U.S. Army Public Health Command

Public Health Report

Surveillance of Suicidal Behavior
January through December 2013

PHR No. S.0008057-13

Approved for public release, distribution unlimited

General Medical: 500A, Public Health Data

June 2015

USAPHC

Epidemiology and Disease Surveillance Portfolio
Behavioral and Social Health Outcomes Program

Surveillance of Suicidal Behavior is published by the Behavioral and Social Health Outcomes Program (BSHOP), Epidemiology and Disease Surveillance (EDS) Portfolio, Army Institute of Public Health (AIPH), United States Army Public Health Command (USAPHC). 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
Phone: 410-436-8447

Anita Spiess
Nkechinyere Nweke
Elizabeth Corrigan
Brent Mancha
Christine Lagana-Riordan

Table of Contents

Page

Appendices

Public Health Report
Surveillance of Suicidal Behavior
PHR No. S.0008057-13
January through December 2013

1 Summary

1.1 Purpose

This publication presents characteristics of Soldiers with suicidal behavior during 2013. This includes suicides identified by the Armed Forces Medical Examiner System, as well as suicide attempts and suicidal ideations reported in Department of Defense Suicide Event Reports among active-duty (Regular Army), activated National Guard, and activated US Army Reserve Soldiers.

1.2 Findings

- The number of suicides in 2013 decreased to 151 from a peak of 184 in 2012. This is the smallest number of annual suicides since 2008. The suicide rate also decreased to 23.8 per 100,000, the same rate as in 2011.

- The number of suicide attempt cases reported for 2013 was 469. The suicide attempt rate was 73.9 per 100,000. Both counts and rates were higher than in the previous 4 years, but not as high as in 2005–2008. The number of suicidal ideation cases was 910, more than in any year since 2009. The suicidal ideation rate was 143.3 per 100,000, nearly as high as the peak in 2009. The increases in 2013 may in part be a result of better reporting, with greater emphasis being placed on completion of DoDSERs for nonfatal suicidal events.

- The largest number of suicide cases during 2013 occurred at Fort Bragg (n=16) and Joint Base Lewis-McChord (n=10), which have some of the largest populations of Soldiers.

- The demographic and military characteristics of Soldiers who engage in suicidal behavior reflect the distribution of the force: most are young, junior enlisted, non-Hispanic white men. However, the proportions of suicidal behavior cases of junior enlisted rank (65%) and 17-34 years of age (85%) are greater than the proportions in the Army overall (40% and 71%, respectively).

- Over half the 2013 suicidal behavior cases had been diagnosed with a behavioral health disorder before the suicidal event, primarily adjustment disorders (58%), mood disorders (48%), anxiety disorders (32%), and substance use disorders (24%).

- The principal stressors reported for 2013 suicidal behavior cases included relationship and work problems (45% and 37%, respectively), the death of a family member or friend (32%), legal problems (32%), physical health problems (25%) and, for attempt and ideation cases, a history of physical, sexual, or emotional abuse (31%).

- The prevalence of traumatic brain injury (TBI) among 2013 cases was 19% for suicide cases, 16% for suicide attempt cases, and 12% for suicidal ideation cases. In the 30 days before the event, 8%, 3%, and 1% of cases, respectively, had medical encounters for TBI.

- Cases during 2013 that met criteria for polypharmacy at the time of the event included 5% of suicide cases, 18% of suicide attempt cases, and 12% of suicidal ideation cases.

- The following characteristics of suicidal behavior cases increased in 2010–2013 compared with 2004–2007 or 2008–2009: 25–34 years of age; married; ever deployed; 2 or more OEF or OIF deployments; medical encounters for behavioral health; diagnoses of mood, PTSD, other anxiety, adjustment, or substance use disorders; encounters and diagnoses for traumatic brain injury; encounters and diagnoses for pain or sleep problems in the year preceding the event; and polypharmacy at the time of the event. Two characteristics increased among suicide attempt and suicidal ideation cases but not suicide cases: noncommissioned officers (E5–E9) and screening and enrollment in the Army Substance Abuse Program in the year before the event.

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 Institute of Public Health (AIPH), Behavioral and Social Health Outcomes Program (BSHOP) collects, analyzes, and disseminates surveillance data on suicidal behavior cases (suicide, suicide attempt, and suicidal ideation), among active-duty (Regular 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 Definitions, Data and Caveats

This publication includes estimated counts and proportions of suicidal behaviors. 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."[1] A suicide attempt is defined as "a nonfatal self-inflicted potentially injurious behavior with any intent to die as a result of the behavior."[1] Suicidal ideation is defined as "thoughts of engaging in suicide-related behavior."

Suicide cases are identified by the Armed Forces Medical Examiner System (AFMES) and may differ from counts by G-1, which are taken 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 underestimate the 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.

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.

DoDSERs for suicide cases are completed within 60 days following AFMES confirmation of the suicide. Because this publication includes cases being investigated as probable suicides but that have not yet been confirmed, information on stressors 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 and suicidal ideations are more complete because the Soldiers were alive and were 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 21% 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.

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

The types of providers with whom the Soldier had BH encounters or from whom they received BH diagnoses prior to their suicidal event include credentialed BH clinicians (e.g., psychiatrists, psychologists, certified clinical social workers), other BH providers (e.g., social work case managers, alcohol abuse counselors), primary care providers (e.g., general/family practice physicians, primary care nurse practitioners), and other non-BH providers (e.g., physical therapists

and gynecologists). BH encounters with credentialed BH clinicians or other BH providers indicate receipt of BH specialty care, while BH encounters with primary care providers may suggest recognition and/or referral of Soldiers to BH specialty care.

The type of provider reported for a given Soldier with multiple BH encounters is based on the following order: credentialed BH clinicians, other BH providers, primary care providers, and other non-BH providers. For example, if a Soldier had a BH encounter with a credentialed BH clinician, that Soldier's encounter was reported in the credentialed BH clinician provider category, regardless of whether he or she also had BH encounters recorded by a primary care physician or other non-BH provider.

DoDSER questions about stressors ask whether the stressor occurred and how recently. If the response for either the stressor or the time period is positive, then the stressor is reported as positive. Thus stressors may have occurred at any time during the Soldier's life. Information on four stressors—work problems, death of a family member or friend, and being the victim or perpetrator of abuse—combine answers from several DoDSER questions. Work problems includes workplace hazing, job problems, poor performance, and coworker issues and is reported as positive if any of those is positive. 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 sexual harassment, as well as emotional, physical, or sexual abuse or assault.

Characteristics of cases from 2013 have been compared statistically with characteristics of cases from 2011 and 2012 using chi-square analysis. Significant differences are noted in the discussion of the characteristics. Characteristics of cases in 2013 often differ from characteristics of cases in 2011, but less often from 2012. Where no differences are noted, significant differences were not found. Because of the large proportion of missing and unknown data for event characteristics and stressors, which are obtained from the DoDSER, no statistical comparisons with previous years have been made.

4.2 Organization of the Report

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

- Synopsis (Section 5)
- Suicide Cases (Section 6)
- Suicide Attempt Cases (Section 7)
- Suicidal Ideation Cases (Section 8)
- Period Comparison (Section 9)

Section 5 summarizes information presented in this publication and Sections 6 through 8 present counts and proportions of suicidal behaviors among Soldiers in the U.S. Army. In Section 9, statistical comparisons suggest changes in the characteristics of Soldiers with suicidal behavior across three time periods, from 2004 through 2013.

This report presents information for both 2013 and cumulative time periods (2001–2013 for suicide cases, 2004–2013 for suicide attempt cases, and 2007–2013 for suicidal ideation cases). In most subsections (e.g., Demographic Characteristics), the initial paragraph presents the prevalence of key characteristics and behaviors over the cumulative period. Information for 2013 follows in a series of bulleted statements. 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.

4.3 Publication Improvements

The following are new to this publication:

- Diagnoses of and medical encounters for traumatic brain injury (TBI).
- Indicators of alcohol misuse from the Alcohol Use Disorders Identification Test (AUDIT-C) on the Periodic Health Assessment.
- Additional measures of polypharmacy.

Studies in the literature have found that traumatic brain injuries, alcohol misuse, and polypharmacy are all associated with suicidal behavior.[2–8] Traumatic brain injuries can lead to suicidal behavior for a variety of reasons including increased psychological stress, cognitive deficits, and impulsivity.[2]

Alcohol use has also been identified as a risk factor for suicidal behavior.[3] The AUDIT-C is an alcohol screening tool that helps identify patients who are hazardous drinkers or have active alcohol use disorders.[8] A score of 4 for men and 3 for women indicates risky alcohol use. A score of 8, for both men and women, indicates a probable alcohol disorder.[9]

Polypharmacy carries the risk of drug interactions, as well as accidental and intentional overdose. Psychotropic medications, including opiates and central nervous system depressants, have been associated with suicide and accidental deaths.[4–5] Opiates, sleep medications, and selective serotonin reuptake inhibitors (SSRIs) have all been shown to be associated with suicidal behavior.[6–7]

According to a 2013 policy memo,[10] 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.

5 Synopsis

During 2013, there were 1530 total suicidal events. Of these, 151 (10%) were AFMES-confirmed or pending suicides, 469 (31%) were suicide attempts, and 910 (59%) were suicidal ideations. Suicides decreased by 18% compared to 2012 (n=184).

Annual suicide rates (Figure 1) show a gradual rise from 2004 through 2009, a leveling off from 2009 through 2011, a possible peak in 2012, with a return to 2009–2011 levels in 2013. The sharp rise of suicide attempt and suicidal ideation rates may reflect the increase in documentation efforts following the start of data collection for these behaviors in 2004 and 2007. The volatility of these rates should be interpreted with caution since attempts and ideations are not reported consistently across time.

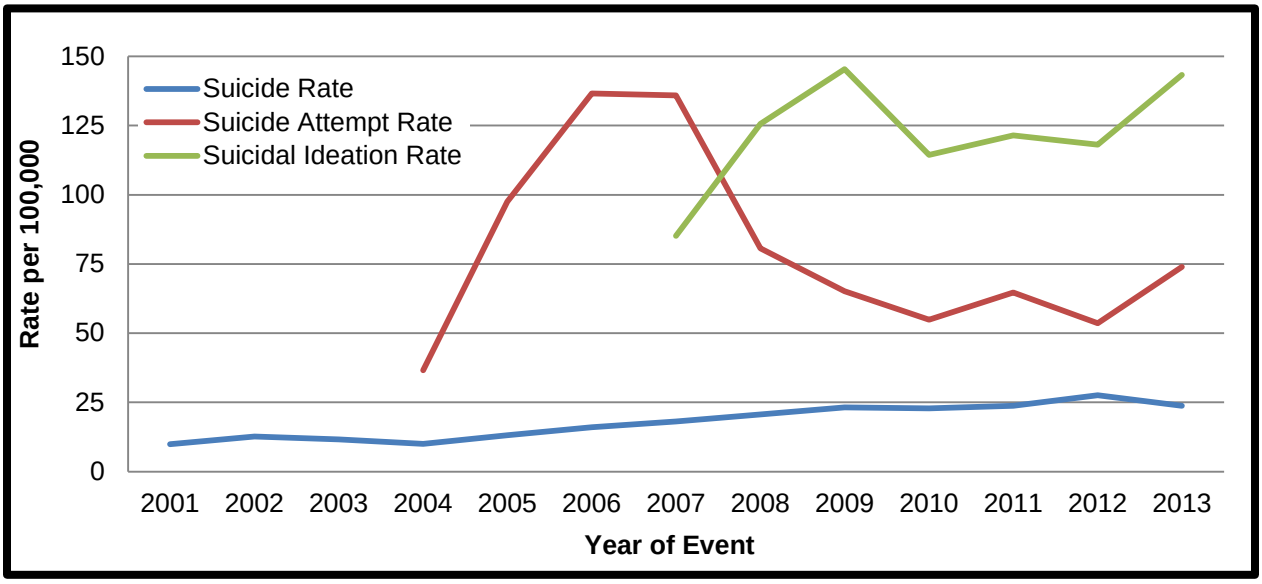


Figure 1. Crude Rates of Suicidal Behavior, per 100,000, 2001–2013

Notes: Documentation of suicide attempts began in 2004 and of suicidal ideations in 2007. Volatility of suicide attempts and ideations may, in part, reflect variation in data collection efforts.

The following bullets refer to cases of suicidal behavior during 2013. Results for 2013 were compared to 2011 and 2012 and are noted only when significant.

5.1 Demographics and Military Characteristics

- The crude suicide rate was 23.8 per 100,000 (95% CI: 20.0 – 27.6).
- The crude suicide attempt rate was 73.9 per 100,000 (95% CI: 67.2 – 80.6).
- The crude suicidal ideation rate was 143.3 per 100,000 (95% CI: 134.0 – 152.7).

During 2013, 1530 Soldiers engaged in suicidal behavior. Of these:

- 10% were suicide cases
- 31% were suicide attempt cases
- 59% were suicidal ideation cases
- 81% were male
- 63% were non-Hispanic white

- Soldiers with suicidal behavior were predominantly male (81%), non-Hispanic (NH) white (63%), 17 to 34 years of age (85%), active duty (89%), and of enlisted rank (94%).

- Among larger installations (i.e., estimated population greater than 8,000 Soldiers assigned), Fort Bragg had the most suicides during 2013 (Figure 2).

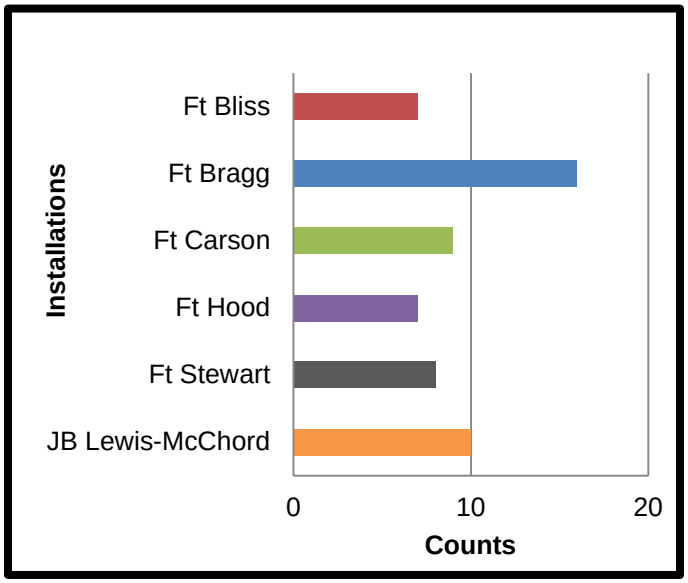


Figure 2. Installations with the Largest Number of Suicides, 2013

5.2 Behavioral Health

- The prevalence of BH encounters in the 30 days before the event was:
  - 37%, suicide cases
  - 66%, suicide attempt cases
  - 63%, suicidal ideation cases
- The incidence of first BH diagnosis in the year before the event was (Figure 3):
  - 27%, suicide cases
  - 59%, suicide attempt cases
  - 55%, suicidal ideation cases

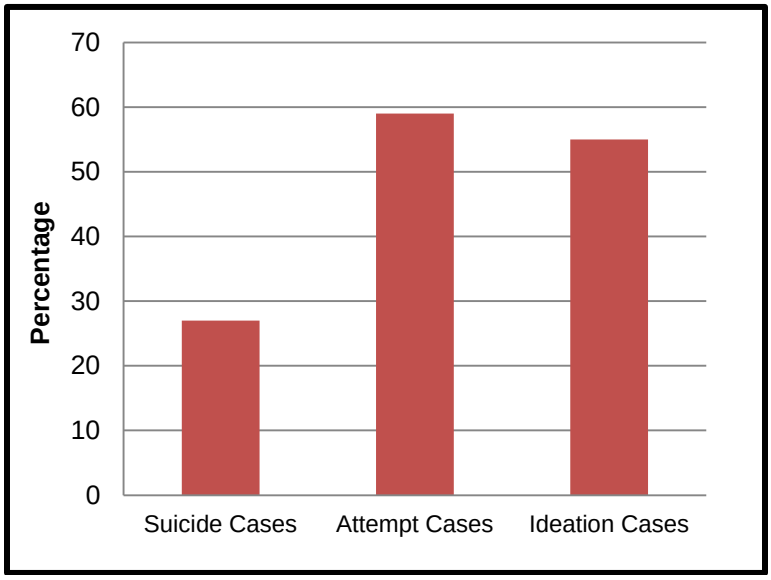


Figure 3. First BH Diagnosis in Year Before Event, 2013

- The most prevalent BH diagnoses for cases of suicidal behavior in 2013 were:
  - suicide cases: adjustment disorders (39%), mood disorders (28%), and anxiety disorders other than posttraumatic stress disorder (PTSD) (22%, hereafter referred to as other anxiety disorders)
  - suicide attempt cases: adjustment disorders (62%), mood disorders (52%), and other anxiety disorders (38%)
  - suicidal ideation cases: adjustment disorders (59%), mood disorders (49%), and other anxiety disorders (30%)

5.3 Traumatic Brain Injury

- The incidence of initial diagnosis of TBI in the year before the event was:
  - 11%, suicide cases
  - 5%, suicide attempt cases
  - 4%, suicidal ideation cases
- The prevalence of ever having a diagnosis of traumatic brain injury was (Figure 4):
  - 19%, suicide cases
  - 16%, suicide attempt cases
  - 12%, suicidal ideation cases

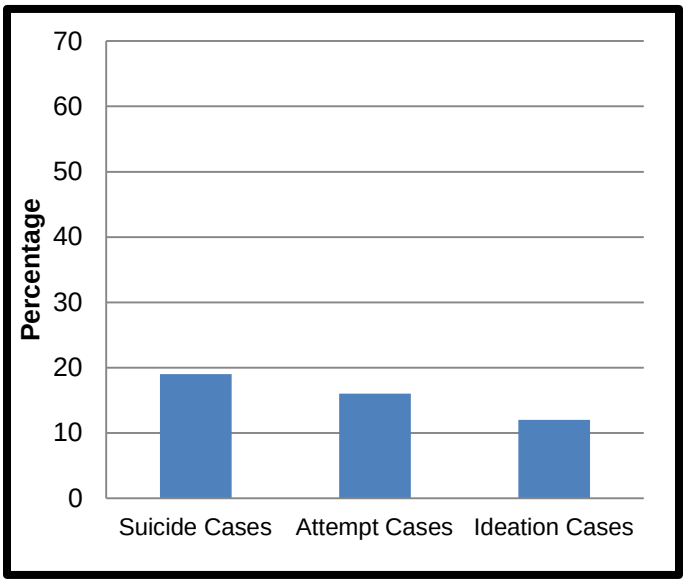


Figure 4. Diagnosis of Traumatic Brain Injury, 2013

5.4 Pain Indicators

- The prevalence of medical encounters for pain in the 30 days before the event was:
  - 10%, suicide cases
  - 24%, suicide attempt cases
  - 20%, suicidal ideation cases

5.5 Sleep Problems

- The prevalence of medical encounters for sleep problems in the 30 days before the event was (Figure 5):

  - 9%, suicide cases
  - 14%, suicide attempt cases
  - 10%, suicidal ideation cases

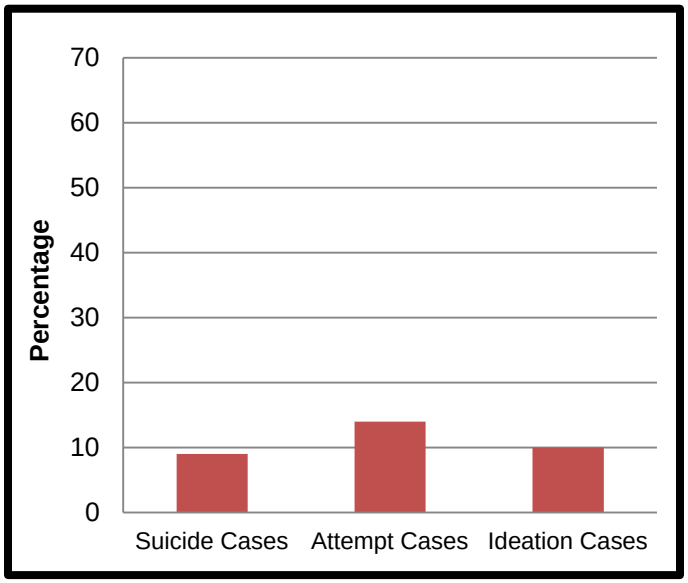


Figure 5. Medical Encounters for Sleep Problems in 30 Days Before Event, 2013

5.6 Polypharmacy

- The prevalence of polypharmacy at the time of the suicidal event was (Figure 6, next page):

  - 5%, suicide cases
  - 18%, suicide attempt cases
  - 12%, suicidal ideation cases

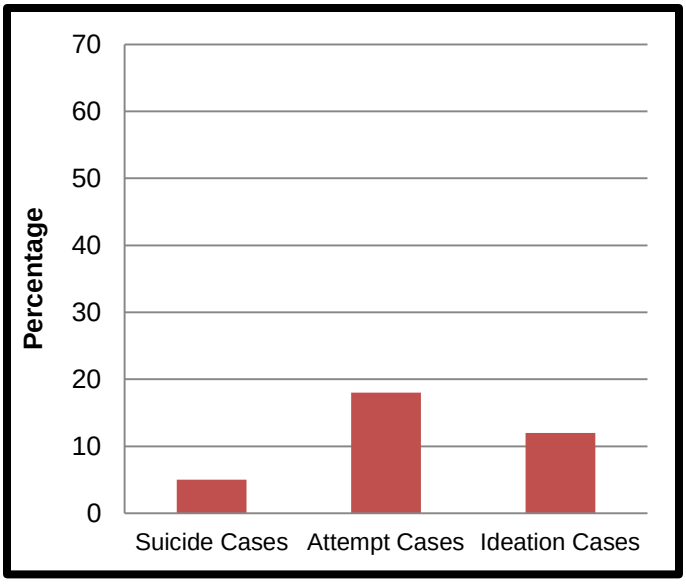


Figure 6. Polypharmacy at Time of Event, 2013

5.7 Drug Testing and Army Substance Abuse Program (ASAP) Screening

- Less than 10% of suicidal behavior cases, including suicides, attempts, and ideations, had ever tested positive for drugs, excluding positive tests for drugs for which the Soldier had a prescription. Positive tests were primarily for cannabis and cocaine.

- The prevalence of being screened for ASAP was:

  - 19%, suicide cases; of those, 57% enrolled in the program
  - 33%, suicide attempt cases; of those, 76% enrolled in the program
  - 20%, suicidal ideation cases; of those, 73% enrolled in the program

5.8 Event Characteristics

- Suicides were primarily by gunshot (65%); suicide attempts were primarily drug or alcohol overdoses (53%).

- Drugs were involved in 5% of suicides and 52% of suicide attempts. Alcohol was involved in 17% of suicides and 30% of suicide attempts.

5.9 Stressors

- The stressors reported most often for Soldiers with suicidal behavior (Figure 7) were:

  - relationship problems (45%)
  - work stress (37%)
  - legal problems (32%)
  - physical health problems (25%)

- Prevalent stressors for suicide attempts and suicidal ideations were, in addition to the above:

  - the death of a family member or friend (34%)
  - being the victim of abuse (31%)

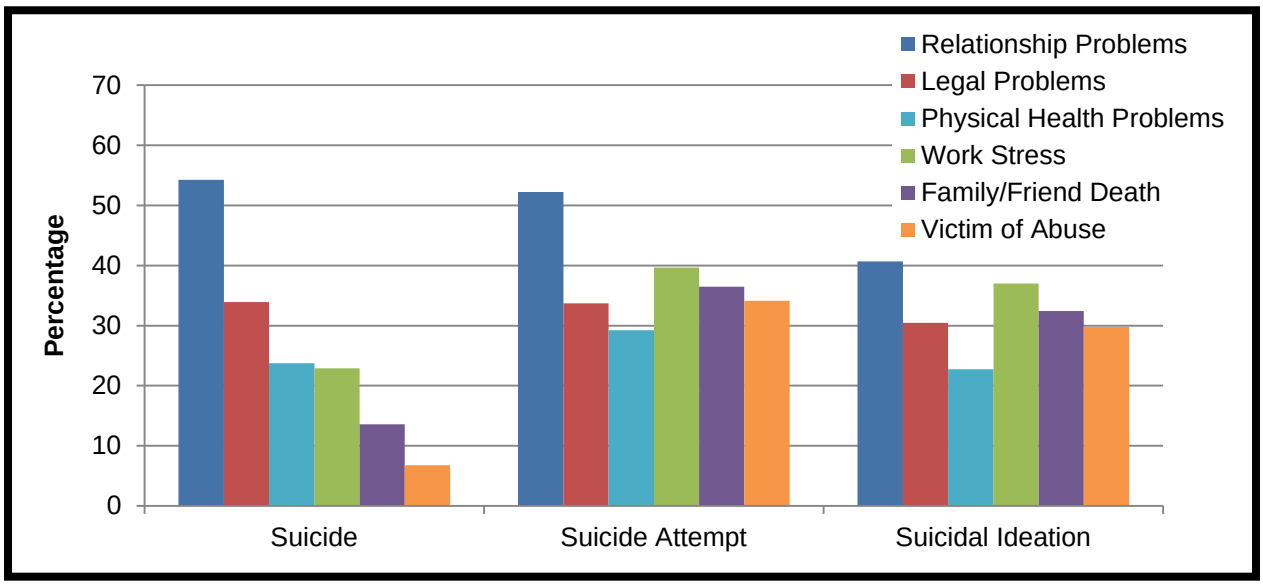


Figure 7. Prevalent Stressors, 2013

6 Suicide Cases

During 2013, 151 Soldiers died by suicide. This is 33 fewer cases than in 2012 and 15 fewer cases than in 2011. The crude suicide rate for 2013 was 23.8 per 100,000 (95% CI: 20.0 – 27.6). The 2013 rate shows a return to the 2009–2011 rate after a possible peak in 2012 (Figure 8).

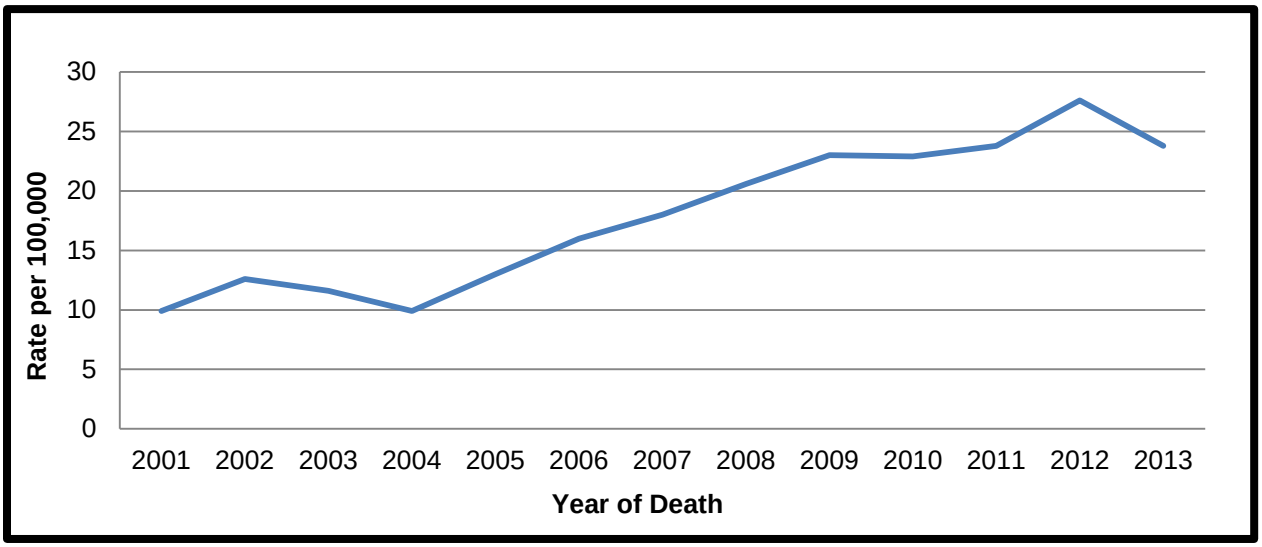


Figure 8. Crude Suicide Rate, per 100,000, 2001–2013

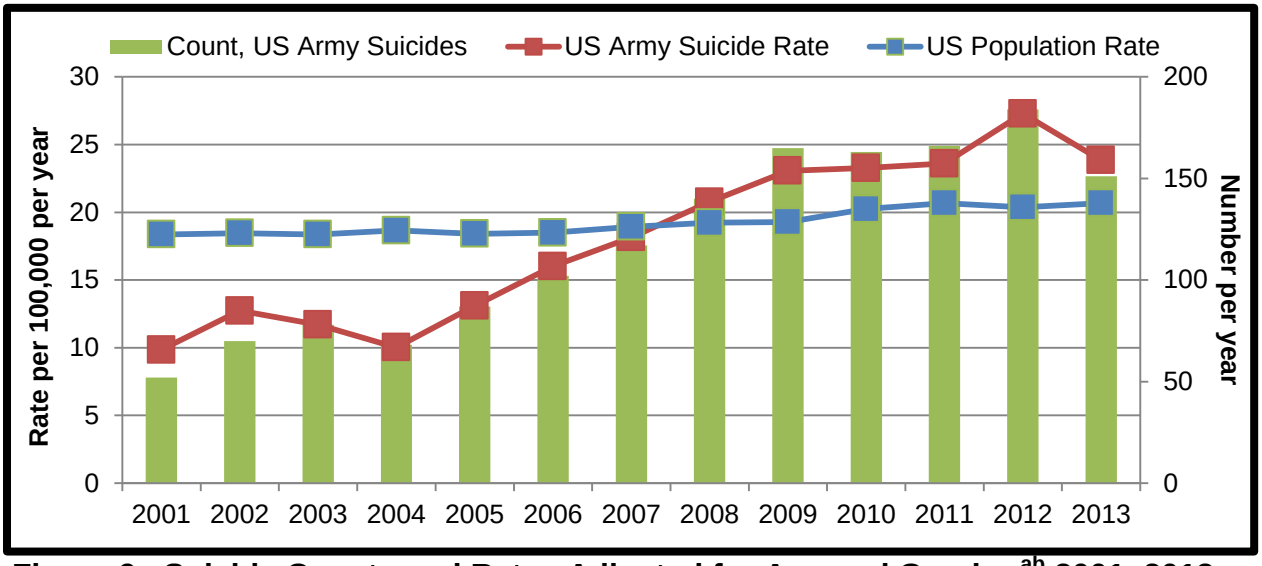


Figure 9. Suicide Counts and Rates Adjusted for Age and Gender,[ab] 2001–2013

Notes: [a]Rates have been direct adjusted by age and gender, using the 2004 U.S. Army distribution as a standard population. [b]U.S. Army suicide rates and counts include active-duty (Regular Army) and activated National Guard and Army Reserve Soldiers.

