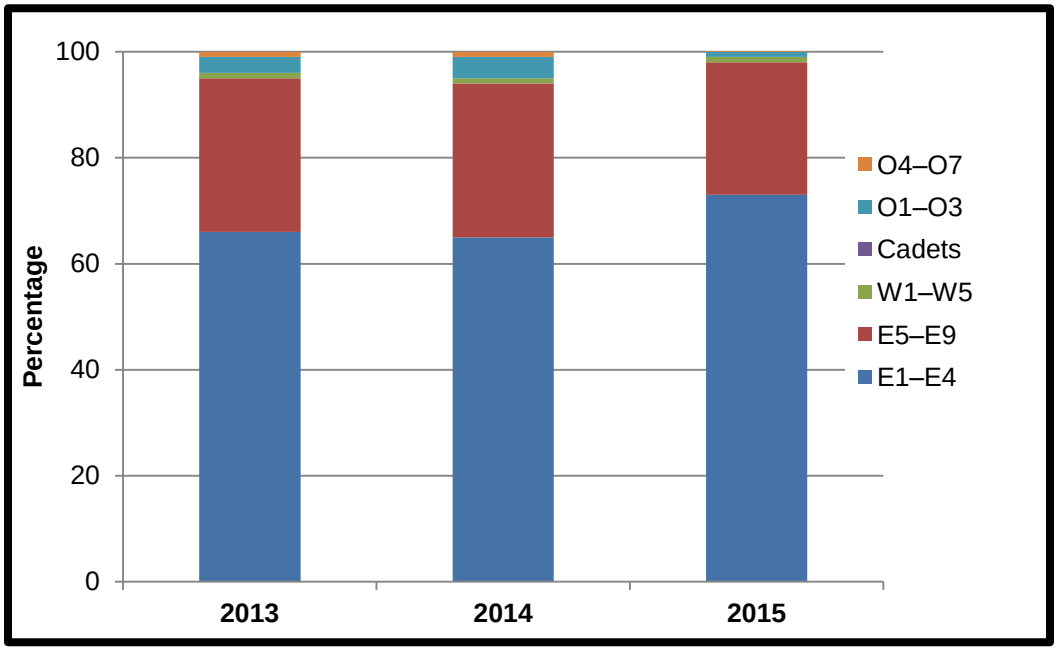


Figure 10. Rank, Suicide Attempts, U.S. Army, 2013 – 2015

- **Lifetime History of OEF/OIF/OND Deployment:** Most suicide attempt cases had never deployed (60%) or had deployed only once (21%). The proportion of suicide attempt cases with no history of an OEF, OIF, or OND deployment increased in 2015 (60%) compared to 2013 (41%, X^2=43.0, p<0.001) and 2014 (50%, X^2=10.8, p=0.029).

6.3 Event Characteristics

Event characteristics of suicide attempts from 2015 are described below and in Tables E-6 and E-7. Differences relative to 2013 or 2014 are noted only when significant.

- **Location:** The majority (90%) of suicide attempts occurred in the United States, the same proportion as in 2013 and a significant increase when compared to 2014 (81%, X^2=23.9, p<0.001).

- **Method:** The most common method of suicide attempt was drug/alcohol overdose (54%), a significant increase when compared to 2014 (49%, X^2=12.3, p=0.031), with decreases in the proportion of Soldiers who attempted suicide by gunshot wound, cutting, and hanging/asphyxiation.

- **Alcohol or Drug Involvement:** Over half (56%) of suicide attempts in 2015 involved drugs, which was a significant increase compared to 2014 (49%, X^2=6.5, p=0.011). Thirty-five percent of suicide attempts involved alcohol, which was also a significant increase compared to 2014 (29%, X^2=4.1, p=0.043).

- **Communication:** Among suicide attempt cases, one-quarter (25%) communicated suicidal intentions prior to their attempt.

6.4 Personal and Legal/Administrative History

The following problems were reported among suicide attempt cases from 2015. All problems occurred within a year before the event unless otherwise noted. Differences relative to 2013 or 2014 are noted only when significant. Additional information is presented in Table E-8 and Figure 11.

- **Any Problem:** Personal and legal/administrative issues were reported by the majority (81%) of suicide attempt cases.

- **Relationship Problems:** Half (50%) of suicide attempt cases reported relationship problems.

- **Legal Problems:** A legal problem affected 29% of suicide attempt cases. The legal issues with the highest prevalence were Article 15 actions (13%), administrative separations (13%), and civil legal problems (6%).

- **Health-Related Problems:** Physical health problems affected 23% of suicide attempt cases, a significant increase compared to 2014 (16%, X^2=7.6, p=0.006). Fourteen percent had been the subject of a medical evaluation board. Family health problems were reported for 10% of suicide attempt cases, a significant increase compared to 2014 (6%, X^2=6.1, p=0.014). Fourteen percent experienced the death of a family member or friend in the year before their suicide attempt, which was a significant decrease compared to 2013 (19%, X^2=7.0, p=0.008) and 2014 (20%, X^2=7.2, p=0.007). Five percent of Soldiers had a family member or friend die by suicide in the year before their suicide attempt. Eighteen percent of suicide attempt cases had ever had a family member or friend die by suicide.

- **Work and Financial Problems:** Work-related stress was reported for 44% of suicide attempt cases. Seven percent experienced financial stress, a significant decrease compared to 2013 (10%, X^2=4.7, p=0.030).

- **Victims and Perpetrators of Abuse:** Fourteen percent of suicide attempt cases were a victim of abuse within a year before their event, and 6% were perpetrators of abuse. Over one-third (37%) had been the victim of abuse sometime in their lives, including 27% who had experienced emotional abuse, 22% who were victims of physical abuse, and 18% who were victims of sexual abuse. In comparison, 9% of suicide cases were ever victims of abuse.

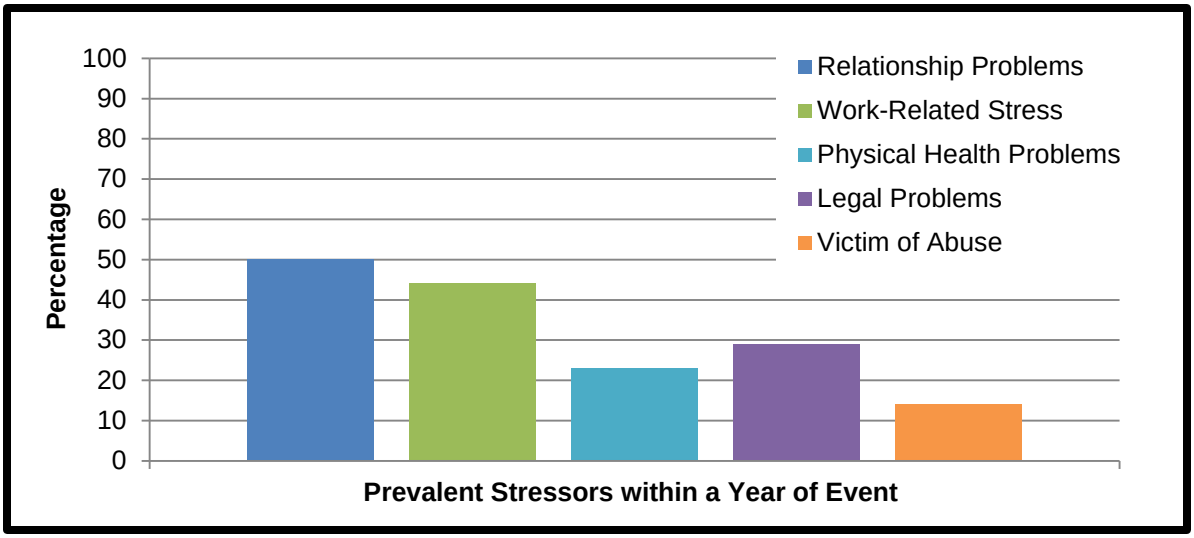


Figure 11. Prevalent Personal and Legal/Administrative Problems, Suicide Attempt Cases, U.S. Army, 2015

- **Suicide Prevention Training and Use of Army Counseling Services:** More than two-thirds (69%) of suicide attempt cases had ever received suicide prevention training. One-fifth (20%) of cases utilized the Army Substance Abuse Program (ASAP) within a year before their event. Eleven percent used the Family Advocacy Program (FAP) within a year before their event, which was a significant increase compared to 2013 (5%, X^2=10.7, p=0.001) and 2014 (6%, X^2=8.8, p=0.003).

6.5 Behavioral Health Indicators

BH indicators from the PDHA, the PDHRA, and the PHA are described here and in Tables E-9 and E-10. BH encounters and specific diagnoses are described below and in Table E-11. Differences relative to 2013 or 2014 are noted only when significant.

6.5.1 Post-Deployment Health Assessment

BH indicators for suicide attempt cases from 2015 with a PDHA (n=38) are described below and in Table E-9. On average, 6 months elapsed between the PDHA and the event.

- **Depression Symptoms:** Less than half (42%) reported depression symptoms.
- **Posttraumatic Stress:** Over a quarter (29%) reported symptoms of posttraumatic stress, significantly less than in 2014 (51%, X^2=4.1, p=0.042; Figure 12).
- **Suicidal Thoughts:** No Soldiers reported suicidal thoughts.
- **Referrals:** Providers referred 18% to BH care, a significant decrease compared to 2014 (40%, X^2=4.3, p=0.038).

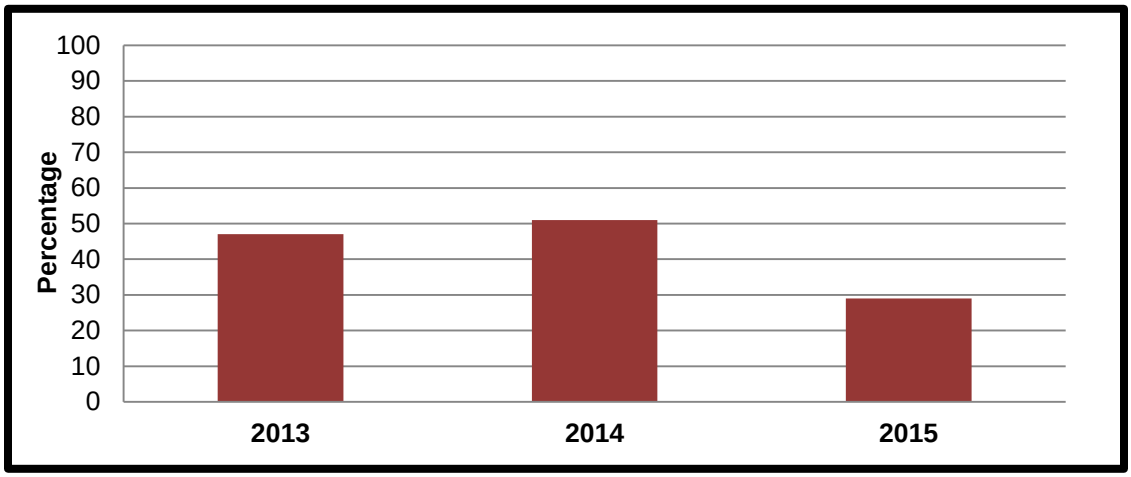


Figure 12. Self-Reported Posttraumatic Stress Symptoms on PDHA, Suicide Attempt Cases, U.S. Army, 2013 – 2015

6.5.2 Post-Deployment Health Reassessment

BH indicators for suicide attempt cases from 2015 with a PDHRA within one year of the attempt (n=37) are described below and in Table E-9. On average, 6 months elapsed between the PDHRA and the event.

- **Depression Symptoms:** More than half (57%) reported depression symptoms.
- **Posttraumatic Stress:** Forty-three percent reported symptoms of posttraumatic stress.
- **Suicidal Thoughts:** No Soldiers reported suicidal thoughts.
- **Referrals:** Providers referred 11% to BH care.

6.5.3 Periodic Health Assessment

Alcohol screening results for suicide attempt cases in 2015 with a current PHA (n=333) are described below and in Table E-10. A PHA was considered current if it had been completed less than 15 months before the suicide attempt.

- **Unhealthy Drinking:** Eight percent of cases screened positive for unhealthy drinking.
- **Probable Alcohol Disorder:** Few (2%) screened positive for a probable alcohol disorder.
- **Referrals:** Providers offered referrals to 4% of cases for their drinking behavior.
- **Alcohol Education:** Thirty-nine percent of cases received education about risks related to drinking.

6.5.4 Behavioral Health Encounters

BH encounters during military service among suicide attempt cases from 2015 are described below and in Table E-11 (see Appendix C for encounter definitions).

- **Inpatient BH Encounters:** Over a third (37%) had an inpatient BH encounter during their military career.
- **Outpatient BH Encounters:** Eighty-four percent had an outpatient BH encounter since accession.
- **BH Encounter in Previous 30 Days:** In the 30 days preceding the event, approximately two-thirds (66%) had a BH encounter.

6.5.5 Behavioral Health Diagnoses

BH diagnoses during military service among suicide attempt cases from 2015 are described below and in Table E-11 and Figure 13 (see Appendix C for diagnosis definitions). Differences relative to 2013 or 2014 are noted only when significant.

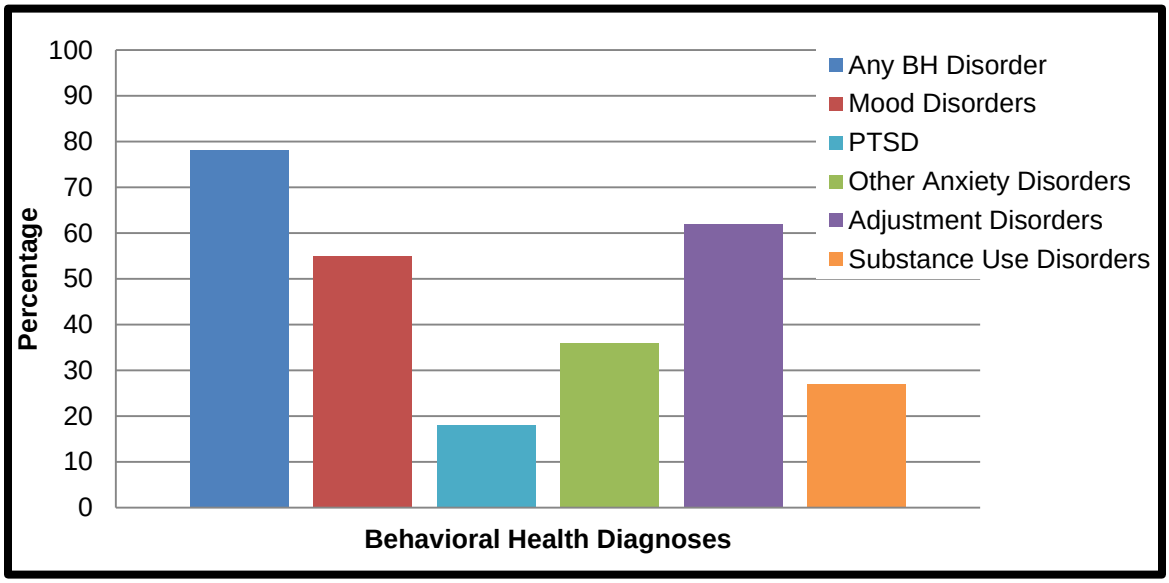


Figure 13. Behavioral Health Diagnoses, Suicide Attempt Cases, U.S. Army, 2015

- **Any BH Diagnosis:** Many 2015 cases (78%) had received a BH diagnosis since accession (Figure 14). Of these, 76% were first diagnosed in the year before their attempt , and 24% of cases had an initial BH diagnosis more than a year before their attempt.
- **More Than One BH Diagnosis:** More than half (62%) received more than one BH diagnosis over the course of their military career, a significant increase from 2014 (55%, X^2=5.0, p=0.025). Thirty-six percent of suicide attempt cases were first diagnosed with more than one BH diagnosis in the year before their attempt.

- **Mood Disorders:** Approximately half (55%) of 2015 suicide attempt cases had been diagnosed with a mood disorder, a significant increase compared to 2014 (48%, X^2=4.7, p=0.030). One-third (34%) of cases were first diagnosed in the year before their attempt, a significant increase compared to 2014 (28%, X^2=4.5, p=0.034).

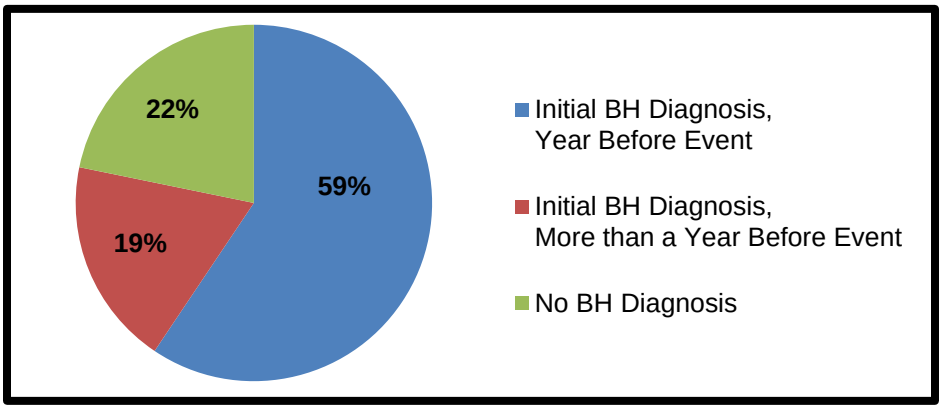


Figure 14. Time of Behavioral Health Diagnosis, Suicide Attempt Cases, U.S. Army, 2015

- **Major Depression and Other Depressive Disorders:** The prevalence of major depression was 35%, a significant increase compared to 2013 (26%, X^2=8.8, p=0.003) and 2014 (26%, X^2=9.2, p=0.002). One-quarter (25%) of cases were first diagnosed with major depression in the year before their attempt, a significant increase compared to 2013 (16%, X^2=12.5, p<0.001) and 2014 (16%, X^2=13.2, p<0.001). The prevalence of other depressive disorders was 45% among 2015 suicide attempt cases; 26% of cases were first diagnosed with other depressive disorders in the year before their attempt.

- **Bipolar Disorder:** Few (4%) were diagnosed with bipolar disorder since accession. Three percent of cases were first diagnosed with bipolar disorder in the year before their attempt.

- **Posttraumatic Stress Disorder:** Eighteen percent of cases from 2015 had received a PTSD diagnosis, a significant decrease compared to 2014 (23%, X^2=3.9, p=0.048). Twelve percent of cases were first diagnosed in the year before their attempt.

- **Other Anxiety Disorders:** Over one-third (36%) of 2015 cases had been diagnosed with an anxiety disorder; 19% of cases were first diagnosed in the year before their attempt.

- **Adjustment Disorders:** Over half (62%) of cases in 2015 were diagnosed with adjustment disorder. Thirty-one percent of cases were first diagnosed in the year before their attempt.

- **Substance Use Disorders:** The prevalence of substance use disorders was 27%; 17% of cases were first diagnosed in the year before their attempt.

- **Personality Disorders:** The prevalence of personality disorders was 8%. Six percent of cases were first diagnosed with a personality disorder in the year before their attempt, a significant increase compared to 2013 (3%, X^2=4.7, p=0.031).

- **Psychoses:** Few (3%) cases were diagnosed with psychoses; 2% of cases were first diagnosed in the year before their attempt.

- **Previous Suicide Attempt, Self-Harm, or Suicidal Ideation:** Previous suicide attempt or self-harm was documented by an ICD-9 E-code or ICD-10 X-, T-, or Z-code in 12% of 2015 suicide attempt cases. Ten percent of cases from 2015 had a previous suicide attempt or self-harm in the year before their attempt. An ICD-9 V-code or ICD-10 R-code indicated that 31% had a history of suicidal ideation, which was significantly more than in 2014 (24%, X^2=6.4, p=0.011). One-quarter (26%) of cases had a suicidal ideation in the year before their attempt.

6.6 Other Medical Indicators

Indicators of traumatic brain injury (TBI), pain, and sleep problems are described here and in Tables E-12 through E-14. Polypharmacy is also described below and in Table E-15.

6.6.1 Traumatic Brain Injury

TBI among suicide attempt cases from 2015 are described below and in Table E-12.

- **Medical Encounters for TBI:** During their military career, 1% had an inpatient TBI encounter and 15% had an outpatient TBI encounter. In the year before the suicide attempt, 9% had a TBI encounter. Few cases (2%) had a TBI encounter within the 30 days before the event.

- **TBI Diagnoses:** TBI was diagnosed in 13% of 2015 suicide attempt cases at some point since accession. Five percent of cases were first diagnosed in the year preceding the attempt.

6.6.2 Chronic Pain Indicators

Chronic pain indicators among 2015 suicide attempt cases are described below and in Table E-13.

- **Medical Encounters for Chronic Pain:** In the year preceding their suicide attempt, 13% of 2015 suicide cases had a medical encounter for chronic pain. Five percent of cases had a pain encounter within 30 days of their attempt.

- **Pain Diagnoses:** In the year before the event, 10% of suicide attempt cases received a chronic pain diagnosis.

6.6.3 Sleep Problems

Sleep indicators among 2015 suicide attempt cases are described below and in Table E-14. Only significant differences are noted.

- **Medical Encounters for Sleep Problems:** In the year before the suicide attempt, 40% of 2015 suicide attempt cases had a medical encounter for sleep problems, which was a significant increase compared to 2014 (34%, X^2=4.5, p=0.033; Figure 15). Sixteen percent

of cases had a medical encounter for sleep within 30 days of the event, a significant increase compared to 2014 (11%, X^2=4.5, p=0.034).

- **Sleep Disorder Diagnoses:** In the year before the suicide attempt, 32% of 2015 suicide attempt cases were diagnosed with a sleep disorder.

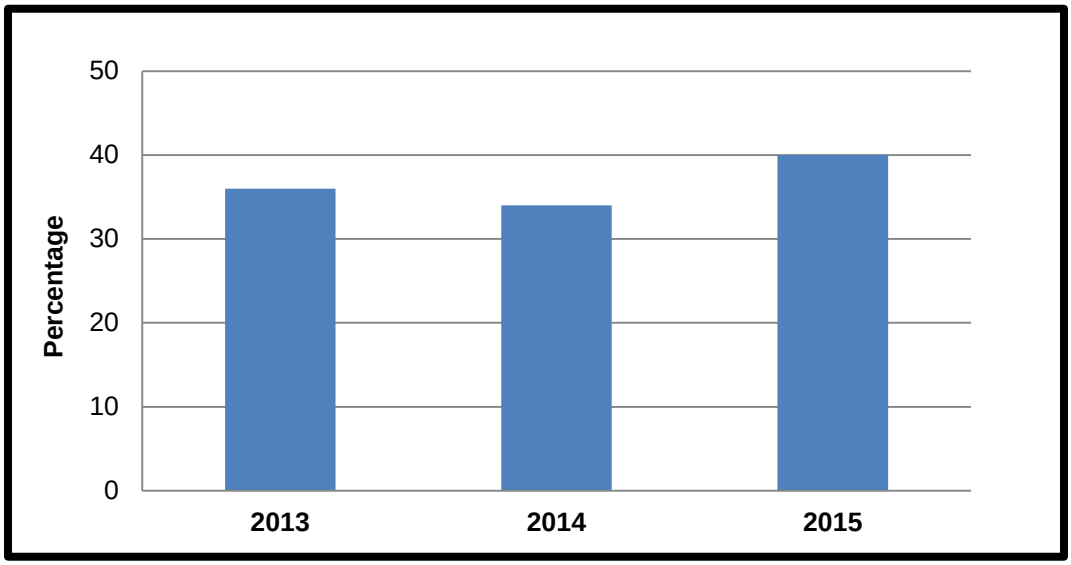


Figure 15. Medical Encounter for Sleep Problem within a Year of Event, Suicide Attempt Cases, U.S. Army, 2013 – 2015

6.6.4 Polypharmacy

Polypharmacy of suicide attempt cases from 2015 is described below and in Figure D-4 and Table E-15. Only significant differences are noted.

- **Any Polypharmacy:** At the time of their suicide attempt, 14% of cases met criteria for polypharmacy (Figure 16).

- **Polypharmacy by Multiple Definitions:** Eighty-two percent of suicide attempt cases met polypharmacy criteria under a single definition; 18% of suicide attempt cases met polypharmacy criteria under two or more definitions.

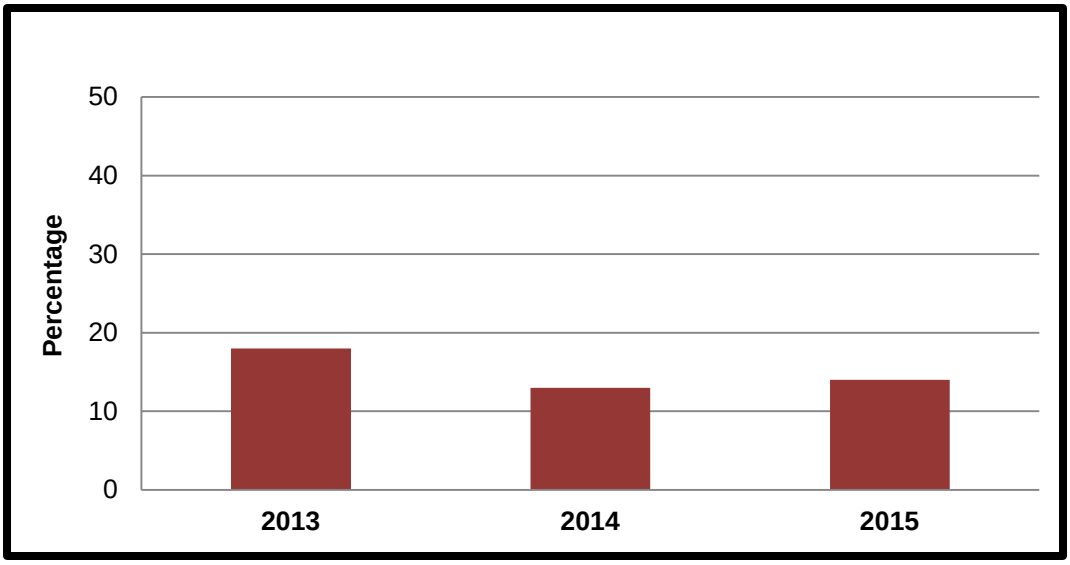


Figure 16. Polypharmacy at Time of Event, Suicide Attempt Cases, U.S. Army, 2013 – 2015

6.7 Drug Testing and ASAP Screening

Drug testing and ASAP screening of suicide attempt cases from 2015 are described below and in Tables E-16 and E-17. Only significant differences are noted.

- **Positive Drug Tests:** Of suicide attempt cases with drug testing data (n=420), 6% had a positive drug test at some time during their military career (excluding positive tests for drugs for which the Soldier had a prescription), a significant decreased compared to 2013 (10%, X^2=5.4, p=0.020). Of these, 36% had two or more positive drug tests, and three-fourths (76%) had a positive test in the year preceding their attempt.

- **Drugs with Positive Tests:** Positive tests were primarily for cannabis (60%), amphetamines (16%), and cocaine (16%).

- **ASAP Screening & Enrollment:** In the year before their suicide attempt, 15% of cases in 2015 were screened for intake into the ASAP program; 84% of those screened enrolled in the program.

7 Suicidal Ideation Cases

During 2015, 1,171 suicidal ideation cases were documented by DoDSERs. This is 136 more cases than in 2014 and 255 more than in 2013.

The 2015 crude suicidal ideation rate for Active Army Soldiers 17–59 years of age was 207.6 per 100,000 persons (95% CI: 194.9 – 220.4), the highest observed rate since suicidal ideation cases became available in 2007 (Figure 17). This increase may be the result of increased attention to documentation.

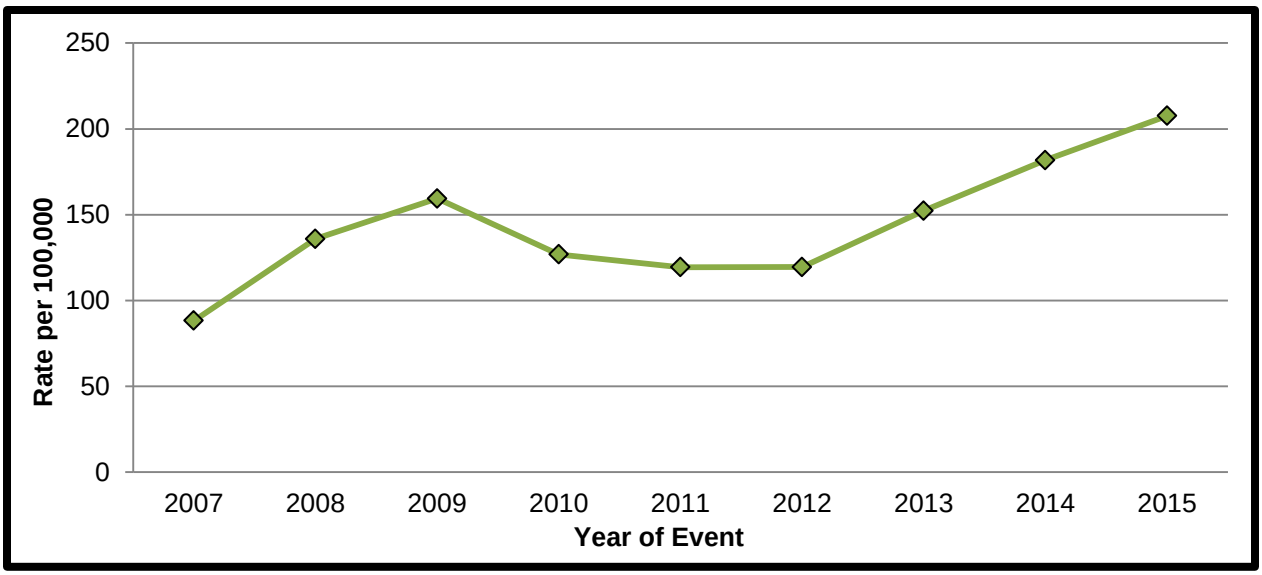


Figure 17. Crude Suicidal Ideation Rate, per 100,000, Active Army (17–59 years of age), 2007 – 2015

7.1 Demographic Characteristics

Demographic characteristics and stratified rates for suicidal ideation cases from 2015 are described below and in Tables F-1 through F-3 and Figures F-1 and F-2. Differences relative to 2013 or 2014 are noted only when significant.

- **Sex:** Most (78%) suicidal ideations were among male Soldiers. Suicidal ideation rates among Active Army Soldiers, aged 17–59, stratified by sex were 191.2 per 100,000 for males and 307.0 per 100,000 for females. The count of suicidal ideations among female Soldiers is lower than the count among male Soldiers, but because the population of women in the Army is smaller, the rate is higher.

- **Age Group:** The greatest proportion of Soldiers who expressed suicidal ideations were 17 to 24 years of age (53%) or 25 to 34 years of age (31%). Suicidal ideation rates for Active Army Soldiers stratified by age group were: 17–24 years, 304.8 per 100,000; 25–34 years, 171.2 per 100,000; and 35–59 years, 126.0 per 100,000.

During 2015, 1,171 Soldiers expressed suicidal ideations. Of these:

- 78% were male
- 53% were 17–24 years of age
- 56% were non-Hispanic white
- 87% were Active Army
- 64% were E1–E4

- **Race-Ethnicity:** The majority (56%) of suicidal ideations were among non-Hispanic white Soldiers (Figure 18). This was a significant decrease compared to 2013 (61%), with an increase in the proportion of Soldiers in the non-Hispanic black (17% to 22%) race-ethnicity category (X^2=11.1, p=0.0026).

- **Marital Status:** Approximately half of Soldiers with suicidal ideations were single (47%), and nearly half were married (44%).

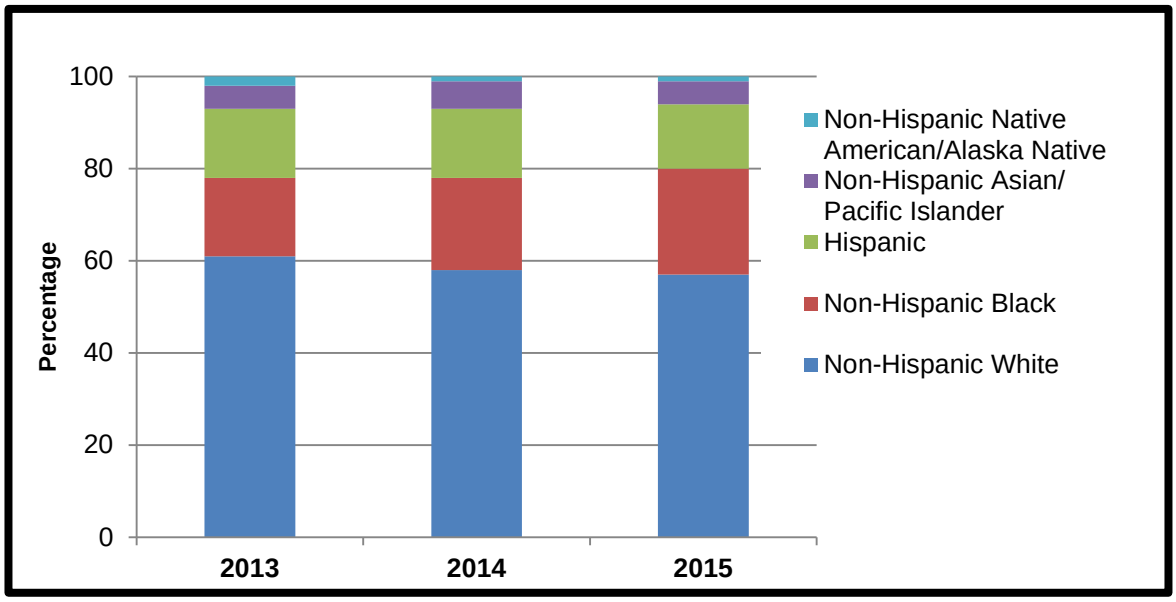


Figure 18. Race-Ethnicity, Suicidal Ideation Cases, U.S. Army, 2013 – 2015

7.2 Military Characteristics

Military characteristics for suicidal ideation cases from 2015 are described below and in Tables F-4 and F-5 and Figure F-3. Differences relative to 2013 or 2014 are noted only when significant.

- **Component:** Most suicidal ideations occurred among Active Army Soldiers (87%)**.** The suicidal ideation rate for Active Army Soldiers aged 17–59 was 207.6 per 100,000.

- **Rank:** Most suicidal ideation cases were from Soldiers in the E1–E4 ranks (64%). Suicidal ideation rates for Active Army Soldiers aged 17–59 stratified by rank were: E1–E4, 320.2 per 100,000; E5–E9, 161.4 per 100,000; and O1–O9, 55.2 per 100,000. The small number of suicidal ideation cases among Warrant Officers resulted in rates too unstable to report.

- **Lifetime History of OEF/OIF/OND Deployment:** Most suicidal ideation cases had never deployed (58%) or had deployed only once (19%; Figure 19). The proportion of suicidal ideation cases who had never deployed in 2015 (58%) increased when compared to 2013 (52%, X^2=17.1, p=0.002) and 2014 (48%, X^2=33.5, p<0.001). However, the proportion of suicidal ideation cases who had deployed once in 2015 (19%) decreased when compared to 2013 (23%, X^2=17.1, p=0.002) and 2014 (26%, X^2=33.5, p<0.001).

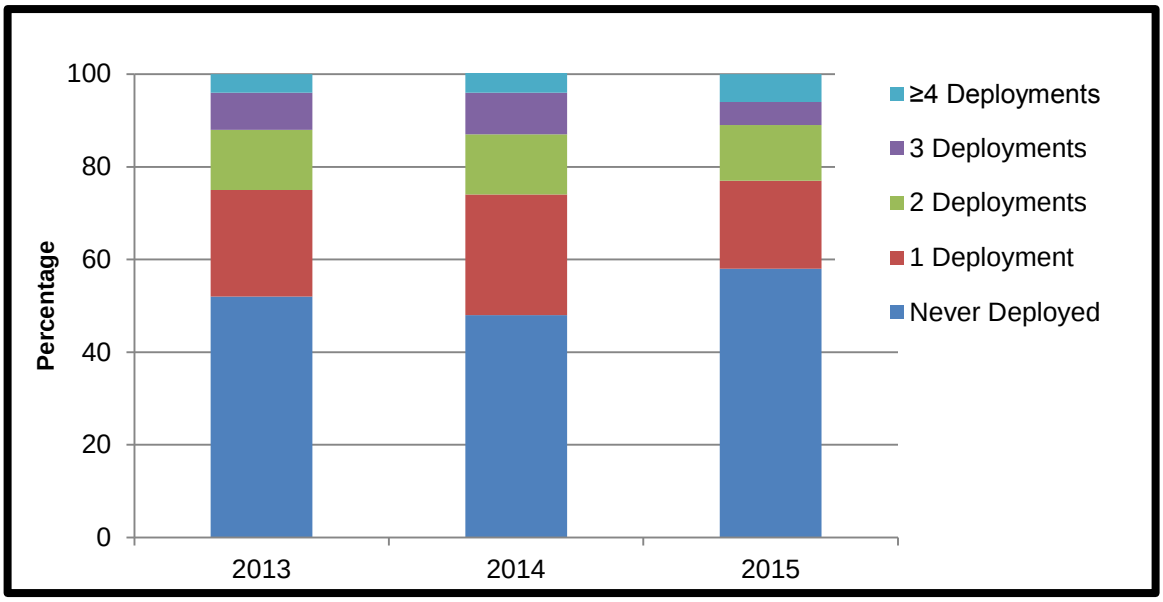


Figure 19. Number of Deployments, Suicidal Ideation Cases, U.S. Army, 2013 – 2015

7.3 Behavioral Health Indicators

BH indicators from the PDHA, the PDHRA, and the PHA are described here and in Tables F-6 and F-7. BH encounters and specific diagnoses, as well as incident diagnoses within the year before the suicidal event, are also described below and in Table F-8. Differences relative to 2013 or 2014 are noted only when significant.

7.3.1 Post-Deployment Health Assessment

BH indicators for suicidal ideation cases from 2015 who had completed a PDHA in the previous year (n=66) are described below and in Table F-6. On average, 6 months elapsed between the PDHA and the ideation.

- **Depression Symptoms:** More than half (62%) reported depression symptoms.
- **Posttraumatic Stress:** Almost half (48%) reported symptoms of posttraumatic stress, which was significantly more than in 2014 (29%, X^2=6.3 p=0.012; Figure 20).
- **Suicidal Thoughts:** Six percent reported suicidal thoughts.
- **Referrals:** Providers referred 27% to BH care.

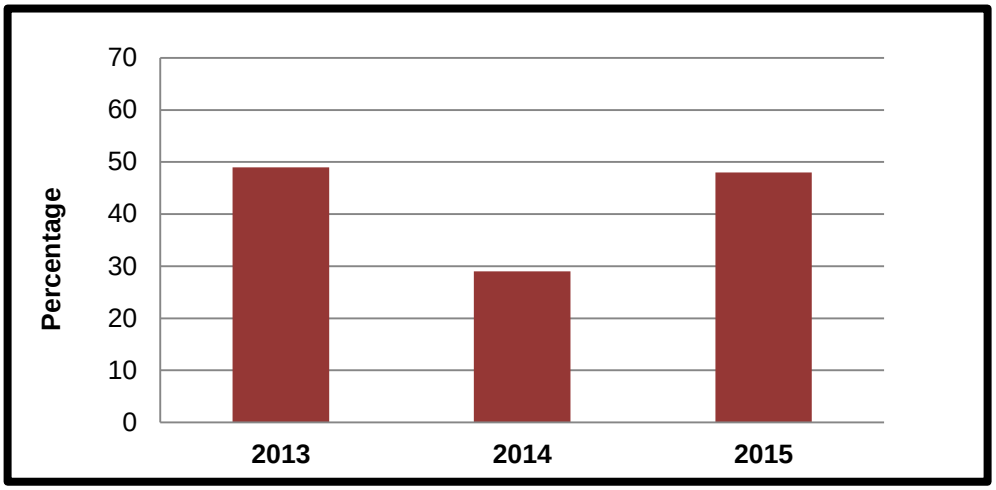


Figure 20. Posttraumatic Stress Symptoms, PDHA, Suicidal Ideation Cases, U.S. Army, 2013 – 2015

7.3.2 Post-Deployment Health Reassessment

BH indicators for suicidal ideation cases from 2015, who had completed a PDHRA within a year prior to the event (n=79), are described below and in Table F-6. On average, 6 months elapsed between the PDHRA and the event.

- **Depression Symptoms:** Over half (59%) reported depression symptoms.
- **Posttraumatic Stress:** Forty-four percent reported symptoms of posttraumatic stress.
- **Suicidal Thoughts:** Few (6%) reported suicidal thoughts.
- **Referrals:** Providers referred 15% to BH care.

7.3.3 Periodic Health Assessment

Alcohol screening results for 2015 suicidal ideation cases with a PHA completed within 15 months of the event (n=759) are described below and in Table F-7.

- **Unhealthy Drinking:** Eight percent of 2015 cases screened positive for unhealthy drinking.
- **Probable Alcohol Disorder:** Few (1%) screened positive for a probable alcohol disorder.
- **Referrals:** Providers offered 3% a referral for their drinking behavior, a significant decrease compared to 2013 (6%, X^2=5.2, p=0.023).
- **Alcohol Education:** Thirty-nine percent of cases received education about risks related to drinking.

7.3.4 Behavioral Health Encounters

BH encounters during military service among suicidal ideation cases from 2015 are described below and in Table F-8 (see Appendix C for encounter definitions).

- **Inpatient BH Encounters:** One-quarter (24%) had an inpatient BH encounter during their military career.
- **Outpatient BH Encounters:** Most (82%) had an outpatient BH encounter since accession.
- **BH Encounter in Previous 30 Days:** In the 30 days preceding the event, 64% had a BH encounter.

7.3.5 Behavioral Health Diagnoses

BH diagnoses during military service among suicidal ideation cases from 2015 are described below and in Table F-8 and Figure 22 (see Appendix C for diagnosis definitions). Differences relative to 2013 or 2014 are noted only when significant.

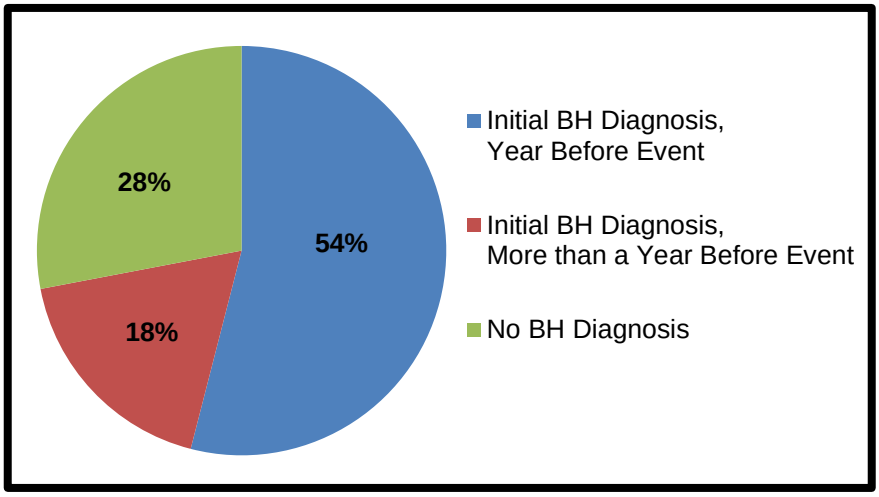


Figure 21. Time of Behavioral Health Diagnosis, Suicidal Ideation Cases, U.S. Army, 2015

- **Any BH Diagnosis:** Almost three-fourths (72%) of the 2015 suicidal ideation cases had received a BH diagnosis since accession and before the event, which is significantly less than in 2014 (77%, X^2=6.1, p=0.014). Of those with diagnoses, 75% were first diagnosed in the year before their event and 25% had an initial BH diagnosis more than a year before their event (Figure 21).
- **More Than One BH Diagnosis:** Approximately half (53%) received more than one BH diagnosis over the course of their military career; 28% of suicidal ideation cases received more than one BH diagnosis in the year before their event.
- **Mood Disorders:** Nearly half (48%) of 2015 suicidal ideation cases were diagnosed with a mood disorder; 28% of cases were first diagnosed in the year before their event.

- **Major Depression and Other Depressive Disorders:** The prevalence of major depression was 26%; 19% of cases were first diagnosed with major depression in the year before their event. The prevalence of other depressive disorders was 39%, a significant decrease compared to 2014 (44%, X^2=4.2, p=0.040). Twenty-two percent of cases were first diagnosed with other depressive disorders in the year before their event.

- **Bipolar Disorder:** Few (3%) suicidal ideation cases were diagnosed with bipolar disorder; of those, 78% were first diagnosed in the year before their event.

- **Posttraumatic Stress Disorder:** Of the cases from 2015, 19% had received a PTSD diagnosis; 11% were first diagnosed in the year before their attempt.

- **Other Anxiety Disorders:** The prevalence of anxiety disorders was 33%; 16% of suicidal ideation cases were first diagnosed in the year before their event.

- **Adjustment Disorders:** The prevalence of adjustment disorder was 56% among 2015 suicidal ideation cases, a significant decrease compared to 2014 (61%, X^2=6.9, p=0.009); 28% of cases were first diagnosed in the year before their event.

- **Substance Use Disorders:** The prevalence of substance use disorders was 21%; 11% of cases were first diagnosed in the year before their ideation.

- **Personality Disorders and Psychoses:** Diagnoses of personality disorders and psychoses were relatively uncommon, 6% and 2%, respectively. The proportion of suicidal ideation cases first diagnosed with personality disorders in the year before their event was 4%. Of those diagnosed with psychoses, 89% were diagnosed in the year before their event.

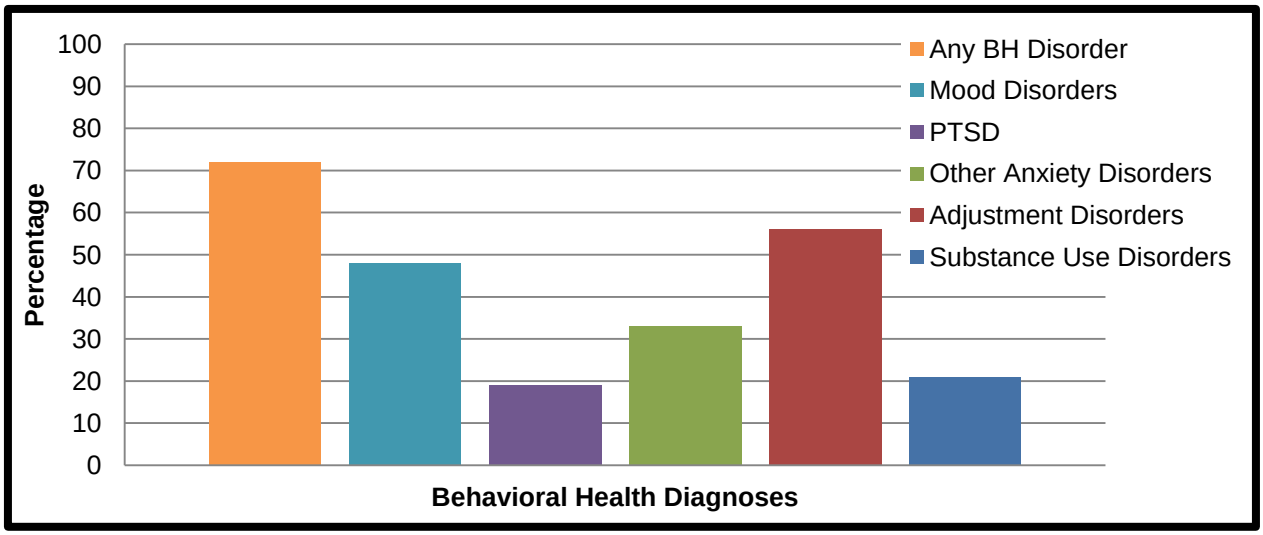


Figure 22. Behavioral Health Diagnoses, Suicidal Ideation Cases, U.S. Army, 2015

- **Previous Suicide Attempt, Self-Harm, and Suicidal Ideation:** Previous suicide attempt or self-harm was documented by an ICD-9 E-code or ICD-10 X-, T-, or Z-code in 5% of 2015 suicidal ideation cases, a significant increase compared to 2013 (3%, X^2=8.5, p=0.003). Three percent of cases from 2015 had a previous suicide attempt or self-harm documented in the year before their ideation, a significant increase compared to 2013 (1%, X^2=8.1, p=0.004). Previous suicidal ideation, as documented by an ICD-9 V-code or ICD-10 R-code, was 19%; this was a significant decrease compared to 2014 (23%, X^2=5.5, p=0.019). Fifteen percent of cases had a suicidal ideation in the year before the ideation reported here.