From 2001 to 2007, the direct age- and sex-adjusted suicide rate among U.S. Army Soldiers on active duty was lower than the U.S. Civilian rate (Figure 9, previous page). In 2008 through 2013, the U.S. Army rate surpassed the civilian rate. However, differences between the two rates were statistically significant only in 2001 through 2005, 2009, and in 2012.

6.1 Demographic Characteristics

Most suicide cases from 2001 through 2013 were male (95%), non-Hispanic white (72%), and 17 to 34 years of age (78%).

Demographic characteristics of suicide cases and stratified suicide rates during 2013 are described below and in Tables D-1 through D-4 and Figures D-1 through D-3.

- **Sex:** The greatest proportion of suicides was among male Soldiers (96%). The U.S. Army suicide rate for males was 26.7 per 100,000. The small number of suicides among female Soldiers resulted in rates too unstable to report.

During 2013, 151 Soldiers died by suicide. Of these:

- 96% were male
- 40% were 25–34 years of age
- 73% were non-Hispanic white
- 83% were active-duty
- 48% were in the E1–E4 ranks

- **Age Group:** The greatest proportion of suicides was among Soldiers 25 to 34 years of age (40%), followed by Soldiers 17 to 24 years of age (36%; Figure 10). The U.S. Army rates stratified by age group were: 17–24 years, 27.3 per 100,000; 25–34 years, 23.7 per 100,000; 35–64 years, 20.1 per 100,000.

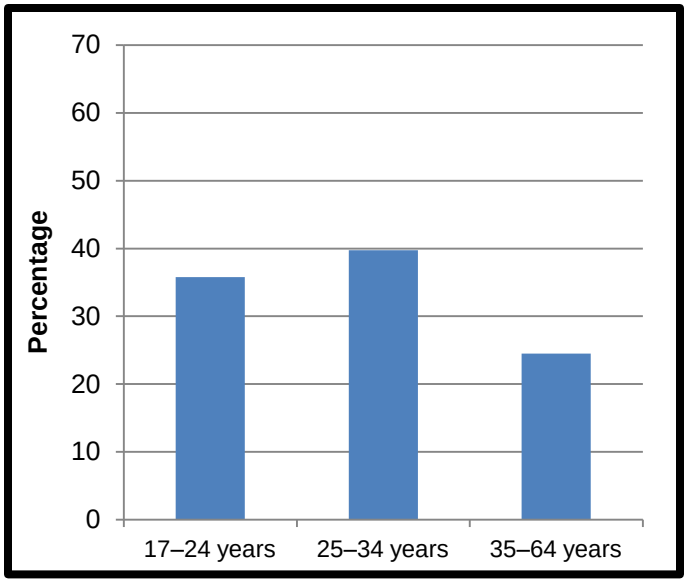


Figure 10. Age Distribution, Suicide Cases, 2013

- **Race-Ethnicity:** The majority (73%) of suicides were among non-Hispanic white Soldiers. The suicide rate for non-Hispanic white Soldiers was 28.2 per 100,000. The small number of suicides in other race-ethnicity groups resulted in rates too unstable to report.

- **Marital Status:** Over half (56%) of suicide cases were married.

6.2 Military Characteristics

From 2001 through 2013, the majority of suicides were among active-duty Soldiers in the E1–E4 (54%) and E5–E9 ranks (36%). Most had a history of an OEF, OIF, or OND deployment (64%), with 39% having deployed only once.

Military characteristics of suicide cases from 2013 are described below and in Tables D-5 through D-7 and Figures D-4 and D-5.

- **Component:** The greatest proportion of suicides occurred among active-duty (Regular Army) Soldiers (83%). The suicide rate for the Regular Army was 23.6 per 100,000. The rate for activated National Guard was 30.7 per 100,000. The small number of suicides among activated Army Reserve Soldiers resulted in a rate too unstable to report.

- **Rank:** Most suicides occurred among Soldiers in the E1–E4 ranks (48%), followed by the E5–E9 ranks (41%). Suicide rates for the enlisted ranks were: E1–E4, 28.2 per 100,000 and E5–E9, 24.0 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 (71%) of the suicide cases had a history of an OEF, OIF, or OND deployment. These were primarily Soldiers with only one (36%) or two (17%) deployments (Figure 11).

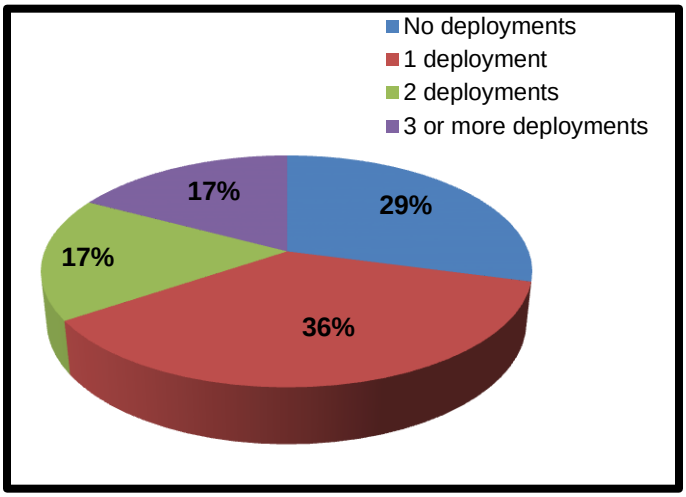


Figure 11. History of OEF/OIF Deployment, Suicide Cases, 2013

6.3 Event Characteristics

From 2001 through 2013, the location of death for 77% of the suicides was in the United States. The primary method of suicide was gunshot wound (66%), followed by hanging/asphyxiation (21%). From 2004, when DoDSERs were implemented, through 2013, 19% of the events involved alcohol and 27% of the cases communicated their intention in advance of the event.

Of installations with more than 8,000 Soldiers, the greatest proportion of 2001–2013 suicides among active-duty (Regular Army) Soldiers was at Fort Hood (11%), followed by Fort Bragg (10%; Table D-8, Figure D-6). Of installations with fewer than 8,000 Soldiers, the greatest proportion of suicides was at Fort Wainwright (1.3%), followed by Joint Base Langley-Eustis (1.2%; Table D-8, Figure D-7).

Event characteristics of suicide cases from 2013 are described below and in Tables D-9 and D-10. These characteristics apply only to the 118 (78%) cases for whom DoDSERs have been completed. (DoDSERs are completed within 60 days following AFMES confirmation of the suicide, which can take a year or more. Deaths that appear to be suicides but are pending confirmation are included in this publication, but do not yet have DoDSERs.) Differences relative to 2011 and 2012 are noted only when significant.

- **Location:** Most (91%) suicides occurred in the United States. This was accompanied by a significant decrease in suicides in theater (3%) compared with previous years (10% in 2012 [χ^2=7.4, p=0.025] and 14% in 2011 [χ^2=11.1, p=0.004]).

- **Communication:** A quarter (24%) communicated suicidal intentions in advance.

- **Motivation:** The motivation for suicide cases was most often missing (58%) or reported as unknown (20%).

- **Method:** The most common method of suicide was gunshot wound (65%), followed by hanging/asphyxiation (23%).

- **Alcohol or Drug Involvement:** The prevalence of alcohol and drug involvement during the suicide event was 17% and 5%, respectively.

- **Event Deployment Related:** Few suicides (5%) were reported by the BH provider completing the DoDSER to be deployment related, with half related to a current deployment and half related to a previous deployment. At the time of their death, 15% of suicide cases had orders to deploy.

- **Installation:** Among larger installations, the greatest proportion of suicides was at Fort Bragg (13%; Table D-8, Figure D-6). Among smaller installations, the greatest proportions of suicides were at Joint Base Elmendorf-Richardson (1.6%) and Fort George Meade (1.6%; Table D-8, Figure D-7).

6.4 Stressors

Stressor data are extracted from information reported in DoDSERs, which were first implemented in 2004. From 2004 through 2013, stressors, which may have occurred anytime during the Soldier's lifetime, were reported among 70% of suicide cases. Individual stressors with the highest prevalence included relationship problems (52%), legal problems (31%), work stress (28%), and physical health problems (20%).

Stressors of suicide cases from 2013 are described below and in Table D-11.

- **Any Stressor:** Stressors were reported among 75% of suicide cases.

- **Relationship Stressors:** Relationship problems were reported among 54% of suicide cases (Figure 12, next page).

- **Legal Stressors:** Some type of legal stressor was reported for 34% of suicide cases, the most common being Article 15 actions (17%) and civil legal problems (14%).

- **Health-Related Stressors:** Physical health problems were reported among 24% of suicide cases and 8% had been the subject of a medical evaluation board. Family health problems affected 3% of suicide cases. Moreover, 14% experienced the death of a family member or friend, and 5% the suicide of a family member or friend.

- **Work and Financial Stressors:** Work-related stress was reported for 23% of the suicide cases, and 4% of suicide cases had stress related to a financial problem.

- **Victims and Perpetrators of Abuse:** Of suicide cases with a history of abuse, 7% were victims and 14% were perpetrators.

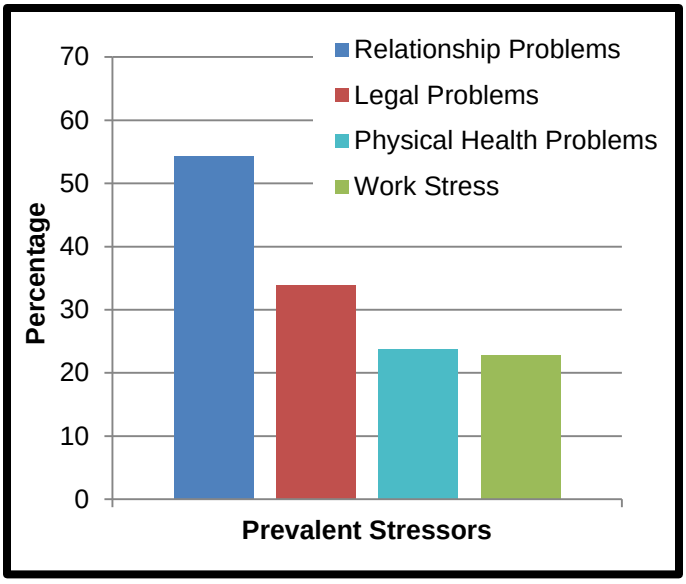


Figure 12. Prevalent Stressors, Suicide Cases, 2013

- **Suicide Prevention Training and Use of Army Counseling Services:** A third (34%) of suicide cases had ever received suicide prevention training, 14% used ASAP, and 9% used the Family Advocacy Program.

6.5 Behavioral Health Indicators

BH indicators from the Post-Deployment Health Assessment (PDHA), first implemented in 2004, the Post-Deployment Health Reassessment (PDHRA), implemented in 2005, and the latest version of the Periodic Health Assessment (PHA), implemented in 2009, are described here and in Tables D-12 and D-13. The prevalence of BH encounters and specific diagnoses are also described below and in Table D-15. Previous suicidal events are also described.

6.5.1 Post-Deployment Health Assessment

Of the suicide cases from 2004 through 2013 who had deployed and completed a PDHA in the year before the event (n=258), 40% reported depression symptoms, 27% reported posttraumatic stress symptoms, and 3% reported suicidal thoughts on the PDHA. Providers referred 21% of cases to BH care. There were, on average, 5 months between completion of the PDHA and the event.

BH indicators for suicide cases from 2013 with a PDHA (n=20) are described below and in Table D-12. On average, 6 months elapsed between the PDHA and the event.

- **Depression Symptoms:** A fifth (20%) reported depression symptoms, significantly less than 2011 (10%, χ^2=3.9, p=0.049).

- **Posttraumatic Stress:** A fifth (20%) reported symptoms of posttraumatic stress.

- **Suicidal Thoughts:** None reported suicidal thoughts.
- **Referrals:** Providers referred 22% to BH care.

6.5.2 Post-Deployment Health Reassessment

Among the suicide cases from 2005 through 2013 with PDHRA information (n=222), 48% reported depression symptoms, 34% reported posttraumatic stress symptoms, and 2% reported suicidal thoughts on the PDHRA. Providers referred 17% of suicide cases to BH care. On average, there were 5 months between the PDHRA and the event.

BH indicators for suicide cases from 2013 with a PDHRA (n=24) are described below and in Table D-13. On average, 5 months elapsed between the PDHRA and the event.

- **Depression Symptoms:** Over a quarter (29%) reported depression symptoms.
- **Posttraumatic Stress:** More than a tenth (13%) reported symptoms of posttraumatic stress.
- **Suicidal Thoughts:** None reported suicidal thoughts.
- **Referrals:** Providers referred 5% to BH care.

6.5.3 Periodic Health Assessment

Among the suicide cases from 2009, when the AUDIT-C was added to the PHA, through 2013 with a PHA in the 15 months before death (n=352), 27% screened positive for risky alcohol use, with 3% screening positive for a probable alcohol disorder. Providers offered 8% of cases referrals for their drinking behavior. Most (63%) received education about risks associated with alcohol consumption.

Alcohol screening results for 2013 suicide cases with a recent PHA (n=92, 61%) are described below and in Table D-14. Differences relative to 2011 and 2012 are noted only when significant.

- **Unhealthy Drinking:** Nearly a quarter (22%) of 2013 cases screened positive for risky alcohol use (Figure 13, next page), which was significantly less than screened positive in 2011 (37%, χ^2=4.7, p=0.031).
- **Probable Alcohol Disorder:** Few (1%) screened positive for a probable alcohol disorder.
- **Referrals:** Providers offered 5% of cases referrals for their drinking behavior.
- **Alcohol Education:** Over half (57%) received education about risks related to drinking.

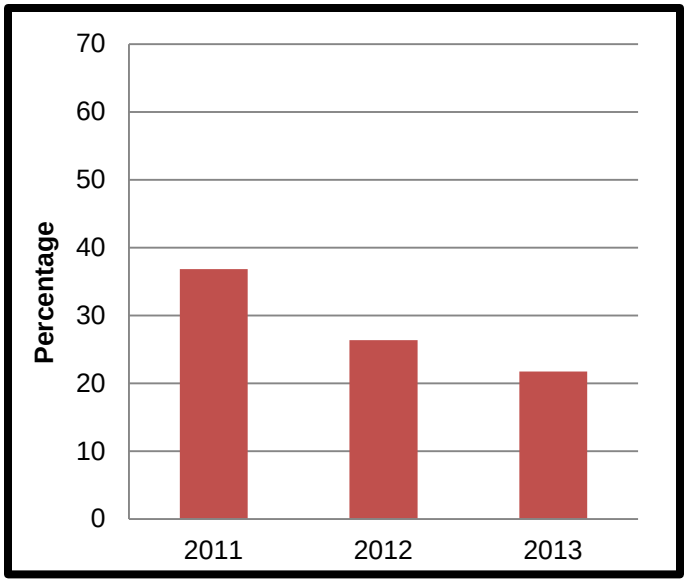


Figure 13. Positive Screen for Unhealthy Drinking Behavior, Suicide Cases, 2011–2013

6.5.4 Behavioral Health Encounters

Of suicide cases from 2001 through 2013, 20% had an inpatient BH encounter and 69% had an outpatient BH encounter during their military career. Within the 30 days preceding the event, 31% had a BH encounter.

BH encounters during military service among suicide cases from 2013 are described below and in Table D-15.

- **Inpatient BH Encounters:** A fifth (19%) had an inpatient BH encounter during their military career.
- **Outpatient BH Encounters:** Many (76%) had an outpatient BH encounter since accession.
- **BH Encounter in Previous 30 Days:** In the 30 days preceding the event, 37% had a BH encounter.

6.5.5 Behavioral Health Diagnoses

Of suicide cases from 2001 through 2013, 51% had a BH diagnosis since accession, with 31% first diagnosed in the preceding year. A third (30%) had received more than one diagnosis. A mood disorder was diagnosed in 25%, including major depression (12%) and other depressive disorders (22%). The prevalence of PTSD and other anxiety disorders was 10% and 16%, respectively. At 32%, adjustment disorder showed the highest prevalence of any BH disorder among suicide cases. Substance use disorders (alcohol, drug, or both) were diagnosed in 22%. Diagnoses of personality disorders and psychoses were relatively uncommon (6% and 2%, respectively). An E-code

documented previous suicide attempt or self-harm in 7% of suicide cases; 6% had a V-code indicating prior suicidal ideation.

BH diagnoses during military service among suicide cases from 2013 are described below and in Table D-15. Differences relative to 2011 or 2012 are noted only when significant.

- **Any BH Diagnosis:** Over half (59%) had received a BH diagnosis (Figure 14) since accession, with 27% first diagnosed in the year preceding their death.
- **More Than One BH Diagnosis:** Over a third (36%) received more than one BH diagnosis over the course of their military career.
- **Mood Disorders:** A mood disorder was diagnosed in 28% of suicide cases from 2013.
- **Major Depression and Other Depressive Disorders:** The prevalence of major depression was 15% and of other depressive disorders was 23% among 2013 suicide cases.
- **Posttraumatic Stress Disorders:** Few (10%) cases from 2013 had received a PTSD diagnosis.
- **Other Anxiety Disorders:** Nearly a quarter (22%) of cases from 2013 had been diagnosed with other anxiety disorders.
- **Adjustment Disorders:** Adjustment disorder was diagnosed among 39% of cases from 2013.
- **Substance Use Disorders:** The prevalence of substance use disorders was 21% among 2013 cases.

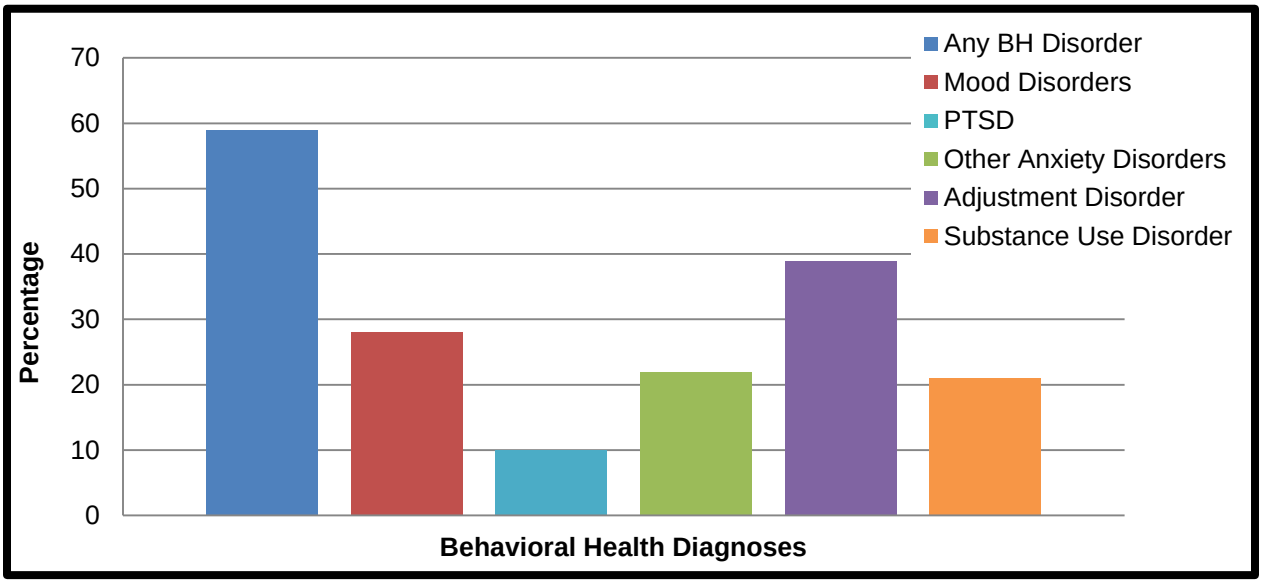


Figure 14. Behavioral Health Diagnoses, Suicide Cases, 2013

- **Personality Disorders and Psychoses:** Few 2013 suicide cases had been diagnosed with personality disorders or psychoses (5% and 2%, respectively).

- **Previous Suicide Attempt, Self-Harm, and Suicidal Ideation:** Previous suicide attempt or self-harm was documented by an E-code in 4% of 2013 suicide cases. This was significantly less than in 2012 (13%, χ^2=7.5, p=0.006) and 2011 (11%, χ^2=5.3, p=0.022). A V-code indicated that 10% of 2013 suicide cases had a history of suicidal ideation.

6.5.6 Provider Type

Of suicide cases from 2001 through 2013 who had received a BH diagnosis, 83% were diagnosed by credentialed BH clinicians. Cases with inpatient BH encounters were seen primarily by credentialed BH clinicians (62%). Cases with outpatient BH encounters were seen by credentialed BH clinicians (75%) and primary care providers (15%). Of cases with a BH encounter in the 30 days before their event, 72% were seen by credentialed BH clinicians and 16% by primary care providers.

The type of provider with whom 2013 suicide cases had BH encounters or from whom they received diagnoses is described below and in Table D-16 and Figures D-8 and D-9.

- **Provider Type by Any BH Diagnosis:** Of cases who had received a BH diagnosis, 87% were diagnosed by credentialed BH clinicians.

- **Provider Type by Inpatient BH Encounters:** Among 2013 cases who had an inpatient BH medical encounter, 56% were seen by credentialed BH clinicians and 11% each by primary care and other specialty providers.

- **Provider Type by Outpatient BH Encounters:** Most cases who had an outpatient BH encounter were seen by credentialed BH clinicians (79%) or primary care providers (17%).

- **Provider Type by BH Encounters within 30 Days of the Event:** Cases from 2013 with BH encounters in the 30 days before the event were seen primarily by credentialed BH clinicians (81%) or primary care providers (15%).

6.6 Other Medical Indicators

Indicators of TBI, pain, and sleep problems are described here and in Tables D-17 through D-19. Polypharmacy is also described below and in Table D-20 and Figure D-10.

6.6.1 Traumatic Brain Injury

The prevalence of TBI, since accession, among suicide cases from 2001 through 2013 was 12%; 6% were first diagnosed within a year of the suicide. Few (4%) ever had an inpatient TBI encounter and 11% ever had an outpatient TBI encounter. In the year before their death, 8% had a medical encounter for TBI, 5% within 30 days of death.

TBI among suicide cases from 2013 are described below and in Table D-17.

- **TBI Diagnoses:** TBI was diagnosed in 19% of 2013 suicide cases some time in their military career; 11% were first diagnosed within a year of their death.

- **Medical Encounters for TBI:** During their military career, 7% had an inpatient TBI encounter and 15% an outpatient TBI encounter. In the year before their death, 11% had a medical encounter for TBI, 8% within 30 days of death.

6.6.2 Pain Indicators

Of suicide cases from 2001 through 2013, 33% had a medical encounter with an ICD-9 code indicating pain, including V-codes (hereafter referred to as a pain encounter), in the year preceding their death, and 9% had a pain encounter within 30 days of their death. In the preceding year, 30% received a pain diagnosis (omits V-codes).

Pain indicators among 2013 suicide cases are described below and in Table D-18.

- **Medical Encounters for Pain:** In the year preceding the suicide, 42% of 2013 suicide cases had a medical encounter for pain, 10% within 30 days of their death.

- **Pain Diagnoses:** In the year before their death, 41% of 2013 suicide cases received a pain diagnosis (Figure 15).

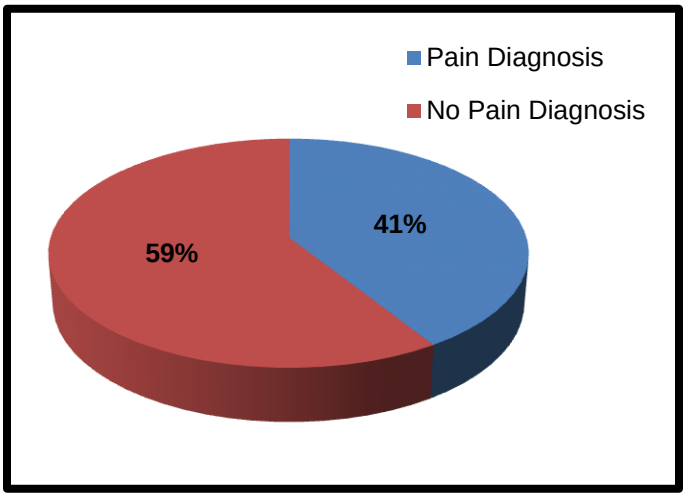


Figure 15. Pain Diagnosis in the Year Before the Event, Suicide Cases, 2013

6.6.3 Sleep Problems

Of suicide cases from 2001 through 2013, 15% had a medical encounter with an ICD-9 code indicating sleep problems/concerns, including V-codes (hereafter referred to as a sleep encounter) in the year preceding their death, and 4% had a sleep encounter within 30 days of their death. In the preceding year, 12% were diagnosed with a sleep disorder (omits V-codes).

Sleep indicators among 2013 suicide cases are described below and in Table D-19.

- **Medical Encounters for Sleep Problems:** In the year before the suicide, 25% of 2013 suicide cases had a medical encounter for sleep problems, 9% within 30 days of their death.

- **Sleep Disorder Diagnoses:** In the year before their death, 16% of 2013 suicide cases were diagnosed with a sleep disorder.

6.6.4 Polypharmacy

Soldiers may meet criteria for polypharmacy under one or more of three definitions (see page 5 for definitions and Figure D-10 for details). Of suicide cases from 2002, when electronic data on prescriptions became available, through 2013, 7% met criteria for polypharmacy at the time of their death; 5% met criteria under a single definition and 2% met criteria under two or more definitions. Suicide cases meeting polypharmacy criteria are presented in Table D-20.

Polypharmacy of suicide cases from 2013 is described below and in Table D-20.

- **Any Polypharmacy:** At the time of the event, 5% met criteria for polypharmacy.

- **Polypharmacy by Multiple Definitions:** Five percent of 2013 suicide cases met criteria under a single definition; no suicide cases met criteria for polypharmacy under two or more definitions.

6.7 Drug Testing and ASAP Screening

Of suicide cases from 2001 through 2013 who had drug testing data (n=1482), 6% had ever tested positive for drugs, excluding positive tests for drugs for which the Soldier had a prescription. Of these, 22% had more than one positive drug test, and 51% had a positive drug test within a year of their death. Positive tests were primarily for cannabis (50%), cocaine (35%), and amphetamines (18%).

Of suicide cases from 2001 through 2013, 22% were screened for intake into ASAP at some time during their military career; 64% of these enrolled in the program. In the year before their death, 10% of the suicide cases from 2001 through 2013 were screened for ASAP intake; of these, 66% enrolled.

Drug testing and ASAP screening of suicide cases from 2013 are described below and in Tables D–21 and D-22. Only significant differences are noted.

- **Positive Drug Tests:** Of suicide cases with drug testing data (n=151), 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, 17% had two or more positive drug tests, and 33% had a positive drug test within a year of their death.

- **Drugs with Positive Tests:** Positive tests were for cannabis (50%), oxycodone (33%) and cocaine (17%).

- **ASAP Screening & Enrollment:** Of suicide cases from 2013, 19% were screened for intake into the ASAP program at some point, significantly less than the proportion of 2012

cases (30%, χ^2=5.4, p=.021). Of these, 57% enrolled in the program. Of 2013 suicide cases, 5% were screened in the year preceding their death. Again, this proportion was significantly less compared to both 2012 (13%, χ^2=5.8, p=.016) and 2011 (13%, χ^2=5.1, p=.023). Of the 2013 cases screened, 63% of these enrolled.

7 Suicide Attempt Cases

During 2013, 469 Soldiers attempted suicide, as documented by DoDSERs. This is 112 more cases than in 2012 and 17 more cases than in 2011. The difference between 2012 and 2013 may in part be the result of the DoDSER entry system being inoperable January and February 2012.

The crude suicide attempt rate was 73.9 per 100,000 (95% CI: 67.2 – 80.6) for 2013. The rate for 2012 was 53.6 per 100,000 (95% CI: 48.1 – 59.2); for 2011, the rate was 64.7 per 100,000 (95% CI: 58.7 – 70.7). As these statistics show, attempt rates are higher than in previous years, although not as high as during 2005–2008 (Figure 16). This may in part be a result of better reporting, with greater emphasis being placed on completion of DoDSERs for nonfatal suicidal events.

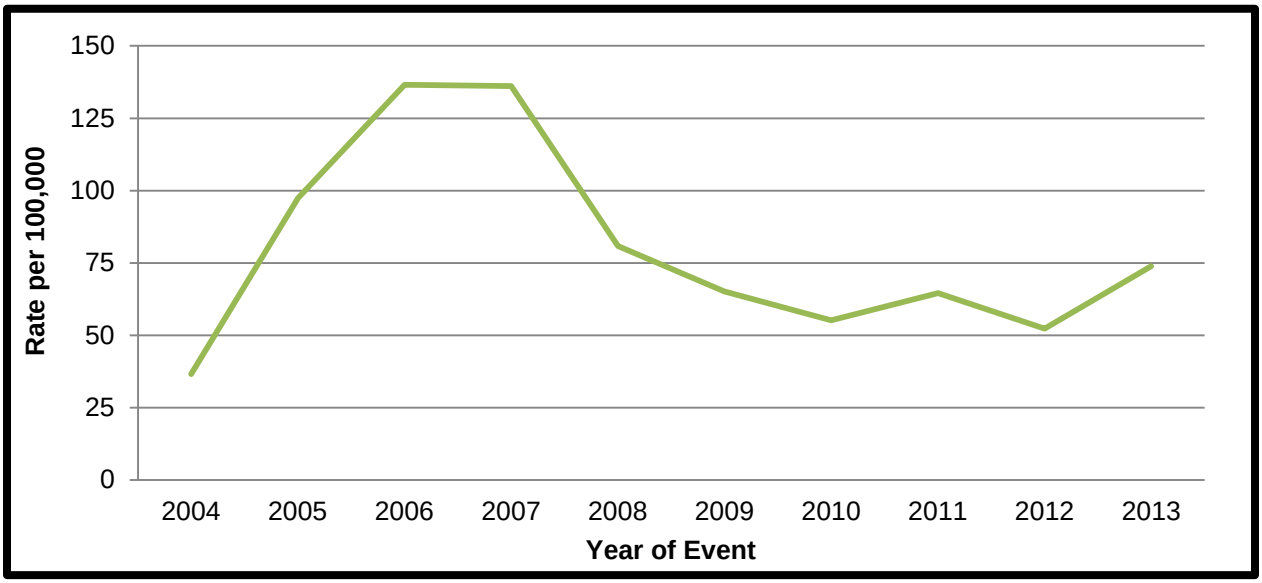


Figure 16. Crude Suicide Attempt Rate, Per 100,000, U.S. Army, 2004–2013

7.1 Demographic Characteristics

Among Soldiers who attempted suicide from 2004, when attempts were first documented, through 2013, the most common characteristics were male (74%), 17 to 24 years of age (62%), non-Hispanic white (66%), and single (54%).