7.4 Other Medical Indicators

Indicators of TBI, pain, and sleep problems are described here and in Tables F-9 through F-11. Polypharmacy is also described below and in Table F-12.

7.4.1 Traumatic Brain Injury

TBI among suicidal ideation cases from 2015 is described below and in Table F-9. Differences relative to 2013 or 2014 are noted only when significant.

- **TBI Encounters:** Few (3%) had ever had an inpatient TBI encounter. Eighteen percent had an outpatient TBI encounter, which was a significant increase compared to 2013 (13%, X^2=6.5, p=0.001; Figure 23). In the year before the suicidal ideation, 9% had a TBI encounter, with 3% having an encounter in the 30 days before the event.

- **TBI Diagnoses:** Since accession, 16% of 2015 cases had been diagnosed with TBI; 5% were first diagnosed in the year preceding the ideation.

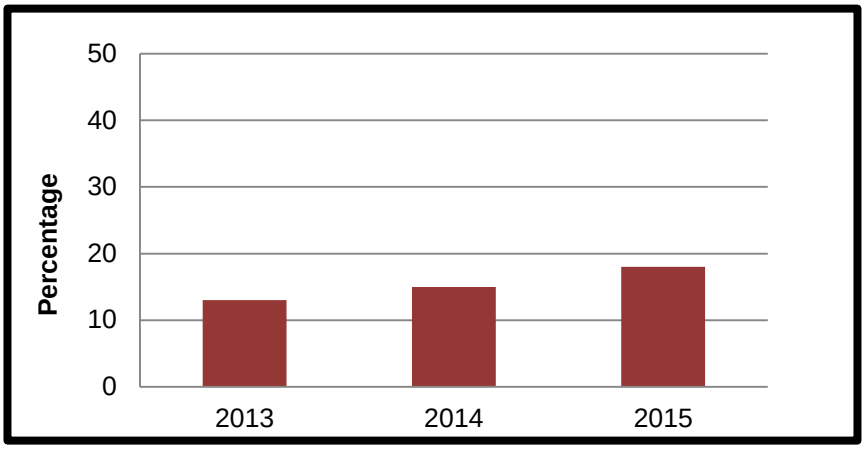


Figure 23. TBI Outpatient Encounter, Ever, Suicidal Ideation Cases, U.S. Army, 2013 – 2015

7.4.2 Chronic Pain Indicators

Chronic pain indicators among 2015 suicidal ideation cases are described below and in Table F-10.

- **Medical Encounters for Chronic Pain:** In the year preceding the event, 9% of 2015 suicidal ideation cases had a medical encounter for chronic pain. Three percent of cases had a medical encounter for chronic pain within 30 days of their event.

- **Chronic Pain Diagnoses:** In the year before the event, 7% of suicidal ideation cases received a chronic pain diagnosis.

7.4.3 Sleep Problems

Sleep indicators among 2015 suicidal ideation cases are described below and in Table F-11.

- **Medical Encounters for Sleep Problems:** In the year before the event, 34% of 2015 suicidal ideation cases had a medical encounter for a sleep problem. Thirteen percent of cases had an encounter for a sleep problem within the 30 days preceding their suicidal ideation.

- **Sleep Disorder Diagnoses:** In the year before the event, 28% of 2015 cases were diagnosed with a sleep disorder (Figure 24).

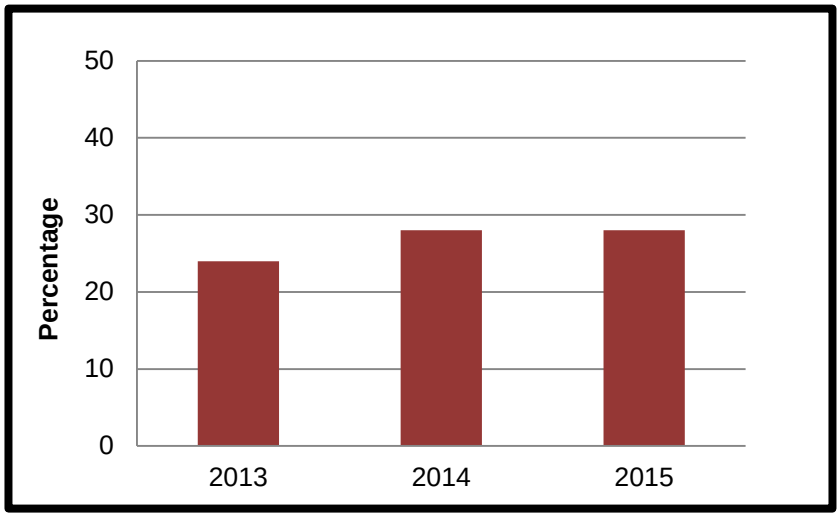


Figure 24. Sleep Disorder Diagnosis in the Year Before the Event, Suicidal Ideation Cases, U.S. Army, 2013 – 2015

7.4.4 Polypharmacy

Polypharmacy of suicidal ideation cases from 2015 is described below and in Figure D-4 and Table F-12.

- **Any Polypharmacy:** At the time of the event, 13% met criteria for polypharmacy.

- **Polypharmacy by Multiple Definitions:** Seventy-six percent of suicidal ideation cases met criteria under a single polypharmacy definition; 24% of cases met criteria under two or more polypharmacy definitions.

7.5 Drug Testing and ASAP Screening

Drug testing and ASAP screening of suicidal ideation cases from 2015 are described below and in Tables F-13 and F-14.

- **Positive Drug Tests:** Of 2015 cases with drug testing data (n=1,019), 5% had a positive drug test some time prior to the event (excluding positive tests for drugs for which the Soldier had a prescription). Of the cases with positive tests, 31% had two or more positive drug tests, and 62% had a positive test in the year preceding the event.

- **Drugs with Positive Tests:** Positive tests were primarily for cannabis (47%) and cocaine (22%).

- **ASAP Screening & Enrollment:** In the year before their ideation, 12% were screened for intake into the ASAP program; 85% of these enrolled in the program.

8 Point of Contact

The U.S. Army Public Health Center Behavioral and Social Health Outcomes Practice Division is the point of contact for this surveillance publication, e-mail usarmy.apg.medcom-phc.list.eds-bshop-ops@mail.mil, or phone number 410-436-9292, DSN 584-9292.

Approved:

Joseph A. Pecko, PhD, LCSW
Interim Program Manager
Behavioral and Social Health Outcomes Practice Division

Appendix A

References

1. Centers for Disease Control and Prevention. 2016. "International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM)." Accessed April 13, 2016. http://www.cdc.gov/nchs/icd/icd10cm.htm.

2. American Academy of Professional Coders. 2014. "Pain Quick Reference for ICD-10-CM." Accessed June 6, 2016. https://static.aapc.com/aapc/images/201405_QUICK_REFERENCE_PAIN-Pubs.pdf.

3. Harvard Medical School. 2004. "Depression and Pain." Accessed June 28, 2016. http://www.health.harvard.edu/mind-and-mood/depression_and_pain.

4. American Chronic Pain Association. 2016. "Pain Management Tools Glossary." Accessed June 28, 2016. https://theacpa.org/glossary.

5. 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. October 11, 2011.

6. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. 2015. "Fatal Injury Reports, National and Regional, 1999–2014." Last modified June 24, 2015. Web-based Injury Statistics Query and Reporting System (WISQARS). http://webappa.cdc.gov/sasweb/ncipc/mortrate10_us.html.

7. U.S Census Bureau, Population Division. 2015. "Annual Estimates of the Resident Population by Single Year of Age and Sex for the United States: April 1, 2010 to July 1, 2014." Released June 2015. http://www.census.gov/popest/data/index.html.

8. The Office of the Deputy Assistant Secretary of Defense (Force Health Protection & Readiness). 2013. "Training to Administer DoD Deployment Mental Health Assessments." Presentation, February 26, 2013. http://fhpr.osd.mil/pdfs/NDAA%20FHP_DHCC.pdf.

9. Hyman, Jeffrey, Robert Ireland, Lucinda Frost, and Linda Cottrell. 2012. Suicide Incidence and Risk Factors in an Active Duty U.S. Military Population. *American Journal of Public Health.* 102 (S1): S138–S146. doi: 10.2105/AJPH.2011.30.

10. Armed Forces Health Surveillance Branch. 2016. "Surveillance Case Definitions." Accessed April 1, 2016. http://health.mil/Military-Health-Topics/Health-Readiness/Armed-Forces-Health-Surveillance-Branch/Epidemiology-and-Analysis/Surveillance-Case-Definitions.

11. Defense and Veterans Brain Injury Center (DVBIC). 2016. "DoD Worldwide Numbers for TBI." Accessed July 16, 2014. http://dvbic.dcoe.mil/dod-worldwide-numbers-tbi.

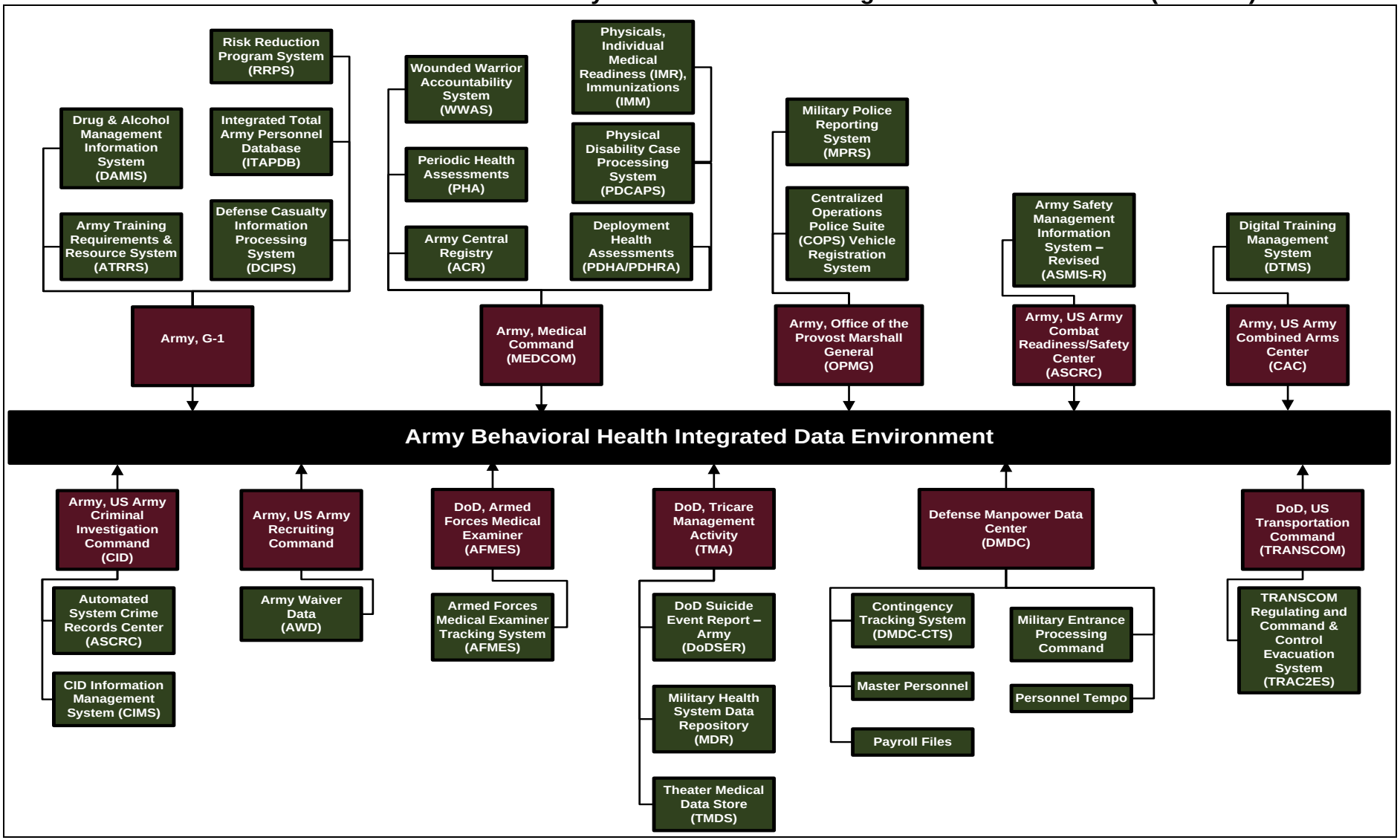
12. Office of the Surgeon General. 2013. "Guidance for Managing Polypharmacy and Preventing Overdose in Soldiers Prescribed Psychotropic Medications and Central Nervous System Depressants." U.S. Army Medical Command Policy 13-032. Washington, DC: Office of the Surgeon General. May 21, 2013.

13. U.S. Department of Veterans Affairs. 2016. "The Alcohol Use Disorders Identification Test." Accessed July 15, 2016. http://www.hepatitis.va.gov/provider/tools/audit-c.asp.

14. U.S. Department of Veterans Affairs. 2016. "AUDIT-C Frequently Asked Questions." Accessed July 15, 2016. http://www.queri.research.va.gov/tools/alcohol-misuse/alcohol-faqs.cfm.

Appendix B

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



Appendix C

Definition of Behavioral Health Encounters and Diagnoses

Medical information in this report is based on data from the Military Health System, which includes claims from military treatment facilities and claims from purchased care that are submitted for payment by the government. Prior to October 1, 2015, medical claims data use codes from the International Classification of Disease, 9th revision, Clinical Modification (ICD-9). Medical claims on or after October 1, 2015 use codes from the International Classification of Disease, 10th revision, Clinical Modification (ICD-10).

Medical Encounters. In inpatient data, an ICD-9 or 10 code for the condition in any diagnosis position Dx1–Dx8 is considered an encounter for that condition. In outpatient data, an ICD-9 or 10 code for the condition in any diagnosis position Dx1–Dx4 is considered an encounter for that condition.

Diagnoses. In inpatient data, an ICD-9 or 10 code for the condition in any diagnosis position Dx1–Dx8 is considered a diagnosis of that condition. In outpatient data, an ICD-9 or 10 code for the condition in the first diagnosis position (Dx1) is considered a diagnosis of the condition. However, ICD-9 or 10 codes in the second through fourth diagnosis positions (Dx2–Dx4) in outpatient data are also considered to indicate a diagnosis if a second code from the same group of codes occurs in Dx2–Dx4 within a year but not on the same day. For example, a Soldier with an ICD-9 code of 300.00 (anxiety state) in the third position would be considered to have a diagnosis of anxiety other than PTSD only if he or she had an ICD-9 code from the range (300.00–300.3) in the second through fourth position within a year but not on the same day. The same rules apply for ICD-10 codes. These definitions follow a Healthcare Effectiveness Data and Information Set (HEDIS) guideline from the National Committee from Quality Assurance.

C-1 Behavioral Health Encounters and Diagnoses

In this analysis, behavioral health (BH) ICD-9 codes include those in the range 290–319.99 (excluding tobacco use diagnoses), as well as certain codes related to sleep disorders, and V-codes related to life circumstance problems, personal trauma, and maltreatment. BH ICD-10 codes include those in the range F01-F99 (excluding tobacco use diagnoses), as well as R-, T-, X-, and Z-codes related to life circumstance problems, personal trauma, and maltreatment (see the Technical Notes document for a complete list). ICD-9 V-codes and ICD-10 R-, T-, X-, and Z-codes may indicate encounters, but not diagnoses.

- *Mood disorders* based on ICD-9 codes include major depression (296.2 or 296.3), dysthymia (300.4), depression not otherwise specified (311), bipolar disorder (296.0, 296.4, 296.5, 296.6, 296.7, and 296.8), or other mood disorders (296, 296.1, 296.9). Mood disorders based on ICD-10 codes include major depression (F32 or F33), dysthymia (F34.1), depression not otherwise specified (F34.8 or F34.9), bipolar disorder (F30, F31, F34.0), or other mood disorders (F39).

- *Posttraumatic stress disorder (PTSD)* is based on the ICD-9 code 309.81 and ICD-10 code F43.1.

- *Other anxiety disorders* (i.e., anxiety disorders other than PTSD) are based on the ICD-9 codes 300.0, 300.10, 300.2, and 300.3. ICD-10 codes include F40, F41, and F42.
- *Adjustment disorder* includes ICD-9 codes in the 309 range, except 309.81 (PTSD). ICD-10 codes include F43.2, F43.8, and F43.9.
- *Substance use disorders* are based on ICD-9 codes related to alcohol and drug use (291, 292, 303, 304, 305.0, and 305.2–305.9) and exclude codes related to tobacco use (305.1–305.12). ICD-10 codes include F10, F11, F12, F13, F14, F15, F16, F18, and F19 and exclude codes related to tobacco use (F17.20–F17.29).
- *Personality disorders* are indicated by ICD-9 codes 301–301.9. ICD-10 codes include F21 and F60.
- *Psychoses* are indicated by ICD-9 codes 290.8, 290.9, 295, 297, and 298. ICD-10 codes include F20, F22, F23, F24, F25, F28, and F29.
- *Any BH disorder* includes only those disorders listed above.

C-2 Traumatic Brain Injury

In this analysis, ICD-9 codes indicating traumatic brain injury include 800–801.99, 803–804.99, and 850–854.19. ICD-10 codes include F07.81, S04.02-S04.04, S06.0-S06.6, S06.8-S06.9, S02.0-S02.1, S02.8-S02.9, S07.1, Z87.820, DOD0102, DOD0103, DOD0104, and DOD0105. ICD-9 and 10 codes are provided by the Defense and Veterans Brain Injury Center (DVBIC).[11]

C-3 Chronic Pain Encounters and Diagnoses

In this analysis, ICD-9 codes indicating chronic pain include the following: 338.2, 338.3, and 338.4. ICD-10 codes include G89.21, G89.22, G89.28, G89.29, G89.3, and G89.4.

C-4 Sleep Problem Encounters and Diagnoses

In this analysis, ICD-9 codes indicating sleep problems include the following: 291.82, 292.85, 307.4–307.48, 327–327.8, 780.5–780.56, 780.58, and V694. ICD-10 codes indicating sleep problems include F51, G47, and Z72.820.

C-5 Polypharmacy

According to a 2013 policy memo,[12] polypharmacy occurs when a Soldier meets one or more of the following criteria:

- Prescribed four or more unique medications, including one opioid, during a month
- Prescribed four or more psychotropic drugs during a month
- Prescribed an opiate during three or more emergency room visits during a year

This publication reports the number and proportion of Soldiers who met one or more of these criteria.

Figure D-4 shows categories of polypharmacy, adapted from the Defense Health Agency's Pharmacoeconomic Center. Cases in Categories 5, 6, and 7 meet one criterion for polypharmacy. Cases in Categories 2, 3, and 4 meet two criteria, and cases in Category 1 meet all three criteria.

Appendix D

Suicide Cases Tables and Figures

Tables

Page

Figures

Page

Table D-1. Demographic Characteristics, Suicide Cases,[a] U.S. Army, 2013 – 2015

Characteristic	Suicide Cases n (%) 2013 (n = 150)	2014 (n = 135)	2015 (n = 143)	Active Army Distribution[b] (%) 2015	Test for Significant Difference[c] (p-value) 2015 vs 2013	2015 vs 2014
SEX					0.373	0.899
Male	144 (96)	126 (93)	134 (94)	86		
Female	6 (4)	9 (7)	9 (6)	14		
AGE (YR)					0.271	0.921
17–24	54 (36)	40 (30)	40 (28)	36		
25–34	59 (39)	61 (45)	68 (48)	39		
35–64	37 (25)	34 (25)	35 (24)	NA		
Mean	29 (±8.3)	30 (±7.7)	30 (±7.6)	NA	0.349[d]	0.711[d]
Mode	21	21	33	NA		
RACE-ETHNICITY					0.386	0.532
Non-Hispanic White	106 (71)	78 (58)	90 (63)	NA		
Non-Hispanic Black	17 (11)	31 (23)	28 (20)	NA		
Hispanic	14 (9)	16 (12)	12 (8)	NA		
Non-Hispanic Asian/ Pacific Islander	8 (5)	9 (7)	9 (6)	NA		
Non-Hispanic American Indian/Alaska Native	5 (3)	1 (1)	4 (3)	NA		
MARITAL STATUS					0.624	0.101
Single	50 (33)	35 (26)	44 (31)	NA		
Married	84 (56)	81 (60)	89 (62)	NA		
Divorced	14 (9)	19 (14)	9 (6)	NA		
Other[e]	2 (1)	0 (0)	1 (1)	NA		

Legend: NA – not available.

Notes: [a]Suicide cases in this table include those confirmed by Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [b]Data for the Army distribution include Active Army cases aged 17–59. These data were provided by AFMES. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, p<0.05. [d]T-test of means. [e]Includes widowed and legally separated.

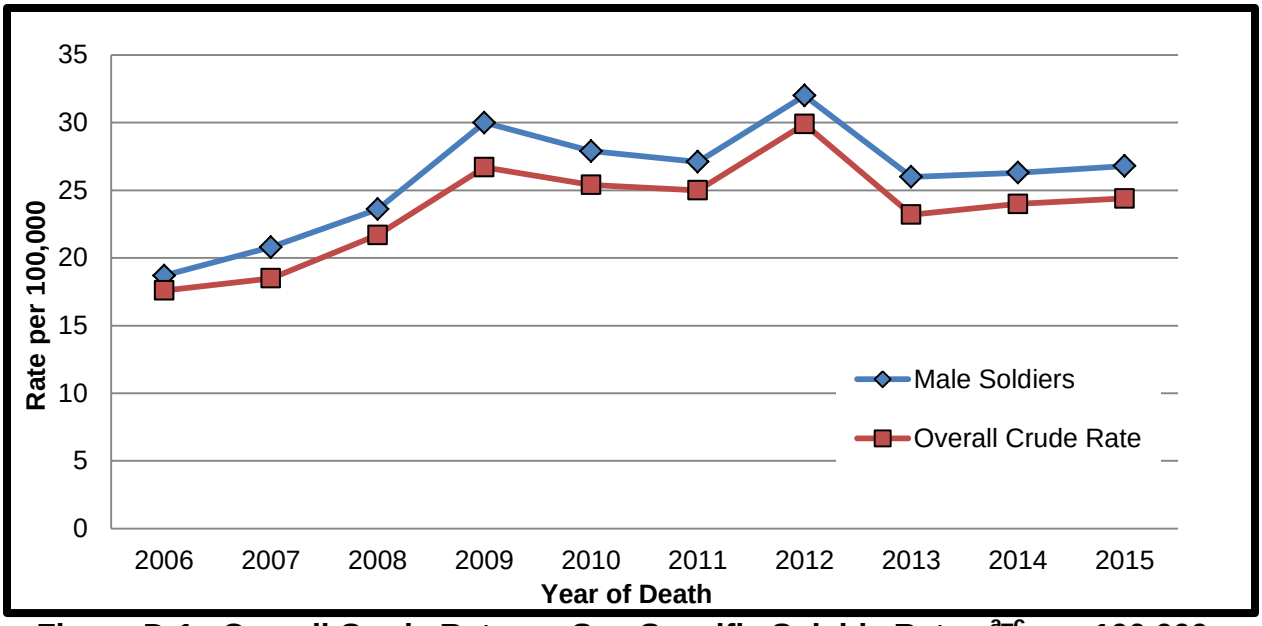


Figure D-1. Overall Crude Rate vs. Sex-Specific Suicide Rates,[a–c] per 100,000, Active Army Soldiers, 2006 – 2015

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]Unstable rates (n <20) are not reported. Specifically, fewer than 20 female Soldiers died by suicide in any year, so rates could not be calculated for that group.

Table D-2. Overall Crude Rate and Sex-Specific Suicide Rates,[a–c] per 100,000, Active Army Soldiers, 2006 – 2015

	Overall		Sex			
			Male		Female	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Year of Death						
2006	17.6	13.9 – 21.3	18.7	14.6 – 22.7	—	—
2007	18.5	14.8 – 22.2	20.8	16.5 – 25.0	—	—
2008	21.7	17.8 – 25.7	23.6	19.2 – 28.0	—	—
2009	26.7	22.4 – 31.0	30.0	25.1 – 34.9	—	—
2010	25.4	21.2 – 29.5	27.9	23.2 – 32.6	—	—
2011	25.0	20.9 – 29.1	27.1	22.5 – 31.7	—	—
2012	29.9	25.3 – 34.4	32.0	27.0 – 37.1	—	—
2013	23.2	19.1 – 27.3	26.0	21.4 – 30.7	—	—
2014	24.0	19.8 – 28.2	26.3	21.5 – 31.1	—	—
2015	24.4	20.1 – 28.8	26.8	21.9 – 31.7	—	—

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]Unstable rates (n <20) are not reported. Specifically, fewer than 20 female Soldiers died by suicide in any year, so rates could not be calculated for that group.

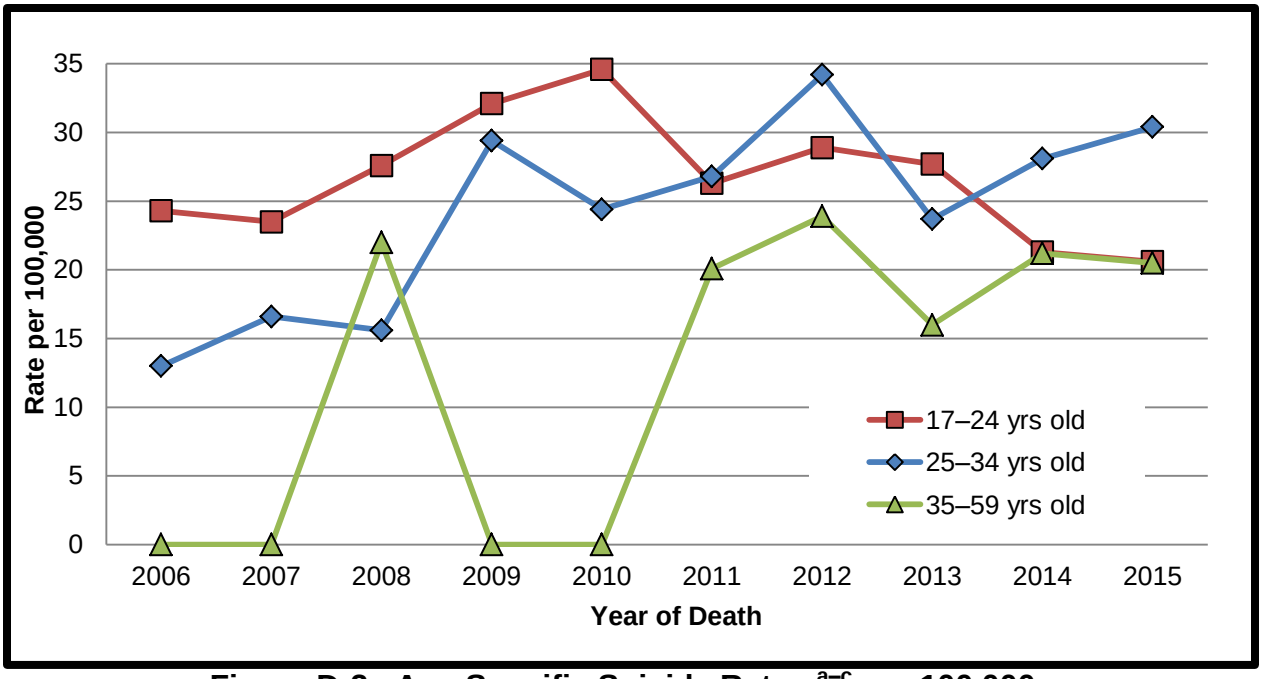


Figure D-2. Age-Specific Suicide Rates,[a–c] per 100,000, Active Army Soldiers, 2006 – 2015

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]Unstable rates (n <20) are not reported. Specifically, for some years, fewer than 20 Soldiers between 35-59 years of age died by suicide, so rates could not be calculated for those years.

Table D-3. Age-Specific Suicide Rates,[a–c] per 100,000, Active Army Soldiers, 2006 – 2015

Age	17 – 24 yrs old		25 – 34 yrs old		35 – 59 yrs old	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Year of Death						
2006	24.3	17.5 – 31.1	13.0	7.8 – 18.2	—	—
2007	23.5	16.9 – 30.2	16.6	10.9 – 22.4	—	—
2008	27.6	20.4 – 34.8	15.6	10.2 – 21.0	22.0	13.7 – 30.3
2009	32.1	24.3 – 39.8	29.4	22.2 – 36.5	—	—
2010	34.6	26.5 – 42.7	24.4	18.0 – 30.8	—	—
2011	26.3	19.1 – 33.4	26.8	20.2 – 33.4	20.1	12.5 – 27.7
2012	28.9	21.2 – 36.6	34.2	26.6 – 41.7	23.9	15.6 – 32.1
2013	27.7	20.1 – 35.3	23.7	17.3 – 30.2	16.0	9.2 – 22.9
2014	21.3	14.5 – 28.0	28.1	20.9 – 35.3	21.2	13.2 – 29.2
2015	20.6	13.8 – 27.3	30.4	22.7 – 38.2	20.5	12.4 – 28.5

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]Unstable rates (n <20) are not reported. Specifically, for some years, fewer than 20 Soldiers between 35-59 years of age died by suicide, so rates could not be calculated for those years.

Table D-4. Military Characteristics, Suicide Cases,[a] U.S. Army, 2013 – 2015

Characteristic	Suicide Cases n (%) 2013 (n = 150)		Suicide Cases n (%) 2014 (n = 135)		Suicide Cases n (%) 2015 (n = 143)		Active Army Distribution[b] (%) 2015	Test for Significant Difference[c] (p-value) 2015 vs 2013	Test for Significant Difference[c] (p-value) 2015 vs 2014
COMPONENT								0.638	0.182
Active Army	124	(83)	123	(91)	120	(84)	100		
Activated National Guard	20	(13)	7	(5)	15	(10)	NA		
Activated Army Reserve	6	(4)	5	(4)	8	(6)	NA		
RANK								0.107	0.699
E1–E4	71	(47)	55	(41)	51	(36)	43		
E5–E9	62	(41)	64	(47)	71	(50)	37		
W1–W5	1	(1)	2	(1)	6	(4)	3		
Cadets	0	(0)	0	(0)	1	(1)	1		
O1–O3	10	(7)	10	(7)	10	(7)	NA		
O4–O7	6	(4)	4	(3)	4	(3)	NA		
NUMBER OF DEPLOYMENTS[d]								0.312	0.315
0	44	(29)	43	(32)	43	(30)	NA		
1	53	(35)	29	(21)	39	(27)	NA		
2	26	(17)	33	(24)	22	(15)	NA		
3	19	(13)	18	(13)	25	(17)	NA		
4+	8	(5)	12	(9)	14	(10)	NA		

Legend: DoDSER – Department of Defense Suicide Event Report, E – Enlisted, NA – Not Available, O – Officer, OEF – Operation Enduring Freedom, OIF – Operation Iraqi Freedom, OND – Operation New Dawn, W – Warrant Officer.

Notes: [a]Suicide cases in this table include those confirmed by Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [b]Data for the Army distribution include only Active Army cases aged 17–59. These data were provided by AFMES. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Refers to lifetime history of OEF, OIF, or OND deployment.

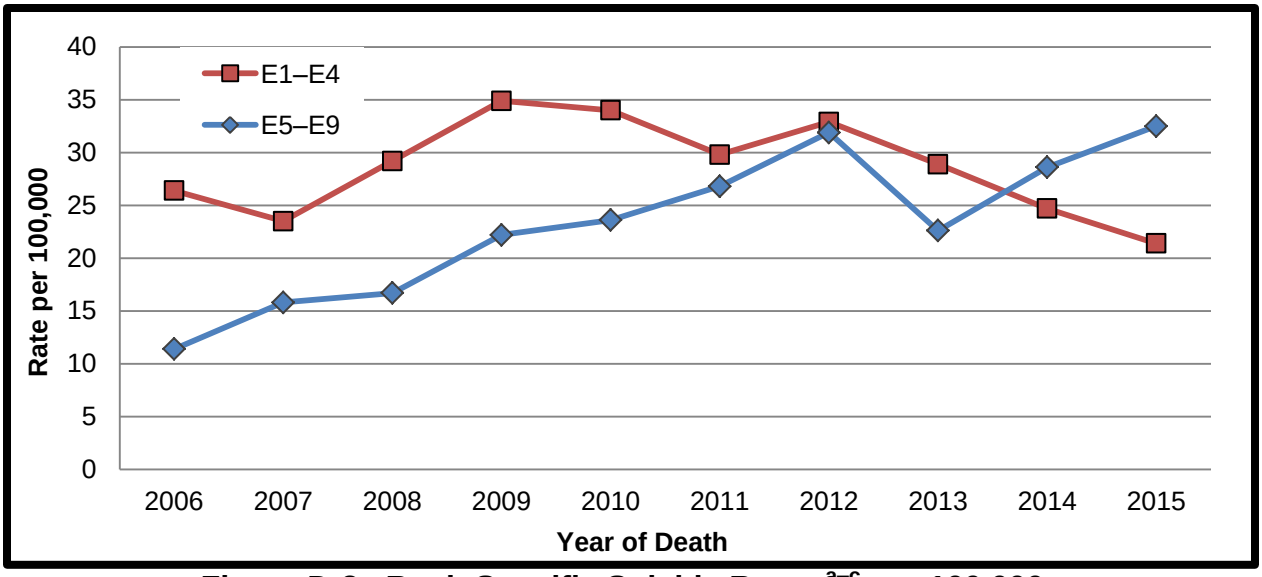


Figure D-3. Rank-Specific Suicide Rates,[a–c] per 100,000, Active Army Soldiers, 2006 – 2015

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]Unstable rates (n < 20) are not reported. Specifically, fewer than 20 Officers or Warrant Officers died by suicide in any year, so rates could not be calculated for those groups.

Table D-5. Rank-Specific Suicide Rates,[a–c] per 100,000, Active Army Soldiers, 2006 – 2015

Rank	E1 – E4		E5 – E9		O1 – O9		W1 – W5	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF DEATH								
2006	26.4	19.6 – 33.1	11.4	6.6 – 16.2	—	—	—	—
2007	23.5	17.2 – 29.7	15.8	10.3 – 21.4	—	—	—	—
2008	29.2	22.4 – 36.0	16.7	11.1 – 22.3	—	—	—	—
2009	34.9	27.5 – 42.2	22.2	15.8 – 28.6	—	—	—	—
2010	34.0	26.9 – 41.2	23.6	17.0 – 30.2	—	—	—	—
2011	29.8	23.2 – 36.4	26.8	19.7 – 33.9	—	—	—	—
2012	32.9	25.7 – 40.0	31.9	24.1 – 39.7	—	—	—	—
2013	28.9	22.0 – 35.8	22.6	16.0 – 29.2	—	—	—	—
2014	24.7	18.1 – 31.3	28.6	21.1 – 36.2	—	—	—	—
2015	21.4	15.1 – 27.6	32.5	24.2 – 40.8	—	—	—	—

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]Unstable rates (n < 20) are not reported. Specifically, fewer than 20 Officers or Warrant Officers died by suicide in any year, so rates could not be calculated for those groups.

Table D-6. Distribution of Active Army Suicide Cases[a] by Installation, 2013 – 2015

Installation – n (%)	2013 (n = 124)		2014 (n = 123)		2015 (n = 120)	
Asia[b]	3	(2.4)	1	(0.8)	5	(4.2)
Europe[c]	4	(3.2)	3	(2.4)	2	(1.7)
Fort Belvoir	1	(0.8)	0	(0.0)	2	(1.7)
Fort Benning	4	(3.2)	5	(4.1)	7	(5.8)
Fort Bliss	7	(5.6)	12	(9.8)	7	(5.8)
Fort Bragg	16	(12.9)	13	(10.6)	11	(9.2)
Fort Campbell	6	(4.8)	13	(10.6)	9	(7.5)
Fort Carson	9	(7.3)	4	(3.3)	12	(10.0)
Fort Drum	6	(4.8)	5	(4.1)	3	(2.5)
Fort Gordon	1	(0.8)	1	(0.8)	1	(0.8)
Fort Hood	7	(5.6)	17	(13.8)	14	(11.7)
Fort Huachuca	0	(0.0)	0	(0.0)	1	(0.8)
Fort Irwin	1	(0.8)	0	(0.0)	0	(0.0)
Fort Jackson	2	(1.6)	0	(0.0)	3	(2.5)
Fort Knox	3	(2.4)	2	(1.6)	5	(4.2)
Fort Leavenworth	1	(0.8)	0	(0.0)	0	(0.0)
Fort Lee	0	(0.0)	2	(1.6)	0	(0.0)
Fort Leonard Wood	1	(0.8)	2	(1.6)	0	(0.0)
Fort Meade	2	(1.6)	1	(0.8)	0	(0.0)
Fort Polk	3	(2.4)	2	(1.6)	2	(1.7)
Fort Riley	3	(2.4)	6	(4.9)	3	(2.5)
Fort Rucker	0	(0.0)	1	(0.8)	0	(0.0)
Fort Sill	2	(1.6)	2	(1.6)	2	(1.7)
Fort Stewart	8	(6.5)	8	(6.5)	7	(5.8)
Fort Wainwright	1	(0.8)	2	(1.6)	0	(0.0)
Joint Base Elmendorf Richardson	2	(1.6)	0	(0.0)	1	(0.8)
Joint Base Langley Eustis	1	(0.8)	0	(0.0)	0	(0.0)

Table D-6. Distribution of Active Army Suicide Cases[a] by Installation, 2013 – 2015 (continued)

Installation – n (%)	2013 (n = 124)		2014 (n = 123)		2015 (n = 120)	
Joint Base Lewis McChord	11	(8.9)	6	(4.9)	9	(7.5)
Joint Base Myer Henderson Hall	1	(0.8)	0	(0.0)	0	(0.0)
Joint Base San Antonio	4	(3.2)	2	(1.6)	1	(0.8)
Pentagon[d]	0	(0.0)	1	(0.8)	0	(0.0)
Presidio of Monterey	1	(0.8)	1	(0.8)	0	(0.0)
Redstone Arsenal	0	(0.0)	1	(0.8)	0	(0.0)
Rock Island Arsenal	0	(0.0)	0	(0.0)	1	(0.8)
USAG Hawaii	5	(4.0)	3	(2.4)	6	(5.0)
USAREC	3	(2.4)	2	(1.6)	1	(0.8)
Walter Reed Army Medical Center	1	(0.8)	0	(0.0)	0	(0.0)
West Point	0	(0.0)	0	(0.0)	1	(0.8)
Other[e]	4	(3.2)	5	(4.1)	4	(3.3)

Legend: USAG – United States Army Garrison, USAREC – United States Army Recruiting Command.

Notes: [a]Installation confirmation of suicide counts are for Active Army personnel only (not activated National Guard or US Army Reserve). [b]Asia includes Japan and Korea. [c]Europe includes Germany, Italy, and Norway. [d]Pentagon refers to Army personnel at the Pentagon. [e]Includes Camp Atterbury, Federal Emergency Management Agency (FEMA) Incident Management Assistance Team, North Atlantic Treaty Organization (NATO), Sioux Falls, United States Air Force Installations, Washington Headquarters.

Table D-7. Location and Method,[a] Suicide Cases,[b] U.S. Army, 2013 – 2015

Characteristic	Suicides n (%) 2013 (n = 150)	2014 (n = 135)	2015 (n = 143)	Test for Significant Difference[c] (p-value) 2015 vs 2013	2015 vs 2014
LOCATION OF DEATH				0.677	0.286
USA	138 (92)	124 (92)	134 (94)		
In Theater	5 (3)	6 (4)	2 (1)		
Other[d]	7 (5)	5 (4)	7 (5)		
METHOD OF DEATH				0.998	0.427
Gunshot Wound	98 (65)	100 (74)	93 (65)		
Hanging/Asphyxiation	37 (25)	28 (21)	37 (26)		
Drug/Alcohol Overdose	4 (3)	3 (2)	4 (3)		
Other[e]	9 (6)	4 (3)	8 (6)		
Unknown	2 (1)	0 (0)	1 (1)		

Notes: [a]Location and method of death from Defense Casualty Information Processing System. [b]Suicide cases in this table include those confirmed by Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Primarily Europe or Korea. [e]Includes carbon monoxide and other poisoning, jumping from heights or in front of vehicles, vehicle crashes, or drowning.

Table D-8. Additional Event Characteristics, Suicide Cases,[a] U.S. Army, 2013 – 2015

Characteristic	Suicide Cases n (%) 2013 (n = 126)[d]	2014 (n = 130)[d]	2015 (n = 143)	Test for Significant Difference[b,c] (p-value) 2015 vs 2013	2015 vs 2014
SUBSTANCE INVOLVEMENT					
Event Involved Alcohol	22 (17)	38 (29)	29 (20)	—	—
Event Involved Drugs	6 (5)	7 (5)	9 (6)	—	—
OTHER EVENT CHARACTERISTICS					
Communicated Prior to Event	30 (24)	33 (25)	38 (27)	—	—

Legend: DoDSER – Department of Defense Suicide Event Report

Notes: [a]Suicide cases in this table include those confirmed by Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [b]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [c]Comparison omitted because >10% unknown or missing. [d]DoDSERs were not available for 24 cases in 2013 and 5 cases in 2014.

Table D-9. Personal and Legal/Administrative History[a] from DoDSERs, Suicide Cases,[b] U.S. Army, 2013 – 2015

Personal and Legal/Administrative History	Suicide Cases n (%)			Test for Significant Difference[c] (p-value)	
	2013[d] (n = 126)	2014[e] (n = 130)	2015 (n = 143)	2015 vs 2013	2015 vs 2014
LEGAL/ADMINISTRATIVE HISTORY[f]					
Article 15	18 (14)	17 (13)	14 (10)	—	0.430
Civil Legal Problems	15 (12)	20 (15)	20 (14)	—	—
Administrative Separation[g]	10 (8)	9 (7)	10 (7)	—	0.988
AWOL	4 (3)	7 (5)	4 (3)	—	0.272
Nonselection[h]	6 (5)	7 (5)	9 (6)	—	—
Courts Martial	6 (5)	3 (2)	5 (3)	—	0.727
Any of the Above	36 (29)	39 (30)	37 (26)	—	—
MEDICAL BOARD[i]					
Yes	9 (7)	9 (7)	11 (8)	—	0.886
PESONAL HISTORY[f]					
Relationship Problem	64 (51)	69 (53)	81 (57)	—	—
Work Stress	28 (22)	32 (25)	44 (31)	—	—
Physical Health Problem	28 (22)	27 (21)	28 (20)	—	0.658
Victim of Abuse					
Previous Year	2 (2)	2 (2)	2 (1)	—	—
Ever	10 (8)	12 (9)	13 (9)	—	—
Emotional Abuse	8 (6)	5 (4)	7 (5)	—	—
Physical Abuse	6 (5)	6 (5)	9 (6)	—	—
Sexual Abuse	2 (2)	9 (7)	7 (5)	—	—
Perpetrator of Abuse	17 (13)	14 (11)	16 (11)	—	—
Spouse/Family/Friend Death	9 (7)	8 (6)	10 (7)	—	—
Financial Stress	5 (4)	11 (8)	8 (6)	—	—
Spouse/Family Health Problem	3 (2)	6 (5)	2 (1)	—	—
Spousal/Family/Friend Suicide					
Previous Year	4 (3)	2 (2)	3 (2)	—	—
Ever	8 (6)	2 (2)	5 (3)	—	—
Any of the Above	90 (71)	95 (73)	104 (73)	—	—

Table D-9. Personal and Legal/Administrative History[a] from DoDSERs, Suicide Cases,[b] U.S. Army, 2013 – 2015 (continued)

Personal and Legal/Administrative History	Suicide Cases n (%)			Test for Significant Difference[c] (p-value)	
	2013[d] (n = 126)	2014[e] (n = 130)	2015 (n = 143)	2015 vs 2013	2015 vs 2014
PROGRAM UTILIZATION					
Substance Abuse Services	12 (10)	13 (10)	19 (13)	—	0.354
Family Advocacy Program	10 (8)	13 (10)	15 (10)	—	0.837
Ever Received Suicide Prevention Training	45 (36)	64 (49)	50 (35)	—	—

Legend: AWOL – absent without leave, DoDSER – Department of Defense Suicide Event Report.

Notes: [a]Personal and legal/administrative history within year before suicide, except as noted. [b]Suicide cases in this table include those confirmed by Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. Comparison omitted where >10% unknown or missing. [d]DoDSERs were not available for 24 cases in 2013. [e]DoDSERs were not available for 5 cases in 2014. [f]More than one may apply. [g]Considered for separation from the Army on the basis of conduct or inability to meet standards of duty performance and discipline. [h]Not selected for advanced schooling, promotion, or command. [i]Medical evaluation board to determine fitness for continued duty.

Table D-10. Behavioral Health Indicators from PDHAs and PDHRAs,[a] Suicide Cases,[b] U.S. Army, 2013 – 2015

Indicator	Suicide Cases with PDHAs or PDHRAs n (%) 2013	2014	2015	Test for Significant Difference[c] (p-value) 2015 vs 2013	2015 vs 2014
POST-DEPLOYMENT HEALTH ASSESSMENTS	(n = 20)	(n = 19)	(n = 20)		
Depression Symptoms[d]	4 (20)	9 (47)	4 (20)	1.000	0.070
Posttraumatic Stress Symptoms[e]	4 (20)	7 (37)	6 (30)	0.465	0.651
Suicidal Thoughts	0 (0)	1 (5)	0 (0)	—	0.487
Referred for BH Care	4 (20)	4 (21)	3 (15)	1.000	0.695
POST-DEPLOYMENT HEALTH REASSESSMENTS	(n = 24)	(n = 18)	(n = 22)		
Depression Symptoms[d]	7 (29)	5 (28)	10 (45)	0.253	0.251
Posttraumatic Stress Symptoms[e]	3 (13)	7 (39)	9 (41)	**0.028**	0.897
Suicidal Thoughts	0 (0)	0 (0)	0 (0)	—	—
Referred for BH Care	1 (4)	2 (11)	4 (18)	0.178	0.673

Legend: BH – behavioral health, PDHA – Post-Deployment Health Assessment, PDHRA – Post-Deployment Health Reassessment.

Notes: [a]Data from the most recent PDHA and PDHRA in the 12 months before the suicide. [b]Suicide cases in this table include those confirmed by Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Patient Health Questionnaire-2 (PHQ-2). [e]Primary Care Posttraumatic Stress Disorder Screen (PC-PTSD).

Table D-11. Alcohol Misuse Indicators,[a] Suicide Cases,[b] U.S. Army, 2013 – 2015

Indicator	Suicide Cases with PHAs n (%)			Test for Significant Difference[c,d] (p-value)	
	2013 (n = 125)	2014 (n = 120)	2015 (n = 117)	2015 vs 2013	2015 vs 2014
ALCOHOL MISUSE					
Unhealthy Drinking[e]	11 (9)	11 (9)	11 (9)	——	——
Probable Alcohol Disorder[f]	1 (1)	0 (0)	1 (1)	——	——
Referred to ASAP	4 (3)	5 (4)	7 (6)	0.299	0.524
Received Alcohol-Related Education	51 (41)	39 (33)	51 (44)	0.661	0.079

Legend: ASAP – Army Substance Abuse Program, AUDIT-C – Alcohol Use Disorders Identification Test - Consumption, PHA – Periodic Health Assessment.