Demographic characteristics of suicide attempt cases from 2013 and stratified suicide attempt rates for 2013 are described below and in Tables E-1 through E-3 and Figures E-1 through E-3. Differences relative to 2011 or 2012 are noted only when significant.

During 2013, 469 Soldiers attempted suicide. Of these:

- 77% were male
- 51% were 17–24 years of age
- 65% were non-Hispanic white
- 92% were active-duty
- 66% were in the E1–E4 ranks

- **Sex:** Most (77%) suicide attempts were among male Soldiers, which is to be expected since most Soldiers are male. Female Soldiers have higher suicide attempt rates: 117.8 per 100,000 compared to 66.5 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 smaller, the rate is higher.

- **Age Group:** The greatest proportion of suicide attempts were made by Soldiers 17 to 24 years of age (51%) or 25 to 34 years of age (37%). Suicide attempt rates stratified by age group were: 17–24 years, 119.7 per 100,000; 25–34 years, 68.4 per 100,000; 35–64 years, 31.5 per 100,000.

- **Race-Ethnicity:** The majority (65%) of suicide attempts were among non-Hispanic white Soldiers, followed by non-Hispanic black Soldiers (16%). Suicide attempt rates by race-ethnicity were: non-Hispanic white, 78.9 per 100,000; non-Hispanic black, 57.5 per 100,000; Hispanic, 86.8 per 100,000. The small number of suicide attempts among non-Hispanic Native American/Alaska Native and non-Hispanic Asian/Pacific Islander Soldiers resulted in rates too unstable to report.

- **Marital Status:** Approximately half (48%) of suicide attempt cases were married and 43% were single.

7.2 Military Characteristics

The majority of suicide attempts from 2004 through 2013 was by Regular Army Soldiers (89%) and by Soldiers in the E1–E4 ranks (78%). Most (56%) had never deployed in support of OEF, OIF, or OND or had deployed only once (28%).

Military characteristics of suicide attempt cases and stratified rates of suicide attempts for 2013 are described below and in Tables E-5 through E-7 and Figures E-4 and E-5. Differences relative to 2011 or 2012 are noted only when significant.

- **Component:** The greatest proportion of suicide attempts occurred among active-duty (Regular Army) Soldiers (92%).

- **Rank:** Most suicide attempt cases were from the E1–E4 ranks (66%), followed by E5–E9 ranks (29%). Suicide attempt rates stratified by rank were: E1–E4, 120.9 per 100,000 and E5–E9, 53.0 per 100,000. The small numbers of suicide attempts among officers and warrant officers resulted in rates too unstable to report.

- **Lifetime History of OEF/OIF/OND Deployment:** Most suicide attempt cases had a history of deployment (60%). These were principally Soldiers with one (28%) or two (21%) deployments. The proportion of cases with two or more deployments was significantly higher in 2013 (32%) than in 2011 (23%, χ^2=12.5, p=0.014) (Figure 17).

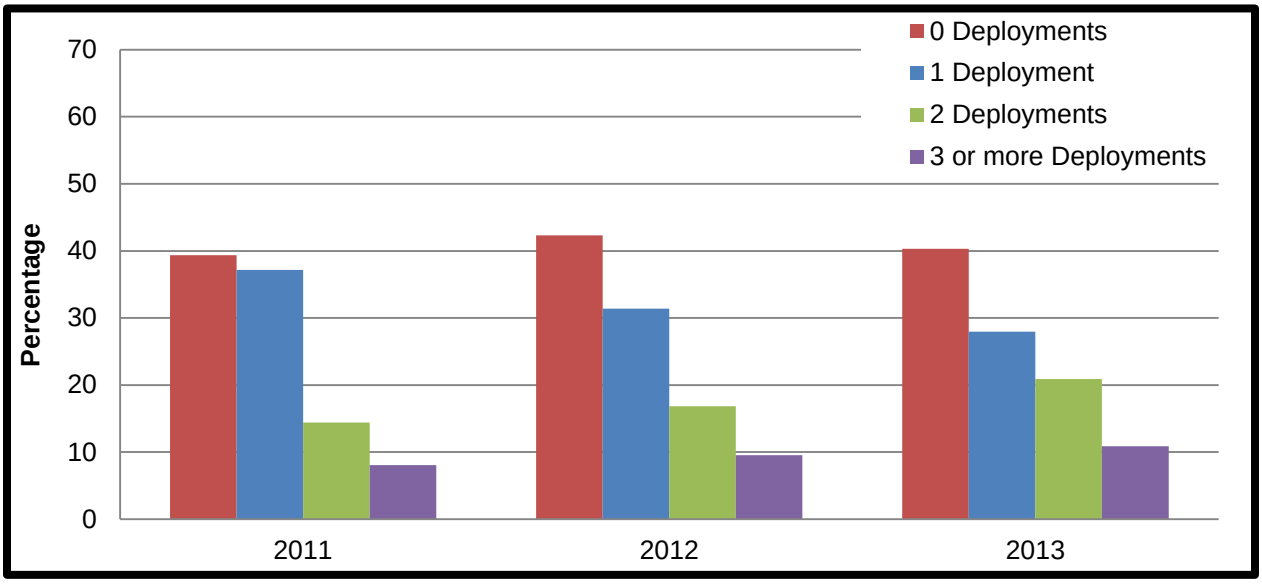


Figure 17. History of OEF/OIF/OND Deployment, Suicide Attempt Cases, 2011–2013

7.3 Event Characteristics

Most suicide attempts from 2004 through 2013 occurred in the United States (83%). The primary method used to attempt suicide was drug or alcohol overdose (53%).

Event characteristics of suicide attempts from 2013 are described below and in Tables E-8 and E-9.

- **Location:** The majority (90%) of suicide attempts occurred in the United States.
- **Communication:** Among suicide attempt cases, 25% communicated suicidal intentions prior to attempts.
- **Motivation:** Motivation was missing for 92% of the attempt cases.
- **Method:** The most common method of suicide attempt was drug/alcohol overdose (53%), followed by cutting (12%) and gunshot wounds (10%).
- **Alcohol or Drug Involvement:** Over half (52%) of suicide attempts involved drugs, and 30% involved alcohol.

- **Event Deployment Related:** Only 17% of suicide attempts were reported by the BH provider completing the DoDSER to be deployment related, with <1% related to an anticipated deployment, 3% to a current deployment, and 14% to a previous deployment. At the time of their attempt, 28% of cases had orders to deploy.

7.4 Stressors

Of suicide attempt cases from 2004 through 2013, 79% had one or more stressors, which may have occurred anytime during the Soldier's lifetime. Individual stressors with the highest prevalence included relationship problems (47%), work stress (38%), legal stressors (31%), and being a victim of abuse (30%).

The following stressors were reported to affect suicide attempt cases from 2013. Additional information is presented in Table E-10.

- **Any Stressor:** Stressors were reported among 84% of suicide attempt cases.
- **Relationship Stressors:** Over half (52%) of suicide attempt cases reported relationship problems (Figure 18).
- **Legal Stressors:** A legal stressor affected 34% of suicide attempt cases. The legal issues with the highest prevalence were Article 15 actions (18%), followed by administrative separations (10%) and civil legal problems (8%).
- **Health-Related Stressors:** Physical health problems affected 29% of suicide attempt cases, and 17% had been the subject of a medical evaluation board. Family health problems were an issue for 10% of suicide attempt cases. Over a third (36%) experienced the death of a family member or friend, and 18% had a family member or friend who died by suicide.

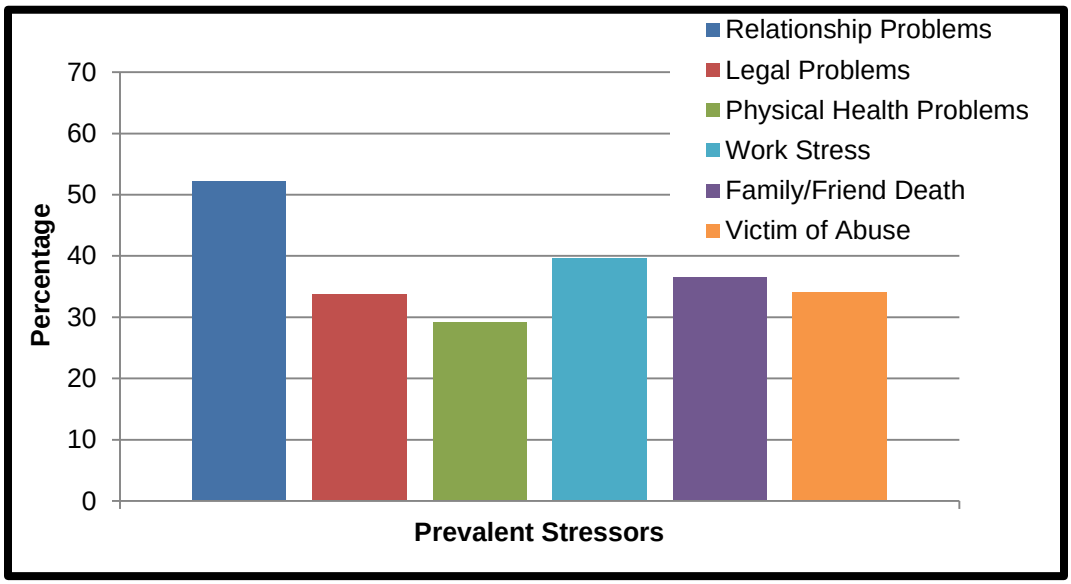


Figure 18. Prevalent Stressors, Suicide Attempt Cases, 2013

- **Work and Financial Stressors:** Work-related stress was reported for 40% of suicide attempt cases, and 12% experienced financial stress.

- **Victims and Perpetrators of Abuse:** Over a third (34%) of suicide attempt cases had a history of being a victim of abuse, and 9% as perpetrators of abuse.

- **Suicide Prevention Training and Use of Army Counseling Services:** Over half (62%) of suicide attempt cases had received suicide prevention training, 25% utilized ASAP, and 7% used Family Advocacy Program services.

7.5 Behavioral Health Indicators

BH indicators from the PDHA, PDHRA, and PHA are described here and in Tables E-11 through E-13. BH encounters and specific diagnoses are described below and in Table E-14. Differences relative to 2011 or 2012 are noted only when significant.

7.5.1 Post-Deployment Health Assessment

Of suicide attempt cases from 2004 through 2013 who had deployed and completed a PDHA in the year preceding the attempt (n=748), 52% reported depression symptoms, 39% reported posttraumatic stress symptoms, and 8% reported suicidal thoughts. Providers referred 26% to BH care. There were, on average, 6 months between completion of the PDHA and the attempt.

BH indicators for suicide attempt cases from 2013 with a PDHA (n=57) are described below and in Table E-11. On average, 6 months elapsed between the PDHA and the event.

- **Depression Symptoms:** Over half (52%) reported depression symptoms.

- **Posttraumatic Stress:** Almost half (49%) reported symptoms of posttraumatic stress (Figure 19, next page), significantly more than in 2011 (27%, χ^2=8.0, p=0.005).

- **Suicidal Thoughts:** Few (4%) reported suicidal thoughts.

- **Referrals:** Providers referred 40% to BH care.

7.5.2 Post-Deployment Health Reassessment

From 2005, when PDHRAs were first implemented, through 2013, among suicide attempt cases who had PDHRA information from the previous year (n=575), 64% reported depression symptoms, 46% reported posttraumatic stress symptoms, and 5% reported suicidal thoughts. Providers referred 25% to BH care. There were, on average, 5 months between the PDHRA and the event.

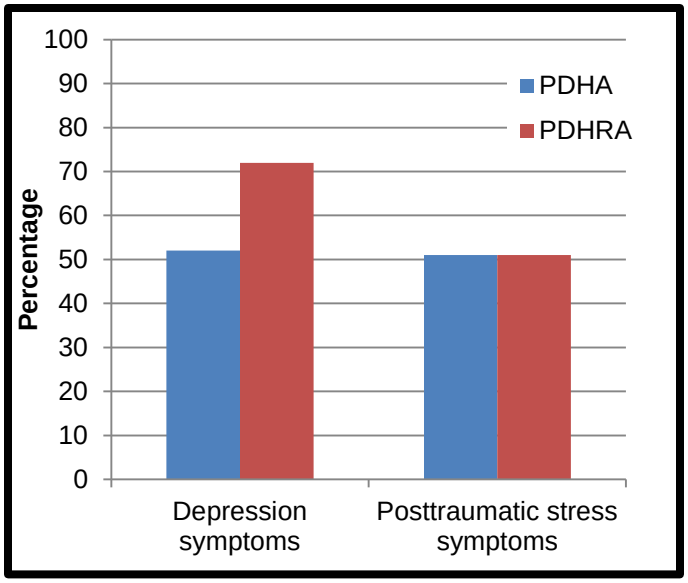


Figure 19. Symptoms of Depression and Posttraumatic Stress, PDHA & PDHRA, Suicide Attempt Cases, 2013

BH indicators for suicide attempt cases from 2013 with a PDHRA within one year of the attempt (n=68) are described below and in Table E-12. On average, 5 months elapsed between the PDHRA and the event.

- **Depression Symptoms:** Many (72%) reported depression symptoms.
- **Posttraumatic Stress:** Half (51%) reported symptoms of posttraumatic stress, significantly more than in 2011 (35%, χ^2=4.5, p=0.035).
- **Suicidal Thoughts:** Few (4%) reported suicidal thoughts.
- **Referrals:** Providers referred 25% to BH care.

7.5.3 Periodic Health Assessment

Among the suicide attempt cases from 2009 through 2013 with a PHA in the 15 months before their attempt (n=758), 25% screened positive for risky alcohol use, with 3% screening positive for a probable alcohol disorder. Providers offered 8% a referral for their drinking behavior. Over half (57%) received education about risks associated with alcohol consumption.

Alcohol screening results for 2013 suicide attempt cases with a recent PHA (n=230) are described below and in Table E-13.

- **Unhealthy Drinking:** A quarter (24%) screened positive for risky alcohol use.
- **Probable Alcohol Disorder:** Few (3%) screened positive for a probable alcohol disorder.
- **Referrals:** Providers offered 9% of cases referrals for their drinking behavior.

- **Alcohol Education:** Over half (55%) received education about risks related to drinking.

7.5.4 Behavioral Health Encounters

Of suicide attempt cases from 2004 through 2013, 29% had an inpatient BH encounter and 79% had an outpatient BH encounter before their attempt. Within the 30 days before the event, 59% had a BH encounter.

BH encounters during military service among suicide attempt cases from 2013 are described below and in Table E-14.

- **Inpatient BH Encounters:** Over a third (38%) had an inpatient BH encounter during their military career.

- **Outpatient BH Encounters:** Most (88%) had an outpatient BH encounter since accession.

- **BH Encounter in Previous 30 Days:** In the 30 days preceding the event, 66% had a BH encounter.

7.5.5 Behavioral Health Diagnoses

Of suicide attempt cases from 2004 through 2013, 70% had received a BH diagnosis since accession and before the event, with 57% first diagnosed in the preceding year. Half (48%) had received more than one diagnosis. A mood disorder was diagnosed in 45%, including major depression (22%) and other depressive disorders (38%). The prevalence of PTSD and other anxiety disorders was 14% and 23%, respectively. At 50%, adjustment disorder had the highest prevalence of any BH disorder among suicide attempt cases. Substance use disorders were diagnosed in 26%. Diagnoses of personality disorders and psychoses were relatively uncommon (11% and 3%, respectively). An E-code documented previous suicide attempt or self-harm in 13% of suicide attempt cases; 15% had a V-code for previous suicidal ideation.

BH diagnoses during military service among suicide attempt cases from 2013 are described below and in Table E-14. Differences relative to 2011 or 2012 are noted only when significant.

- **Any BH Diagnosis:** Many 2013 cases (78%) had received a BH diagnosis (Figure 20, next page) since accession, with 59% first diagnosed in the year preceding the attempt.

- **More Than One BH Diagnosis:** Over half (61%) received more than one BH diagnosis over the course of their military career.

- **Mood Disorders:** Half (52%) of 2013 suicide attempt cases had been diagnosed with a mood disorder.

- **Major Depression and Other Depressive Disorders:** The prevalence of major depression was 26% and of other depressive disorders was 46% among 2013 suicide attempt cases.

- **Posttraumatic Stress Disorders:** Nearly a quarter (23%) of cases from 2013 had received a PTSD diagnosis.

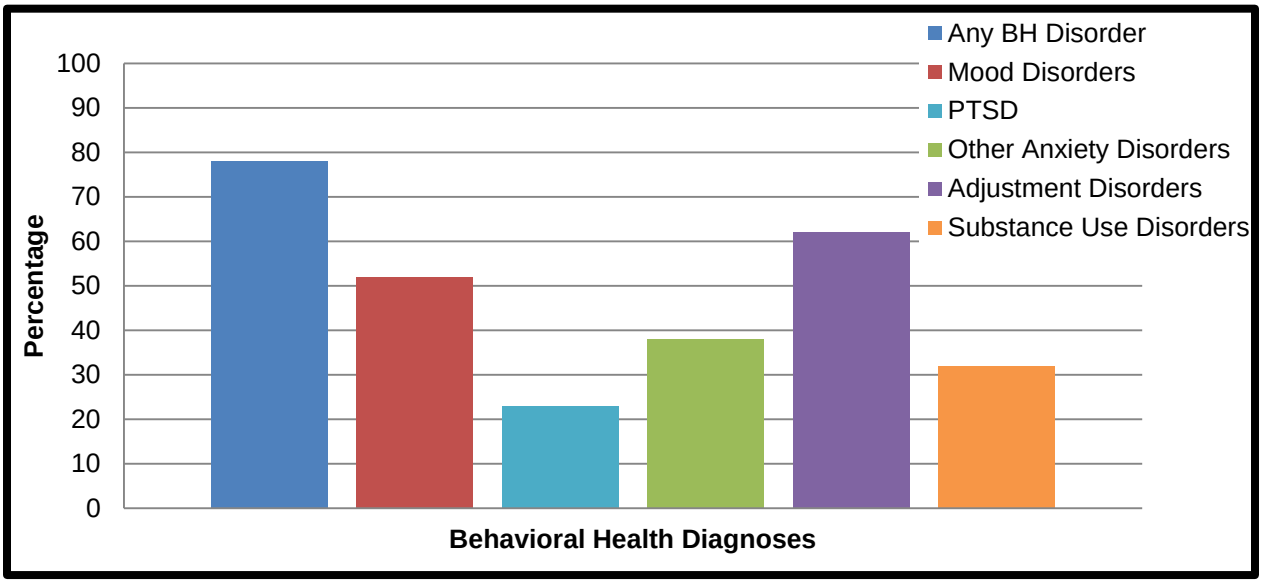


Figure 20. Behavioral Health Diagnoses, Suicide Attempt Cases, 2013

- **Other Anxiety Disorders:** Over a third (38%) of 2013 cases had been diagnosed with an anxiety disorder.
- **Adjustment Disorders:** Adjustment disorder was diagnosed in 62% of cases from 2013.
- **Substance Use Disorders:** The prevalence of substance use disorders was 32%.
- **Personality Disorders and Psychoses:** The proportion of cases diagnosed with personality disorders decreased from 2011 (13%) to 2013 cases (8%, χ^2=8.1, p=.004). Psychoses had been diagnosed in 4% of 2013 suicide attempt cases.
- **Previous Suicide Attempt, Self-Harm, or Suicidal Ideation:** Previous suicide attempt or self-harm was documented by an E-code in 14% of 2013 suicide attempt cases. A V-code indicated that 27% had a history of suicidal ideation.

7.5.6 Provider Type

Of suicide attempt cases from 2004 through 2013 who had received a BH diagnosis, 89% were diagnosed by credentialed BH clinicians. Cases with inpatient BH encounters were seen primarily by credentialed BH clinicians (77%). Cases with outpatient BH encounters were seen by credentialed BH clinicians (81%) and primary care providers (14%). Of cases with a BH encounter in the 30 days before their event, 77% were seen by credentialed BH clinicians and 15% by primary care providers.

The type of provider with whom 2013 suicide attempt cases had BH encounters or from whom they received diagnoses is described below and in Table E-15 and Figures E-6 and E-7.

- **Provider Type by BH Diagnosis:** Of cases who had received a BH diagnosis, 93% were diagnosed by credentialed BH clinicians.

- **Provider Type by Inpatient BH Encounters:** Among 2013 cases who had an inpatient BH medical encounter, 82% were seen by credentialed BH clinicians.

- **Provider Type by Outpatient BH Encounters:** Most cases that had an outpatient BH encounter were seen by credentialed BH clinicians (91%) or primary care providers (7%).

- **Provider Type by BH Encounters within 30 Days of the Event:** Cases from 2013 with BH encounters in the 30 days before the event were seen by credentialed BH clinicians (87%) or primary care providers (11%).

7.6 Other Medical Indicators

Indicators of TBI, pain, and sleep problems are described here and in Tables E-16 through E-18. Polypharmacy is also described below and in Table E-19.

7.6.1 Traumatic Brain Injury

The prevalence of TBI, diagnosed since accession, among suicide attempt cases from 2004 through 2013 was 10%; 4% of cases were first diagnosed in the year before the attempt. Few Soldiers (2%) ever had an inpatient TBI encounter and 10% ever had an outpatient TBI encounter. In the year before their suicide attempt, 6% had a medical encounter for TBI, 2% in the 30 days before the suicidal event.

TBI among suicide attempt cases from 2013 are described below and in Table E-16. Only significant differences are noted.

- **TBI Diagnoses:** TBI was diagnosed in 16% of 2013 suicide attempt cases some time in their military career; 5% of cases were first diagnosed in the year preceding the attempt.

- **Medical Encounters for TBI:** During their military career, 3% had an inpatient TBI encounter and 18% had an outpatient TBI encounter. In the year before the suicide attempt, 9% had a TBI encounter, 3% within the 30 days before the event.

7.6.2 Pain Indicators

Of suicide attempt cases from 2004 through 2013, 46% had a pain encounter in the year preceding their attempt, 18% in the previous 30 days. In the preceding year, 42% received a pain diagnosis.

Pain indicators among 2013 suicide attempt cases are described below and in Table E-17.

- **Medical Encounters for Pain:** In the year preceding their suicide attempt, 56% of 2013 suicide cases had a medical encounter for pain, 24% within 30 days of their death.

- **Pain Diagnoses:** In the year before their suicide attempt, 52% received a pain diagnosis (Figure 21, next page).

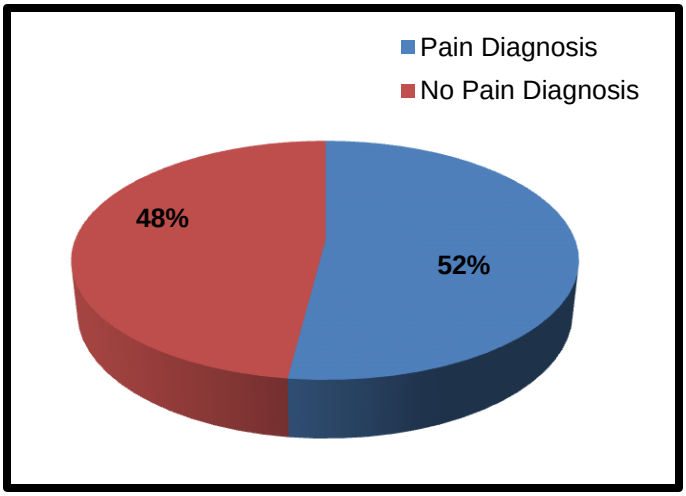


Figure 21. Pain Diagnosis in the Year Before the Event, Suicide Attempt Cases, 2013

7.6.3 Sleep Problems

Of suicide attempt cases from 2004 through 2013, 20% had a sleep encounter in the year preceding their attempt, 7% in the preceding 30 days. In the preceding year, 15% were diagnosed with a sleep disorder.

Sleep indicators among 2013 suicide attempt cases are described below and in Table E-18. Differences relative to 2011 and 2012 are noted only when significant.

- **Medical Encounters for Sleep Problems:** In the year before the suicide attempt, 35% of 2013 suicide cases had a medical encounter for sleep problems. Sleep encounters within the 30 days preceding the suicide attempt increased in 2013 (14%) relative to 2011 (9%, χ^2=4.1, p=0.042).

- **Sleep Disorder Diagnoses:** In the year before the suicide attempt, 29% of cases were diagnosed with a sleep disorder, a significant increase compared to 2011 (24%, χ^2=4.0, p=0.044).

7.6.4 Polypharmacy

At the time of their suicide attempt, 14% of suicide attempt cases from 2004 through 2013 met criteria for polypharmacy. This included 10% who met criteria under a single definition, and 4% who met criteria under more than one definition (see page 5 for definitions and Figure D-10 for details).

Polypharmacy of suicide attempt cases from 2013 is described below and in Table E-19. Differences relative to 2011 or 2012 are noted only when significant.

- **Any Polypharmacy:** At the time of the suicide attempt, 18% met criteria for polypharmacy.

- **Polypharmacy by Multiple Definitions:** Twelve percent met criteria under a single definition; 4% met criteria under two definitions; few (2%) met criteria under all three definitions.

7.7 Drug Testing and ASAP Screening

Of suicide attempt cases from 2004 through 2013 with drug testing data (n=4416) 10% had ever tested positive for drugs, excluding positive tests for drugs for which the Soldier had a prescription. Of these, 32% had more than one positive drug test, and 78% had a positive drug test in the year before their suicide attempt. Positive tests were primarily for cannabis (48%) and cocaine (39%).

Of suicide attempt cases from 2004 through 2013, 22% were screened for intake into the ASAP program before their attempt; 73% of those screened enrolled in the program. In the year preceding the attempt, 14% were screened for ASAP and 74% enrolled.

Drug testing and ASAP screening of suicide attempt cases from 2013 are described below and in Tables E-20 and E-21. Only significant differences are noted.

- **Positive Drug Tests:** Of suicide attempt cases with drug testing data (n=427), 9% 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, 26% had two or more positive drug tests, and 72% had a positive test in the year preceding their attempt.

- **Drugs with Positive Tests:** Positive tests were primarily for cannabis (46%) and cocaine (26%).

- **ASAP Screening & Enrollment:** Of suicide attempt cases from 2013, 33% were screened for intake into the ASAP program at some point prior to the event, a significant increase compared to 2011 (25%, χ^2=5.8, p=0.017). Of these, 76% enrolled in the program. In the year preceding the attempt, 20% of cases were screened and 85% of these enrolled.

8 Suicidal Ideation Cases

During 2013, 910 suicidal ideation cases were documented by DoDSERs. This is 124 more cases than in 2012 and 61 more than in 2011. The large difference between 2013 and 2012 may in part be the result of the DoDSER entry system being inoperable during January – February 2012.

The crude rate of suicidal ideation was 143.3 per 100,000 (95% CI: 134.0 – 152.6) for 2013. This is nearly the same as the previous peak in 2009 (Figure 22, next page). As with the 2012 increase in the suicide attempt rate, this may be the result of increased attention to documentation.

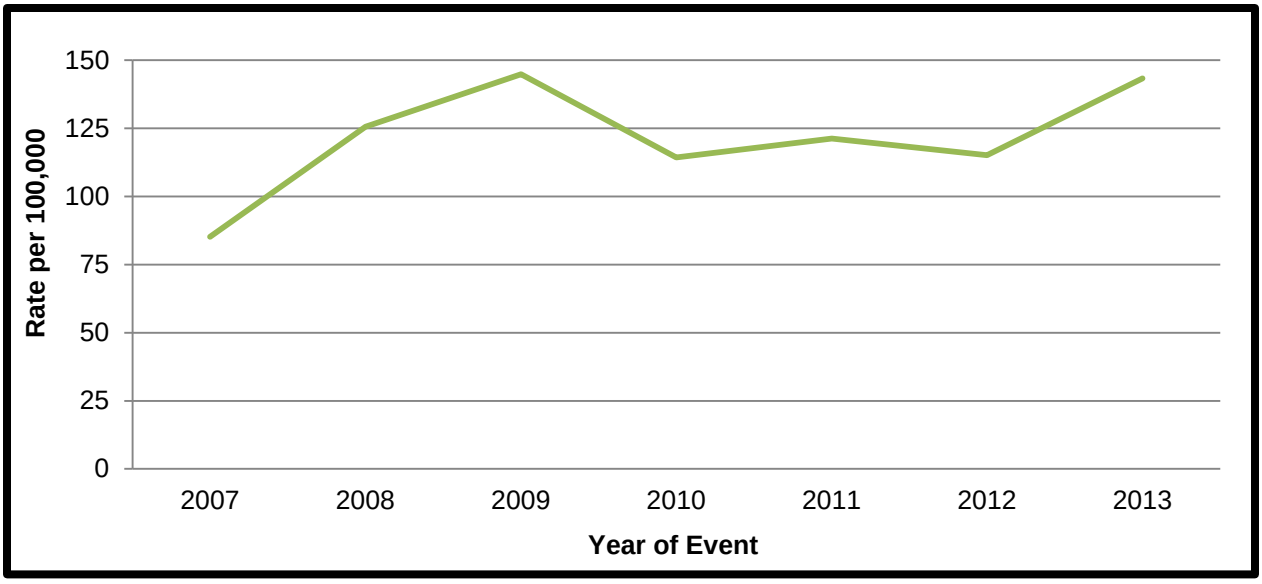


Figure 22. Crude Suicidal Ideation Rate, Per 100,000, U.S. Army, 2007-2013

8.1 Demographic Characteristics

The most common characteristics of suicidal ideation cases from 2007, when ideations were first documented, through 2013, were male (79%), 17 to 24 years of age (57%), non-Hispanic white (66%), and single (53%).