Notes: [a]Based on AUDIT-C scores from the most recent PHA in the 15 months before the suicide. [b]Suicide cases in this table include those confirmed by Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Comparison omitted where >10% unknown or missing. [e]The threshold for a positive screen indicating unhealthy drinking is 5 or more for men and 4 or more for women. [f]A high positive screen, indicating probable alcohol disorder, is 8 and above.

Table D-12. Behavioral Health Indicators, Suicide Cases, [a] U.S. Army, 2013 – 2015

Indicator	Suicide Cases n (%) 2013 (n = 150)	2014 (n = 135)	2015 (n = 143)	Test for Significant Difference[b] (p-value) 2015 vs 2013	2015 vs 2014
MEDICAL ENCOUNTERS[c]					
Inpatient Encounter Involving BH	27 (18)	30 (22)	38 (27)	0.077	0.399
Outpatient Encounter Involving BH	107 (71)	107 (79)	103 (72)	0.895	0.161
Encounter Involving BH in 30 Days Before Event	52 (35)	56 (41)	45 (31)	0.561	0.083
BH DIAGNOSIS[c]					
Any BH Diagnosis[d]					
Prevalence[e] Before Event	88 (59)	81 (60)	87 (61)	0.705	0.886
Incidence in Year Before Event	40 (27)	41 (30)	36 (25)	0.771	0.333
More Than One BH Diagnosis[f]					
Prevalence[e] Before Event	53 (35)	54 (40)	59 (41)	0.297	0.831
Incidence in Year Before Event	22 (15)	15 (11)	16 (11)	0.376	0.984
Any Mood Disorder					
Prevalence[e] Before Event	42 (28)	51 (38)	48 (34)	0.302	0.464
Incidence in Year Before Event	14 (9)	23 (17)	15 (10)	0.740	0.112
Major Depression					
Prevalence[e] Before Event	22 (15)	18 (13)	27 (19)	0.334	0.209
Incidence in Year Before Event	8 (5)	11 (8)	12 (8)	0.299	0.941
Other Depressive Disorders					
Prevalence[e] Before Event	35 (23)	45 (33)	42 (29)	0.241	0.476
Incidence in Year Before Event	12 (8)	23 (17)	16 (11)	0.353	0.161
Bipolar Disorder					
Prevalence[e] Before Event	7 (5)	6 (4)	7 (5)	0.927	0.859
Incidence in Year Before Event	1 (1)	4 (3)	4 (3)	0.205	1.000
PTSD					
Prevalence[e] Before Event	15 (10)	21 (16)	26 (18)	**0.044**	0.559
Incidence in Year Before Event	10 (7)	7 (5)	8 (6)	0.702	0.880

Table D-12. Behavioral Health Indicators, Suicide Cases,[a] U.S. Army, 2013 – 2015 (continued)

Indicator	Suicide Cases n (%) 2013 (n = 150)	2014 (n = 135)	2015 (n = 143)	Test for Significant Difference[b] (p-value) 2015 vs 2013	2015 vs 2014
BH DIAGNOSIS[c] (CONTINUED)					
Other Anxiety Disorder[g]					
Prevalence[e] Before Event	33 (22)	29 (21)	36 (25)	0.522	0.467
Incidence in Year Before Event	15 (10)	9 (7)	9 (6)	0.248	0.899
Adjustment Disorder					
Prevalence[e] Before Event	58 (39)	53 (39)	53 (37)	0.777	0.706
Incidence in Year Before Event	22 (15)	18 (13)	16 (11)	0.376	0.585
Substance Use Disorder[h]					
Prevalence[e] Before Event	32 (21)	34 (25)	42 (29)	0.113	0.434
Incidence in Year Before Event	14 (9)	11 (8)	11 (8)	0.615	0.888
Personality Disorder[i]					
Prevalence[e] Before Event	7 (5)	7 (5)	5 (3)	0.613	0.489
Incidence in Year Before Event	3 (2)	3 (2)	3 (2)	1.000	1.000
Psychosis					
Prevalence[e] Before Event	2 (1)	1 (1)	6 (4)	0.165	0.121
Incidence in Year Before Event	0 (0)	1 (1)	3 (2)	0.115	0.623
Previous Suicide Attempt/Self Harm[j]					
Prevalence[e] Before Event	7 (5)	12 (9)	16 (11)	**0.038**	0.524
Incidence in Year Before Event	3 (2)	6 (4)	12 (8)	**0.013**	0.181
Previous Suicidal Ideation[k]					
Prevalence[e] Before Event	15 (10)	18 (13)	21 (15)	0.222	0.746
Incidence in Year Before Event	10 (7)	10 (7)	12 (8)	0.575	0.761

Legend: BH – behavioral health, ICD-9 – International Classification of Diseases, 9th revision, Clinical Modification, ICD-10 – International Classification of Diseases, 10th revision, Clinical Modification, PTSD – posttraumatic stress disorder.

Notes: [a]Suicide cases in this table include those confirmed by the Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [b]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [c]May have more than one. [d]Any BH diagnosis includes diagnoses with one or more of the following: mood, PTSD, other anxiety disorders, adjustment disorder, substance use disorders, personality disorders, psychosis. [e]Ever diagnosed during time in service. [f]More than one BH diagnosis includes more than one of the aforementioned diagnoses. [g]Includes, for example, panic disorder, generalized anxiety disorder, or obsessive-compulsive disorder. [h]Includes drug or alcohol use disorders. [i]Includes, for example, borderline or antisocial personality disorders. [j]Based on ICD-9 E-codes and ICD-10 X-,T-, and Z-codes for self-inflicted injuries. [k]Based on an ICD-9 V-code and ICD-10 R-code for suicidal ideation.

Table D-13. Traumatic Brain Injuries,[a] Suicide Cases,[b] U.S. Army, 2013 – 2015

Indicator	Suicide Cases n (%) 2013 (n = 150)	2014 (n = 135)	2015 (n = 143)	Test for Significant Difference[c] (p-value) 2015 vs 2013	2015 vs 2014
MEDICAL ENCOUNTERS[d]					
Inpatient Encounter Involving TBI	11 (7)	4 (3)	7 (5)	0.385	0.409
Outpatient Encounter Involving TBI	21 (14)	25 (19)	28 (20)	0.201	0.822
Encounter Involving TBI in Year Before Event	16 (11)	12 (9)	16 (11)	0.886	0.524
Encounter Involving TBI in 30 Days Before Event	12 (8)	3 (2)	6 (4)	0.175	0.502
TBI DIAGNOSES[d]					
Any TBI Diagnosis	27 (18)	22 (16)	29 (20)	0.620	0.391
First TBI Diagnosis in Year Before Event	15 (10)	8 (6)	11 (8)	0.487	0.560

Legend: ICD-9 – International Classification of Diseases, 9th revision, Clinical Modification, ICD-10 – International Classification of Diseases, 10th revision, Clinical Modification, TBI – traumatic brain injury.

Notes: [a]Based on ICD-9 and 10 codes for traumatic brain injuries provided by the Defense and Veterans Brain Injury Center (DVBIC): ICD-9 (800–801.99, 803–804.99, 850–854.19), ICD-10: F07.81, S04.02-S04.04, S06.0-S06.6, S06.8-S06.9, S02.0-S02.1, S02.8-S02.9, S07.1, Z87.820, DOD0102, DOD0103, DOD0104, and DOD0105 . [b]Suicide cases in this table include those confirmed by the Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]May have more than one.

Table D-14. Chronic Pain,[a] Suicide Cases,[b] U.S. Army, 2013 – 2015

Indicator	Suicide Cases n (%) 2013 (n = 150)	2014 (n = 135)	2015 (n = 143)	Test for Significant Difference[c] (p-value) 2015 vs 2013	2015 vs 2014
MEDICAL ENCOUNTERS					
Encounter for Chronic Pain in Year Before Event	6 (4)	10 (7)	10 (7)	0.260	0.894
Encounter for Chronic Pain in 30 Days Before Event	2 (1)	1 (1)	3 (2)	0.678	0.623
DIAGNOSES					
Chronic Pain Diagnosis in Year Before Event	4 (3)	7 (5)	6 (4)	0.533	0.696

Legend: ICD-9 – International Classification of Diseases, 9th revision, Clinical Modification, ICD-10 – International Classification of Diseases, 10th revision, Clinical Modification.

Notes: [a]ICD-9 codes indicating chronic pain include 338.2, 338.3, and 338.4. ICD-10 codes include G89.21, G89.22, G89.28, G89.29, G89.3, and G89.4. Based on coding guidance from the American Academy of Professional Coders. [b]Suicide cases in this table include those confirmed by the Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$.

Table D-15. Sleep Problems,[a] Suicide Cases,[b] U.S. Army, 2013 – 2015

Indicator	Suicide Cases n (%)			Test for Significant Difference[c] (p-value)	
	2013 (n = 150)	2014 (n = 135)	2015 (n = 143)	2015 vs 2013	2015 vs 2014
MEDICAL ENCOUNTERS					
Encounter for Sleep Problem in Year Before Event	38 (25)	37 (27)	31 (22)	0.461	0.267
Encounter for Sleep Problem in 30 Days Before Event	13 (9)	12 (9)	12 (8)	0.933	0.883
DIAGNOSES					
Sleep Disorder Diagnosis in Year Before Event	24 (16)	32 (24)	22 (15)	0.885	0.080

Legend: ICD-9 – International Classification of Diseases, 9th revision, Clinical Modification, ICD-10 – International Classification of Diseases, 10th revision, Clinical Modification.

Notes: [a]ICD-9 codes indicating sleep problems include 307.4–307.48, 327–327.8, 780.5–780.56, 291.82, 292.85, 780.58, and V694. ICD-10 codes include F51, G47, and Z72.820. [b]Suicide cases in this table include those confirmed by the Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, p<0.05.

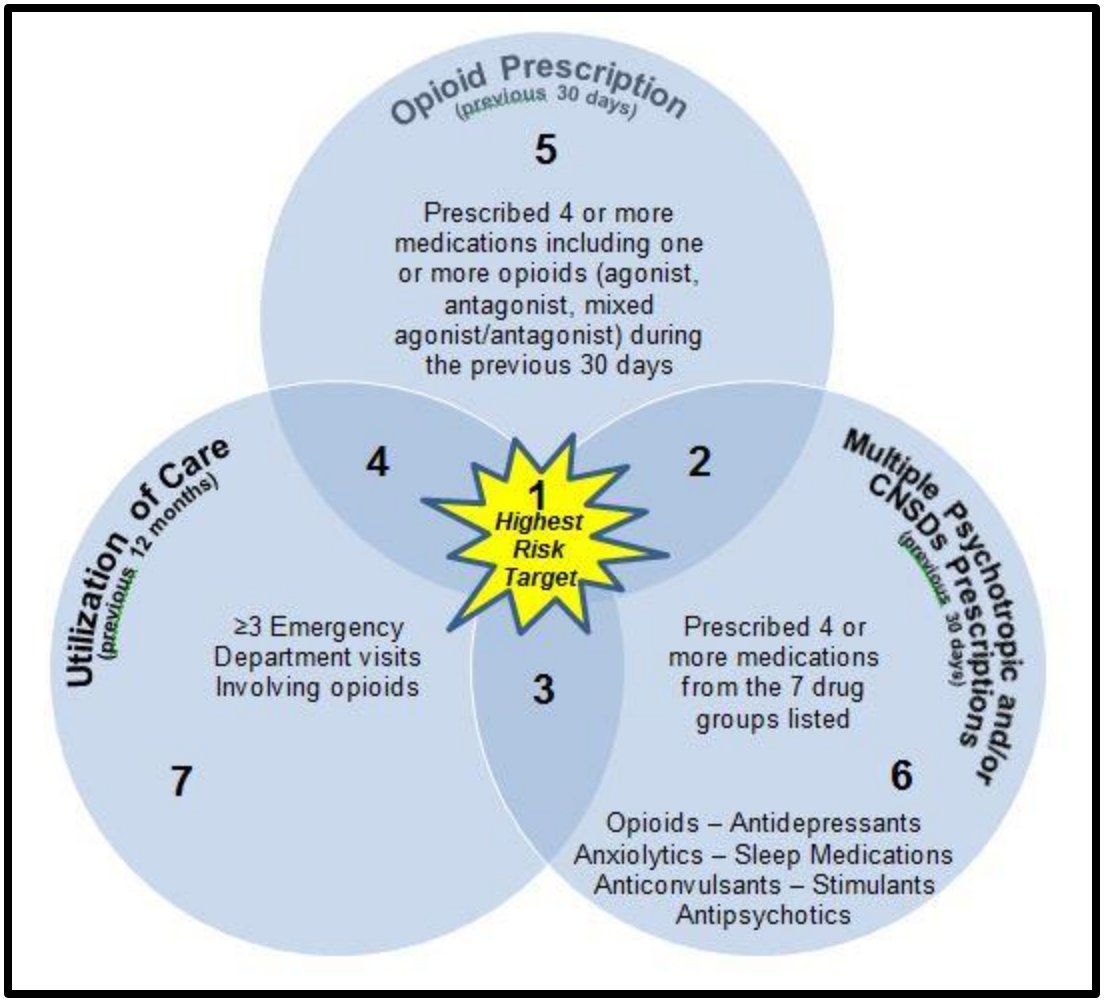


Figure D-4. Polypharmacy Categories

Notes: Polypharmacy definition from Office of the Surgeon General (OTSG) Policy 13-032. Opioid Prescription is defined as "Prescriptions for four or more of any type of medication, including one or more opioid within the previous 30 days." Multiple Psychotropic Prescriptions is defined as "Prescriptions for four or more medications from the seven categories of psychotropics and Central Nervous System Depressants (opioid, stimulant, anxiolytic, antidepressant, antipsychotic, anticonvulsant, or sleep medication) within the previous 30 days." Utilization of Care is defined as "Three or more Emergency Department visits in the past year in which an opioid was prescribed at each visit." Category definitions, drug categorizations, and figure (adapted) are from Defense Health Agency's Pharmacoeconomic Center. Cases in Categories 5, 6, and 7 meet one criterion for polypharmacy. Cases in Categories 2, 3, and 4 meet two criteria, and cases in Category 1 meet all three criteria.

Table D-16. Polypharmacy, Suicide Cases,[a] U.S. Army, 2013 – 2015

Category	Suicide Cases n (%) 2013 (n = 150)	2014 (n = 135)	2015 (n = 143)	Test for Significant Difference[b] (p-value) 2015 vs 2013	2015 vs 2014
POLYPHARMACY					
Any Polypharmacy[c]	7 (5)	11 (8)	8 (6)	0.719	0.399
Categories of Polypharmacy[d]					
1. Met all criteria[e]	0 (0)	0 (0)	0 (0)		
2. Psychotropics & opioid[f]	0 (0)	2 (18)	1 (13)		
3. Psychotropics & ER visits[g]	0 (0)	0 (0)	0 (0)		
4. Opioid & ER visits[h]	0 (0)	0 (0)	1 (13)		
5. At least one opioid prescription[i]	2 (29)	2 (18)	4 (50)		
6. Multiple psychotropic prescriptions[j]	4 (57)	7 (64)	2 (25)		
7. 3+ ER visits with opioids prescribed[k]	1 (14)	0 (0)	0 (0)		

Legend: OTSG – Office of the Surgeon General, ER – Emergency Room.

Notes: [a]Suicide cases in this table include those confirmed by the Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [b]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [c]Met at least one criterion for polypharmacy, as defined by OTSG Policy 13-032 definition, at the time of the event. [d]Proportion of cases with any polypharmacy. [e]Met all three polypharmacy criteria (categories 5, 6, and 7). [f]Had 4 or more prescriptions for psychotropic drugs in the 30 days prior to the event and had 4 or more prescriptions in the 30 days prior to the event, at least one of which was an opioid. [g]Had 4 or more prescriptions for psychotropic drugs in the 30 days prior to the event and had at least 3 ER visits in the year preceding the event where an opioid was prescribed. [h]Had at least 3 ER visits in the year preceding the event where an opioid was prescribed and had 4 or more prescriptions in the 30 days prior to the event, at least one of which was an opioid. [i]Had 4 or more prescriptions in the 30 days prior to the event, at least one of which was an opioid. [j]Had 4 or more prescriptions for psychotropic drugs in the 30 days prior to the event. [k]Had at least 3 ER visits in the year preceding the event where an opioid was prescribed.

Table D-17. Drug Testing History,[a] Suicide Cases,[b] U.S. Army, 2013 – 2015

Measure	Suicide Cases n (%) 2013 (n = 150)	2014 (n = 132)	2015 (n = 140)	Test for Significant Difference[c] (p-value) 2015 vs 2013	2015 vs 2014
DRUG TEST HISTORY					
Positive Drug Test	6 (4)	6 (5)	5 (4)	0.849	0.684
More than One Positive Drug Test[d]	1 (17)	1 (17)	2 (40)	___[e]	___[e]
Positive Drug Test in Year Before Event[d]	2 (33)	4 (67)	2 (40)	___[e]	___[e]
Amphetamines[d]	0 (0)	0 (0)	1 (20)	___[e]	___[e]
Cannabis[d]	3 (50)	3 (50)	2 (40)	___[e]	___[e]
Cocaine[d]	1 (17)	2 (33)	0 (0)	___[e]	___[e]
Oxycodone/Oxymorphone[d]	2 (33)	0 (0)	2 (40)	___[e]	___[e]
Opiates[d]	0 (0)	1 (17)	1 (20)	___[e]	___[e]
Heroin[d]	0 (0)	0 (0)	0 (0)	___[e]	___[e]
Steroids[d]	0 (0)	0 (0)	0 (0)	___[e]	___[e]
Barbiturates[d]	0 (0)	0 (0)	0 (0)	___[e]	___[e]

Notes: [a]Drug testing history is available only for cases who have a record of a drug test in the Drug and Alcohol Management Information System (DAMIS). [b]Suicide cases in this table include those confirmed by the Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, p<0.05. [d]Proportion out of cases with any positive drug test. [e]Statistical test omitted because of the small counts for each drug.

Table D-18. ASAP Intake History,[a,b] Suicide Cases,[c] U.S. Army, 2013 – 2015

Measure	Suicide Cases n (%) 2013 (n = 150)	2014 (n = 135)	2015 (n = 143)	Test for Significant Difference[d] (p-value) 2015 vs 2013	2015 vs 2014
ASAP INTAKE SCREENING					
Screened for Intake	8 (5)	14 (10)	19 (13)	**0.019**	0.452
Enrolled for Treatment[e]	5 (63)	9 (64)	14 (74)	0.658	0.707

Legend: ASAP – Army Substance Abuse Program.

Notes: [a]Data from the Drug and Alcohol Management Information System (DAMIS). [b]ASAP screening and enrollment in the year before the event. [c]Suicide cases in this table include those confirmed by the Armed Forces Medical Examiner System (AFMES) or pending confirmation and thus may differ from counts published by G-1. [d]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [e]Proportion out of cases screened for intake.

Appendix E

Suicide Attempt Cases Tables and Figures

Tables

Page

Figures

Page

Table E-1. Demographic Characteristics, Suicide Attempt Cases,[a] U.S. Army, 2013 – 2015

Characteristic	Suicide Attempt Cases n (%) 2013 (n = 478)	2014 (n = 509)	2015 (n = 464)	Active Army Distribution[b] (%) 2015	Test for Significant Difference[c] (p-value) 2015 vs 2013	2015 vs 2014
SEX					**0.040**	0.060
Male	368 (77)	389 (76)	330 (71)	86		
Female	110 (23)	120 (24)	134 (29)	14		
AGE (YR)					**0.006**	**0.011**
17–24	242 (51)	263 (52)	276 (59)	36		
25–34	172 (36)	180 (35)	151 (33)	39		
35–64	63 (13)	66 (13)	37 (8)	NA		
Mean	27 (±7.3)	26 (±6.7)	25 (±6.1)	NA	**0.002**[d]	**0.012**[d]
Mode	22	21	24	NA		
RACE-ETHNICITY					**0.025**	0.952
Non-Hispanic White	309 (65)	283 (56)	260 (56)	NA		
Non-Hispanic Black	76 (16)	107 (21)	100 (22)	NA		
Hispanic	60 (13)	88 (17)	79 (17)	NA		
Non-Hispanic Asian/ Pacific Islander	22 (5)	24 (5)	17 (4)	NA		
Non-Hispanic American Indian/Alaska Native	9 (2)	7 (1)	6 (1)	NA		
Missing	2 (<1)	0 (0)	2 (<1)	NA		
MARITAL STATUS					0.774	0.376
Single	206 (43)	243 (48)	211 (45)	NA		
Married	231 (48)	231 (45)	214 (46)	NA		
Divorced	37 (8)	28 (6)	36 (8)	NA		
Other[e]	4 (1)	5 (1)	2 (<1)	NA		
Unknown	0 (0)	2 (<1)	1 (<1)	NA		

Legend: DoDSER – Department of Defense Suicide Event Report, NA – Not Available.

Notes: [a]Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b]Data for the Army distribution include Active Army cases aged 17–59. These data were provided by the Armed Forces Medical Examiner System (AFMES). [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]T test of means. [e]Includes widowed and legally separated.

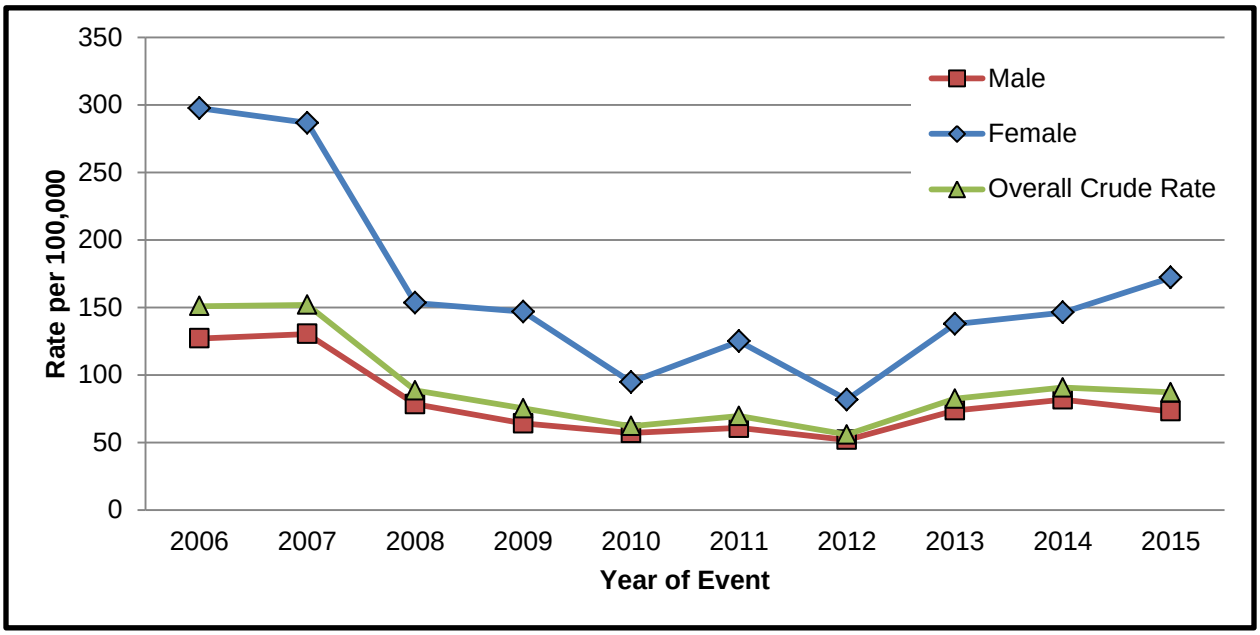


Figure E-1. Overall Crude Rate vs. Sex-Specific Rates[a,b] of Suicide Attempt,[c] per 100,000, Active Army Soldiers, 2006 – 2015

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]DoDSERs from 2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases.

Table E-2. Overall Crude Rate vs. Sex-Specific Rates[a,b] of Suicide Attempt,[c] per 100,000, Active Army Soldiers, 2006 – 2015

	Sex					
	Overall		Male		Female	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF ATTEMPT						
2006	151.0	140.2 – 161.8	127.0	116.4 – 137.7	297.5	257.2 – 337.9
2007	151.9	141.3 – 162.6	130.4	119.8 – 141.1	286.6	247.2 – 326.0
2008	88.6	80.6 – 96.5	78.4	70.3 – 86.5	153.3	124.7 – 181.8
2009	75.3	68.0 – 82.5	64.1	57.0 – 71.3	146.8	119.2 – 174.3
2010	62.1	55.6 – 68.6	57.0	50.3 – 63.7	94.7	72.9 – 116.6
2011	69.6	62.7 – 76.4	60.9	54.0 – 67.8	124.9	99.9 – 149.8
2012	55.9	49.7 – 62.2	51.9	45.5 – 58.4	81.7	61.2 – 102.2
2013	82.4	74.7 – 90.1	73.7	65.9 – 81.5	137.7	110.7 – 164.6
2014	90.7	82.5 – 99.0	81.8	73.3 – 90.2	146.3	118.2 – 174.4
2015	87.1	78.9 – 95.4	73.1	64.9 – 81.2	172.1	141.3 – 202.9

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]DoDSERs from 2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases.

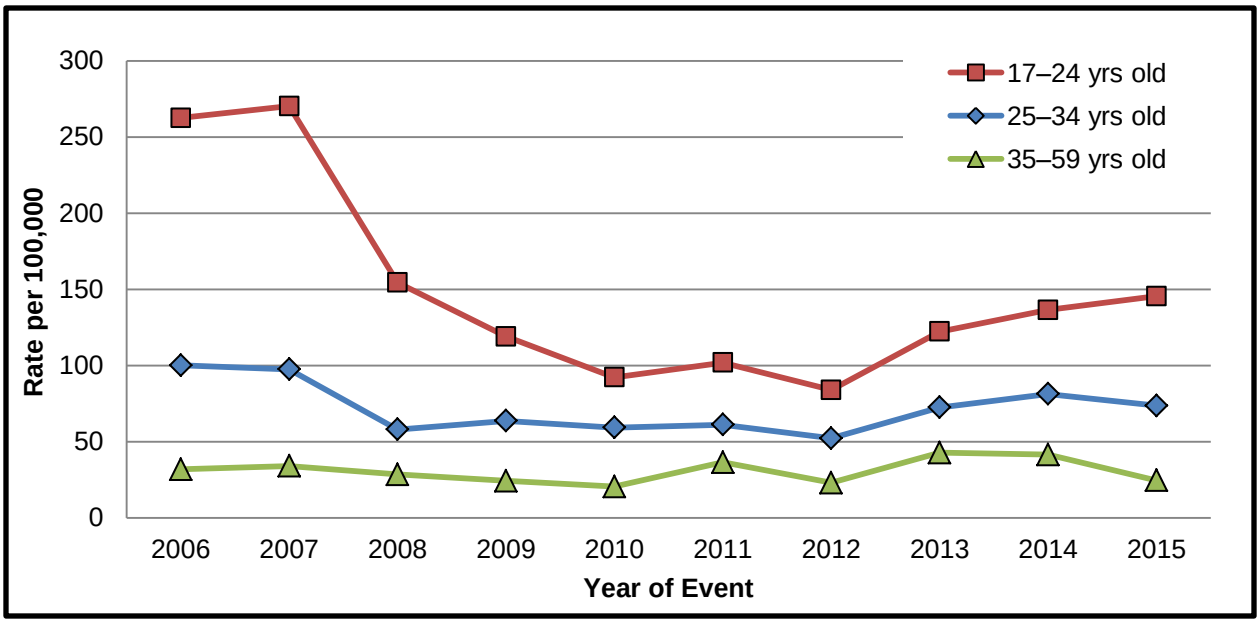


Figure E-2. Age-Specific Rates[a,b] of Suicide Attempt,[c] per 100,000, Active Army Soldiers, 2006 – 2015

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]DoDSERs from 2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases.

Table E-3. Age-Specific Rates[a,b] of Suicide Attempt,[c] per 100,000, Active Army Soldiers, 2006 – 2015

Age	17 – 24 yrs old		25 – 34 yrs old		35 – 59 yrs old	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF ATTEMPT						
2006	262.6	240.2 – 284.9	100.2	85.7 – 114.6	31.9	21.5 – 42.4
2007	270.4	247.9 – 293.0	97.6	83.7 – 111.6	34.1	23.5 – 44.7
2008	154.5	137.6 – 171.5	58.1	47.6 – 68.5	28.5	19.1 – 38.0
2009	119.1	104.2 – 134.0	63.7	53.1 – 74.3	24.3	15.8 – 32.9
2010	92.3	79.1 – 105.5	59.3	49.3 – 69.3	20.5	12.7 – 28.2
2011	102.0	88.0 – 116.1	61.2	51.2 – 71.2	36.5	26.3 – 46.7
2012	84.0	70.8 – 97.1	52.3	43.0 – 61.7	23.1	15.0 – 31.2
2013	122.3	106.3 – 138.3	72.6	61.3 – 83.9	42.8	31.6 – 54.0
2014	136.5	119.3 – 153.6	81.4	69.1 – 93.7	41.6	30.4 – 52.8
2015	145.6	127.7 – 163.4	73.7	61.7-– 85.8	24.6	15.8 – 33.3

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]DoDSERs from 2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases.

Table E-4. Military Characteristics, Suicide Attempt Cases,[a] U.S. Army, 2013 – 2015

Characteristic	Suicide Attempt Cases n (%) 2013 (n = 478)	2014 (n = 509)	2015 (n = 464)	Active Army Distribution[b] (%) 2015	Test for Significant Difference[c] (p-value) 2015 vs 2013	2015 vs 2014
COMPONENT					**0.036**	0.376
Active Army	440 (92)	465 (91)	428 (92)	100		
Activated National Guard	30 (6)	25 (5)	19 (4)	NA		
Activated Army Reserve	7 (1)	19 (4)	17 (4)	NA		
Missing	1 (<1)	0 (0)	0 (0)	NA		
RANK					**0.026**	**<0.001**
E1–E4	317 (66)	329 (65)	338 (73)	43		
E5–E9	136 (28)	146 (29)	118 (25)	37		
W1–W5	6 (1)	7 (1)	2 (<1)	3		
Cadets	0 (0)	0 (0)	0 (0)	1		
O1–O3	13 (3)	22 (4)	3 (1)	NA		
O4–O7	4 (1)	5 (1)	2 (<1)	NA		
Missing	2 (<1)	0 (0)	1 (<1)	NA		
NUMBER OF DEPLOYMENTS[d]					**<0.001**	**0.029**
0	195 (41)	256 (50)	277 (60)	NA		
1	133 (28)	115 (23)	98 (21)	NA		
2	98 (21)	63 (12)	41 (9)	NA		
3	34 (7)	50 (10)	33 (7)	NA		
4+	18 (4)	25 (5)	15 (3)	NA		

Legend: DoDSER – Department of Defense Suicide Event Report, E – Enlisted, NA – Not Available, O – Officer, OEF – Operation Enduring Freedom, OIF – Operation Iraqi Freedom, OND – Operation New Dawn, W – Warrant Officer.

Notes: [a]Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b]Data for the Army distribution include only Active Army cases aged 17–59. These data were provided by the Armed Forces Medical Examiner System (AFMES). [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, p<0.05. [d]Refers to lifetime history of OEF, OIF, or OND deployment.

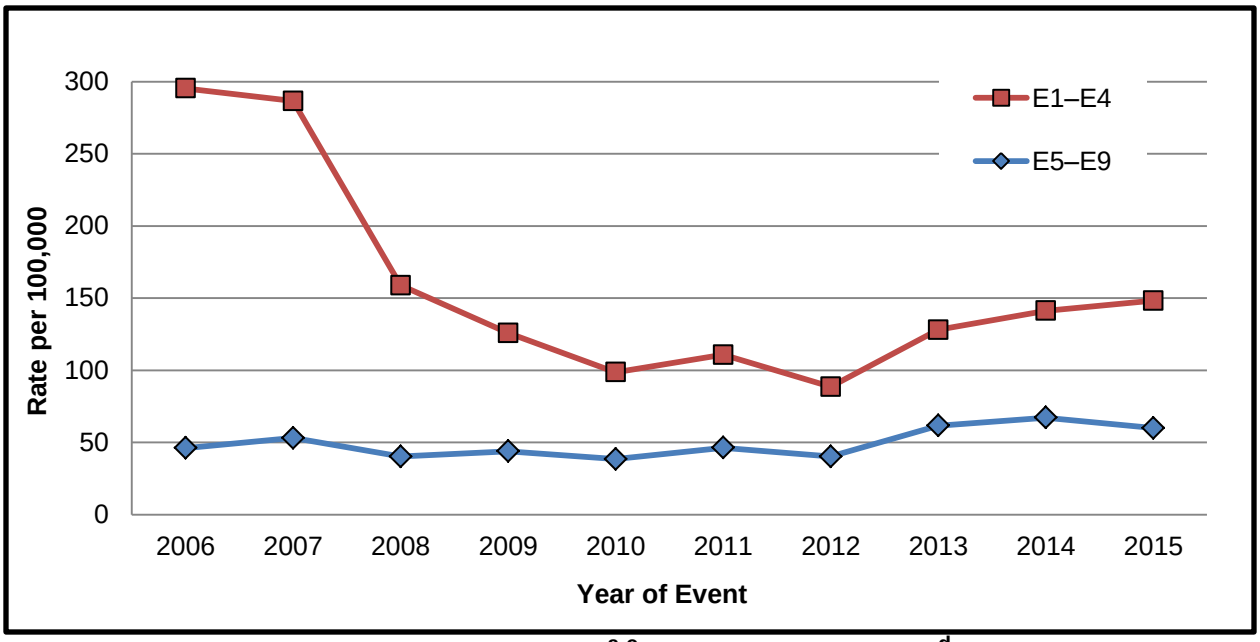


Figure E-3. Rank-Specific Rates[a-c] of Suicide Attempt,[d] per 100,000, Active Army Soldiers, 2006 – 2015

Legend: DoDSER – Department of Defense Suicide Event Report

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]U.S. Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]Unstable rates (n<20) are not reported. Specifically, there were fewer than 20 suicide attempts by Officers or Warrant Officers for all years, so rates could not be calculated for those years. [d]DoDSERs from 2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases.

Table E-5. Rank-Specific Rates[a–c] of Suicide Attempt,[d] per 100,000, Active Army Soldiers, 2006 – 2015

RANK	E1 – E4		E5 – E9		O1 – O9		W1 – W5	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF ATTEMPT								
2006	295.4	272.7 – 318.1	46.1	36.5 – 55.7	—	—	—	—
2007	286.6	264.8 – 308.5	53.1	42.9 – 63.4	—	—	—	—
2008	158.9	143.0 – 174.9	40.3	31.6 – 49.0	—	—	—	—
2009	125.8	111.9 – 139.7	43.9	34.9 – 52.9	—	—	—	—
2010	98.7	86.5 – 110.8	38.5	30.1 – 47.0	—	—	—	—
2011	110.8	98.1 – 123.6	46.3	37.0 – 55.7	—	—	—	—
2012	88.6	76.8 – 100.3	40.2	31.5 – 49.0	—	—	—	—
2013	128.1	113.6 – 142.7	61.7	50.8 – 72.6	—	—	—	—
2014	141.3	125.5 – 157.1	67.2	55.6 – 78.8	—	—	—	—
2015	148.2	131.8 – 164.7	60.0	48.8 – 71.3	—	—	—	—

Legend: DoDSER – Department of Defense Suicide Event Report

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]Unstable rates (n < 20) are not reported. Specifically, there were fewer than 20 suicide attempts by Officers or Warrant Officers in all years, so rates could not be calculated. [d]DoDSERs from 2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases.

Table E-6. Location and Method, Suicide Attempt Cases,[a] U.S. Army, 2013 – 2015

Characteristic	Suicide Attempt Cases n (%) 2013 (n = 478)	2014 (n = 509)	2015 (n = 464)	Test for Significant Difference[b] (p-value) 2015 vs 2013	2015 vs 2014
LOCATION OF SUICIDE ATTEMPT				**0.011**	**<0.001**
USA	429 (90)	410 (81)	416 (90)		
In Theater	13 (3)	23 (5)	2 (<1)		
Other[c]	33 (7)	73 (14)	42 (9)		
Missing	3 (1)	3 (1)	3 (1)		
Unknown	0 (0)	0 (0)	1 (<1)		
METHOD OF SUICIDE ATTEMPT				0.064	**0.031**
Gunshot Wound	50 (10)	52 (10)	29 (6)		
Hanging/Asphyxiation	41 (9)	65 (13)	49 (11)		
Drug/Alcohol Overdose	248 (52)	251 (49)	250 (54)		
Cutting	57 (12)	60 (12)	41 (9)		
Other[d]	76 (16)	76 (15)	92 (20)		
Missing	2 (<1)	0 (0)	0 (0)		
Unknown	4 (1)	5 (1)	3 (1)		

Legend: DoDSER – Department of Defense Suicide Event Report

Notes: [a]Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [c]Primarily Europe or Korea. [d]Includes carbon monoxide and other poisoning, jumping from heights or in front of vehicles, vehicle crashes, or drowning.

Table E-7. Additional Event Characteristics, Suicide Attempt Cases,[a] U.S. Army, 2013 – 2015

Event Characteristic	Suicide Attempt Cases n (%)			Test for Significant Difference[b] (p-value)	
	2013 (n = 478)	2014 (n = 509)	2015 (n = 464)	2015 vs 2013	2015 vs 2014
SUBSTANCE INVOLVEMENT					
Event Involved Alcohol	145 (30)	147 (29)	162 (35)	0.234	**0.043**
Event Involved Drugs	244 (51)	247 (49)	260 (56)	0.199	**0.011**
OTHER EVENT CHARACTERISTICS					
Communicated Prior to Event	120 (25)	123 (24)	115 (25)	0.630	0.659

Legend: DoDSER – Department of Defense Suicide Event Report

Notes: [a]Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$.

Table E-8. Personal and Legal/Administrative History[a] from DoDSERs, Suicide Attempt Cases,[b] U.S. Army, 2013 – 2015

Personal and Legal/Administrative History	Suicide Attempt Cases n (%)			Test for Significant Difference[c] (p-value)	
	2013 (n = 478)	2014 (n = 509)	2015 (n = 464)	2015 vs 2013	2015 vs 2014
LEGAL/ADMINISTRATIVE HISTORY[d]					
Article 15	76 (16)	77 (15)	58 (13)	0.079	0.245
Civil Legal Problems	35 (7)	42 (8)	30 (6)	0.484	0.308
Administrative Separation[e]	43 (9)	59 (12)	58 (13)	0.140	0.675
AWOL	16 (3)	14 (3)	8 (2)	0.097	0.277
Nonselection[f]	23 (5)	24 (5)	21 (5)	0.682	0.940
Courts Martial	13 (3)	11 (2)	7 (2)	0.175	0.457
Any of the above	145 (30)	158 (31)	133 (29)	0.337	0.571
MEDICAL BOARD[g]					
Yes	73 (15)	54 (11)	67 (14)	0.601	0.064
PERSONAL HISTORY[d]					
Relationship Problem	227 (47)	255 (50)	232 (50)	0.618	0.920
Work Stress	184 (38)	221 (43)	206 (44)	0.245	0.504
Physical Health Problem	100 (21)	81 (16)	105 (23)	0.665	**0.006**
Victim of Abuse					
Previous Year	55 (12)	68 (13)	64 (14)	0.412	0.746
Ever	159 (33)	176 (35)	171 (37)	0.482	0.371
Emotional Abuse	118 (25)	128 (25)	124 (27)	0.681	0.468
Physical Abuse	96 (20)	105 (21)	102 (22)	0.655	0.525
Sexual Abuse	75 (16)	85 (17)	83 (18)	0.512	0.528
Perpetrator of Abuse	27 (6)	29 (6)	30 (6)	0.707	0.585
Spouse/Family/Friend Death	93 (19)	104 (20)	64 (14)	**0.008**	**0.007**
Financial Stress	49 (10)	43 (8)	32 (7)	**0.030**	0.381
Spouse/Family Health Problem	34 (7)	30 (6)	47 (10)	0.144	**0.014**
Spouse/Family/Friend Suicide					
Previous year	26 (5)	38 (7)	23 (5)	0.625	0.113
Ever	80 (17)	102 (20)	85 (18)	0.701	0.550
Any of the above	369 (77)	411 (81)	375 (81)	0.498	0.539

Table E-8. Personal and Legal/Administrative History[a] from DoDSERs, Suicide Attempt Cases,[b] U.S. Army, 2013 – 2015 (continued)

Personal and Legal/Administrative History	Suicide Attempt Cases n (%) 2013 (n = 478)	2014 (n = 509)	2015 (n = 464)	Test for Significant Difference[c] (p-value) 2015 vs 2013	2015 vs 2014
PROGRAM UTILIZATION					
Substance Abuse Services	96 (20)	88 (17)	91 (20)	0.782	0.330
Family Advocacy Program	23 (5)	28 (6)	49 (11)	**0.001**	**0.003**
Ever Received Suicide Prevention Training	291 (61)	351 (69)	322 (69)	___[h]	___[h]

Legend: AWOL – absent without leave, DoDSER – Department of Defense Suicide Event Report.

Notes: [a]Personal and legal/administrative history within year before suicide attempt, except as noted. [b]Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]More than one may apply. [e]Considered for separation from the Army on the basis of conduct or inability to meet standards of duty performance and discipline. [f]Not selected for advanced schooling, promotion, or command. [g]Medical evaluation board to determine fitness for continued duty. [h]Comparison omitted because >10% unknown or missing.

Table E-9. Behavioral Health Indicators from PDHAs and PDHRAs,[a] Suicide Attempt Cases, U.S. Army, 2013 – 2015

Indicator	Suicide Attempt Cases with PDHAs or PDHRAs n (%)			Test for Significant Difference[b] (p-value)	
	2013	2014	2015	2015 vs 2013	2015 vs 2014
POST-DEPLOYMENT HEALTH ASSESSMENTS	(n = 58)	(n = 43)	(n = 38)		
Depression Symptoms[c]	29 (50)	26 (60)	16 (42)	0.402	0.099
Posttraumatic Stress Symptoms[d]	27 (47)	22 (51)	11 (29)	0.062	**0.042**
Suicidal Thoughts	2 (3)	4 (9)	0 (0)	0.517	0.119
Referred for BH Care	17 (29)	17 (40)	7 (18)	0.228	**0.038**
POST-DEPLOYMENT HEALTH REASSESSMENTS	(n = 67)	(n = 42)	(n = 37)		
Depression Symptoms[c]	49 (73)	21 (50)	21 (57)	0.088	0.548
Posttraumatic Stress Symptoms[d]	34 (51)	20 (48)	16 (43)	0.495	0.779
Suicidal Thoughts	3 (4)	3 (7)	0 (0)	0.551	0.243
Referred for BH Care	15 (22)	12 (29)	4 (11)	0.144	0.050

Legend: BH – behavioral health, PDHA – Post-Deployment Health Assessment, PDHRA – Post-Deployment Health Reassessment.

Notes: [a]Data from the most recent PDHA and PDHRA in the 12 months before the suicide attempt. [b]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [c]Patient Health Questionnaire-2 (PHQ-2). [d]Primary Care Posttraumatic Stress Disorder Screen (PC-PTSD).

Table E-10. Alcohol Misuse Indicators,[a] Suicide Attempt Cases,[b] U.S. Army, 2013 – 2015

Indicator	Suicide Attempt Cases with PHAs n (%)			Test for Significant Difference[c] (p-value)	
	2013 (n = 356)	2014 (n = 384)	2015 (n = 333)	2015 vs 2013	2015 vs 2014
ALCOHOL MISUSE					
Unhealthy Drinking[e]	33 (9)	30 (8)	28 (8)	___[d]	___[d]
Probable Alcohol Disorder[f]	6 (2)	5 (1)	5 (2)	___[d]	___[d]
Referred to ASAP	18 (5)	11 (3)	13 (4)	0.466	0.440
Received Alcohol-Related Education	122 (34)	130 (34)	130 (39)	0.194	0.150

Legend: ASAP – Army Substance Abuse Program, AUDIT-C – Alcohol Use Disorders Identification Test - Consumption, DoDSER – Department of Defense Suicide Event Report, PHA – Periodic Health Assessment.

Notes: [a]Based on AUDIT-C scores from the most recent PHA in the 15 months before the suicide attempt. [b]Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Comparison omitted because >10% unknown or missing. [e]The threshold for a positive screen indicating unhealthy drinking is 5 or more for men and 4 or more for women. [f]A high positive screen, indicating probable alcohol disorder, is 8 and above.

Table E-11. Behavioral Health Indicators, Suicide Attempt Cases,[a] U.S. Army, 2013 – 2015

Indicator	Suicide Attempt Cases n (%)			Test for Significant Difference[b] (p-value)	
	2013 (n = 470)[c]	2014 (n = 498)[d]	2015 (n = 458)[e]	2015 vs 2013	2015 vs 2014
MEDICAL ENCOUNTERS[f]					
Inpatient Encounter Involving BH	177 (38)	154 (31)	168 (37)	0.758	0.060
Outpatient Encounter Involving BH	414 (88)	419 (84)	385 (84)	0.076	0.975
Encounter Involving BH in 30 Days Before Event	310 (66)	302 (61)	303 (66)	0.949	0.077
BH DIAGNOSIS[f]					
Any BH Diagnosis[g]					
Prevalence[h] Before Event	368 (78)	380 (76)	359 (78)	0.975	0.443
Incidence in Year Before Event	275 (59)	284 (57)	274 (60)	0.684	0.381
More Than One BH Diagnosis[i]					
Prevalence[h] Before Event	285 (61)	272 (55)	283 (62)	0.719	**0.025**
Incidence in Year Before Event	162 (34)	154 (31)	163 (36)	0.720	0.126
Any Mood Disorder					
Prevalence[h] Before Event	244 (52)	239 (48)	252 (55)	0.343	**0.030**
Incidence in Year Before Event	138 (29)	138 (28)	156 (34)	0.124	**0.034**
Major Depression					
Prevalence[h] Before Event	122 (26)	129 (26)	160 (35)	**0.003**	**0.002**
Incidence in Year Before Event	74 (16)	78 (16)	115 (25)	**<0.001**	**<0.001**
Other Depressive Disorders					
Prevalence[h] Before Event	214 (46)	196 (39)	207 (45)	0.918	0.068
Incidence in Year Before Event	124 (26)	112 (22)	119 (26)	0.890	0.208
Bipolar Disorder					
Prevalence[h] Before Event	28 (6)	14 (3)	19 (4)	0.209	0.258
Incidence in Year Before Event	21 (4)	9 (2)	15 (3)	0.347	0.147
PTSD					
Prevalence[h] Before Event	108 (23)	115 (23)	82 (18)	0.055	**0.048**
Incidence in Year Before Event	65 (14)	69 (14)	53 (12)	0.302	0.290

Table E-11. Behavioral Health Indicators, Suicide Attempt Cases,[a] U.S. Army, 2013 – 2015 (continued)

Indicator	Suicide Attempt Cases n (%) 2013 (n = 470)[c]	2014 (n = 498)[d]	2015 (n = 458)[e]	Test for Significant Difference[b] (p-value) 2015 vs 2013	2015 vs 2014
BH DIAGNOSIS[f] (continued)					
Other Anxiety Disorder[j]					
Prevalence[h] Before Event	179 (38)	171 (34)	166 (36)	0.562	0.537
Incidence in Year Before Event	99 (21)	100 (20)	86 (19)	0.383	0.611
Adjustment Disorder					
Prevalence[h] Before Event	289 (61)	287 (58)	284 (62)	0.871	0.168
Incidence in Year Before Event	143 (30)	150 (30)	142 (31)	0.848	0.767
Substance Use Disorder[k]					
Prevalence[h] Before Event	151 (32)	135 (27)	123 (27)	0.078	0.930
Incidence in Year Before Event	80 (17)	66 (13)	77 (17)	0.932	0.123
Personality Disorder[l]					
Prevalence[h] Before Event	35 (7)	36 (7)	35 (8)	0.910	0.808
Incidence in Year Before Event	14 (3)	27 (5)	27 (6)	**0.031**	0.751
Psychosis					
Prevalence[h] Before Event	19 (4)	10 (2)	12 (3)	0.228	0.528
Incidence in Year Before Event	12 (3)	5 (1)	7 (2)	0.270	0.467
Previous Suicide Attempt/Self Harm[m]					
Prevalence[h] Before Event	66 (14)	48 (10)	56 (12)	0.413	0.199
Incidence in Year Before Event	46 (10)	36 (7)	46 (10)	0.896	0.121
Previous Suicidal Ideation[n]					
Prevalence[h] Before Event	126 (27)	120 (24)	144 (31)	0.120	**0.011**
Incidence in Year Before Event	100 (21)	101 (20)	117 (26)	0.124	0.053

Legend: BH – behavioral health, DoDSER – Department of Defense Suicide Event Report, ICD-9 – International Classification of Diseases, 9th revision, Clinical Modification, ICD-10 – International Classification of Diseases, 10th revision, Clinical Modification, PTSD – posttraumatic stress disorder.