Demographic characteristics of suicidal ideation cases from 2013 and stratified suicide ideation rates for 2013 are described below and in Tables F-1 through F-4 and Figures F-1 through F-3. Differences relative to 2011 or 2012 are noted only when significant.

- **Sex:** Most (80%) suicidal ideations were among male Soldiers. Suicidal ideation rates stratified by sex were 133.6 per 100,000 for males and 201.4 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.

During 2013, 910 Soldiers expressed suicidal ideations. Of these:

- 80% were male
- 52% were 17–24 years of age
- 60% were non-Hispanic white
- 89% were active-duty
- 68% were E1-E4

- **Age Group:** The greatest proportion of Soldiers who expressed suicidal ideation was 17 to 24 years of age (52%) or 25 to 34 years of age (33%). Suicidal ideation rates by age group are 17–24 years, 237.9 per 100,000; 25–34 years, 118.6 per 100,000; and 35–64 years, 75.6 per 100,000.

- **Race-Ethnicity:** The majority (60%) of suicidal ideations were among non-Hispanic white Soldiers. This was a significant decrease compared to 2011 (66%), with small increases in the proportions of Soldiers in other race-ethnicity categories (χ^2=10.0, p=0.041). Suicidal ideation rates for Soldiers by race-ethnicity were non-Hispanic white, 141.8 per 100,000; non-Hispanic black, 127.4 per 100,000; Hispanic, 184.3 per 100,000; and non-Hispanic Asian/Pacific Islander, 145.4 per 100,000. The small number of cases among non-Hispanic American Indian/Alaskan Native Soldiers resulted in a suicidal ideation rate too unstable to report.

- **Marital Status:** Suicidal ideation cases were almost evenly divided between single (49%) and married (45%).

8.2 Military Characteristics

Most suicidal ideation cases from 2007 through 2013 were active-duty (Regular Army) Soldiers (86%) in the E1–E4 ranks (76%). Over half (52%) had never deployed to OEF, OIF, or OND, or had deployed once (28%).

Military characteristics for suicidal ideation cases from 2013 are described below and in Tables F-5 through F-7 and Figures F-4 and F-5. Differences relative to 2011 or 2012 are noted only when significant.

- **Component:** Most suicidal ideations occurred among active-duty (Regular Army) Soldiers (89%)**.** Ideations in 2013 by activated Soldiers in the National Guard (6%) and U.S. Army Reserves (4%) decreased compared to 2011 (10% and 8%, respectively, χ^2=17.3, p<0.001).

- **Rank:** Most suicidal ideation cases were from the E1–E4 ranks (68%) (Figure 23, next page). This was a significant decrease compared to 2011 (75%) with small increases in the proportions of cases from the noncommissioned officer (E5–E9), warrant officer (W1–W5), and junior officer (O1–03) ranks (χ^2=16.0, p=0.003). Suicidal ideation rates stratified by rank were: E1–E4, 241.9 per 100,000; E5–E9, 91.3 per 100,000; and O1–O3, 45.8 per 100,000. The small number of suicidal ideation cases among warrant officers and senior officers resulted in rates too unstable to report.

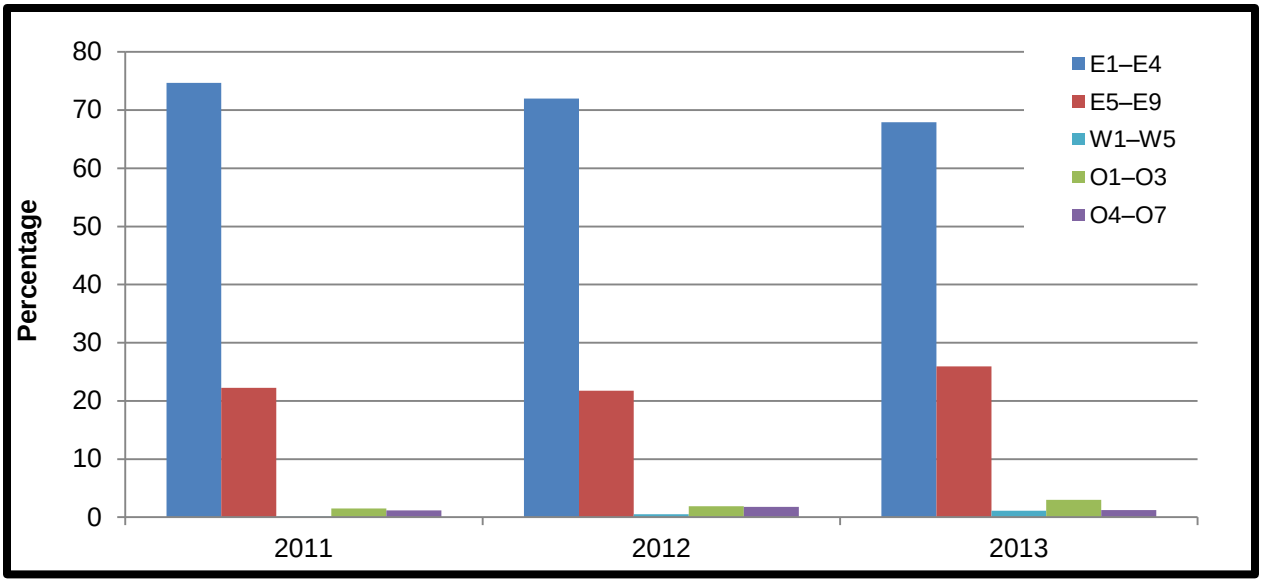


Figure 23. Rank Distribution, Suicidal Ideation Cases, 2011–2013

- **Lifetime History of OEF/OIF/OND Deployment:** Most suicidal ideation cases had never deployed (52%) or had deployed only once (23%). However, the proportion with one or two deployments decreased in 2013 (36%) compared to 2011 (45%). In addition, those with no deployments (52%) or three or more deployments (13%) increased compared to 2011 (47% and 8%, respectively, χ^2=25.8, p<.001; Figure 24).

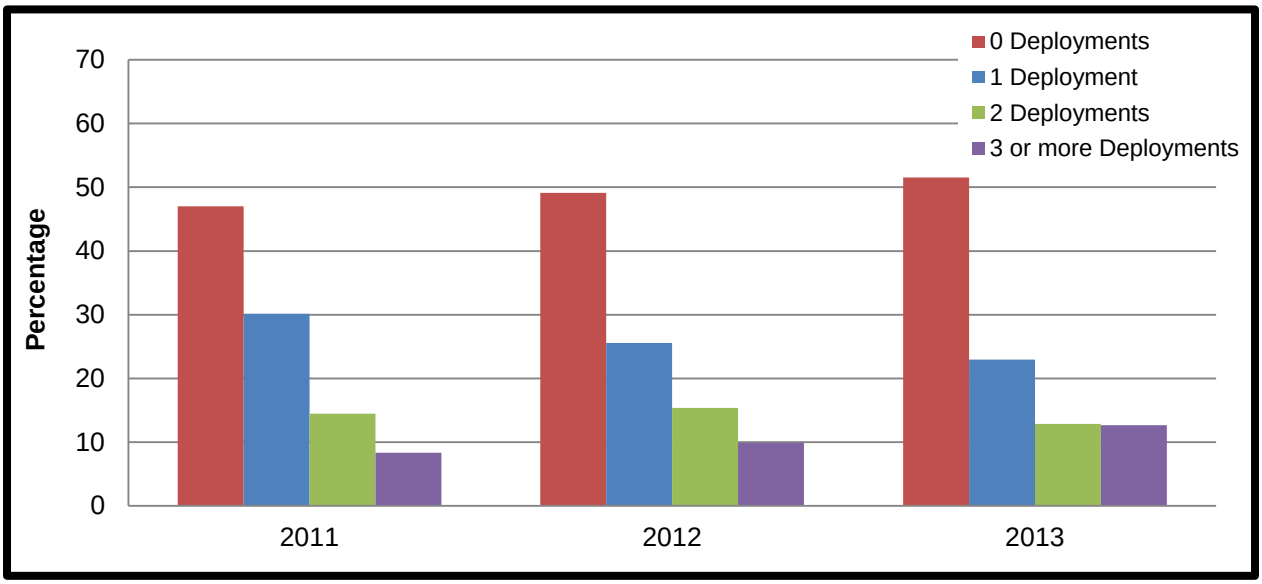


Figure 24. History of OEF/OIF/OND Deployment, Suicidal Ideation Cases, 2011–2013

8.3 Event Characteristics

Of the suicidal ideations from 2007 through 2013, 89% occurred in the United States. A small portion (15%) of suicidal ideations was reported to be deployment-related, with 2% related to an anticipated deployment, 4% to a current deployment, and 9% to a previous deployment. At the time of the event, 12% had orders to deploy.

Event characteristics of suicidal ideation cases from 2013 are described below and in Table F-8.

- **Location:** The majority (87%) of suicidal ideations occurred in the United States.

- **Event Deployment Related:** A small portion (13%) of suicidal ideations were reported by the BH provider completing the DoDSER to be deployment-related, with <1% related to an anticipated deployment, 1% related to a current deployment, and 11% related to a previous deployment. At the time of the event, 14% of suicidal ideation cases had orders to deploy.

8.4 Stressors

Among suicidal ideation cases from 2007 through 2013, 77% were reported to be affected by one or more stressors, which may have occurred anytime during the Soldier's lifetime. Prevalent stressors included relationship problems (41%), work stress (37%), being a victim of abuse (29%), and legal problems (28%). In addition, 26% experienced the death and 11% the suicide of a family member or friend.

Stressors that affected suicidal ideation cases from 2013 are described below and in Table F-9.

- **Any Stressor:** Stressors were reported among 79% of suicidal ideation cases.

- **Relationship Stressors:** Approximately 41% of suicidal ideation cases had relationship problems (Figure 25).

- **Legal Stressors:** Some type of legal stressor was reported for 30% of suicidal ideation cases, the most common being Article 15 actions (17%).

- **Health-Related Stressors:** Physical health problems were reported for 23% of ideation cases and 11% had experienced medical boards. Family health problems affected 11% of the suicidal ideation cases. Moreover, 32% experienced the death and 15% the suicide of a family member or friend.

- **Work and Financial Stressors:** Work-related and financial stress were reported for 37% and 11% of the suicidal ideation cases, respectively.

- **Victims and Perpetrators of Abuse:** Many suicidal ideation cases had a history of abuse, 30% as victims and 6% as perpetrators.

- **Suicide Prevention Training and Use of Army Counseling Services:** Half (49%) of suicidal ideation cases had received suicide prevention training; 15% utilized ASAP; and 7% used Family Advocacy Program services.

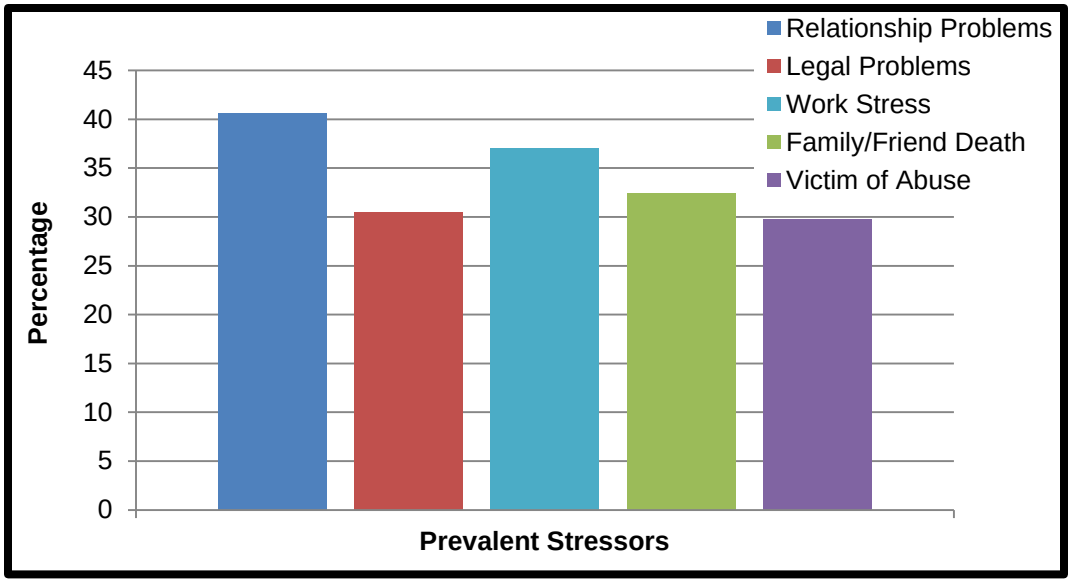


Figure 25. Prevalent Stressors, Suicidal Ideation Cases, 2013

8.5 Behavioral Health Indicators

BH indicators from the PDHA, PDHRA, and PHA are described here and in Tables F-10 through F-12. 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-13. Differences relative to 2011 or 2012 are noted only when significant.

8.5.1 Post-Deployment Health Assessment

Of the suicidal ideation cases from 2007 through 2013 who had deployed and completed a PDHA in the year before the event (n=954), 58% reported depression symptoms and 41% reported posttraumatic stress symptoms. Suicidal thoughts were reported by 5% of the suicidal ideation cases and providers referred 30% to BH care. There were, on average, 6 months between completion of the PDHA and the event.

BH indicators for suicidal ideation cases from 2013 with a PDHA within one year of the event (n=75) are described below and in Table F-10. On average, 6 months elapsed between the PDHA and the event.

- **Depression Symptoms:** Over half (61%) reported depression symptoms (Figure 26, next page).
- **Posttraumatic Stress:** Half (50%) reported symptoms of posttraumatic stress.
- **Suicidal Thoughts:** Few (1%) reported suicidal thoughts.
- **Referrals:** Providers referred 40% to BH care.

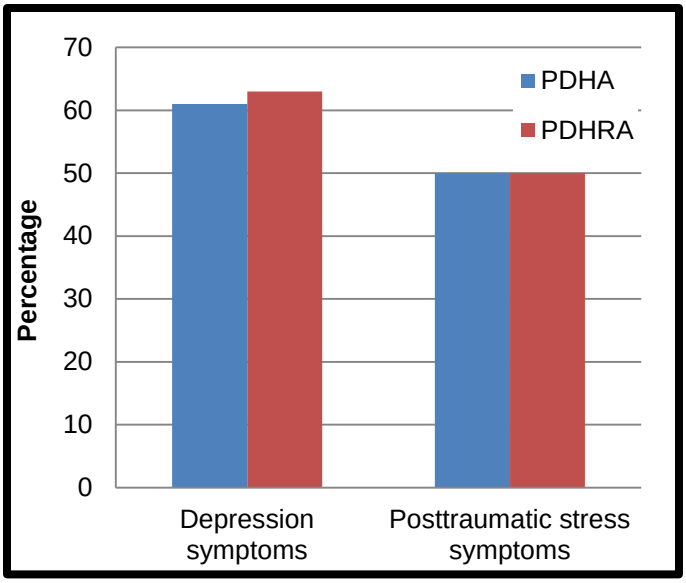


Figure 26. Symptoms of Depression and Posttraumatic Stress, PDHA & PDHRA, Suicidal Ideation Cases, 2013

8.5.2 Post-Deployment Health Reassessment

Of the suicidal ideation cases from 2005 through 2013 who had completed a PDHRA in the year before the event (n=872), 70% reported depression symptoms and 52% reported posttraumatic stress symptoms. Suicidal thoughts were reported by 7% and providers referred 20% to BH care. On average, 5 months elapsed between the PDHRA and the event.

BH indicators for suicidal ideation cases from 2013 with recent PDHRAs (n=79) are described below and in Table F-11. On average, 6 months elapsed between the PDHA and the event.

- **Depression Symptoms:** Almost two-thirds (63%) reported depression symptoms.
- **Posttraumatic Stress:** Half (50%) reported symptoms of posttraumatic stress.
- **Suicidal Thoughts:** Few (5%) reported suicidal thoughts.
- **Referrals:** Providers referred 24% to BH care.

8.5.3 Periodic Health Assessment

Among the suicidal ideation cases from 2009 through 2013 with a PHA in the 15 months before their ideation (n=1267), 22% screened positive for risky alcohol use, and 3% screened positive for probable alcohol disorder. Providers offered 7% a referral for their drinking behavior. Over half (56%) received education about risks associated with alcohol consumption.

Alcohol screening results for 2013 suicidal ideation cases with a recent PHA (n=416) are described below and in Table F-12. Differences relative to 2011 and 2012 are noted only when significant.

- **Unhealthy Drinking:** A fifth (21%) of 2013 cases screened positive for risky alcohol use.
- **Probable Alcohol Disorder:** Few (3%) screened positive for a probable alcohol disorder, which was significantly less than in 2011 (6%, χ^2=5.0, p=0.025).
- **Referrals:** Providers offered 7% a referral for their drinking behavior.
- **Alcohol Education:** Over half (57%) received education about risks related to drinking.

8.5.4 Behavioral Health Encounters

Of suicidal ideation cases from 2007 through 2013, 25% had an inpatient BH encounter during their military service and 80% had an outpatient BH encounter. In the 30 days before the event, 60% had a BH encounter.

BH encounters during military service among suicidal ideation cases from 2013 are described below and in Table F-13.

- **Inpatient BH Encounters:** A quarter (23%) 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, 63% had a BH encounter.

8.5.5 Behavioral Health Diagnoses

Many (73%) of the suicidal ideation cases from 2007 through 2013 had received a BH diagnosis since accession and before the event, with 57% first diagnosed in the preceding year. Half (49%) had received more than one diagnosis. Nearly half (47%) had been diagnosed with a mood disorder, including major depression (22%) and other depressive disorders (40%). The prevalence of PTSD and other anxiety disorders was 16% and 24%, respectively. Adjustment disorder had the highest prevalence (55%) of any BH disorder among suicidal ideation cases. Substance use disorders were diagnosed in 21%. Diagnoses of personality disorders and psychoses were relatively uncommon (8% and 3%, respectively). An E-code documented previous suicide attempt or self-harm in 5% of suicidal ideation cases; 19% had a V-code for previous suicidal ideation.

BH diagnoses during military service among suicidal ideation cases from 2013 are described below and in Table F-13. Differences relative to 2011 or 2012 are noted only when significant.

- **Any BH Diagnosis:** Many (75%) had received a BH diagnosis (Figure 27, next page) since accession and before the event, with 55% first diagnosed in the preceding year.
- **More Than One BH Diagnosis:** More than half (53%) received more than one BH diagnosis over the course of their military career.
- **Mood Disorders:** Approximately half (49%) of the cases from 2013 had received a mood disorder diagnosis.

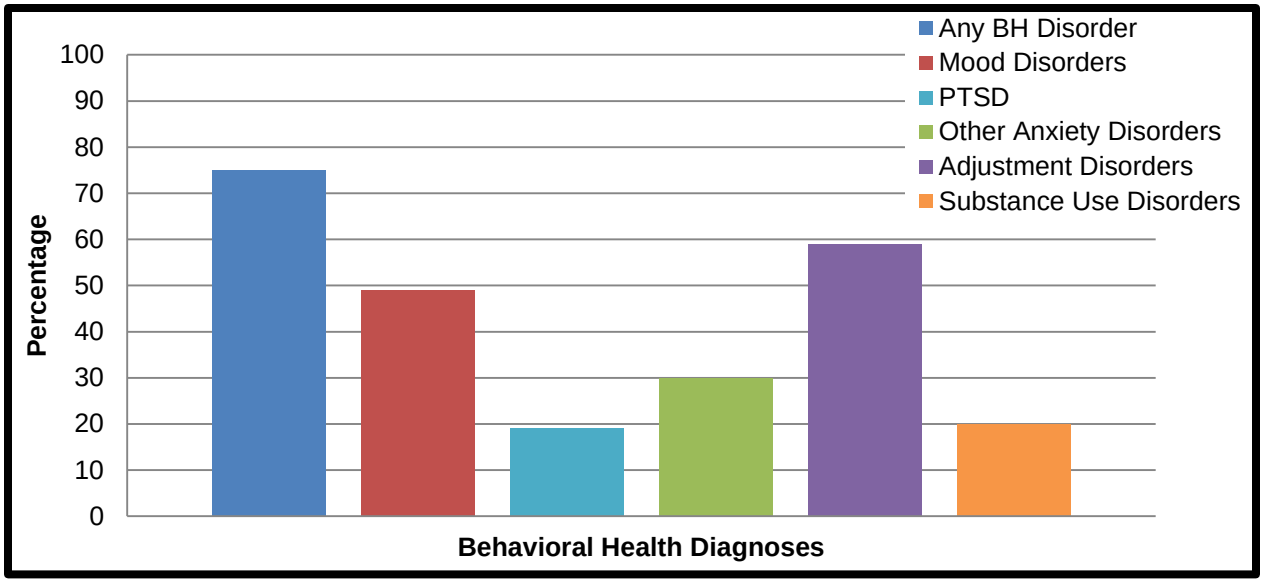


Figure 27. Behavioral Health Diagnoses, Suicidal Ideation Cases, 2013

- **Major Depression and Other Depressive Disorders:** The prevalence of major depression and other depressive disorders was 24% and 42%, respectively.
- **Posttraumatic Stress Disorders:** Of the cases from 2013, 19% had received a PTSD diagnosis.
- **Other Anxiety Disorders:** Nearly a third (30%) had been diagnosed with an anxiety disorder.
- **Adjustment Disorders:** The prevalence of adjustment disorder was 59% among cases from 2013.
- **Substance Use Disorders:** The prevalence of substance use disorders was 20%.
- **Personality Disorders and Psychoses:** Diagnoses of personality disorders and psychoses were relatively uncommon, 6% and 3%, respectively.
- **Previous Suicide Attempt, Self-Harm, and Suicidal Ideation:** The prevalence of previous suicide attempt or self-harm, as documented by E-codes, was 2% in 2013, significantly less than in 2012 (6%, χ^2=10.4, p=0.001). Previous suicidal ideation, as documented by V-codes, was 19%.

8.5.6 Provider Type

Of suicidal ideation cases from 2007 through 2013 who had received a BH diagnosis, 93% were diagnosed by credentialed BH clinicians. Cases with inpatient BH encounters were seen primarily by credentialed BH clinicians (80%). Cases with outpatient BH encounters were seen by credentialed BH clinicians (87%) and primary care providers (9%). Of cases with a BH encounter in the 30 days before their event, 80% were seen by credentialed BH clinicians and 13% by primary care providers.

The type of provider with whom the 2013 suicidal ideation cases had BH encounters or from whom they received diagnoses is described below and in Table F-14 and Figures F-6 and F-7.

- **Provider Type by Any BH Diagnosis:** Of cases who had received a BH diagnosis, 95% were diagnosed by credentialed BH clinicians.

- **Provider Type by Inpatient BH Encounters:** Among 2013 suicidal ideation cases who had an inpatient BH medical encounter, 82% were seen by credentialed BH clinicians.

- **Provider Type by Outpatient BH Encounters:** Most cases who had an outpatient BH encounter were seen by credentialed BH clinicians (93%) or primary care providers (6%).

- **Provider Type by BH Encounters within 30 Days of the Event:** Cases from 2013 with BH encounters in the 30 days before the event were seen primarily by credentialed BH clinicians (87%) or primary care providers (10%).

8.6 Other Medical Indicators

Indicators of TBI, pain, and sleep problems are described here and in Tables F-15 through F-17. Polypharmacy is also described below and in Table F-18. Only significant differences are noted.

8.6.1 Traumatic Brain Injury

The prevalence of TBI diagnoses among suicidal ideation cases from 2007 through 2013 was 10%; 4% were first diagnosed in the year before the ideation. Over the course of their military career, 2% had an inpatient TBI encounter and 11% had an outpatient TBI encounter. In the year before their ideation, 7% had a TBI encounter, 2% in the 30 days before the suicidal event.

TBI among suicidal ideation cases from 2013 is described below and in Table F-15.

- **TBI Diagnoses:** Since accession, 12% of 2013 cases had been diagnosed with TBI; 4% were first diagnosed in the year preceding the ideation.

- **TBI Encounters:** Few (2%) had ever had an inpatient TBI encounter; 13% had an outpatient TBI encounter. In the year before the suicidal ideation, 7% had a TBI encounter, with 1% having an encounter in the 30 days before the event.

8.6.2 Pain Indicators

Of suicidal ideation cases from 2007 through 2013, 48% had a pain encounter in the year preceding their event, and 19% had a pain encounter in the 30 days before their event. The prevalence of pain diagnoses in the preceding year was 43%.

Pain indicators among 2013 suicidal ideation cases are described below and in Table F-16. Differences relative to 2011 or 2012 are noted only when significant.

- **Medical Encounters for Pain:** In the year preceding the event, 52% of 2013 suicidal ideation cases had a medical encounter for pain, 20% within 30 days of their event.

- **Pain Diagnoses:** In the year before the event, 48% of 2013 suicidal ideation cases received a pain diagnosis (Figure 28), a significant increase compared to 2011 (43%, χ^2=4.2, p=0.041).

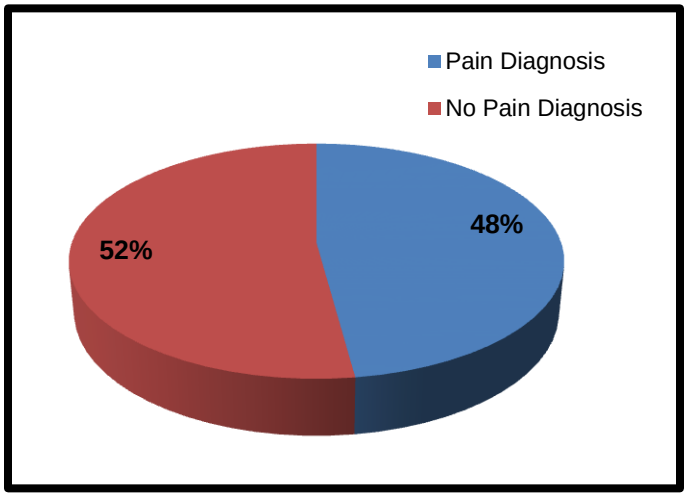


Figure 28. Pain Diagnosis in the Year Before the Event, Suicidal Ideation Cases, 2013

8.6.3 Sleep Problems

Of suicidal ideation cases from 2007 through 2013, 23% had a sleep encounter in the year preceding their event, and 8% had a sleep encounter in the 30 days before their event. In the year before the event, 18% were diagnosed with a sleep disorder.

Sleep indicators among 2013 suicide cases are described below and in Table F-17. Differences relative to 2011 or 2012 are noted only when significant.

- **Medical Encounters for Sleep Problems:** In the year before the event, 31% of 2013 suicidal ideation cases had a medical encounter for sleep problems, which was a significant increase compared to 2011 (26%, χ^2=6.2, p=0.013). Within 30 days of the event, 10% had an encounter for sleep issues.

- **Sleep Disorder Diagnoses:** In the year before the event, 25% of 2013 cases were diagnosed with a sleep disorder, a significant increase over 2011 (20%, χ^2=6.3, p=.012).

8.6.4 Polypharmacy

At the time of the suicidal ideation, 13% of cases from 2007 through 2013 met criteria for polypharmacy. This included 9% who met criteria under a single definition of polypharmacy, and 4% who met criteria under more than one definition (see page 5 for definitions and Figure D-10 for details).

Polypharmacy of suicidal ideation cases from 2013 is described below and in Table F-18.

- **Any Polypharmacy:** At the time of the event, 12% met criteria for polypharmacy.

- **Polypharmacy by Multiple Definitions:** At the time of the ideation, 8% met polypharmacy criteria under a single definition, and 4% met criteria under more than one definition.

8.7 Drug Testing and ASAP Screening

Of suicidal ideation cases from 2007 through 2013 with drug testing data (n=4874), 9% had a positive drug test some time prior to the event, excluding positive tests ruled to be medically relevant. Of these, 35% had more than one positive drug test, and 72% had a positive drug test in the year preceding their event. Positive tests were primarily for cannabis (61%) and cocaine (34%).

Before their ideation, 18% of suicidal ideation cases from 2007 through 2013 were screened for intake into the ASAP program; 72% of these enrolled in the program. In the year before the ideation, 11% of cases were screened for ASAP and 75% of these enrolled.

Drug testing and ASAP screening of suicidal ideation cases from 2013 are described below and in Tables F-19 and F-20. Differences relative to 2011 or 2012 are noted only when significant.

- **Positive Drug Tests:** Of 2013 cases with drug testing data (n=765), 5% had a positive drug test some time prior to the event, excluding positive tests ruled to be medically relevant. Of cases with positive tests, 36% had two or more positive drug tests, and 74% had a positive test in the year preceding the event.

- **Drugs with Positive Tests:** Positive tests were primarily for cannabis (57%) and cocaine (31%).

- **ASAP Screening & Enrollment:** Before their ideation, 20% of cases were screened for intake into the ASAP program; 73% of these enrolled in the program. In the year before their ideation, 11% were screened for ASAP, with 83% of them enrolling.

9 Period Comparison

A statistical comparison using bivariate analysis (chi-square or Fisher's Exact Test, as appropriate) examined whether the distribution of characteristics of suicidal behavior cases showed significant changes across three periods: 1) 2004–2007, 2) 2008–2009 and 3) 2010–2013. These three time periods were grouped according to increases in the crude suicide rates and secular trends that occurred throughout the force (e.g., combat operations, changes in accession policy, and initiation of suicide prevention initiatives by the Health Promotion Risk Reduction Council) for the given years. The first period begins in 2004, when the suicide rate began to increase rapidly and ends in 2007 with the troop surge in Iraq. The second period begins in 2008, when Army recruitment standards were lowered and "stop-loss" policies were to remain in effect until fall 2009. The third period begins in 2010, when the Army began a more aggressive approach to suicide prevention with implementation of the Health Promotion, Risk Reduction, Suicide Prevention Campaign, which continues as the Ready and Resilient Campaign.