Notes: [a]Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [c]Medical claims data were available for all but 8 cases. [d]Medical claims data were available for all but 11 cases. [e]Medical claims data were available for all but 6 cases. [f]May have more than one. [g]Any BH diagnosis includes one or more of the following: mood, PTSD, other anxiety disorders, adjustment disorder, substance use disorders, personality disorders, psychosis. [h]Ever diagnosed during time in service. [i]More than one BH diagnosis includes more than one of the aforementioned diagnoses. [j]Includes, for example, panic disorder, generalized anxiety disorder, or obsessive-compulsive disorder. [k]Includes drug or alcohol use disorders. [l]Includes, for example, borderline or antisocial personality disorders. [m]Based on ICD-9 E-codes and ICD-10 X-,T-, and Z-codes for self-inflicted injuries. [n]Based on an ICD-9 V-code and ICD-10 R-code for suicidal ideation.

Table E-12. Traumatic Brain Injuries,[a] Suicide Attempt Cases,[b] U.S. Army, 2013 – 2015

Indicator	Suicide Attempt Cases n (%)			Test for Significant Difference[c] (p-value)	
	2013 (n = 470)[d]	2014 (n = 498)[e]	2015 (n = 458)[f]	2015 vs 2013	2015 vs 2014
MEDICAL ENCOUNTERS[g]					
Inpatient Encounter Involving TBI	12 (3)	11 (2)	6 (1)	0.170	0.294
Outpatient Encounter Involving TBI	80 (17)	70 (14)	67 (15)	0.318	0.801
Encounter Involving TBI in Year Before Event	40 (9)	36 (7)	40 (9)	0.904	0.390
Encounter Involving TBI in 30 Days Before Event	13 (3)	11 (2)	10 (2)	0.568	0.979
TBI DIAGNOSES[g]					
Any TBI Diagnosis	74 (16)	66 (13)	61 (13)	0.295	0.976
Incident TBI Diagnosis in Year Before Event	26 (6)	24 (5)	24 (5)	0.844	0.766

Legend: DoDSER – Department of Defense Suicide Event Report, ICD-9 – International Classification of Diseases, 9th revision, Clinical Modification, ICD-10 – International Classification of Diseases, 10th revision, Clinical Modification, TBI – traumatic brain injury.

Notes: [a]Based on ICD-9 and 10 codes for traumatic brain injuries provided by the Defense and Veterans Brain Injury Center (DVBIC): ICD-9 (800–801.99, 803–804.99, 850–854.19), ICD-10 (F07.81, S04.02-S04.04, S06.0-S06.6, S06.8-S06.9, S02.0-S02.1, S02.8-S02.9, S07.1, Z87.820, DOD0102, DOD0103, DOD0104, and DOD0105). [b]Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Medical claims data were available for all but 8 cases. [e]Medical claims data were available for all but 11 cases. [f]Medical claims data were available for all but 6 cases. [g]May have more than one.

Table E-13. Chronic Pain,[a] Suicide Attempt Cases,[b] U.S. Army, 2013 – 2015

Indicator	Suicide Attempt Cases n (%)			Test for Significant Difference[c] (p-value)	
	2013 (n = 470)[d]	2014 (n = 498)[e]	2015 (n = 458)[f]	2015 vs 2013	2015 vs 2014
ENCOUNTERS					
Encounter for Chronic Pain in Year Before Event	58 (12)	49 (10)	58 (13)	0.882	0.166
Encounter for Chronic Pain in 30 days Before Event	23 (5)	22 (4)	22 (5)	0.949	0.776
DIAGNOSES					
Chronic Pain Diagnosis in Year Before Event	48 (10)	42 (8)	48 (10)	0.894	0.279

Legend: DoDSER – Department of Defense Suicide Event Report, ICD-9 – International Classification of Diseases, 9th revision, Clinical Modification, ICD-10 – International Classification of Diseases, 10th revision, Clinical Modification.

Notes: [a]ICD-9 codes indicating chronic pain include 338.2, 338.3, and 338.4. ICD-10 codes include G89.21, G89.22, G89.28, G89.29, G89.3, and G89.4. Based on coding guidance from the American Academy of Professional Coders. [b]Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Medical claims data were available for all but 8 cases. [e]Medical claims data were available for all but 11 cases. [f]Medical claims data were available for all but 6 cases.

Table E-14. Sleep Problems,[a] Suicide Attempt Cases,[b] U.S. Army, 2013 – 2015

Indicator	Suicide Attempt Cases n (%)			Test for Significant Difference[c] (p-value)	
	2013 (n = 470)[d]	2014 (n = 498)[e]	2015 (n = 458)[f]	2015 vs 2013	2015 vs 2014
ENCOUNTERS					
Encounter for Sleep Problem in Year Before Event	168 (36)	167 (34)	184 (40)	0.164	**0.033**
Encounter for Sleep Problem in 30 days Before Event	65 (14)	56 (11)	73 (16)	0.367	**0.034**
DIAGNOSES					
Sleep Disorder Diagnosis in Year Before Event	141 (30)	135 (27)	146 (32)	0.536	0.106

Legend: DoDSER – Department of Defense Suicide Event Report, ICD-9 – International Classification of Diseases, 9th revision, Clinical Modification, ICD-10 – International Classification of Diseases, 10th revision, Clinical Modification.

Notes: [a]ICD-9 codes indicating sleep problems include 307.4–307.48, 327–327.8, 780.5–780.56, 291.82, 292.85, 780.58, and V694. ICD-10 codes include F51, G47, and Z72.820. [b]Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Medical claims data were available for all but 8 cases. [e]Medical claims data were available for all but 11 cases. [f]Medical claims data were available for all but 6 cases.

Table E-15. Polypharmacy, Suicide Attempt Cases,[a] U.S. Army, 2013 – 2015

Category	Suicide Attempt Cases n (%) 2013 (n = 478)	2014 (n = 509)	2015 (n = 464)	Test for Significant Difference[b] (p-value) 2015 vs 2013	2015 vs 2014
POLYPHARMACY					
Any Polypharmacy[c]	87 (18)	68 (13)	67 (14)	0.626	0.119
Categories of Polypharmacy[d]					
1. Met all criteria[e]	8 (9)	3 (4)	5 (7)		
2. Psychotropics & opioid[f]	17 (20)	14 (21)	5 (7)		
3. Psychotropics & ER visits[g]	5 (6)	2 (3)	1 (1)		
4. Opioid & ER visits[h]	0 (0)	3 (4)	1 (1)		
5. At least one opioid prescription[i]	25 (29)	17 (25)	20 (30)		
6. Multiple psychotropic prescriptions[j]	26 (30)	25 (37)	29 (43)		
7. 3+ ER visits with opioids prescribed[k]	6 (7)	4 (6)	6 (9)		

Legend: DoDSER – Department of Defense Suicide Event Report, OTSG – Office of the Surgeon General; ER – Emergency Room.

Notes: [a]Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [c]Met at least one criterion for polypharmacy, as defined by OTSG Policy 13-032 definition, at the time of the event. [d]Proportion out of cases with any polypharmacy. [e]Met all three polypharmacy criteria (categories 5, 6, and 7). [f]Had 4 or more prescriptions for psychotropic drugs in the 30 days prior to the event and had 4 or more prescriptions in the 30 days prior to the event, at least one of which was an opioid. [g]Had 4 or more prescriptions for psychotropic drugs in the 30 days prior to the event and had at least 3 ER visits in the year preceding the event where an opioid was prescribed. [h]Had at least 3 ER visits in the year preceding the event where an opioid was prescribed and had 4 or more prescriptions in the 30 days prior to the event, at least one of which was an opioid. [i]Had 4 or more prescriptions in the 30 days prior to the event, at least one of which was an opioid. [j]Had 4 or more prescriptions for psychotropic drugs in the 30 days prior to the event. [k]Had at least 3 ER visits in the year preceding the event where an opioid was prescribed.

Table E-16. Drug Testing History,[a] Suicide Attempt Cases,[b] U.S. Army, 2013 – 2015

Measure	Suicide Attempt Cases n (%) 2013 (n = 437)	2014 (n = 470)	2015 (n = 420)	Test for Significant Difference[c] (p-value) 2015 vs 2013	2015 vs 2014
DRUG TEST HISTORY					
Positive Drug Test	45 (10)	33 (7)	25 (6)	**0.020**	0.519
More Than One Positive Drug Test[d]	10 (22)	11 (33)	9 (36)	0.214	0.832
Positive Drug Test in Year Before Event[d]	29 (64)	27 (82)	19 (76)	0.318	0.588
Amphetamines[d]	4 (9)	5 (15)	4 (16)	——[e]	——[e]
Cannabis[d]	19 (42)	14 (42)	15 (60)	0.154	0.185
Cocaine[d]	10 (22)	6 (18)	4 (16)	——[e]	——[e]
Oxycodone/Oxymorphone[d]	9 (20)	7 (21)	2 (8)	——[e]	——[e]
Opiates[d]	7 (16)	2 (6)	1 (4)	——[e]	——[e]
Heroin[d]	0 (0)	0 (0)	0 (0)	——[e]	——[e]
Steroids[d]	0 (0)	0 (0)	0 (0)	——[e]	——[e]
Barbiturates[d]	0 (0)	0 (0)	0 (0)	——[e]	——[e]

Legend: DoDSER – Department of Defense Suicide Event Report.

Notes: [a]Drug testing history is available only for cases who have a record of a drug test in the Drug and Alcohol Management Information System (DAMIS). [b]Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Proportion out of cases with positive drug tests. [e]Statistical test omitted because of the small counts for each drug.

Table E-17. ASAP Intake History,[a,b] Suicide Attempt Cases,[c] U.S. Army, 2013 – 2015

Measure	Suicide Attempt Cases n (%)			Test for Significant Difference[d] (p-value)	
	2013 (n = 478)	2014 (n = 509)	2015 (n = 464)	2015 vs 2013	2015 vs 2014
ASAP INTAKE SCREENING					
Screened for Intake	92 (19)	84 (17)	68 (15)	0.523	0.450
Enrolled for Treatment[e]	77 (84)	69 (82)	57 (84)	0.704	0.432

Legend: ASAP – Army Substance Abuse Program, DoDSER – Department of Defense Suicide Event Report.

Notes: [a]Data from the Drug and Alcohol Management Information System (DAMIS). [b]ASAP screening and enrollment in the year before the event. [c]Suicide attempt cases are from DoDSERs, which area available only for cases serious enough to warrant hospitalization or evacuation. [d]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [e]Proportion out of cases screened for intake.

Appendix F

Suicidal Ideation Cases Tables and Figures

Tables

Page

Figures

Page

Table F-1. Demographic Characteristics, Suicidal Ideation Cases,[a] U.S. Army, 2013 – 2015

Characteristic	Suicidal Ideation Cases n (%) 2013 (n = 916)	2014 (n = 1035)	2015 (n = 1171)	Active Army Distribution[b] (%) 2015	Test for Significant Difference[c] (p-value) 2015 vs 2013	2015 vs 2014
SEX					0.165	0.911
Male	737 (80)	809 (78)	913 (78)	86		
Female	179 (20)	226 (22)	258 (22)	14		
AGE (YR)					0.667	0.385
17–24	473 (52)	519 (50)	620 (53)	36		
25–34	304 (33)	350 (34)	367 (31)	39		
35–64	139 (15)	166 (16)	184 (16)	NA		
Mean	26(±7.4)	27(±7.4)	26(±7.6)	NA	0.968[d]	0.225[d]
Mode	20	19	20	NA		
RACE-ETHNICITY					**0.026**	0.231
Non-Hispanic White	557 (61)	598 (58)	657 (56)	NA		
Non-Hispanic Black	160 (17)	211 (20)	260 (22)	NA		
Hispanic	135 (15)	159 (15)	139 (12)	NA		
Non-Hispanic Asian/ Pacific Islander	48 (5)	55 (5)	63 (5)	NA		
Non-Hispanic American Indian/Alaska Native	15 (2)	11 (1)	14 (1)	NA		
Missing	1 (<1)	1 (<1)	38 (3)	NA		
MARITAL STATUS					0.461	0.282
Single	444 (48)	467 (45)	550 (47)	NA		
Married	422 (46)	502 (49)	516 (44)	NA		
Divorced	45 (5)	61 (6)	59 (5)	NA		
Other[e]	2 (<1)	4 (<1)	8 (1)	NA		
Unknown	1 (<1)	1 (<1)	0 (0)	NA		
Missing	2 (<1)	0 (0)	38 (3)	NA		

Legend: DoDSER – Department of Defense Suicide Event Report, NA – Not Available.

Notes: [a]Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b]Data for the Army distribution include Active Army cases aged 17–59. These data were provided by the Armed Forces Medical Examiner System (AFMES). [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, p<0.05. [d]T test of means. [e]Includes widowed and legally separated.

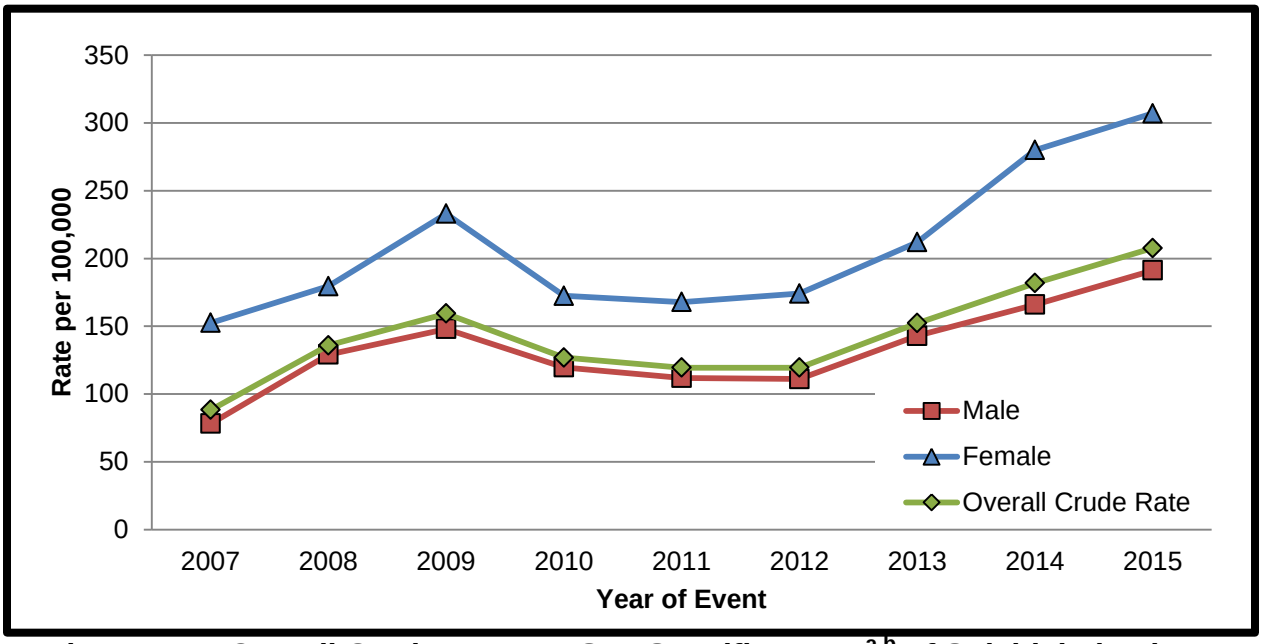


Figure F-1. Overall Crude Rate vs. Sex-Specific Rates[a,b] of Suicidal Ideation, per 100,000, Active Army Soldiers, 2007 – 2015

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES).

Table F-2. Overall Crude Rate vs. Sex-Specific Rates[a,b] of Suicidal Ideation, per 100,000, Active Army Soldiers, 2007 – 2015

	Overall		Sex			
			Male		Female	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF EVENT						
2007	88.3	80.2 – 96.4	78.1	69.8 – 86.3	152.5	123.7 – 181.2
2008	135.9	126.0 – 145.8	129.1	118.7 – 139.5	179.5	148.6 – 210.3
2009	159.4	148.9 – 170.0	148.0	137.1 – 158.9	233.0	198.2 – 267.7
2010	126.9	117.6 – 136.2	119.7	110.0 – 129.4	172.4	142.8 – 201.9
2011	119.4	110.4 – 128.4	111.9	102.5 – 121.2	167.8	138.8 – 196.7
2012	119.5	110.4 – 128.6	111.0	101.5 – 120.4	174.1	144.1 – 204.0
2013	152.3	141.8 – 162.7	142.9	132.0 – 153.8	212.0	178.5 – 245.5
2014	181.8	170.2 – 193.5	166.0	154.0 – 178.0	280.0	241.1 – 318.9
2015	207.6	194.9 – 220.4	191.2	178.0 – 204.4	307.0	265.8 – 348.1

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES).

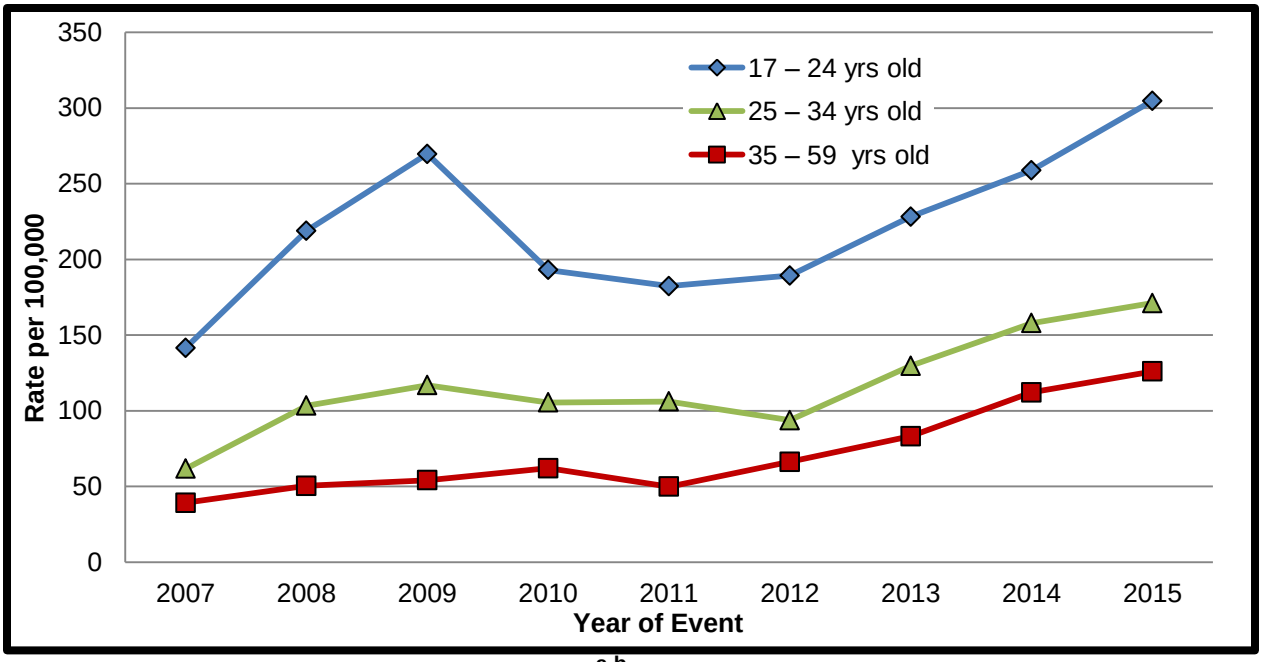


Figure F-2. Age-Specific Rates[a,b] of Suicidal Ideation, per 100,000, Active Army Soldiers, 2007 – 2015

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES).

Table F-3. Age-Specific Rates[a,b] of Suicidal Ideation, per 100,000, Active Army Soldiers, 2007 – 2015

Age	17 – 24 yrs old		25 – 34 yrs old		35 – 59 yrs old	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF EVENT						
2007	141.6	125.3 – 157.9	61.8	50.7 – 72.9	39.2	27.9 – 50.6
2008	218.9	198.8 – 239.1	103.4	89.5 – 117.3	50.5	38.0 – 63.1
2009	269.7	247.3 – 292.2	116.9	102.6 – 131.3	54.1	41.3 – 66.9
2010	193.0	173.9 – 212.1	105.5	92.2 – 118.8	62.1	48.7 – 75.6
2011	182.4	163.6 – 201.2	106.2	93.0 – 119.4	49.9	37.9 – 61.8
2012	189.4	169.6 – 209.1	93.8	81.4 – 106.3	66.3	52.6 – 80.1
2013	228.3	206.5 – 250.2	129.7	114.6 – 144.8	83.2	67.6 – 98.9
2014	258.9	235.4 – 282.5	158.0	140.8 – 175.1	112.2	93.8 – 130.6
2015	304.8	279.0 – 330.7	171.2	152.8 – 189.6	126.0	106.1– 145.9

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES).

Table F-4. Military Characteristics, Suicidal Ideation Cases,[a] U.S. Army, 2013 – 2015

Characteristic	Suicidal Ideation Cases n (%) 2013 (n = 916)	2014 (n = 1035)	2015 (n = 1171)	Active Army Distribution[b] (%) 2015	Test for Significant Difference[c] (p-value) 2015 vs 2013	2015 vs 2014
COMPONENT					0.343	0.330
Active Army	813 (89)	932 (90)	1020 (87)	100		
Activated National Guard	61 (7)	65 (6)	60 (5)	NA		
Activated Army Reserve	37 (4)	38 (4)	53 (5)	NA		
Missing	5 (1)	0 (0)	38 (3)	NA		
RANK					0.654	0.897
E1–E4	622 (68)	677 (65)	747 (64)	43		
E5–E9	242 (26)	298 (29)	322 (27)	37		
W1–W5	9 (1)	6 (1)	9 (1)	3		
Cadets	0 (0)	0 (0)	0 (0)	1		
O1–O3	24 (3)	38 (4)	37 (3)	NA		
O4–O7	11 (1)	13 (1)	18 (2)	NA		
Missing	8 (1)	3 (<1)	38 (3)	NA		
NUMBER OF DEPLOYMENTS[d]					**0.002**	**<0.001**
0	475 (52)	495 (48)	679 (58)	NA		
1	211 (23)	267 (26)	219 (19)	NA		
2	115 (13)	131 (13)	145 (12)	NA		
3	76 (8)	91 (9)	62 (5)	NA		
4+	39 (4)	51 (5)	66 (6)	NA		

Legend: DoDSER – Department of Defense Suicide Event Report, E – Enlisted, NA – Not Available, O – Officer, OEF – Operation Enduring Freedom, OIF – Operation Iraqi Freedom, OND – Operation New Dawn, W – Warrant Officer.

Notes: [a]Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b]Data for the Army distribution include only Active Army cases aged 17–59. These data were provided by the Armed Forces Medical Examiner System (AFMES). [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Refers to lifetime history of OEF, OIF, or OND deployment.