DoDSER variables such as stressors are not compared because of the high proportions of missing or unknown data. Characteristics of suicide attempt and suicidal ideation cases are compared across the same periods, although for suicidal ideation cases the first period includes only 2007. Differences of note are summarized, then discussed in detail in subsequent bullets.

Many of the changes found by the period comparison occurred across all three types of suicidal behavior. The proportion of cases 25–34 years of age increased in 2010–2013 relative to earlier periods, accompanied by an increase in the proportion of married cases. The proportion of noncommissioned officers (E5–E9) also increased, among suicide attempt and suicidal ideation cases. These increases may result, in part, from changes in the age structure of the force, with the proportion 25–34 years of age increasing by 5% from 2004 to 2013. They also suggest the possible effects of cumulative exposure due to longer time in service and cumulative pressures on Soldiers charged with greater responsibility.

The proportion of cases with a history of an OEF, OIF, or OND deployment increased over time, as did the proportion with two or more deployments. This reflects the experience of the entire force, with more Soldiers deploying as the duration of these conflicts increased. However, the proportion of suicides in theater decreased across the three periods, probably in part a result of fewer Soldiers being in theater, but perhaps also reflecting better unit cohesion, greater oversight of Soldiers by noncommissioned officers, or better BH access in theater.

BH encounters and diagnoses increased across the three periods among Soldiers with suicidal behavior, an increase seen Army-wide.[11] While this may indicate greater behavioral health risk, it may also signal improvements in identifying Soldiers in need, decreases in stigma, greater willingness of Soldiers to seek care, and better delivery of BH care.

TBI encounters and diagnoses increased in 2010–2013 in comparison to earlier periods for each type of suicidal behavior. This follows a trend Army-wide, although new diagnoses appeared to peak in 2011.[12] As improvised explosive devices are a hallmark of recent and current conflicts, an increase in TBI is not unexpected. However, it may also reflect better case finding: PDHAs, which were implemented in 2007, screen all redeploying Soldiers for events that could have resulted in TBI and symptoms that suggest it has occurred.

The proportion of suicidal behavior cases with medical encounters for pain increased in 2010–2013 compared with previous periods. With the larger number of deployments, physical injuries may have also increased, resulting in more encounters for pain issues.

The proportion of Soldiers with suicidal behavior who had sleep problems was greater in 2010–2013 compared to earlier periods. Again this reflects a pattern Army-wide.[13] It may be related to the increase in the proportion of cases who had deployed and to the number of deployments. A study based on the Millennium Cohort found that Soldiers were more likely to report trouble sleeping during and after deployment than before deployment.[14]

Polypharmacy among Soldiers with suicidal behavior also increased in 2010–2013 compared to earlier periods. This may be related to the increases in BH disorders, pain, and sleep problems. Two definitions of polypharmacy reference use of opiates, which are prescribed for pain, and one definition references use of psychotropics, which may be prescribed for some BH and sleep conditions.

Finally, screening for entry into ASAP increased across the periods for all cases, suggesting an increase in referrals but perhaps also an increase in substance use. This is consistent with the increase in diagnoses of substance use, reflecting increases in diagnoses of both alcohol and drug use. The latter is somewhat unexpected in light of the decrease in positive drug tests across the periods.

9.1 Suicide Cases

9.1.1 Demographic Characteristics

- The proportion of suicide cases 25–34 years of age (43%) in 2010–2013 was significantly greater than in 2004–2007 (30%, χ^2=17.8, p<.001) or 2008–2009 (34%, χ^2=7.1, p=.029) (Figure 29).

- The proportion of suicide cases who were married increased in 2010–2013 (56%) relative to 2004–2007 (47%, Fisher's Exact Test (FET), p=.005).

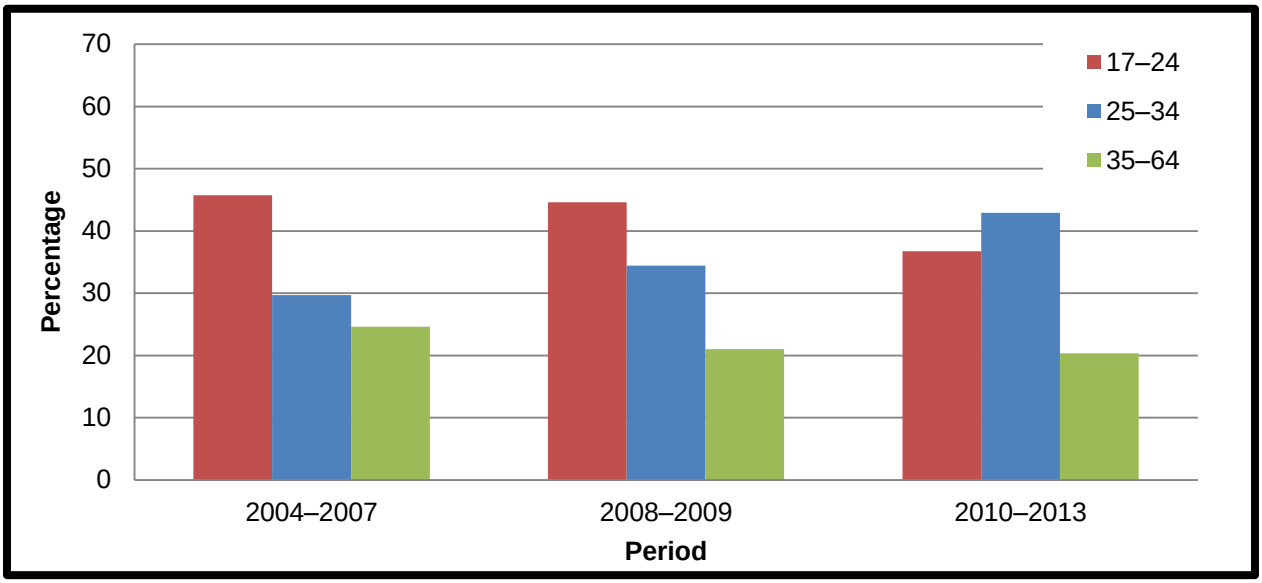


Figure 29. Age Distribution, Suicide Cases, by Period

9.1.2 Military Characteristics

- The proportion of suicides by activated Soldiers in the National Guard or Army Reserves decreased in 2010–2013 (14%) relative to 2004–2007 (20%, χ^2=7.1 p=.029).
- The proportion of suicides by Soldiers who had ever deployed increased in 2010–2013 (75%) relative to both 2004–2007 (66%, χ^2=9.6 p=.002) and 2008–2009 (67%, χ^2=6.6, p=.010).
- The proportion of suicides by Soldiers with two or more deployments increased across the three periods from 18% in 2004–2007 to 28% in 2008–2009 (χ^2=11.2, p=.024) to 34% in 2010–2013 (χ^2=44.3, p<.001).

9.1.3 Behavioral Health Indicators

- The proportion of suicide cases with previous BH-related inpatient BH encounters increased in 2010–2013 (22%) relative to 2004–2007 (12%, χ^2=14.8, p<.001) and the proportion with previous outpatient BH encounters also increased in 2010–2013 (73%) relative to 2004–2007 (56%, χ^2=31.4, p<.001).
- The prevalence of many BH diagnoses among suicide cases increased in 2010–2013 relative to 2004–2007, including mood disorders (31% vs. 19%, χ^2=17.3, p<.001), PTSD (13% vs. 5%, χ^2=15.6, p<.001), other anxiety disorders (20% vs. 10%, χ^2=20.4, p<.001), adjustment disorders (40% vs. 21%, χ^2=35.9, p<.001), and substance use disorders (26% vs. 18%, χ^2=9.9, p=.002) (Figure 30).

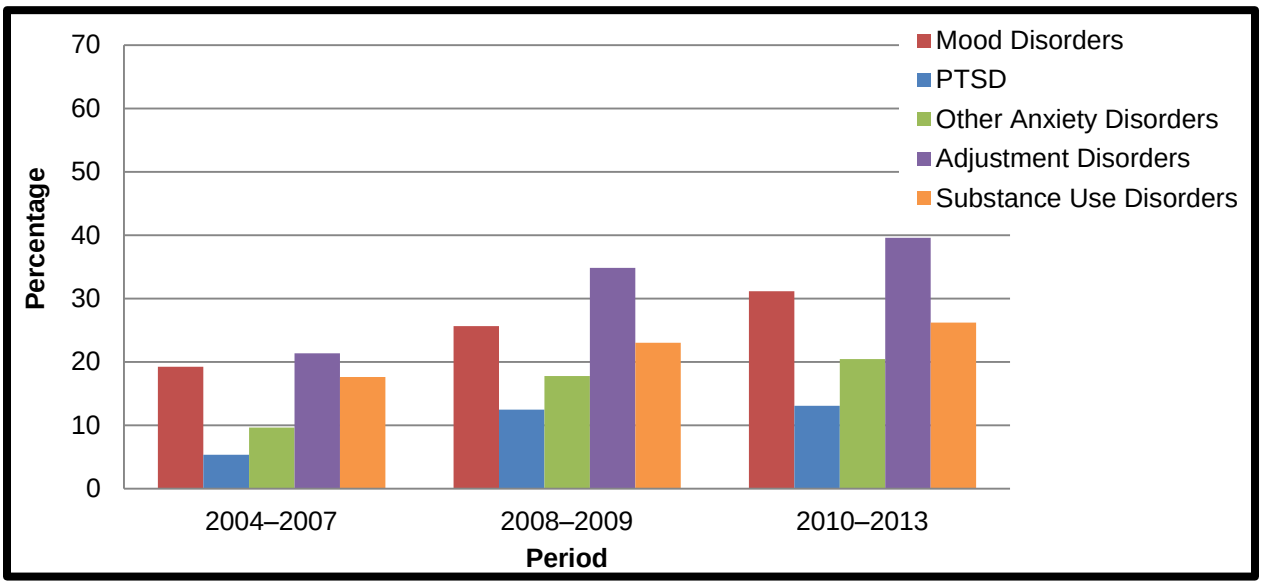


Figure 30. Behavioral Health Diagnoses, Suicide Cases, by Period

9.1.4 Traumatic Brain Injury

- The proportion of suicide cases with diagnoses and medical encounters for TBI, although small, doubled or tripled between 2004–2007 and 2010–2013. TBI diagnoses increased in 2010–2013 (15%) compared to 2004–2007 (7%, χ^2=15.2, p<.001). Inpatient TBI encounters increased for cases from 2010–2013 (6%) relative to 2004–2007 (2%, χ^2=6.8, p=.009), as did outpatient TBI encounters (14% vs. 7%, χ^2=12.1, p<.001). TBI encounters in the year before death increased for cases from 2010–2013 (10%) relative to 2004–2007 (6%, χ^2=6.9, p=.009), as did TBI encounters in the previous 30 days (6% [2010–2013] vs. 3% [2004–2007], χ^2=3.99, p=.046).

9.1.5 Pain Indicators

- The proportion of suicide cases with medical encounters for pain in the year before their death increased in 2010–2013 (37%) relative to 2004–2007 (26%, χ^2=13.0, p<.001). The proportion of suicide cases with diagnoses for pain also increased in 2010–2013 (34%) compared to 2004–2007 (21%, χ^2=16.8, p<.001) (Figure 31).

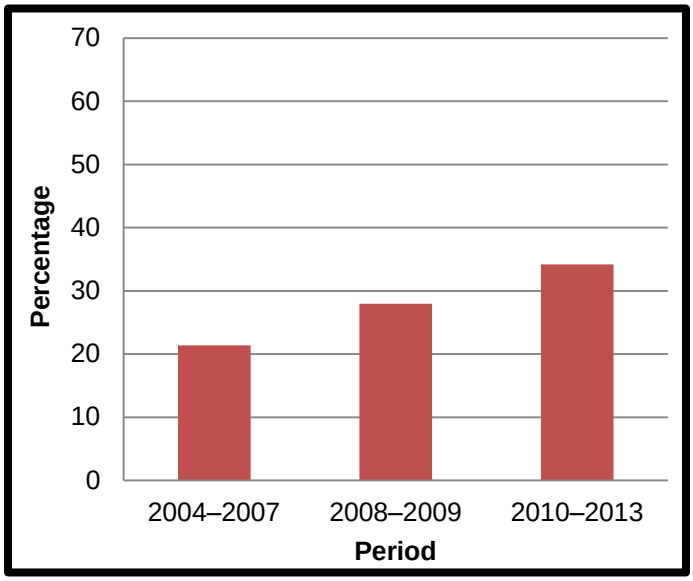


Figure 31. Pain Diagnosis in the Year Before the Event, Suicide Cases, by Period

9.1.6 Sleep Problems

- The proportion of suicide cases with medical encounters for sleep problems in the year before their death increased across the three periods, from 8% in 2004–2007 to 16% in 2008–2009 (χ^2=9.9, p=.002) to 21% in 2010–2013 (χ^2=3.8, p=.049). Diagnoses of sleep problems also increased in 2010–2013 (16%) compared to 2004–2007 (6%, χ^2=17.4, p<.001).

9.1.7 Polypharmacy

- A greater proportion of suicide cases from 2010–2013 (10%) met criteria for polypharmacy than did those in 2004–2007 (3%, χ^2=15.1, p<.001).

9.2 Suicide Attempt Cases

9.2.1 Demographic Characteristics

- The proportion of suicide attempts by female Soldiers decreased in 2010–2013 (23%) relative to 2004–2007 (29%, χ^2=20.8, p<.001).

- Proportions of suicide attempt cases 25–34 years of age increased across the three periods, from 24% in 2004–2007 to 29% in 2008–2009 (χ^2=14.3, p<.001) to 37% in 2010–2013 (χ^2=37.8, p<.001).

- The proportion of suicide attempts by non-Hispanic black Soldiers increased in 2010–2013 (19%) relative to both 2004–2007 (14%, χ^2=27.0, p<.001) and 2008–2009 (15%, χ^2=12.1, p=.016).

- The proportion of married suicide attempt cases increased across the three periods, from 35% in 2004–2007 to 43% in 2008–2009 (χ^2=22.3, p<.001) to 49% in 2010–2013 (χ^2=17.4, p<.001).

9.2.2 Military Characteristics

- The proportion of suicide attempt cases who were activated National Guard or U.S. Army Reserves Soldiers decreased in 2010–2013 (5%) relative to 2004–2007 (12%, χ^2=13.7 p=.001) and 2008–2009 (9%, χ^2=5.9, p=.053).

- The proportion of suicide attempt cases who were noncommissioned officers (E5–E9) increased across the three periods (Figure 32, next page), from 14% in 2004–2007 to 20% in 2008–2009 (χ^2=24.8, p<.001) to 26% in 2010–2013 (χ^2=21.9, p<.001).

- The proportion of suicide attempt cases who had ever deployed increased across the three periods, from 32% in 2004–2007 to 50% in 2008–2009 (χ^2=101.2, p<.001) to 60% in 2010–2013 (χ^2=24.0, p<.001).

- The proportion of suicide attempt cases with two or more deployments increased across the three periods from 8% in 2004–2007 to 18% in 2008–2009 (χ^2=131.1, p<.001) to 27% in 2010–2012 (χ^2=40.3, p<.001).

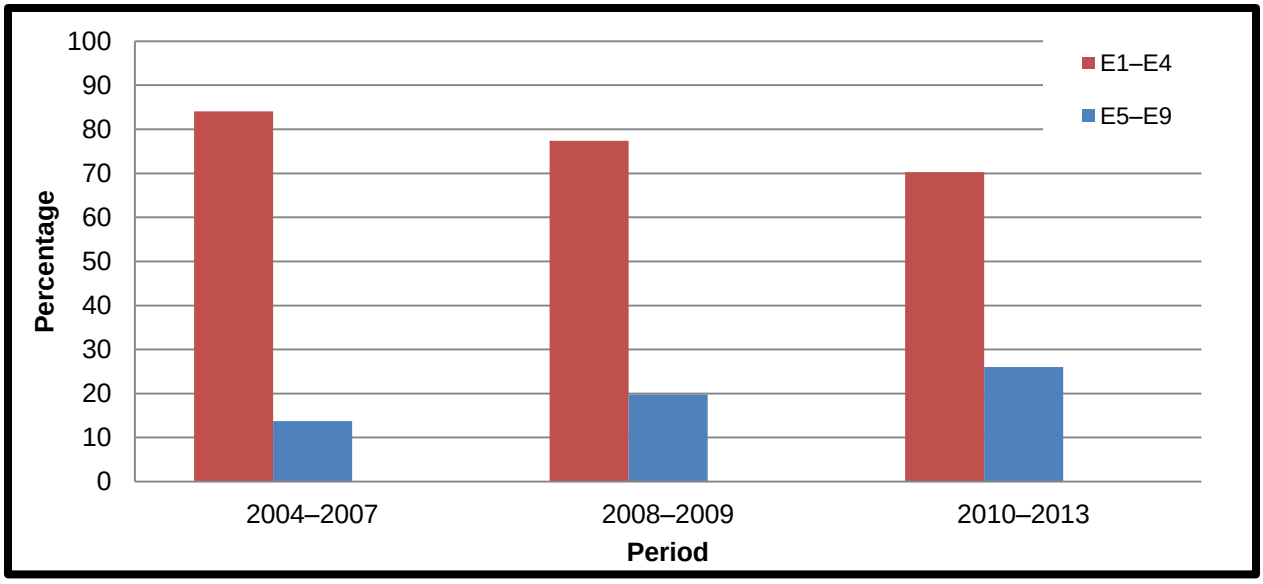


Figure 32. Rank, Suicide Attempt Cases, by Period

9.2.3 Behavioral Health Indicators

- The proportion of suicide attempt cases with previous inpatient BH encounters increased across the three periods from 24% in 2004–2007 to 31% in 2008–2009 (χ^2=19.9, p<.001) to 37% in 2010–2013 (χ^2=9.7, p=.002). Similarly, the proportion with outpatient BH encounters increased from 74% in 2004–2007 to 82% in 2008–2009 (χ^2=28.0, p<.001) to 86% in 2010–2013 (χ^2=7.4, p=.007).

- The prevalence of PTSD, other anxiety disorders, adjustment disorders, and substance use disorders increased among suicide attempt cases across the three periods. PTSD increased from 9% in 2004–2007 to 16% in 2008–2009 (χ^2=36.3, p<.001) to 20% in 2010–2013 (χ^2=9.1, p=.003). Other anxiety disorders increased from 15% in 2004–2007 to 23% in 2008–2009 (χ^2=38.5, p<.001) to 35% in 2010–2013 (χ^2=40.9, p<.001). Adjustment disorders increased from 42% in 2004–2007 to 53% in 2008–2009 (χ^2=32.7, p<.001) to 62% in 2010–2013 (χ^2=20.0, p<.001). Substance use disorders increased from 21% in 2004–2007 to 27% in 2008–2009 (χ^2=18.9, p<.001) to 32% in 2010–2013 (χ^2=6.5, p=.011). The prevalence of mood disorders increased in 2010–2013 (53%) relative to 2004–2007 (38%, χ^2=94.6, p<.001) (Figure 33, next page).

9.2.4 Traumatic Brain Injury

- The proportion of suicide attempt cases diagnosed with TBI increased across the three periods, from 6% in 2004–2007 to 11% in 2008–2009 (χ^2=32.7, p<.001) to 15% in 2010–2013 (χ^2=8.3, p=.004). The proportion with previous inpatient TBI encounters increased in 2010–2013 (2%) relative to 2004–2007 (1%, χ^2=8.7, p=.003), and the proportion with outpatient TBI encounters increased across all three periods, from 6% in 2004–2007 to 12% in 2008–2009 (χ^2=30.2, p<.001) to 16% in 2010–2013 (χ^2=10.7, p=.001).

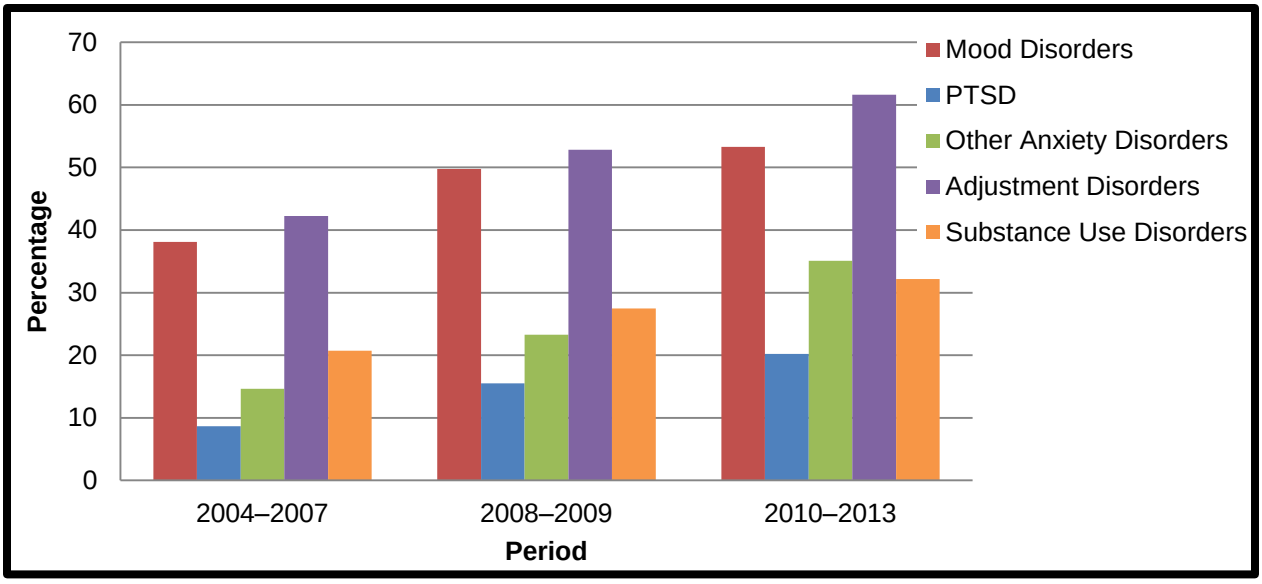


Figure 33. Behavioral Health Diagnoses, Suicide Attempt Cases, by Period

9.2.5 Pain Indicators

- The proportion of suicide attempt cases with medical encounters for pain in the year before their attempt increased in 2010–2013 (55%) relative to both 2004–2007 (42%, χ^2=57.6, p<.001) and 2008–2009 (44%, χ^2=24.6, p<.001). Diagnoses for pain in the previous year also increased in 2010–2013 cases (50%) compared to cases in 2004–2007 (37%, χ^2=62.8, p<.001) and 2008–2009 (39%, χ^2=28.4, p<.001).

9.2.6 Sleep Problems

- The proportion of suicide attempt cases with medical encounters for sleep problems in the year before their death increased across all three periods, from 11% in 2004–2007 to 22% in 2008–2009 (χ^2=70.4, p<.001) to 31% in 2010–2013 (χ^2=26.2, p<.001). Similarly, the proportion of cases diagnosed with sleep problems increased across the three periods, from 7% in 2004–2007 to 16% in 2008–2009 (χ^2=66.7, p<.001) to 25% in 2010–2013 (χ^2=25.5, p<.001) (Figure 34, next page).

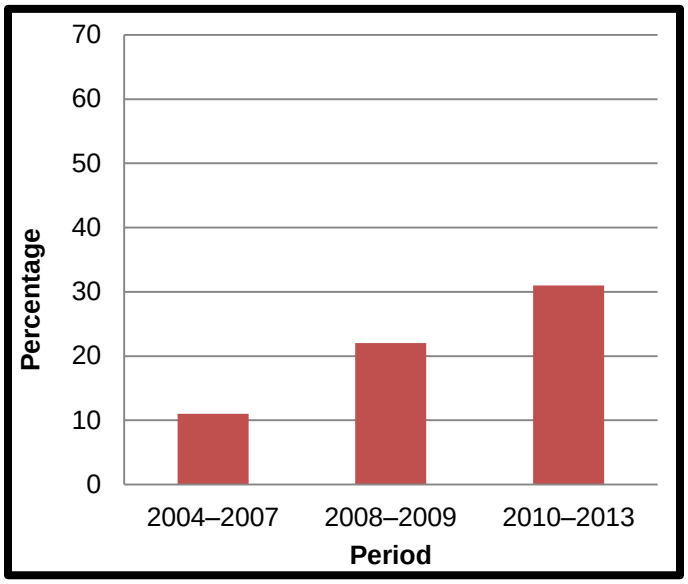


Figure 34. Medical Encounter for Sleep Problems in the Year Before the Event, Suicide Attempt Cases, by Period

9.2.7 Polypharmacy

- A greater proportion of suicide attempt cases in 2010–2013 (17%) met the criteria for polypharmacy than did those in 2004–2007 (12%, χ^2=21.9, p<.001).

9.2.8 Drug Testing and ASAP Enrollment

- The proportion of suicide attempt cases with a positive drug test in the year before their attempt decreased in 2010–2013 (69%) compared to 2004–2007 (83%, χ^2=6.8, p=.009).

- The proportion of suicide attempt cases screened for ASAP enrollment in the year before their attempt increased across the three periods from 11% in 2004–2007 to 14% in 2008–2009 (χ^2=7.9, p=.005) to 18% in 2010–2013 (χ^2=7.7, p=.006). Of those who were screened, a larger proportion of 2010–2013 cases enrolled (82%) compared to 2004–2007 (67%, χ^2=16.9, p<.001) and 2008–2009 (72%, χ^2=6.2, p=.013).

9.3 Suicidal Ideation Cases

9.3.1 Demographic Characteristics

- The proportion of female suicidal ideation cases decreased in 2010–2013 (20%) relative to 2004–2007 (26%, χ^2=9.2, p=.003).
- The proportions of suicidal ideation cases 25–34 and 35–64 years of age in 2010–2013 (47%) increased relative to both 2004–2007 (36%, χ^2=22.5, p<.001) and 2008–2009 (37%, χ^2=45.1, p<.001) (Figure 35).
- The proportion of married suicidal ideation cases increased in 2010–2013 (45%) compared to both 2004–2007 (38%, χ^2=19.4, p<.001) and 2008–2009 (38%, χ^2=29.8, p<.001).

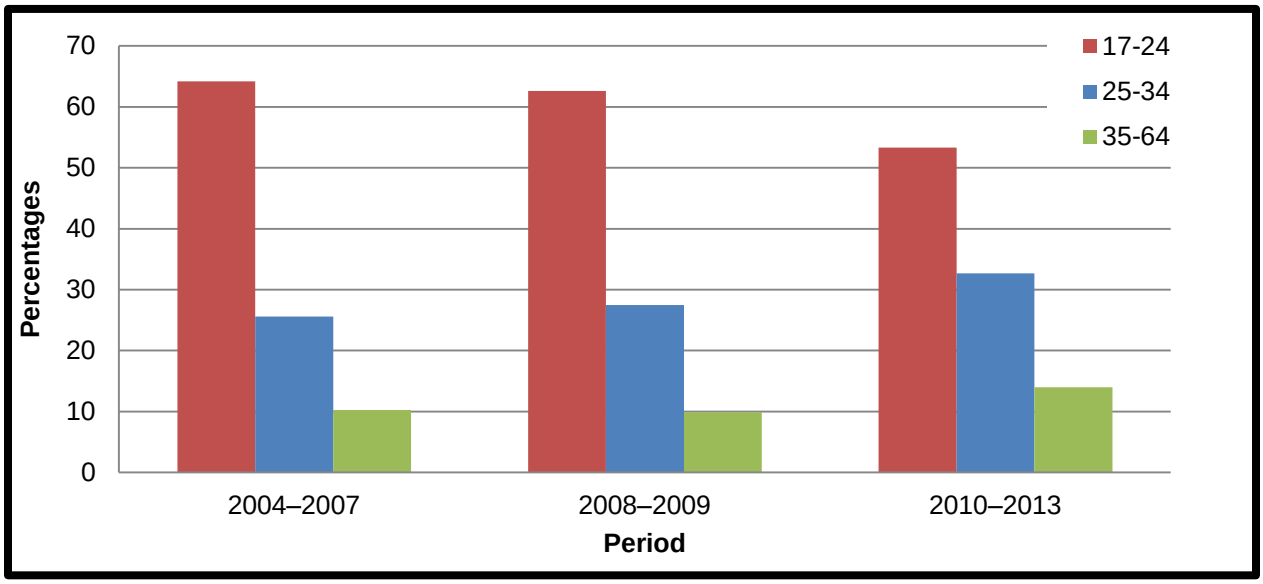


Figure 35. Age Distribution, Suicidal Ideation Cases, by Period

9.3.2 Military Characteristics

- The proportion of suicidal ideation cases who were noncommissioned officers (E5–E9) increased in 2010–2013 (22%) compared to 2004–2007 (14%, χ^2=31.3, p<.001) and 2008–2009 (16%, χ^2=55.5, p<.001).
- The proportion of suicidal ideation cases who had ever deployed increased across the three periods, from 38% in 2004–2007 to 43% in 2008–2009 (χ^2=3.8, p=.052) to 52% in 2010–2013 (χ^2=44.1, p<.001).
- The proportion of suicidal ideation cases with two or more deployments increased across all three periods, from 12% in 2004–2007 to 15% in 2008–2009 (χ^2=9.4, p=.051) to 24% in 2010–2013 (χ^2=76.3, p<.001).

9.3.3 Behavioral Health Indicators

- The proportion of suicidal ideation cases with previous BH-related inpatient encounters increased in 2010–2013 (25%) relative to 2004–2007 (17%, χ^2=16.5, p<.001). The proportion with previous BH-related outpatient encounters also increased in 2010–2013 (81%) relative to 2004–2007 (76%, χ^2=7.9, p=.005).