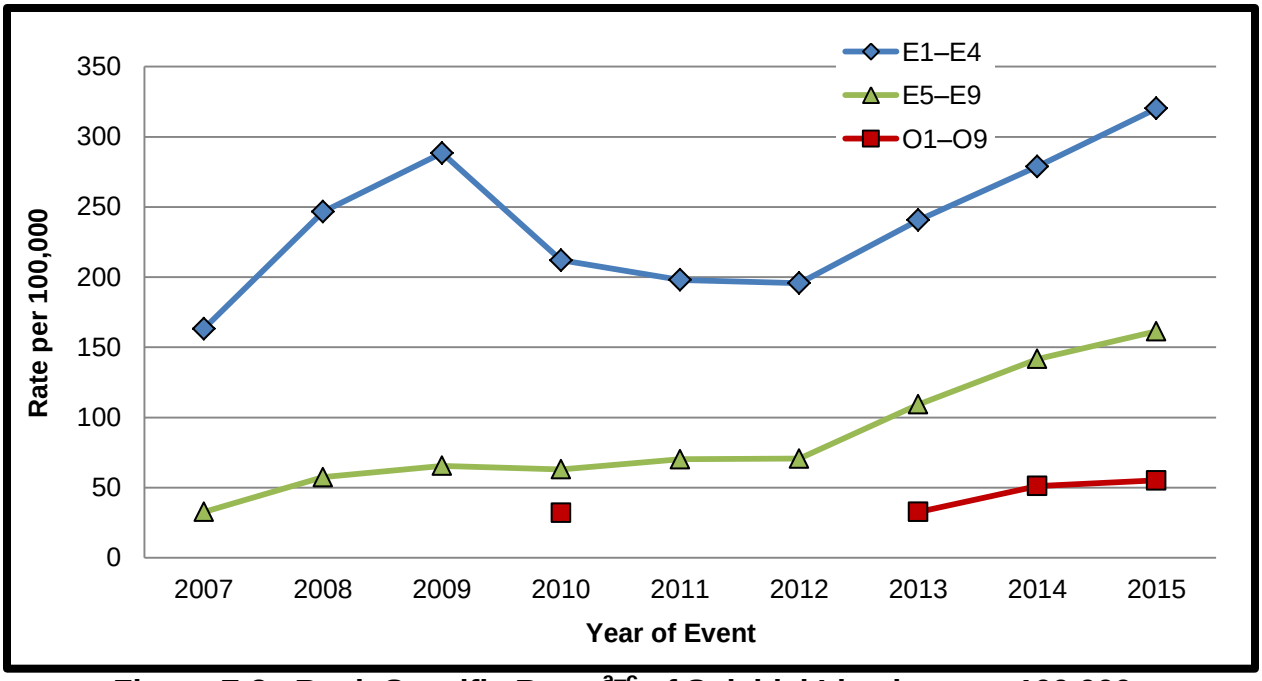


Figure F-3. Rank-Specific Rates[a–c] of Suicidal Ideation, per 100,000, Active Army Soldiers, 2007 – 2015

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]Unstable rates (n < 20) are not reported. Specifically, in nearly all years there were fewer than 20 cases of suicidal ideation by Officers or Warrant Officers, so rates could not be calculated for those groups for those years.

Table F-5. Rank-Specific Rates,[a–c] of Suicidal Ideation, per 100,000, Active Army Soldiers, 2007 – 2015

Rank	E1 – E4		E5 – E9		O1 – O9		W1 – W5	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF EVENT								
2007	163.3	146.8 – 179.8	32.7	24.7 – 40.7	—	—	—	—
2008	246.6	226.7 – 266.4	57.5	47.1 – 67.9	—	—	—	—
2009	288.4	267.4 – 309.5	65.6	54.6 – 76.6	—	—	—	—
2010	212.0	194.3 – 229.8	63.1	52.3 – 73.9	32.2	19.6 – 44.8	—	—
2011	198.0	180.9 – 215.0	70.2	58.8 – 81.7	—	—	—	—
2012	195.8	178.3 – 213.3	70.7	59.1 – 82.2	—	—	—	—
2013	240.7	220.8 – 260.7	109.3	94.8 –123.9	32.7	20.4 – 45.0	—	—
2014	278.9	256.8 – 301.1	141.7	124.8 –158.5	51.2	35.7 – 66.7	—	—
2015	320.2	296.1 – 344.4	161.4	142.9–179.8	55.2	38.9 –71.5	—	—

Notes: [a]Rates include only Active Army cases aged 17–59 with identifiable demographic factors. [b]Active Army population counts used to calculate rates were provided by the Armed Forces Medical Examiner System (AFMES). [c]Unstable rates (n < 20) are not reported. Specifically, in nearly all years there were fewer than 20 cases of suicidal ideation by Warrant Officers, so rates could not be calculated for those groups for those years.

Table F-6. Behavioral Health Indicators from PDHAs and PDHRAs,[a] Suicidal Ideation Cases, U.S. Army, 2013 – 2015

Indicator	Suicidal Ideation Cases with PDHAs or PDHRAs n (%)			Test for Significant Difference[b] (p-value)	
	2013	2014	2015	2015 vs 2013	2015 vs 2014
POST-DEPLOYMENT HEALTH ASSESSMENTS	(n = 71)	(n = 103)	(n = 66)		
Depression Symptoms[c]	43 (61)	51 (50)	41 (62)	0.852	0.123
Posttraumatic Stress Symptoms[d]	35 (49)	30 (29)	32 (48)	0.924	**0.012**
Suicidal Thoughts	1 (1)	4 (4)	4 (6)	0.196	0.713
Referred for BH Care	23 (32)	20 (19)	18 (27)	0.513	0.233
POST-DEPLOYMENT HEALTH REASSESSMENTS	(n = 78)	(n = 125)	(n = 79)		
Depression Symptoms[c]	49 (63)	83 (66)	47 (59)	0.665	0.296
Posttraumatic Stress Symptoms[d]	39 (50)	61 (49)	35 (44)	0.472	0.514
Suicidal Thoughts	4 (5)	6 (5)	5 (6)	1.000	0.753
Referred for BH Care	15 (19)	20 (16)	12 (15)	0.502	0.877

Legend: BH – behavioral health, PDHA – Post-Deployment Health Assessment, PDHRA – Post-Deployment Health Reassessment.

Notes: [a]Data from the most recent PDHA and PDHRA in the 12 months before the suicidal ideation. [b]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [c]Patient Health Questionnaire-2 (PHQ-2). [d]Primary Care Posttraumatic Stress Disorder Screen (PC-PTSD).

Table F-7. Alcohol Misuse Indicators,[a] Suicidal Ideation Cases[b], U.S. Army, 2013 – 2015

Indicator	Suicidal Ideation Cases with PHAs n (%)			Test for Significant Difference[c] (p-value)	
	2013 (n = 580)	2014 (n = 761)	2015 (n = 759)	2015 vs 2013	2015 vs 2014
ALCOHOL MISUSE					
Unhealthy Drinking[e]	50 (9)	57 (7)	64 (8)	___[d]	___[d]
Probable Alcohol Disorder[f]	13 (2)	7 (1)	7 (1)	___[d]	___[d]
Referred to ASAP	33 (6)	27 (4)	24 (3)	**0.023**	0.676
Received Alcohol-Related Education	233 (40)	294 (39)	298 (39)	0.736	0.802

Legend: ASAP – Army Substance Abuse Program, AUDIT-C – Alcohol Use Disorders Identification Test - Consumption, DoDSER – Department of Defense Suicide Event Report, PHA – Periodic Health Assessment.

Notes: [a]Based on AUDIT-C scores from the most recent PHA in the 15 months before the suicidal ideation. [b]Suicidal Ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Comparison omitted where >10% unknown or missing. [e]The threshold for a positive screen indicating unhealthy drinking is 5 or more for men and 4 or more for women. [f]A high positive screen, indicating probable alcohol disorder, is 8 and above.

Table F-8. Behavioral Health Indicators, Suicidal Ideation Cases,[a] U.S. Army, 2013 – 2015

Indicator	Suicidal Ideation Cases n (%) 2013 (n = 893)[c]	2014 (n = 1018)[d]	2015 (n = 1149)[e]	Test for Significant Difference[b] (p-value) 2015 vs 2013	2015 vs 2014
MEDICAL ENCOUNTERS[f]					
Inpatient Encounter Involving BH	213 (24)	272 (27)	277 (24)	0.893	0.163
Outpatient Encounter Involving BH	734 (82)	865 (85)	942 (82)	0.902	0.062
Encounter Involving BH in 30 Days Before Event	559 (63)	668 (66)	740 (64)	0.400	0.554
BH DIAGNOSIS[f]					
Any BH Diagnosis[g]					
Prevalence[h] Before Event	669 (75)	785 (77)	833 (72)	0.219	**0.014**
Incidence in Year Before Event	485 (54)	560 (55)	622 (54)	0.936	0.683
More Than One BH Diagnosis[i]					
Prevalence[h] Before Event	473 (53)	575 (56)	607 (53)	0.950	0.088
Incidence in Year Before Event	226 (25)	280 (28)	327 (28)	0.112	0.621
Any Mood Disorder					
Prevalence[h] Before Event	432 (48)	517 (51)	546 (48)	0.701	0.129
Incidence in Year Before Event	239 (27)	283 (28)	326 (28)	0.420	0.767
Major Depression					
Prevalence[h] Before Event	214 (24)	269 (26)	304 (26)	0.199	0.986
Incidence in Year Before Event	137 (15)	159 (16)	214 (19)	0.051	0.064
Other Depressive Disorders					
Prevalence[h] Before Event	371 (42)	443 (44)	450 (39)	0.276	**0.040**
Incidence in Year Before Event	202 (23)	238 (23)	255 (22)	0.818	0.511
Bipolar Disorder					
Prevalence[h] Before Event	36 (4)	42 (4)	37 (3)	0.327	0.262
Incidence in Year Before Event	21 (2)	28 (3)	29 (3)	0.803	0.742
PTSD					
Prevalence[h] Before Event	170 (19)	219 (22)	217 (19)	0.931	0.128
Incidence in Year Before Event	87 (10)	112 (11)	124 (11)	0.440	0.876

Table F-8. Behavioral Health Indicators, Suicidal Ideation Cases,[a] U.S. Army, 2013 – 2015 (continued)

Indicator	Suicidal Ideation Cases n (%) 2013 (n = 893)[c]	2014 (n = 1018)[d]	2015 (n = 1149)[e]	Test for Significant Difference[b] (p-value) 2015 vs 2013	2015 vs 2014
BH DIAGNOSIS[f] (continued)					
Other Anxiety Disorder[j]					
Prevalence[h] Before Event	273 (31)	370 (36)	380 (33)	0.229	0.110
Incidence in Year Before Event	126 (14)	190 (19)	186 (16)	0.195	0.129
Adjustment Disorder					
Prevalence[h] Before Event	524 (59)	622 (61)	638 (56)	0.154	**0.009**
Incidence in Year Before Event	272 (30)	283 (28)	316 (28)	0.143	0.877
Substance Use Disorder[k]					
Prevalence[h] Before Event	186 (21)	213 (21)	240 (21)	0.974	0.984
Incidence in Year Before Event	88 (10)	100 (10)	129 (11)	0.318	0.289
Personality Disorder[l]					
Prevalence[h] Before Event	54 (6)	60 (6)	67 (6)	0.838	0.951
Incidence in Year Before Event	26 (3)	41 (4)	46 (4)	0.184	0.977
Psychosis					
Prevalence[h] Before Event	28 (3)	31 (3)	28 (2)	0.338	0.385
Incidence in Year Before Event	18 (2)	25 (2)	25 (2)	0.803	0.665
Previous Suicidal Ideation/ Self Harm[m]					
Prevalence[h] Before Event	23 (3)	39 (4)	59 (5)	**0.003**	0.145
Incidence in Year Before Event	11 (1)	20 (2)	36 (3)	**0.004**	0.087
Previous Suicidal Ideation[n]					
Prevalence[h] Before Event	164 (18)	231 (23)	214 (19)	0.881	**0.019**
Incidence in Year Before Event	136 (15)	181 (18)	173 (15)	0.914	0.087

Legend: BH – behavioral health, DoDSER – Department of Defense Suicide Event Report, ICD-9 – International Classification of Diseases, 9th revision, Clinical Modification, ICD-10 – International Classification of Diseases, 10th revision, Clinical Modification, PTSD – posttraumatic stress disorder.

Notes: [a]Suicidal Ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [c]Medical claims data were available for all but 23 cases. [d]Medical claims data were available for all but 17 cases. [e]Medical claims data were available for all but 22 cases. [f]May have more than one. [g]Any BH diagnosis includes one or more of the following: mood, PTSD, other anxiety disorders, adjustment disorder, substance use disorders, personality disorders, psychosis. [h]Ever diagnosed during time in service. [i]More than one BH diagnosis includes more than one of the aforementioned diagnoses. [j]Includes, for example, panic disorder, generalized anxiety disorder, or obsessive-compulsive disorder. [k]Includes dru or alcohol use disorders. [l]Includes, for example, borderline or antisocial personality disorders. [m]Based on ICD-9 E-codes and ICD-10 X-,T-, and Z-codes for self-inflicted injuries. [n]Based on an ICD-9 V-code and ICD-10 R-code for suicidal ideation.

Table F-9. Traumatic Brain Injuries,[a] Suicidal Ideation Cases,[b] U.S. Army, 2013 – 2015

Indicator	Suicidal Ideation Cases n (%)			Test for Significant Difference[c] (p-value)	
	2013 (n = 893)[d]	2014 (n = 1018)[e]	2015 (n = 1149)[f]	2015 vs 2013	2015 vs 2014
MEDICAL ENCOUNTERS[g]					
Inpatient Encounter Involving TBI	19 (2)	18 (2)	29 (3)	0.558	0.228
Outpatient Encounter Involving TBI	120 (13)	156 (15)	202 (18)	**0.011**	0.158
Encounter Involving TBI in Year Before Event	66 (7)	77 (8)	108 (9)	0.107	0.127
Encounter Involving TBI in 30 Days Before Event	16 (2)	28 (3)	33 (3)	0.114	0.864
TBI DIAGNOSES[g]					
Any TBI Diagnosis	112 (13)	140 (14)	179 (16)	0.051	0.231
First TBI Diagnosis in Year Before Event	39 (4)	41 (4)	57 (5)	0.530	0.297

Legend: DoDSER – Department of Defense Suicide Event Report, ICD-9 – International Classification of Diseases, 9th revision, Clinical Modification, ICD-10 – International Classification of Diseases, 10th revision, Clinical Modification, TBI – traumatic brain injury.

Notes: [a]Based on ICD-9 and 10 codes for traumatic brain injuries provided by the Defense and Veterans Brain Injury Center (DVBIC): ICD-9 (800–801.99, 803–804.99, 850–854.19), ICD-10: F07.81, S04.02-S04.04, S06.0-S06.6, S06.8-S06.9, S02.0-S02.1, S02.8-S02.9, S07.1, Z87.820, DOD0102, DOD0103, DOD0104, and DOD0105. [b]Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Medical claims data were available for all but 23 cases. [e]Medical claims data were available for all but 17 cases. [f]Medical claims data were available for all but 22 cases. [g]May have more than one.

Table F-10. Chronic Pain,[a] Suicidal Ideation Cases,[b] U.S. Army, 2013 – 2015

Indicator	Suicidal Ideation Cases n (%)			Test for Significant Difference[c] (p-value)	
	2013 (n = 893)[d]	2014 (n = 1018)[e]	2015 (n = 1149)[f]	2015 vs 2013	2015 vs 2014
ENCOUNTERS					
Encounter for Chronic Pain in Year Before Event	85 (10)	97 (10)	104 (9)	0.718	0.702
Encounter for Chronic Pain in 30 days Before Event	24 (3)	30 (3)	39 (3)	0.360	0.554
DIAGNOSES					
Chronic Pain Diagnosis in Year Before Event	67 (8)	81 (8)	82 (7)	0.752	0.470

Legend: DoDSER – Department of Defense Suicide Event Report, ICD-9 – International Classification of Diseases, 9th revision, Clinical Modification, ICD-10 – International Classification of Diseases, 10th revision, Clinical Modification.

Notes: [a]ICD-9 codes indicating chronic pain include 338.2, 338.3, and 338.4. ICD-10 codes include G89.21, G89.22, G89.28, G89.29, G89.3, and G89.4. Based on coding guidance from the American Academy of Professional Coders. [b]Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Medical claims data were available for all but 23 cases. [e]Medical claims data were available for all but 17 cases. [f]Medical claims data were available for all but 22 cases.

Table F-11. Sleep Problems,[a] Suicidal Ideation Cases,[b] U.S. Army, 2013 – 2015

Indicator	Suicidal Ideation Cases n (%)			Test for Significant Difference[c] (p-value)	
	2013 (n = 893)[d]	2014 (n = 1018)[e]	2015 (n = 1149)[f]	2015 vs 2013	2015 vs 2014
ENCOUNTERS					
Encounter for Sleep Problem in Year Before Event	277 (31)	364 (36)	386 (34)	0.218	0.291
Encounter for Sleep Problem in 30 Days Before Event	96 (11)	148 (15)	153 (13)	0.079	0.412
DIAGNOSES					
Sleep Disorder Diagnosis in Year Before Event	222 (25)	292 (29)	316 (28)	0.179	0.541

Legend: DoDSER – Department of Defense Suicide Event Report, ICD-9 – International Classification of Diseases, 9th revision, Clinical Modification, ICD-10 – International Classification of Diseases, 10th revision, Clinical Modification.

Notes: [a]ICD-9 codes indicating sleep problems include 307.4–307.48, 327–327.8, 780.5–780.56, 291.82, 292.85, 780.58, and V694. ICD-10 codes include F51, G47, and Z72.820. [b]Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Medical claims data were available for all but 23 cases. [e]Medical claims data were available for all but 17 cases. [f]Medical claims data were available for all but 22 cases.

Table F-12. Polypharmacy, Suicidal Ideation Cases,[a] U.S. Army, 2013 – 2015

Category	Suicidal Ideation Cases n (%) 2013 (n = 916)	2014 (n = 1035)	2015 (n = 1171)	Test for Significant Difference[b] (p-value) 2015 vs 2013	2015 vs 2014
POLYPHARMACY					
Any Polypharmacy[c]	114 (12)	130 (13)	147 (13)	0.996	0.941
Categories of Polypharmacy[d]					
1. Met all criteria[e]	7 (6)	6 (5)	6 (4)		
2. Psychotropics & opioid[f]	22 (19)	29 (22)	26 (18)		
3. Psychotropics & ER visits[g]	2 (2)	1 (1)	1 (1)		
4. Opioid & ER visits[h]	3 (3)	4 (3)	3 (2)		
5. At least one opioid prescription[i]	36 (32)	30 (23)	55 (37)		
6. Multiple psychotropic prescriptions[j]	37 (32)	47 (36)	48 (33)		
7. 3+ ER visits with opioids prescribed[k]	7 (6)	13 (10)	8 (5)		

Legend: DoDSER – Department of Defense Suicide Event Report , OTSG – Office of the Surgeon General, ER – Emergency Room.

Notes: [a]Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [c]Met at least one criterion for polypharmacy, as defined by OTSG Policy 13-032 definition, at the time of the event. [d]Proportion out of cases with any polypharmacy. [e]Met all three polypharmacy criteria (categories 5, 6, and 7). [f]Had 4 or more prescriptions for psychotropic drugs in the 30 days prior to the event and had 4 or more prescriptions in the 30 days prior to the event, at least one of which was an opioid. [g]Had 4 or more prescriptions for psychotropic drugs in the 30 days prior to the event and had at least 3 ER visits in the year preceding the event where an opioid was prescribed. [h]Had at least 3 ER visits in the year preceding the event where an opioid was prescribed and had 4 or more prescriptions in the 30 days prior to the event, at least one of which was an opioid. [i]Had 4 or more prescriptions in the 30 days prior to the event, at least one of which was an opioid. [j]Had 4 or more prescriptions for psychotropic drugs in the 30 days prior to the event. [k]Had at least 3 ER visits in the year preceding the event where an opioid was prescribed.

Table F-13. Drug Testing History,[a] Suicidal Ideation Cases,[b] U.S. Army, 2013 – 2015

Measure	Suicidal Ideation Cases n (%) 2013 (n = 784)	2014 (n = 934)	2015 (n = 1019)	Test for Significant Difference[c] (p-value) 2015 vs 2013	2015 vs 2014
DRUG TEST HISTORY					
Positive Drug Test	45 (6)	60 (6)	55 (5)	0.753	0.336
More than One Positive Drug Test[d]	16 (36)	19 (32)	17 (31)	0.623	0.930
Positive Drug Test in Year Before Event[d]	35 (78)	46 (77)	34 (62)	0.086	0.084
Amphetamines[d]	7 (16)	8 (13)	4 (7)	——[e]	——[e]
Cannabis[d]	24 (53)	23 (38)	26 (47)	0.546	0.333
Cocaine[d]	15 (33)	15 (25)	12 (22)	0.197	0.688
Oxycodone/Oxymorphone[d]	8 (18)	5 (8)	9 (16)	——[e]	——[e]
Opiates[d]	4 (9)	6 (10)	6 (11)	——[e]	——[e]
Heroin[d]	0 (0)	1 (2)	1 (2)	——[e]	——[e]
Spice[d]	0 (0)	3 (5)	1 (2)	——[e]	——[e]
Steroids[d]	0 (0)	0 (0)	1 (2)	——[e]	——[e]
Barbiturates[d]	0 (0)	0 (0)	0 (0)	——[e]	——[e]

Legend: DoDSER – Department of Defense Suicide Event Report.

Notes: [a]Drug testing history is available only for cases who have a record of a drug test in the Drug and Alcohol Management Information System (DAMIS). [b]Suicidal ideation cases are from DoDSERs, which area available only for cases serious enough to warrant hospitalization or evacuation. [c]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [d]Proportion out of cases with positive drug tests. [e]Statistical test omitted because of the small counts for each drug.

Table F-14. ASAP Intake History,[a,b] Suicidal Ideation Cases,[c] U.S. Army, 2013 – 2015

Measure	Suicidal Ideation Cases n (%)			Test for Significant Difference[d] (p-value)	
	2013 (n = 916)	2014 (n = 1035)	2015 (n = 1171)	2015 vs 2013	2015 vs 2014
ASAP INTAKE SCREENING					
Screened for Intake	99 (11)	132 (13)	137 (12)	0.523	0.450
Enrolled for Treatment[e]	82 (83)	107 (81)	116 (85)	0.704	0.432

Legend: ASAP – Army Substance Abuse Program, DoDSER – Department of Defense Suicide Event Report.

Notes: [a]Data from the Drug and Alcohol Management Information System (DAMIS). [b]ASAP screening and enrollment in the year before the event. [c]Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [d]Chi-squared or Fisher's exact test p-values, as appropriate. P-values in bold indicate significant difference, $p<0.05$. [e]Proportion out of cases screened for intake.

Glossary

ABHIDE
Army Behavioral Health Integrated Data Environment

AFMES
Armed Forces Medical Examiner System

ASAP
Army Substance Abuse Program

AUDIT-C
Alcohol Use Disorders Identification Test - Consumption

AWOL
Absent without leave

BH
Behavioral health

BSHOP
Behavioral and Social Health Outcomes Practice Division

CI
Confidence Interval

DoD
Department of Defense

DoDSER
Department of Defense Suicide Event Report

E1–E9
Enlisted rank

ICD-9
International Classification of Diseases, Ninth Revision

ICD-10
International Classification of Diseases, 10th Revision, Clinical Modification

MDR
Military Health System Data Repository

MEDCOM
United States Army Medical Command

MTF
Medical Treatment Facility

NA
Not Available

NOS
Not Otherwise Specified

O1–O7
Officer rank

OEF
Operation Enduring Freedom

OIF
Operation Iraqi Freedom

OND
Operation New Dawn

PCL-C
PTSD Checklist - Civilian

PDHA
Post-Deployment Health Assessment

PDHRA
Post-Deployment Health Reassessment

PHA
Periodic Health Assessment

PHQ-2
Patient Health Questionnaire - 2

PTS
Posttraumatic Stress

PTSD
Posttraumatic Stress Disorder

SAS v. 9.2
Statistical Analysis System version 9.2

TBI
Traumatic Brain Injury

U.S.
United States

W1–W5
Warrant Officer rank