- The prevalence of PTSD, other anxiety disorders, and adjustment disorder among suicidal ideation cases increased across the three periods. PTSD increased from 9% in 2004–2007 to 15% in 2008–2009 (χ^2=10.8, p=.001) to 18% in 2010–2013 (χ^2=8.1, p=.004). Anxiety disorders increased from 16% in 2004–2007 to 20% in 2008–2009 (χ^2=4.5, p=.034) to 29% in 2010–2013 (χ^2=50.9, p<.001). Adjustment disorders increased from 43% in 2004–2007 to 55% in 2008–2009 (χ^2=22.4, p<.001) to 58% in 2010–2013 (χ^2=4.4, p=.036). The prevalence of mood disorders increased in 2010–2013 (48%) relative to 2004–2007 (38%, χ^2=18.2, p<.001), as did substance use disorders (21% vs. 13%, χ^2=18.7, p<.001) (Figure 36).

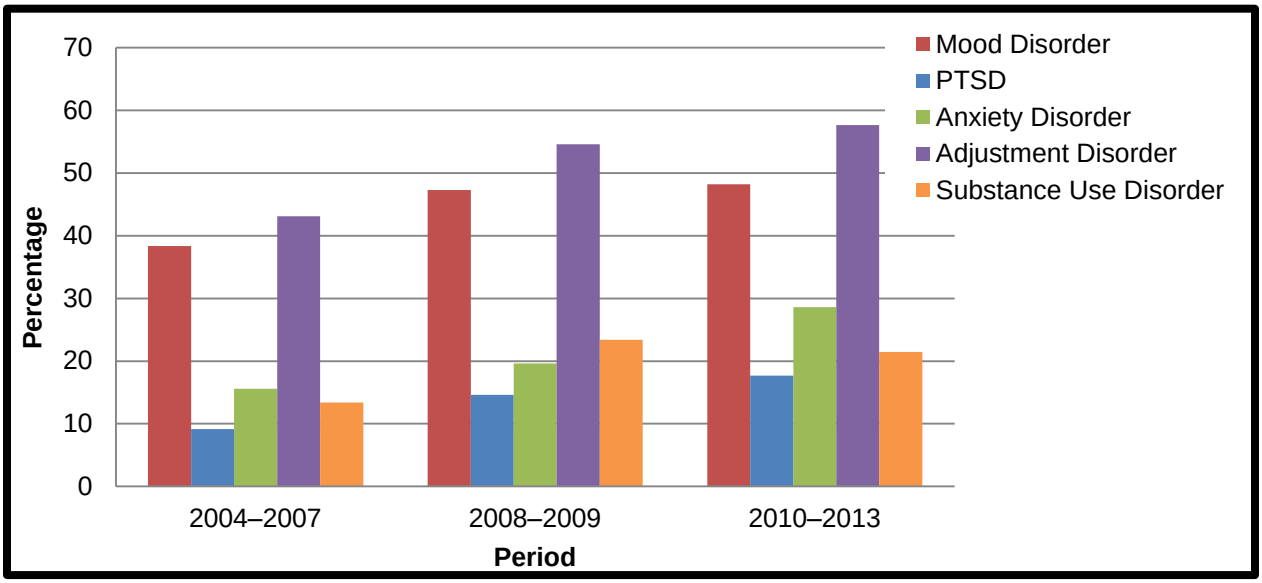


Figure 36. Behavioral Health Diagnoses, Suicidal Ideation Cases, by Period

9.3.4 Traumatic Brain Injury

- The proportion of suicidal ideation cases with a previous TBI diagnosis increased across all three periods, from 6% in 2004–2007 to 8% in 2008–2009 (χ^2=4.1, p=.043) to 11% in 2010–2013 (χ^2=12.3, p<.001). The proportion with previous outpatient TBI encounters also increased, from 5% in 2004–2007 to 9% in 2008–2009 (χ^2=7.3, p=.007) to 13% in 2010–2013 (χ^2=15.5, p<.001). Similarly, the proportion with TBI encounters in the year before their suicidal event increased from 4% in 2004–2007 to 6% in 2008–2009 (χ^2=4.9, p=.027) to 8% in 2010–2013 (χ^2=4.1, p=.042).

9.3.5 Pain Indicators

- The proportion of suicidal ideation cases with medical encounters for pain in the year before their suicidal event increased across all three periods, from 40% in 2004–2007 to 45% in 2008–2009 (χ^2=5.9, p=.015) to 51% in 2010–2013 (χ^2=11.3, p<.001). Pain diagnoses in the previous year also increased across all three periods, rising from 36% in 2004–2007 to 41% in 2008–2009 (χ^2=4.6, p=.032) to 46% in 2010–2013 (χ^2=9.6, p=.002).

9.3.6 Sleep Problems

- The proportion of suicidal ideation cases with medical encounters for sleep problems in the year before their suicidal event increased across all three periods, from 12% in 2004–2007 to 18% in 2008–2009 (χ^2=8.8, p=.003) to 28% in 2010–2013 (χ^2=61.0, p<.001). Sleep diagnoses in the previous year also increased across the three periods, from 9% in 2004–2007 to 14% in 2008–2009 (χ^2=8.9, p=.003) to 21% in 2010–2013 (χ^2=44.2, p<.001) (Figure 37).

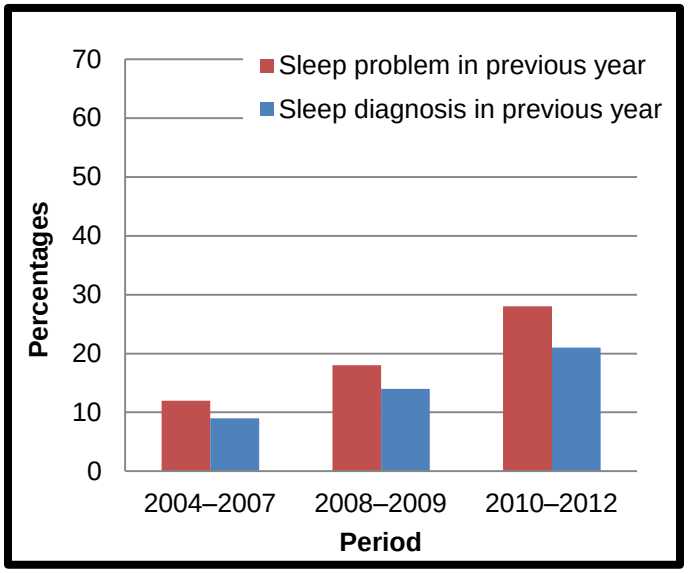


Figure 37. Sleep Problems and Diagnoses in the Year Before the Event, Suicidal Ideation Cases, by Period

9.3.7 Polypharmacy

- A greater proportion of suicidal ideation cases in 2010–2013 (13%) met the criteria for polypharmacy than did those in 2004–2007 (10%, χ^2=4.1, p=.042).

9.3.8 Drug Testing and ASAP Enrollment

- The proportion of 2010–2013 suicidal ideation cases who had ever had a positive drug test (8%) decreased relative to cases in 2008–2009 (13%, χ^2=25.3, p<.001). The proportion positive for amphetamines in 2010–2013 (8%) decreased relative to 2004–2007 (21%, FET, p=.037). The proportion positive for cocaine in 2010–2013 (27%) decreased relative to both 2004–2007 (46%, χ^2=5.2, p=.023) and 2008–2009 (38%, χ^2=4.7, p=.030). The proportion positive for cannabis in 2010–2013 (63%) increased relative to 2004–2007 (46%, χ^2=3.8, p=.049).

- A greater proportion of suicide cases in 2010–2013 (11%) had been screened for ASAP intake in the past year compared to cases in 2004–2007 (7%, χ^2=7.0, p=.008). Of those screened, a greater proportion of the 2010–2013 than the 2004–2007 cases enrolled (81% vs. 56%, χ^2=13.9, p<.001).

10 Point of Contact

The U.S. Army Public Health Command Behavioral and Social Health Outcomes Program is the point of contact for this surveillance publication, e-mail usarmy.apg.medcom-phc.list.eds-bshop-ops@mail.mil, or phone number 410-436-8447, DSN 584-8447. Specific questions may be directed to author(s) listed at the front of this report.

Approved:

CHRISTINE LAGANA-RIORDAN, PHD LCSW-C
Manager
Behavioral and Social Health Outcomes Program

Appendix A

References

1. Office of the Under Secretary of Defense. 2011. Standardized suicide nomenclature (self-directed violence classification system) policy. Washington, DC: Department of Defense.

2. Veterans Integrated Service Network 19 (VISN 19) Mental Illness, Research, Education, and Clinical Center (MIRECC). 2009. Traumatic Brain Injury and Suicide: An Information Manual for Clinicians. Denver, CO: VISN19 MIRECC. Accessed June 20, 2014.

3. Conner KR, Huguet N, Caetano R, et al. 2014. Acute use of alcohol and methods of suicide in a U.S. national sample. Am J Public Health. 104(1):171–178.

4. Gallaway MS, Lagana-Riordan C, Dabbs CR, et al. 2014. A mixed methods epidemiological investigation of preventable deaths among U.S. Army Soldiers assigned to a rehabilitative Warrior Transition Unit. [published online September 16, 2014] Work, doi: 10.3233/WOR-141928.

5. Gazalle FK, Hallal PC, Tramontina J, et al. 2007. Polypharmacy and suicide attempts in bipolar disorder. Rev Bras Psiquiatr. 29(1): 35–38.

6. Hyman J, Ireland R, Frost L, Cottrell L. 2012. Suicide incidence and risk factors in an active duty U.S. military population. Am J Public Health. 102(S1):S138–S146.

7. Seal KH, Shi Y, Cohen G, et al. 2012. Association of mental health disorders with prescription opioids and high-risk opioid use in U.S. veterans of Iraq and Afghanistan. JAMA. 307(9):940–947.

8. U.S. Department of Veterans Affairs. 2014. The Alcohol Use Disorders Identification Test. http://www.hepatitis.va.gov/provider/tools/audit-c.asp. Accessed June 20, 2014.

9. U.S. Department of Veterans Affairs. 2014. AUDIT-C Frequently Asked Questions. http://www.queri.research.va.gov/tools/alcohol-misuse/alcohol-faqs.cfm. Accessed August 7, 2014.

10. Office of the Surgeon General. 2013. U.S. Army Medical Command Policy 13-032, Guidance for managing polypharmacy and preventing overdose in Soldiers prescribed psychotropic medications and central nervous system depressants. May 21, 2013.

11. Armed Forces Health Surveillance Center. 2014. Numbers and proportions of U.S. military members in treatment for mental disorders over time, active component, January 2000–September 2013. MSMR. 21(5):2–7.

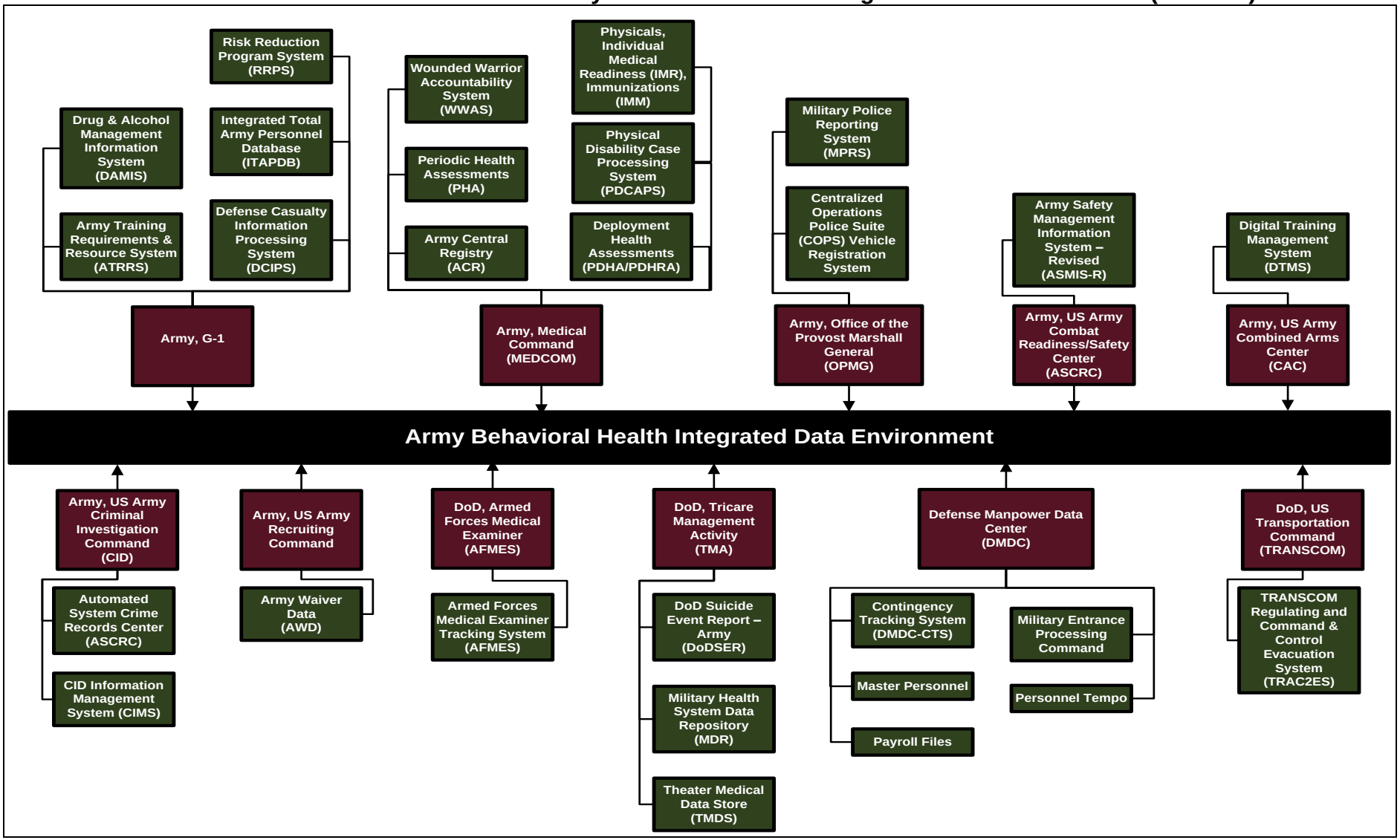
12. Defense and Veterans Brain Injury Center (DVBIC). 2014. DoD Worldwide Numbers for TBI. http://dvbic.dcoe.mil/dod-worldwide-numbers-tbi. Accessed July 16, 2014.

13. Armed Forces Health Surveillance Center. 2013. Signs, symptoms, and ill-defined conditions, active component, 2000–2012. MSMR. 20(4):25–28.

14. Seelig AD, Jacobson IG, Smith B, et al. 2010. Sleep patterns before, during, and after deployment to Iraq and Afghanistan. Sleep. 33(12):1615–1622.

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 are 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.

Medical claims data use codes from the International Classification of Disease, 9th revision, Clinical Modification (ICD-9). In this analysis, 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 counseling and maltreatment (see the Technical Notes document for a complete list).

BH Encounters. In inpatient data, a BH ICD-9 code in any diagnosis position Dx1–Dx8 is considered a BH encounter. In outpatient data, a BH ICD-9 code in any diagnosis position Dx1–Dx8 is considered a BH encounter.

BH Diagnoses. In inpatient data, a BH ICD-9 code in any diagnosis position Dx1–Dx8 is considered a BH diagnosis. In outpatient data, a BH ICD-9 code in the first diagnosis position (Dx1) is considered a diagnosis. However, BH ICD-9 codes in the second through fourth diagnosis positions (Dx2–Dx4) in outpatient data are also considered to indicate a BH diagnosis if a second code from the same group of BH ICD-9 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. These definitions follow a Healthcare Effectiveness Data and Information Set (HEDIS) guideline from the National Committee from Quality Assurance.

- *Any mood disorder* includes major depression (296.2 or 296.3), dysthymia (300.4), depression not otherwise specified (311.0), bipolar disorder (296.0, 296.4, 296.8), or other mood disorders (296, 296.1, 296.9).
- *Posttraumatic stress disorder (PTSD)* is based on the ICD-9 code 309.81.
- *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.
- *Adjustment disorder* includes disorders in the 309 range, except 309.81 (PTSD).
- *Substance use disorders* include disorders related to alcohol and drug use (291, 292, 303, and 305.2–305.9) and exclude codes related to tobacco use (305.1–305.12).
- *Personality disorders* are indicated by ICD-9 codes 301–301.9.
- *Psychoses* are indicated by ICD-9 codes 290.8, 290.9, 295, 297, and 298.
- *Any BH disorder* includes only those disorders listed above.

Appendix D

Suicide Cases Tables and Figures

Tables

Page

Figures

Page

Table D-1. Demographic Characteristics of Suicide Cases,[a] U.S. Army, 2001 – 2013

Demographic Characteristics – n (%)	Suicide Cases				Army Distribution[b]
	2001 – 2013 (n = 1543)		2013 (n = 151)		2013
SEX					%
Male	1459	(95)	145	(96)	86
Female	84	(5)	6	(4)	14
AGE (YR)					
17–24	637	(41)	54	(36)	31
25–34	572	(37)	60	(40)	40
35–64	334	(22)	37	(25)	29
Mean	28	(±7.8)	29	(±8.3)	
Mode	21		21		
RACE-ETHNICITY					
Non-Hispanic White	1110	(72)	110	(73)	61
Non-Hispanic Black	198	(13)	17	(11)	21
Hispanic	139	(9)	14	(9)	12
Non-Hispanic Asian/Pacific Islander	71	(5)	7	(5)	5
Non-Hispanic Native American/ Alaskan Native	25	(2)	3	(2)	1
MARITAL STATUS					
Single	656	(43)	51	(34)	NA
Married	787	(51)	84	(56)	NA
Divorced	95	(6)	14	(9)	NA
Other[c]	5	(<1)	2	(1)	NA

Legend: NA – Not Available.
Notes: [a] Suicide cases in this table include those confirmed by Armed Forces Medical Examiner System or pending confirmation and thus may differ from counts published by G-1. [b] Proportions were provided by the Defense Manpower Data Center. [c] Includes widowed and legally separated.

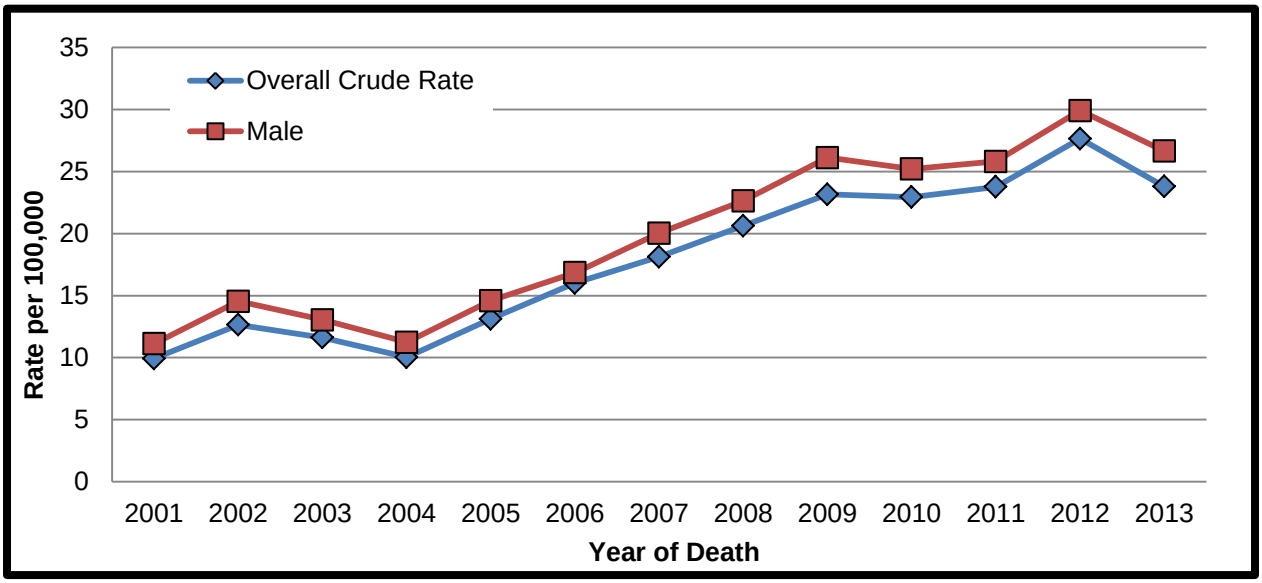


Figure D-1. Overall Crude Rate vs. Sex-Specific Suicide Rates,[a–c] per 100,000, U.S. Army Soldiers, 2001 – 2013

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2001 through 2013. [b] US Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [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, U.S. Army Soldiers, 2001 – 2013

	Overall		Sex			
			Male		Female	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Year of Death						
2001	9.9	7.2 – 12.6	11.1	8.0 – 14.3	--	--
2002	12.7	9.7 – 15.6	14.5	11.1 – 18.0	--	--
2003	11.6	9.0 – 14.2	13.1	10.1 – 16.0	--	--
2004	10.0	7.6 – 12.4	11.2	8.5 – 14.0	--	--
2005	13.1	10.4 – 15.9	14.6	11.5 – 17.8	--	--
2006	16.0	12.9 – 19.1	16.9	13.4 – 20.3	--	--
2007	18.1	14.9 – 21.4	20.0	16.3 – 23.8	--	--
2008	20.6	17.2 – 24.1	22.6	18.8 – 26.5	--	--
2009	23.2	19.6 – 26.7	26.1	22.1 – 30.2	--	--
2010	22.9	19.4 – 26.5	25.2	21.2 – 29.2	--	--
2011	23.8	20.2 – 27.4	25.8	21.8 – 29.9	--	--
2012	27.6	23.7 – 31.6	29.9	25.4 – 34.4	--	--
2013	23.8	20.0 – 27.6	26.7	22.3 – 31.0	--	--

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2001 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [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.

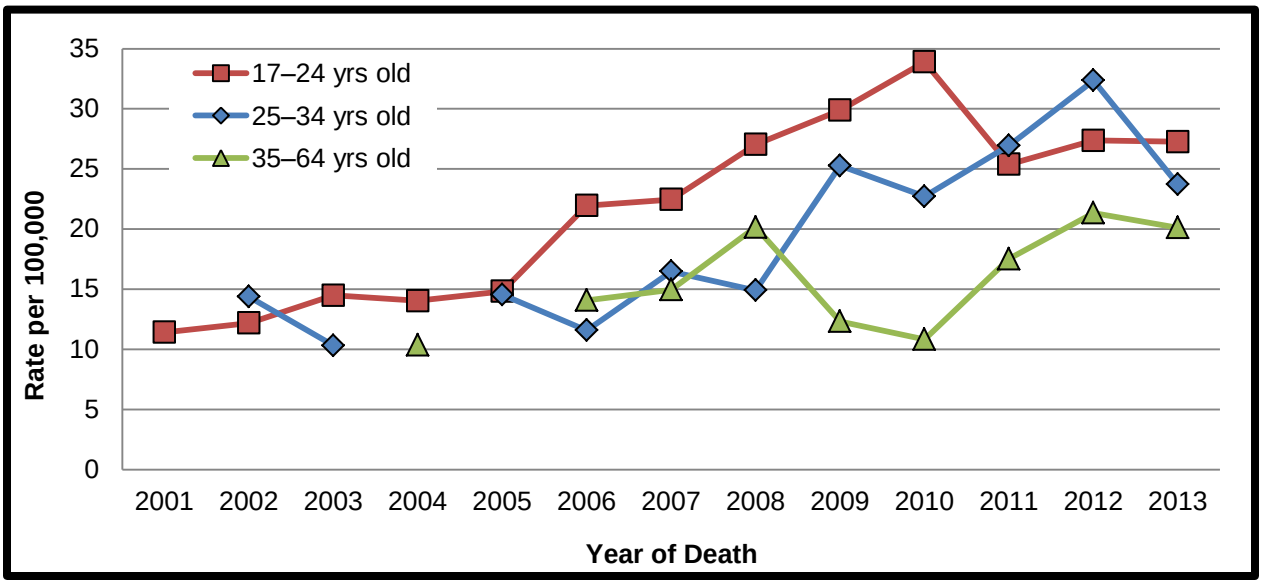


Figure D-2. Age-Specific Suicide Rates,[a–c] per 100,000, U.S. Army Soldiers, 2001 – 2013

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2001 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n <20) are not reported. Specifically, in some years before 2006, fewer than 20 Soldiers 25-34 or 35-64 years old died by suicide, so rates could not be calculated for those groups in those years.

Table D-3. Age-Specific Suicide Rates,[a–c] per 100,000, U.S. Army Soldiers, 2001 – 2013

Age	17 – 24 yrs old		25 – 34 yrs old		35 – 64 yrs old	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Year of Death						
2001	11.4	6.9 – 16.0	--	--	--	--
2002	12.2	7.5 – 16.9	14.4	9.1 – 19.7	--	--
2003	14.5	9.8 – 19.2	10.3	6.2 – 14.4	--	--
2004	14.0	9.4 – 18.7	--	--	10.4	5.8 – 14.9
2005	14.8	9.9 – 19.7	14.5	9.7 – 19.4	--	--
2006	22.0	15.9 – 28.1	11.6	7.1 – 16.0	14.1	8.7 – 19.5
2007	22.5	16.3 – 28.6	16.5	11.2 – 21.7	15.0	9.4 – 20.5
2008	27.0	20.4 – 33.7	14.9	10.1 – 19.7	20.2	13.8 – 26.5
2009	29.9	23.0 – 36.8	25.3	19.3 –31.3	12.3	7.5 – 17.2
2010	33.9	26.4 – 41.4	22.7	17.1 – 28.3	10.8	6.3 – 15.4
2011	25.4	18.7 – 32.1	26.9	20.8 – 33.0	17.5	11.7 – 23.3
2012	27.4	20.2 – 34.5	32.4	25.6 – 39.2	21.3	14.8 – 27.9
2013	27.3	20.0 – 34.6	23.7	17.7 – 29.7	20.1	13.6 – 26.6

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2001 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n <20) are not reported. Specifically, in some years before 2006, fewer than 20 Soldiers 25-34 or 35-64 years old died by suicide, so rates could not be calculated for those groups in those years.

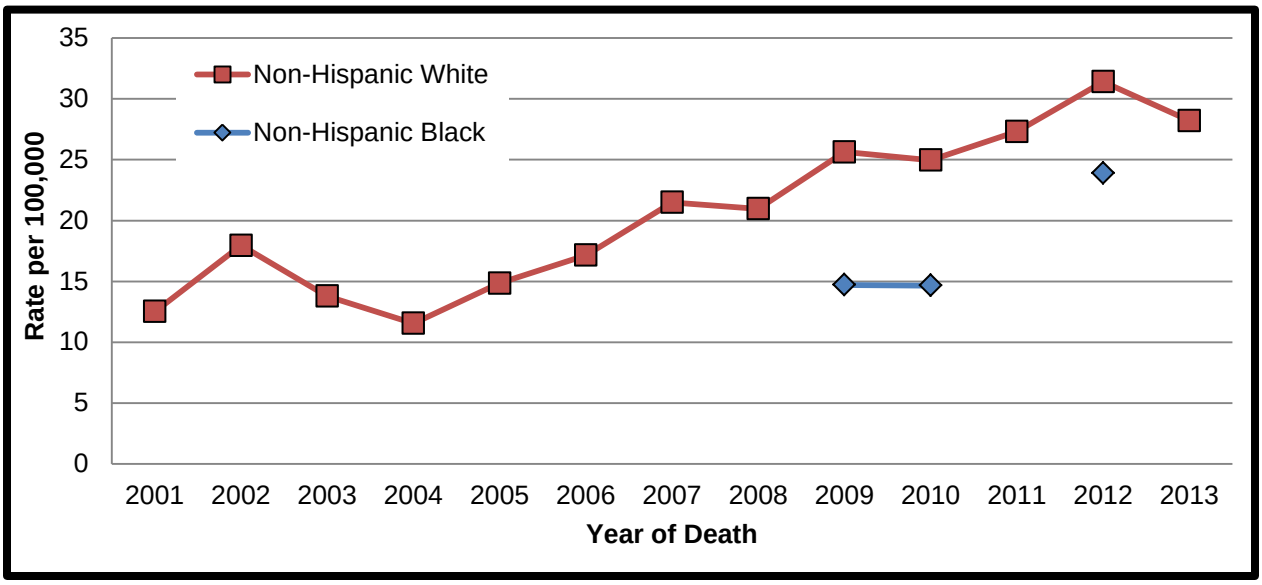


Figure D-3. Race-Ethnicity-Specific Suicide Rates,[a–c] per 100,000, U.S. Army Soldiers, 2001 – 2013

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2001 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n <20) are not reported. Specifically, in most years, fewer than 20 Soldiers in any race-ethnicity other than non-Hispanic white died by suicide, so rates could not be calculated for those groups.

Table D-4. Race-Ethnicity-Specific Suicide Rates,[a–c] per 100,000, U.S. Army Soldiers, 2001 – 2013

Race-Ethnicity	Non-Hispanic White		Non-Hispanic Black		Hispanic		Non-Hispanic Native American/ Alaska Native		Non-Hispanic Asian/ Pacific Islander	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
Year of Death										
2001	12.5	8.6 – 16.5	--	--	--	--	--	--	--	--
2002	18.0	13.4 – 22.5	--	--	--	--	--	--	--	--
2003	13.8	10.2 – 17.4	--	--	--	--	--	--	--	--
2004	11.6	8.3 – 14.8	--	--	--	--	--	--	--	--
2005	14.9	11.2 – 18.6	--	--	--	--	--	--	--	--
2006	17.2	13.1 – 21.2	--	--	--	--	--	--	--	--
2007	21.5	17.0 – 26.0	--	--	--	--	--	--	--	--
2008	21.0	16.7 – 25.3	--	--	--	--	--	--	--	--
2009	25.6	21.0 – 30.3	14.7	8.3 – 21.2	--	--	--	--	--	--
2010	25.0	20.4 – 29.6	14.7	8.2 – 21.1	--	--	--	--	--	--
2011	27.3	22.5 – 32.2	--	--	--	--	--	--	--	--
2012	31.4	26.0 – 36.8	23.9	15.5 – 32.3	--	--	--	--	--	--
2013	28.2	22.9 – 33.5	--	--	--	--	--	--	--	--

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2001 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n <20) are not reported. Specifically, in most years, fewer than 20 Soldiers in any race-ethnicity other than non-Hispanic white died by suicide, so rates could not be calculated for those groups.

Table D-5. Military Characteristics, Suicide Cases,[a] U.S. Army, 2001 – 2013

Military Characteristics – n (%)	Suicide Cases				Army Distribution[b]
	2001 – 2013 (n = 1543)		2013 (n = 151)		2013
Component					
Regular Army	1302	(84)	125	(83)	83
Activated National Guard	171	(11)	20	(13)	10
Activated Army Reserve	70	(5)	6	(4)	6
Rank					
E1–E4	837	(54)	72	(48)	40
E5–E9	555	(36)	62	(41)	41
W1–W5	21	(1)	1	(1)	3
Cadets	3	(<1)	0	(0)	0
O1–O3	82	(5)	10	(7)	7
O4–O10	45	(3)	6	(4)	6
Number of Deployments[c]					
0	561	(36)	44	(29)	NA
1	599	(39)	55	(36)	NA
2	241	(16)	26	(17)	NA
3	89	(6)	18	(12)	NA
4+	53	(3)	8	(5)	NA

Legend: E – Enlisted, O – Officer, W – Warrant Officer, NA – not available.
Notes: [a] Suicide cases in this table include those confirmed by Armed Forces Medical Examiner System or pending confirmation and thus may differ from counts published by G-1. [b] Proportions were provided by the Defense Manpower Data Center. [c] Refers to lifetime history of OEF, OIF, or OND deployment.

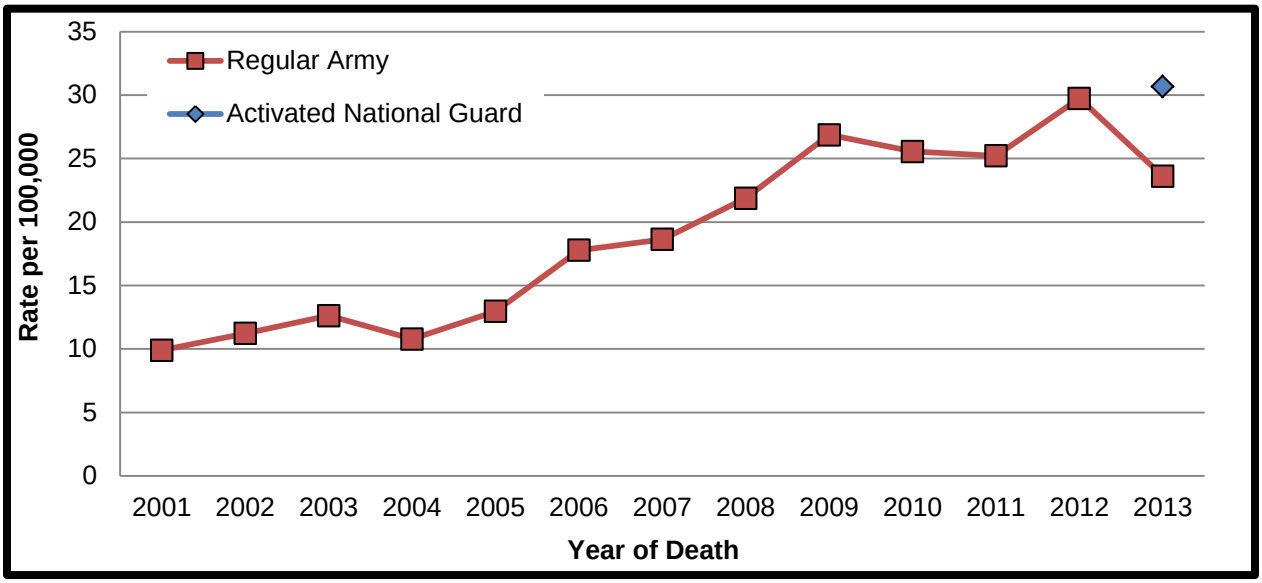


Figure D-4. Component-Specific Suicide Rates,[a–c] per 100,000, U.S. Army Soldiers, 2001 – 2013

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2001 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n < 20) are not reported. Specifically, except in 2013, fewer than 20 activated Guard or Reserve Soldiers died by suicide, so rates could not be calculated for those groups.

Table D-6. Component-Specific Suicide Rates,[a–c] per 100,000, U.S. Army Soldiers, 2001 – 2013

Component	Regular Army		Activated National Guard		Activated Army Reserve	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Year of death						
2001	9.9	7.1 – 12.7	--	--	--	--
2002	11.2	8.2 – 14.2	--	--	--	--
2003	12.6	9.5 – 15.8	--	--	--	--
2004	10.8	7.9 – 13.7	--	--	--	--
2005	13.0	9.8 – 16.2	--	--	--	--
2006	17.8	14.1 – 21.5	--	--	--	--
2007	18.6	14.9 – 22.4	--	--	--	--
2008	21.9	17.9 – 25.9	--	--	--	--
2009	26.9	22.5 – 31.2	--	--	--	--
2010	25.6	21.4 – 29.7	--	--	--	--
2011	25.2	21.1 – 29.4	--	--	--	--
2012	29.7	25.2 – 34.3	--	--	--	--
2013	23.6	19.5 – 27.7	30.7	17.2 – 44.1	--	--

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2001 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates ($n < 20$) are not reported. Specifically, except in 2013, fewer than 20 activated Guard or Reserve Soldiers died by suicide, so rates could not be calculated for those groups.

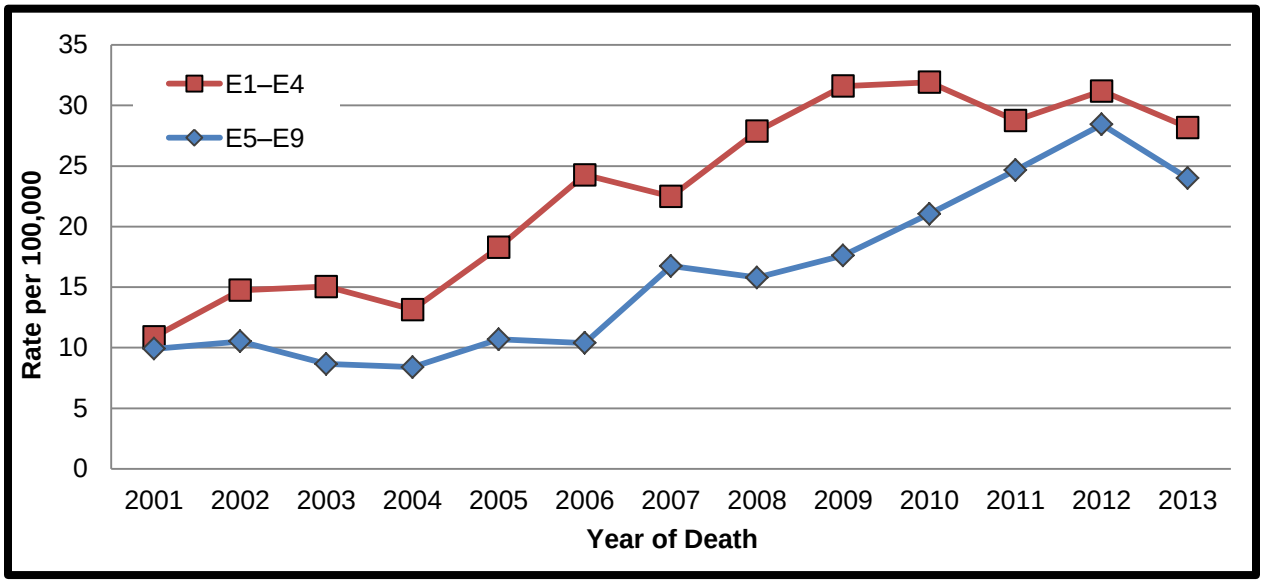


Figure D-5. Rank-Specific Suicide Rates,[a–c] per 100,000, U.S. Army Soldiers, 2001 – 2013

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2001 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [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-7. Rank-Specific Suicide Rates,[a–c] per 100,000, U.S. Army Soldiers, 2001 – 2013

Rank	E1 – E4		E5 – E9		O1 – O3		O4 – O10		W1 – W5	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF DEATH										
2001	10.9	6.7 – 15.1	9.9	5.6 – 14.3	--	--	--	--	--	--
2002	14.8	9.9 – 19.6	10.5	6.2 – 14.8	--	--	--	--	--	--
2003	15.1	10.7 – 19.4	8.7	5.1 – 12.2	--	--	--	--	--	--
2004	13.2	9.0 – 17.3	8.4	5.0 – 11.8	--	--	--	--	--	--
2005	18.3	13.2 – 23.4	10.7	6.9 – 14.5	--	--	--	--	--	--
2006	24.3	18.3 – 30.3	10.4	6.5 – 14.2	--	--	--	--	--	--
2007	22.5	16.8 – 28.2	16.7	11.9 – 21.6	--	--	--	--	--	--
2008	27.9	21.8 – 34.0	15.8	11.1 – 20.5	--	--	--	--	--	--
2009	31.6	25.3 – 37.9	17.6	12.8 – 22.5	--	--	--	--	--	--
2010	31.9	25.6 – 38.3	21.1	15.7 – 26.4	--	--	--	--	--	--
2011	28.8	22.7 – 34.9	24.7	18.8 – 30.5	--	--	--	--	--	--
2012	31.2	24.6 – 37.8	28.4	22.1 – 34.8	--	--	--	--	--	--
2013	28.2	21.7 – 34.7	24.0	18.0 –30.0	--	--	--	--	--	--

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2001 through 2013. [b] US Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [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-8. Distribution of Regular Army Suicides by Installation, U.S. Army, 2001 – 2013

Installation – n (%)	Active-Duty Suicide Cases			
	2001 – 2013 (n = 1298)[b]		2013 (n = 125)	
Aberdeen Proving Ground	3	(0.2)	0	(0.0)
Carlisle Barracks	1	(0.1)	0	(0.0)
Defense Depot Susquehanna	1	(0.1)	0	(0.0)
Europe[c]	77	(5.9)	4	(3.2)
Fort Belvoir	6	(0.5)	1	(0.8)
Fort Benning	58	(4.5)	4	(3.2)
Fort Bliss	49	(3.8)	7	(5.6)
Fort Bragg	127	(9.8)	16	(12.8)
Fort Campbell	101	(7.8)	6	(4.8)
Fort Carson	71	(5.5)	9	(7.2)
Fort Detrick	1	(0.1)	0	(0.0)
Fort Dix	1	(0.1)	0	(0.0)
Fort Drum	49	(3.8)	6	(4.8)
Fort Gordon	14	(1.1)	1	(0.8)
Fort Hood	146	(11.2)	7	(5.6)
Fort Huachuca	7	(0.5)	0	(0.0)
Fort Irwin	4	(0.3)	1	(0.8)
Fort Jackson	13	(1.0)	2	(1.5)
Fort Knox	27	(2.1)	3	(2.4)
Fort Leavenworth	10	(0.8)	1	(0.8)
Fort Lee	11	(0.8)	0	(0.0)
Fort Leonard Wood	29	(2.2)	1	(0.8)
Fort McNair	1	(0.1)	0	(0.0)
Fort Meade	6	(0.5)	2	(1.6)
Fort Polk	24	(1.8)	3	(2.4)

Table D-8. Distribution of Regular Army Suicides[a] by Installation, U.S. Army, 2001 – 2013, continued

Installation – n (%)	Active-Duty Suicide Cases			
	2001 – 2013 (n = 1298)[b]		2013 (n = 125)	
Fort Riley	51	(3.9)	4	(3.2)
Fort Rucker	4	(0.3)	0	(0.0)
Fort Sill	31	(2.4)	2	(1.6)
Fort Stewart	72	(5.5)	8	(6.4)
Fort Wainwright	17	(1.3)	1	(0.8)
Joint Base Elmendorf-Richardson	11	(0.8)	2	(1.6)
Joint Base Langley-Eustis	16	(1.2)	1	(0.8)
Joint Base Lewis-McChord	93	(7.2)	10	(8.0)
Joint Base Myer-Henderson Hall	6	(0.5)	1	(0.8)
Joint Base San Antonio	19	(1.5)	4	(3.2)
Korea/Japan	30	(2.3)	3	(2.4)
Pentagon[d]	3	(0.2)	0	(0.0)
Presidio of Monterey	2	(0.2)	1	(0.8)
Ranger Training Dahlonega	1	(0.1)	0	(0.0)
Redstone Arsenal	2	(0.2)	0	(0.0)
USAG Hawaii	36	(2.8)	5	(4.0)
West Point	5	(0.4)	0	(0.0)
White Sands	2	(0.2)	0	(0.0)
WRAMC	7	(0.5)	1	(0.8)
Fort Gillem[e]	1	(0.1)	0	(0.0)
Fort McPherson[e]	1	(0.1)	0	(0.0)
Fort Monroe[e]	1	(0.1)	0	(0.0)

Legend: USAG – United States Army Garrison, WRAMC – Walter Reed Army Medical Center.
Notes: [a] Installation confirmation of suicide counts are for active-duty Regular Army personnel only (not activated National Guard or U.S. Army Reserve). [b] Some numbers differ from previous reports with the addition of newly identified cases and the removal of pending cases ruled not suicide by the AFMES. In addition, 50 suicide cases are not included because they did not occur at an Army installation. [c] Europe includes Germany, Italy, Kosovo, Belgium, and the Netherlands. [d] Pentagon refers to Army personnel at the Pentagon. [e] Fort Gillem, Fort McPherson, and Fort Monroe are now closed.

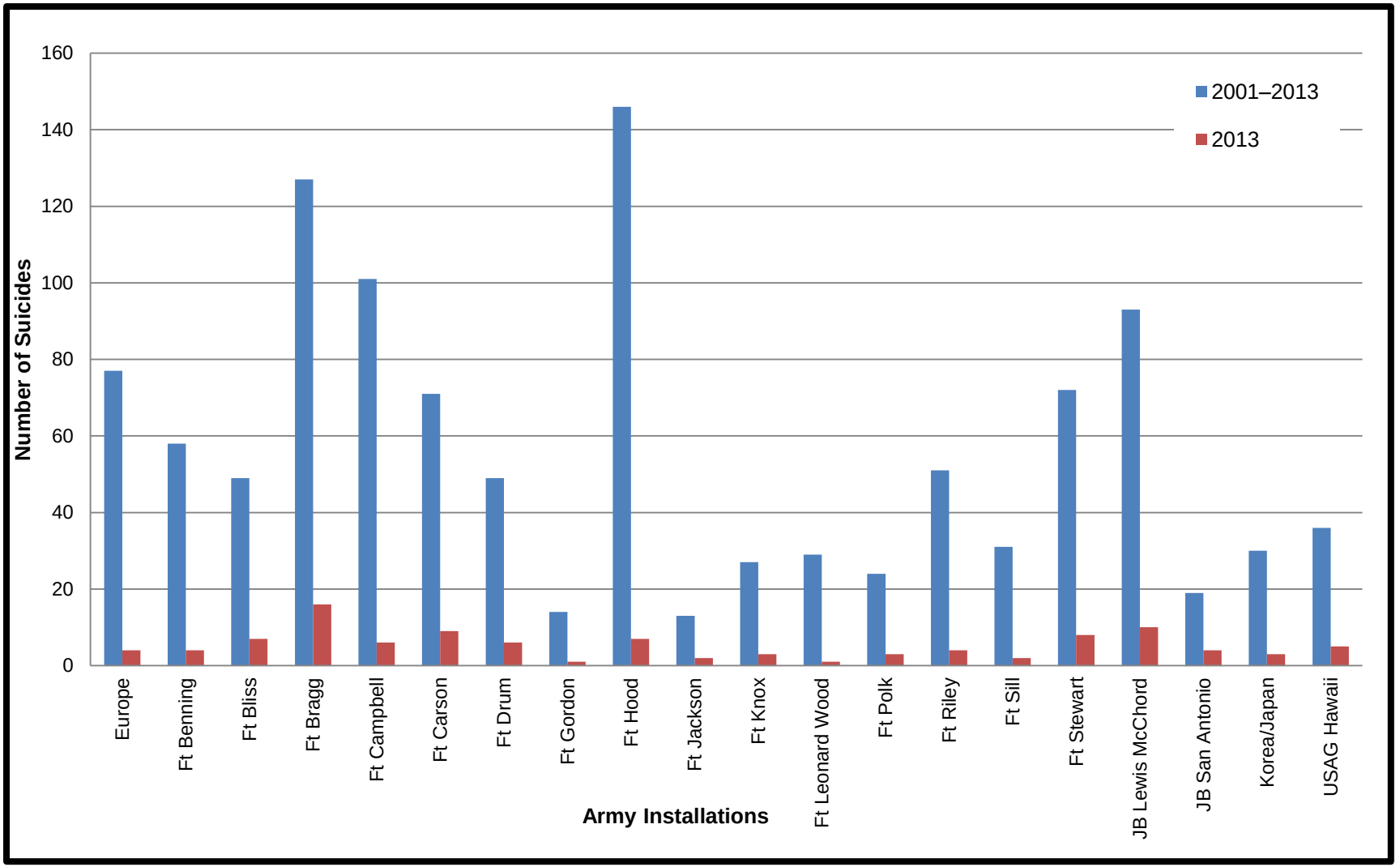


Figure D-6. Distribution of Suicides by Installation with a Population ≥ 8,000 Soldiers

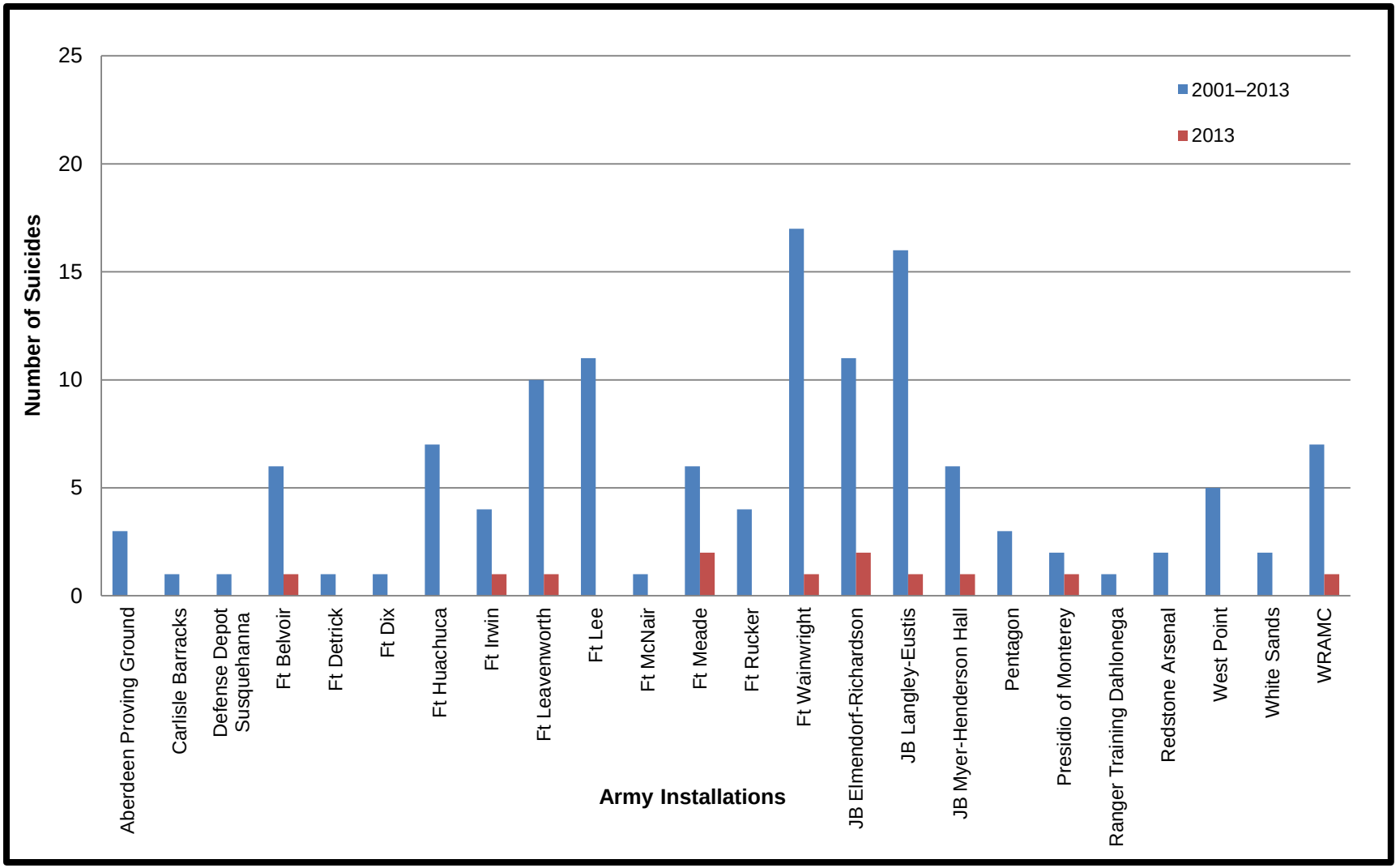


Figure D-7. Distribution of Suicides by Installation with a Population < 8,000 Soldiers

Table D-9. Location and Method, Suicides,[a] U.S. Army, 2001 – 2013

Event Characteristic – n (%)	Suicides			
	2001 – 2013 (n = 1543)		2013 (n = 151)	
LOCATION OF DEATH[b]				
USA	1192	(77)	138	(91)
In Theater	254	(16)	5	(3)
Other[c]	90	(6)	7	(5)
Missing	7	(<1)	1	(<1)
METHOD OF DEATH[b]				
Gunshot Wound	1017	(66)	98	(65)
Hanging/Asphyxiation	325	(21)	35	(23)
Drug/Alcohol Overdose	82	(5)	3	(2)
Other[d]	101	(7)	9	(6)
Unknown	10	(<1)	5	(3)
Missing	8	(<1)	1	(<1)

Notes: [a] Suicide cases in this table include those confirmed by Armed Forces Medical Examiner System or pending confirmation and thus may differ from counts published by G-1. [b] Location and method of death for all suicide cases taken from Defense Casualty Information Processing System. [c] Primarily Europe or Korea. [d] Includes carbon monoxide and other poisoning, jumping from heights or in front of vehicles, vehicle crashes, drowning, or cutting.

Table D-10. Additional Characteristics, Suicides,[a] U.S. Army, 2004 – 2013

Event Characteristic – n (%)	Suicides			
	2004 – 2013 (n = 1212)[b]		2013 (n = 118)[b]	
SUBSTANCE INVOLVEMENT				
Event Involved Alcohol	236	(19)	20	(17)
Event Involved Drugs	99	(8)	6	(5)
EVENT DEPLOYMENT-RELATED[c,d]				
Pre-deployment	17	(1)	0	(0)
Current deployment	106	(9)	3	(3)
Post-deployment	52	(4)	3	(3)
Orders to deploy	138	(11)	18	(15)
REPORTED MOTIVATION[e]				
Emotional Relief	188	(16)	18	(15)
Hopelessness/Depression	143	(12)	13	(11)
Impulse	74	(6)	6	(5)
Avoidance/Escape	73	(6)	5	(4)
Individual Reasons	38	(3)	3	(3)
Interpersonal Influence	7	(<1)	0	(0)
Other[f]	78	(6)	6	(5)
Unknown	447	(37)	24	(20)
Missing	216	(18)	68	(58)
OTHER EVENT CHARACTERISTICS				
Communicated Prior to Event	331	(27)	28	(24)

Notes: [a] Suicide cases in this table include those confirmed by Armed Forces Medical Examiner System or pending confirmation and thus may differ from counts published by G-1. [b] Event characteristics available only for those cases with DoDSERs, which became available in 2004. [c] Whether the event was deployment-related and what the motivation for the event was are not matters of record, but are based on the information the provider gathered during the inquiry and on the opinion formed as a result of the inquiry. [d] Numbers reflect independent questions on the DoDSER. [e] May have more than one in years 2012–2013. [f] Includes other psychiatric symptoms or free text answers by the provider.

Table D-11. Legal History and Stressors from DoDSERs, Suicide Cases, U.S. Army, 2004[a] – 2013

Legal History and Stressors – n (%)	Suicide Cases			
	2004[a] – 2013 (n = 1212)		2013 (n = 118)	
LEGAL HISTORY				
Article 15	182	(15)	20	(17)
Civil Legal Problems	159	(13)	17	(14)
Administrative Separation[b]	97	(8)	9	(8)
AWOL	71	(6)	5	(4)
Nonselection[c]	47	(4)	7	(6)
Courts Martial	42	(3)	6	(5)
Any of the above	378	(31)	40	(34)
MEDICAL BOARD[d]				
Yes	79	(7)	10	(8)
STRESSORS[e]				
Relationship Problem	630	(52)	64	(54)
Work Stress	336	(28)	27	(23)
Physical Health Problem	243	(20)	28	(24)
Spouse/Family/Friend Death	149	(12)	16	(14)
Perpetrator of Abuse	141	(12)	17	(14)
Victim of Abuse	127	(10)	8	(7)
Financial Stress	106	(9)	5	(4)
Spousal/Family/Friend Suicide	60	(5)	6	(5)
Spouse/Family Health Problem	54	(4)	3	(3)
Any of the above	852	(70)	88	(75)
PROGRAM UTILIZATION				
Substance Abuse Services	191	(16)	17	(14)
Family Advocacy Program	108	(9)	11	(9)
Received Suicide Prevention Training[f]	321	(26)	40	(34)

Legend: AWOL – absent without leave, DoDSER – Department of Defense Suicide Event Report.
Notes: [a] DoDSERs became available in electronic format in 2004. [b] Considered for separation from the Army on the basis of conduct or inability to meet standards of duty performance and discipline. [c] Not selected for advanced schooling, promotion, or command. [d] Medical evaluation board to determine fitness for continued duty. [e] More than one stressor in lifetime may apply. [f] Data collection began in 2007.

Table D-12. Behavioral Health Indicators from PDHAs,[a] Suicide Cases, U.S. Army, 2004[b] – 2013

Behavioral Health Indicators – n (%)	Suicide Cases with PDHAs			
	2004[b] – 2013 (n = 258)		2013 (n = 20)	
DEPRESSION SYMPTOMS[c]				
Yes	101	(40)	4	(20)
No	154	(60)	16	(80)
POST-TRAUMATIC STRESS SYMPTOMS[d]				
Yes	69	(27)	4	(20)
No	186	(73)	16	(80)
SUICIDAL THOUGHTS	8	(3)	0	(0)
REFERRED FOR BH CARE[e]	44	(21)	4	(22)

Legend: PDHA – Post-Deployment Health Assessment, BH – behavioral health.
Notes: [a] Data from the most recent PDHA in the 12 months before the suicide. [b] PDHAs were first implemented in 2004. [c] Patient Health Questionnaire-2 (PHQ-2). [d] PTSD Checklist – Civilian (PCL-C). [e] Referral to behavioral health in primary care or mental health specialty care within 24 hours, 7 days, or 30 days.

Table D-13. Behavioral Health Indicators from PDHRAs,[a] Suicide Cases, U.S. Army, 2005[b] – 2013

Behavioral Health Indicators – n (%)	Suicide Cases with PDHRAs			
	2005[b]– 2013 (n = 222)		2013 (n = 24)	
DEPRESSION SYMPTOMS[c]				
Yes	106	(48)	7	(29)
No	114	(52)	17	(71)
POST-TRAUMATIC STRESS SYMPTOMS[d]				
Yes	74	(34)	3	(13)
No	146	(66)	21	(88)
SUICIDAL THOUGHTS	4	(2)	0	(0)
REFERRED FOR BH CARE[e]	32	(17)	1	(5)

Legend: PDHRA – Post-Deployment Health Reassessment, BH – behavioral health.
Notes: [a] Data from the most recent PDHRA in the 12 months before the suicide. [b] PDHRAs were first implemented in 2005. [c] Patient Health Questionnaire-2 (PHQ-2). [d] PTSD Checklist – Civilian (PCL-C). [e] Referral to behavioral health in primary care or mental health specialty care within 24 hours, 7 days, or 30 days.

Table D-14. Alcohol Misuse Indicators,[a] Suicide Cases,[b] U.S. Army, 2009 – 2013

Alcohol Misuse Indicators – n (%)	Suicide Cases with PHAs			
	2009[c] – 2013 (n = 352)		2013 (n = 92)	
ALCOHOL MISUSE				
Positive Score[d]	95	(27)	20	(22)
High Positive Score[e]	11	(3)	1	(1)
Referred to ASAP	28	(8)	5	(5)
Received Alcohol-Related Education	222	(63)	52	(57)

Legend: PHA – periodic health assessment, AUDIT-C – Alcohol Use Disorders Identification Test, ASAP – Army Substance Abuse Program.
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 the AFMES or pending confirmation and thus may differ from counts published by G-1. [c] The AUDIT-C first appeared on PHAs in 2009. [d] A positive AUDIT-C score is 4 and above for males and 3 and above for females. [e] A high positive score is 8 and above.

Table D-15. Behavioral Health Indicators, Suicide Cases,[a] U.S. Army, 2001 – 2013

Behavioral Health Indicators – n (%)	Suicide Cases			
	2001 – 2013 (n = 1542)[b]		2013 (n = 151)	
MEDICAL ENCOUNTERS[c]				
Inpatient Encounter Involving BH	308	(20)	28	(19)
Outpatient Encounter Involving BH	1069	(69)	115	(76)
Encounter Involving BH within 30 Days of Event	471	(31)	56	(37)
INCIDENT BH DIAGNOSES[d]				
Initial BH Diagnosis in Year Before Event	478	(31)	41	(27)
PREVALENT BH DIAGNOSES[c,e]				
Any BH Diagnosis[f]	781	(51)	89	(59)
More Than One BH Diagnosis[g]	457	(30)	54	(36)
Any Mood Disorder	389	(25)	42	(28)
Major Depression	187	(12)	22	(15)
Other Depressive Disorders	336	(22)	35	(23)
Bipolar Disorders	55	(4)	7	(5)
PTSD	148	(10)	15	(10)
Other Anxiety Disorders[h]	239	(16)	33	(22)
Adjustment Disorder	489	(32)	59	(39)
Substance Use Disorders[i]	336	(22)	32	(21)
Personality Disorders[j]	85	(6)	7	(5)
Psychoses	31	(2)	3	(2)
Previous Suicide Attempt/Self-Harm[k]	113	(7)	6	(4)
Previous Suicidal Ideation[l]	99	(6)	15	(10)

Legend: BH – behavioral health, PTSD – posttraumatic stress disorder.
Notes: [a] Suicide cases in this table include those confirmed by the Armed Forces Medical Examiner System or pending confirmation and thus may differ from counts published by G-1. [b] Medical claims data were available for all but 1 case. [c] May have more than one. [d] Soldiers with incident BH diagnoses are Soldiers who received their initial BH diagnosis in a period of time, in this case a year. [e] Soldiers counted in prevalent BH diagnoses have a history of BH diagnosis during their time in service. [f] Any BH Diagnosis is "yes," if one or more of the following is reported: Mood, PTSD, Other Anxiety Disorders, Adjustment Disorder, Substance Use Disorders, Personality Disorders, Psychosis. [g] More than One BH Diagnosis is "yes" if more than one of the aforementioned diagnoses is reported. [h] Other Anxiety Disorders include Panic Disorder, Generalized Anxiety Disorder, or Obsessive-Compulsive Disorder. [i] Substance Use Disorder includes Drug or Alcohol Use Disorders. [j] Personality Disorders include Borderline or Antisocial Personality Disorders. [k] Based on ICD-9 E-codes for self-inflicted injuries, which first appear in medical records in 2007. [l] Based on ICD-9 V-code for suicidal ideation, which first appears in medical records in 2006.

Table D-16. Behavioral Health Indicators by Provider Type,[a] Suicide Cases[b] U.S. Army, 2001 – 2013

Behavioral Health Indicators – n (%)	Suicide Cases											
	2001 – 2013						2013					
	Total	Credentialed BH Clinicians	Other BH Providers	Primary Care Providers	Other Non-BH Providers	Provider Missing	Total	Credentialed BH Clinicians	Other BH Providers	Primary Care Providers	Other Non-BH Providers	Provider Missing
MEDICAL ENCOUNTERS[c]												
Inpatient Encounter Involving BH	285	178 (62)	1 (<1)	26 (9)	23 (8)	57 (20)	27	15 (56)	0 (0)	3 (11)	3 (11)	6 (22)
Outpatient Encounter Involving BH	1006	758 (75)	68 (7)	152 (15)	12 (1)	16 (2)	107	85 (79)	3 (3)	18 (17)	0 (0)	1 (<1)
Encounter Involving BH within 30 Days of Event	447	320 (72)	23 (5)	72 (16)	13 (3)	19 (4)	52	42 (81)	0 (0)	8 (15)	2 (4)	0 (0)
BH DIAGNOSES[c]												
Any BH Diagnosis[d]	781	651 (83)	59 (8)	53 (7)	3(<1)	15 (2)	89	77 (87)	5 (6)	6 (7)	0 (0)	1 (1)
Any Mood Disorder	389	306 (79)	5 (1)	65 (17)	1(<1)	12 (3)	42	38 (90)	0 (0)	4 (10)	0 (0)	0 (0)
Major Depression	187	145 (78)	7 (4)	22 (12)	1(<1)	12 (6)	22	20 (91)	0 (0)	2 (9)	0 (0)	0 (0)
Other Depressive Disorders	336	233 (69)	4 (1)	80 (24)	5 (1)	14 (4)	35	28 (80)	0 (0)	7 (20)	0 (0)	0 (0)
Bipolar Disorders	55	39 (71)	3 (5)	3 (5)	1 (2)	9 (16)	7	5 (71)	0 (0)	0 (0)	0 (0)	2 (29)

Table D-16. Behavioral Health Indicators by Provider Type,[a] Suicide Cases,[b] US Army, 2001 – 2013, continued

Behavioral Health Indicators – n (%)	Suicide Cases											
	2001 – 2013						2013					
	Total	Credentialed BH Clinicians	Other BH Providers	Primary Care Providers	Other Non-BH Providers	Provider Missing	Total	Credentialed BH Clinicians	Other BH Providers	Primary Care Providers	Other Non-BH Providers	Provider Missing
BH DIAGNOSES[c] (continued)												
PTSD	148	114 (77)	6 (4)	11 (7)	3 (2)	14 (9)	15	11 (73)	0 (0)	2 (13)	0 (0)	2 (13)
Other Anxiety Disorders[e]	239	154 (64)	4 (2)	66 (28)	0 (0)	15 (6)	33	22 (67)	1 (3)	9 (27)	0 (0)	1 (3)
Adjustment Disorders	489	405 (83)	23 (5)	41 (8)	2(<1)	18 (4)	59	50 (85)	4 (7)	4 (7)	0 (0)	1 (2)
Substance Use Disorders[f]	336	187 (56)	80 (24)	46 (14)	3(<1)	20 (6)	32	14 (44)	10 (31)	7 (22)	0 (0)	1 (3)
Personality Disorders[g]	85	56 (66)	0 (0)	7 (8)	1 (1)	21 (25)	7	3 (43)	0 (0)	2 (29)	1 (14)	1 (14)
Psychoses	31	19 (61)	0 (0)	9 (29)	1 (3)	2 (6)	3	2 (67)	0 (0)	1 (33)	0 (0)	0 (0)

Legend: BH – behavioral health, NOS – not otherwise specified, PTSD – Post-Traumatic Stress Disorder

Notes: [a] Each case is counted in the column of the most experienced BH provider whose claim indicated a BH encounter or diagnosis. Credentialed BH clinicians include psychiatrists and certified clinical social workers, among others. Examples of other BH providers include alcohol and drug abuse counselors and social work case managers. Primary care providers include corpsmen, family practice physicians, and primary care nurse practitioners. Other non-BH providers include surgeons, physical therapists, and gynecologists. [b] Suicide cases in this table include those confirmed by the Armed Forces Medical Examiner System or pending confirmation and thus may differ from counts published by G-1. [c] May have more than one. [d] Any BH Diagnosis indicates one or more of the following were reported: Mood, PTSD, Other Anxiety Disorders, Adjustment Disorder, Substance Use Disorders, Personality Disorders, Psychosis. [e] Other Anxiety Disorders include Panic Disorder, Generalized Anxiety Disorder, or Obsessive-Compulsive Disorder. [f] Substance Use Disorder includes Drug or Alcohol Use Disorders. [g] Personality Disorders include Borderline or Antisocial Personality Disorders.

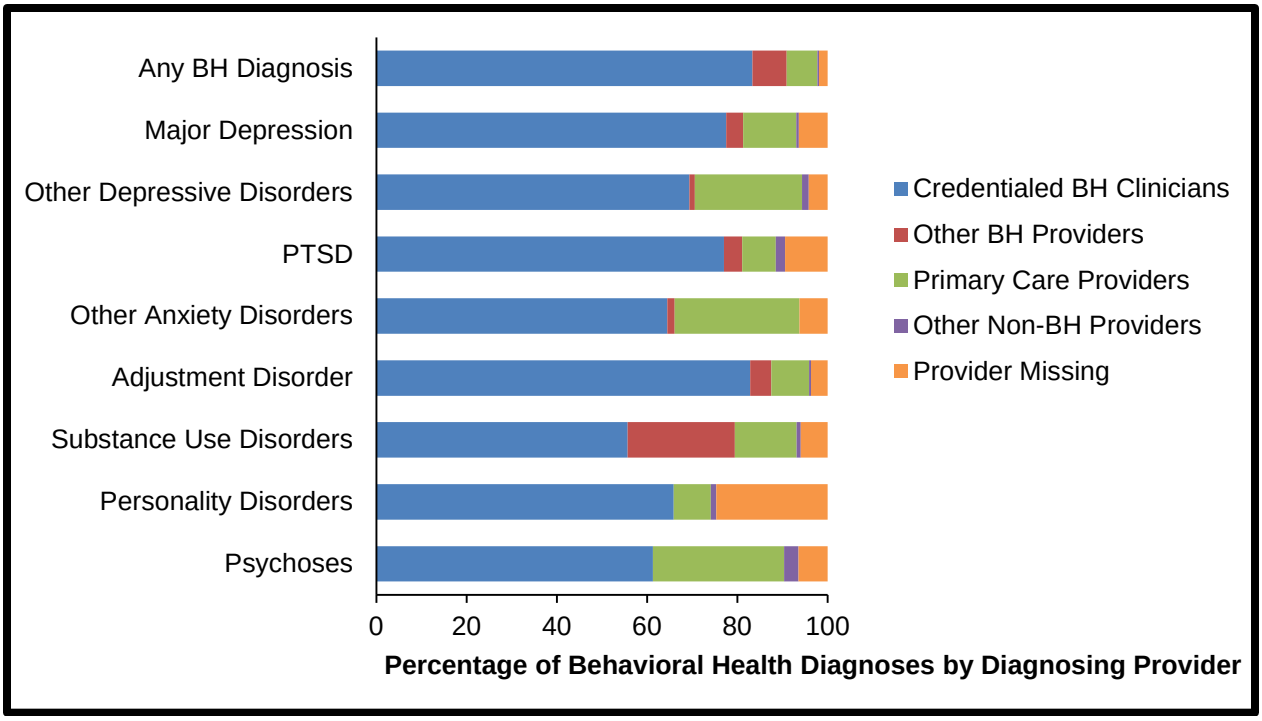


Figure D-8. Behavioral Health Diagnoses by Provider Type, Suicide Cases, 2001 – 2013

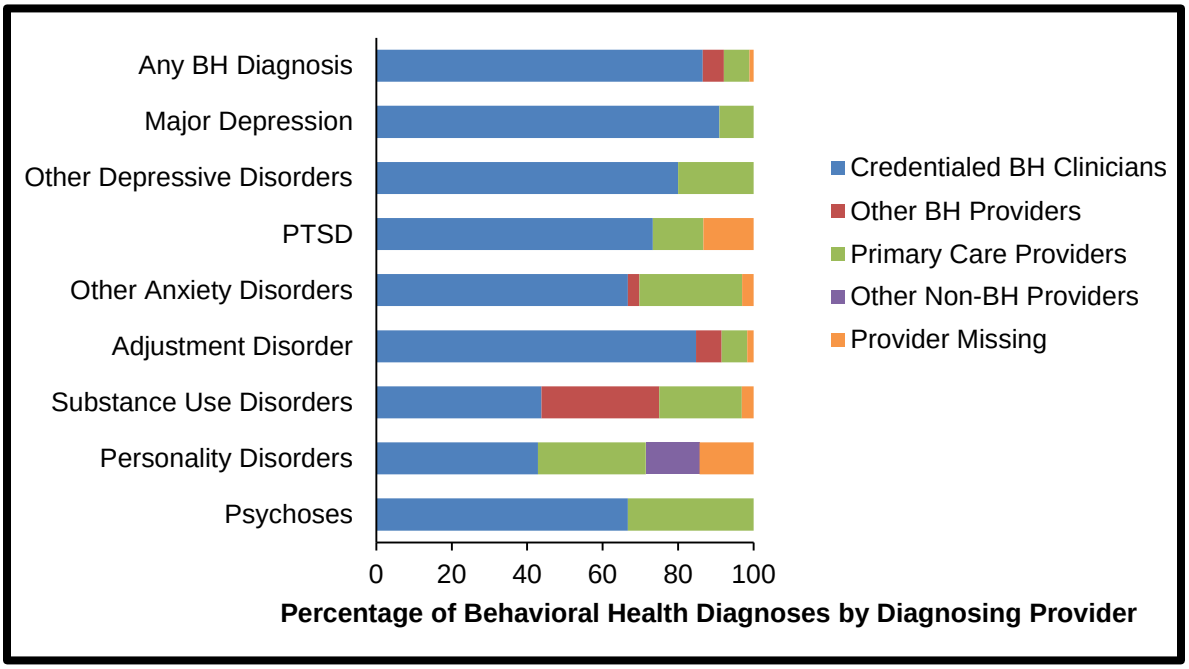


Figure D-9. Behavioral Health Diagnoses by Provider Type, Suicide Cases, 2013

Table D-17. Traumatic Brain Injuries, Suicide Cases,[a] U.S. Army, 2001 – 2013

Traumatic brain injuries – n (%)	Suicide Cases			
	2001 – 2013 (n = 1542)[b]		2013 (n = 151)[c]	
MEDICAL ENCOUNTERS[d]				
Inpatient Encounter Involving TBI	66	(4)	11	(7)
Outpatient Encounter Involving TBI	164	(11)	22	(15)
Encounter Involving TBI in 30 Days Before Event	71	(5)	12	(8)
Encounter Involving TBI in Year Before Event	127	(8)	17	(11)
TBI DIAGNOSES[d,e]				
Any TBI Diagnosis	179	(12)	28	(19)
First TBI Diagnosis in Year Before Event	97	(6)	16	(11)

Legend: TBI – traumatic brain injury

Notes: [a] Suicide cases in this table include those confirmed by the AFMES or pending confirmation and thus may differ from counts published by G-1. [b] The total number of suicide cases during 2001–2013 is 1543; however, medical claims data are not available for 1 case. [c] The total number of suicide cases during 2013 is 151; all medical claims data are available for these cases. [d] May have more than one. [e] Based on ICD-9 codes for traumatic brain injuries provided by the Defense and Veterans Brain Injury Center (DVBIC).

Table D-18. Pain,[a] Suicide Cases,[b] U.S. Army, 2001 – 2013

Medical Indicator – n (%)	Suicide Cases			
	2001 – 2013 (n = 1542)[c]		2013 (n = 151)	
ENCOUNTERS				
Encounter for Pain in Year Before Event	507	(33)	64	(42)
Encounter for Pain in 30 Days Before Event	136	(9)	15	(10)
DIAGNOSES				
Pain Diagnosis in Year Before Event	458	(30)	62	(41)

Notes: [a] ICD-9 codes indicating pain include 307.8–307.89, 337.2–337.29, 338–338.4 (omitting 338.2 and 338.28), 724–725.40, 786.5–786.52, 388.72, 729.5, 723.1, 780.96, and 784.0. [b] Suicide cases in this table include those confirmed by the Armed Forces Medical Examiner System or pending confirmation and thus may differ from counts published by G-1. [c] Medical claims data were available for all but 1 case.

Table D-19. Sleep Problems,[a] Suicide Cases,[b] U.S. Army, 2001 – 2013

Medical Indicator – n (%)	Suicide Cases			
	2001 – 2013 (n = 1542)[c]		2013 (n = 151)	
ENCOUNTERS				
Encounter for Sleep in Year Before Event	236	(15)	38	(25)
Encounter for Sleep in 30 Days Before Event	65	(4)	13	(9)
DIAGNOSES				
Sleep Diagnosis in Year Before Event	181	(12)	24	(16)

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. [b] Suicide cases in this table include those confirmed by the Armed Forces Medical Examiner System or pending confirmation and thus may differ from counts published by G-1. [c] Medical claims data were available for all but 1 case.

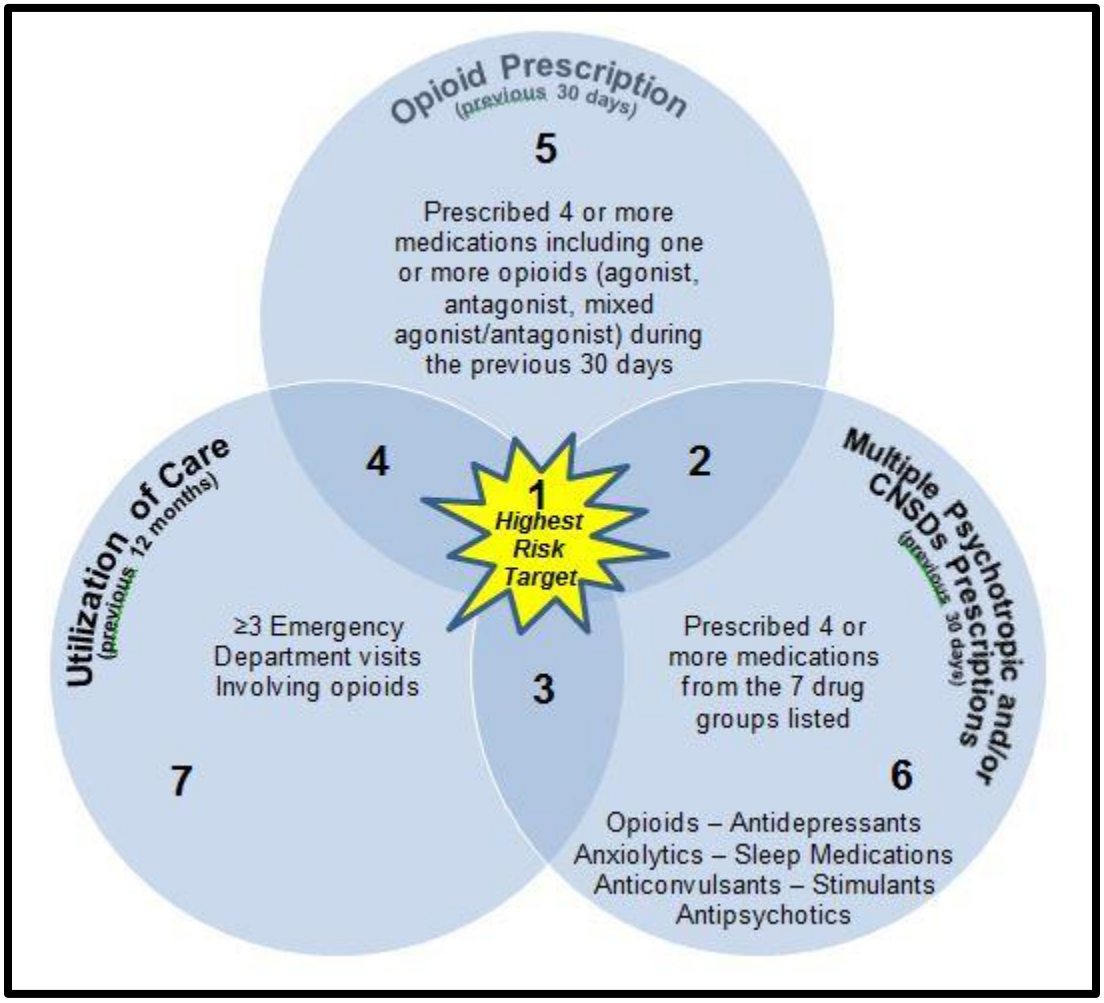


Figure D-10. Polypharmacy Categories

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 CNSDs (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-20. Polypharmacy, Suicide Cases,[a] U.S. Army, 2002[b] – 2013

Category – n (%)	Suicide Cases			
	2002[b] – 2013 (n = 1491)		2013 (n = 151)	
POLYPHARMACY				
Any Polypharmacy[c]	106	(7)	7	(5)
Category 1[d]	9	(<1)	0	(0)
Category 2[e]	20	(1)	0	(0)
Category 3[f]	1	(<1)	0	(0)
Category 4[g]	3	(<1)	0	(0)
Category 5[h]	30	(2)	2	(1)
Category 6[i]	28	(2)	4	(3)
Category 7[j]	15	(1)	1	(<1)

Notes: [a] Suicide cases in this table include those confirmed by the Armed Forces Medical Examiner System or pending confirmation and thus may differ from counts published by G-1. [b] Prescription data became available in 2002. [c] Met at least one criterion for polypharmacy, as defined by OTSG Policy 13-032 definition, at the time of the event. [d] Met all three polypharmacy criteria. [e] Met the multiple psychotropic prescriptions and opioid prescription criteria, but not the utilization of care criterion. [f] Met the multiple psychotropic prescriptions and utilization of care criteria, but not the opioid prescription criterion. [g] Met the opioid prescription and utilization of care criteria, but not the multiple psychotropic prescriptions criterion. [h] Met only the opioid prescription criterion. [i] Met only the multiple psychotropic prescriptions criterion. [j] Met only the utilization of care criterion.

Table D-21. History of Drug Testing, Suicide Cases[a], U.S. Army, 2001 – 2013

Event Characteristic – n (%)	Suicide Cases 2001 – 2013 (n = 1482)[b]		Suicide Cases 2013 (n = 151)[a]	
DRUG TEST HISTORY				
Positive Drug Test	82	(6)	6	(4)
More than One Positive Drug Test	18	(22)	1	(17)
Positive Drug Test within Year of Event	42	(51)	2	(33)
POSITIVE DRUG TESTS				
Amphetamines	15	(18)	0	(0)
Cannabis	41	(50)	3	(50)
Cocaine	29	(35)	1	(17)
Oxycodone/Oxymorphone	5	(6)	2	(33)
Opiates	7	(9)	0	(0)
Heroin	2	(2)	0	(0)
Steroids	1	(1)	0	(0)
Barbiturates	0	(0)	0	(0)

Notes: [a] Suicide cases in this table include those confirmed by the Armed Forces Medical Examiner System or pending confirmation and thus may differ from counts published by G-1.
[b] Drug testing history is available only for cases who have a record of a drug test in the Drug & Alcohol Management Information System (DAMIS).

Table D-22. History of ASAP Intake,[a] Suicide Cases,[b] U.S. Army, 2001 – 2013

Event Characteristic – n (%)	Suicide Cases			
	2001 – 2013 (n = 1542)		2013 (n = 151)	
ASAP INTAKE SCREENING EVER				
Screened for Intake	343	(22)	28	(19)
Enrolled for Treatment[c]	219	(64)	16	(57)
ASAP INTAKE SCREENING IN PREVIOUS YEAR				
Screened for Intake	147	(10)	8	(5)
Enrolled for Treatment[c]	97	(66)	5	(63)

Legend: ASAP – Army Substance Abuse Program.
Notes: [a] Data from the Drug and Alcohol Management Information System (DAMIS). [b] Suicide cases in this table include those confirmed by Armed Forces Medical Examiner System or pending confirmation and thus may differ from counts published by G-1. [c] Proportion of cases screened for intake.

Appendix E

Suicide Attempt Cases Tables and Figures

Tables

Figures

Table E-1. Demographic Characteristics, Suicide Attempt Cases,[a] U.S. Army, 2004 – 2013

Demographic Characteristics – n (%)	Suicide Attempt Cases				Army Distribution[b]
	2004 – 2013[c] (n = 5320)		2013 (n = 469)		2013
SEX					%
Male	3930	(74)	362	(77)	86
Female	1389	(26)	107	(23)	14
AGE (YR)					
17–24	3291	(62)	237	(51)	31
25–34	1559	(29)	173	(37)	40
35–64	460	(9)	58	(12)	29
Missing	10	(<1)	1	(<1)	
Mean	25	(±6.3)	26	(±7.0)	
Mode	20		22		
RACE-ETHNICITY					
Non-Hispanic White	3532	(66)	305	(65)	61
Non-Hispanic Black	846	(16)	75	(16)	21
Hispanic	689	(13)	65	(14)	12
Non-Hispanic Asian/Pacific Islander	183	(3)	17	(4)	5
Non-Hispanic Native American/ Alaskan Native	63	(1)	6	(1)	1
Unknown	6	(<1)	1	(<1)	
Missing	1	(<1)	0	(0)	
MARITAL STATUS					
Single	2854	(54)	203	(43)	NA
Married	2176	(41)	226	(48)	NA
Divorced	256	(5)	36	(8)	NA
Other[d]	27	(<1)	4	(<1)	NA
Unknown	4	(<1)	0	(0)	
Missing	3	(<1)	0	(0)	

Legend: NA – not available.
Notes for Table E-23: [a] Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b] Proportions were provided by the Defense Manpower Data Center. [c] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.) [d] Includes widowed and legally separated.

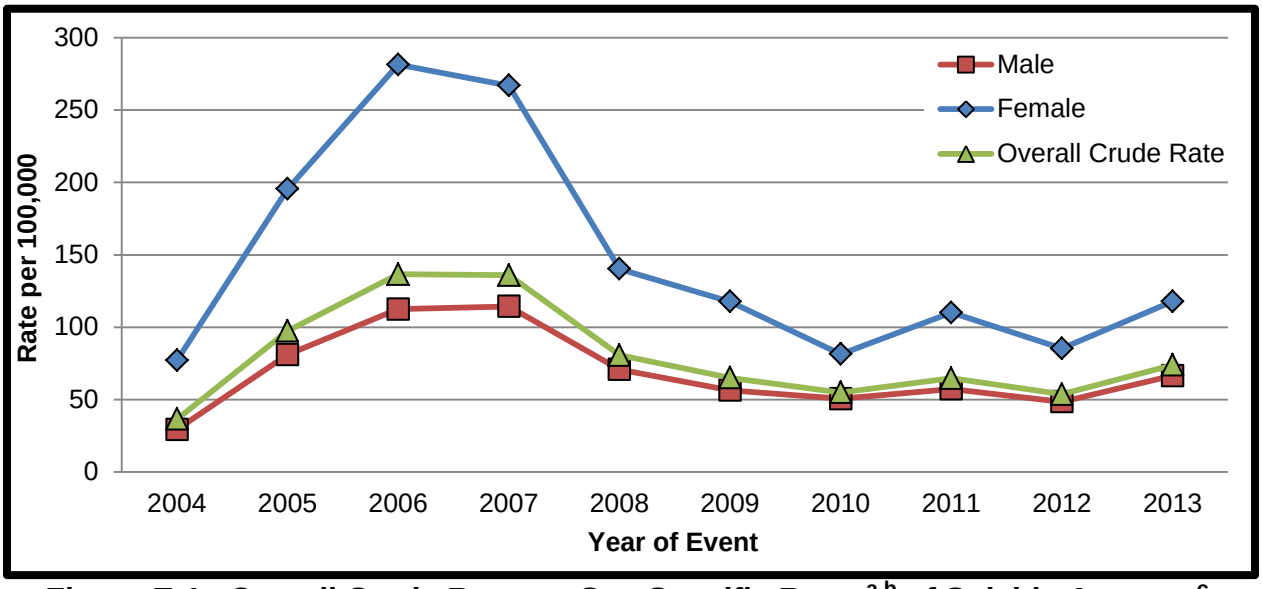


Figure E-1. Overall Crude Rate vs. Sex-Specific Rates[a,b] of Suicide Attempt,[c] per 100,000, U.S. Army Soldiers, 2004 – 2013

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2004 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.)

Table E-2. Overall Crude Rate vs. Sex-Specific Rates[a,b] of Suicide Attempt,[c] per 100,000, U.S. Army Soldiers, 2004 – 2013

	Sex					
	Overall		Male		Female	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF ATTEMPT						
2004	36.6	32.0 – 41.1	29.4	25.0 – 33.8	77.1	59.9 – 94.3
2005	97.5	89.9 – 105.0	81.1	73.7 – 88.5	195.7	167.5 – 223.9
2006	136.6	127.5 – 145.7	112.5	103.6 – 121.4	281.4	247.0 – 315.9
2007	135.9	126.9 – 144.9	114.4	105.5 – 123.3	267.0	233.4 – 300.5
2008	80.6	73.9 – 87.4	70.8	64.0 – 77.7	140.2	116.5 – 164.0
2009	65.1	59.2 – 71.0	56.5	50.5 – 62.4	117.7	96.5 – 139.0
2010	54.9	49.4 – 60.3	50.6	44.9 – 56.2	81.5	63.7 – 99.2
2011	64.7	58.7 – 70.7	57.3	51.2 – 63.3	110.1	89.4 – 130.9
2012	53.6	48.1 – 59.2	48.4	42.7 – 54.2	85.3	66.6 – 103.9
2013	73.9	67.2 – 80.6	66.5	59.7 – 73.4	117.8	95.4 – 140.1

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2004 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.)

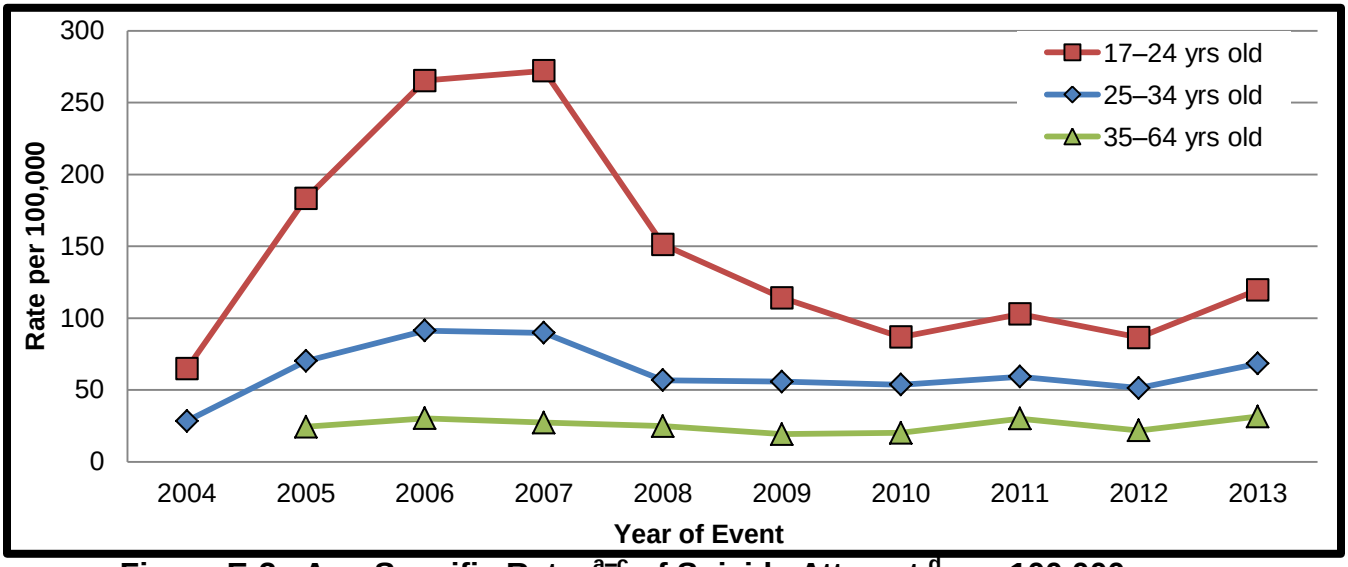


Figure E-2. Age-Specific Rates[a–c] of Suicide Attempt,[d] per 100,000, U.S. Army Soldiers, 2004 – 2013

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2004 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n < 20) are not reported. Specifically, in 2004, there were fewer than 20 suicide attempts by Soldiers 35–34 years old, so a rate could not be calculated for that group in that year. [d] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.)

Table E-3. Age-Specific Rates[a–c] of Suicide Attempts,[d] per 100,000, U.S. Army Soldiers, 2004 – 2013

Age	17 – 24 yrs old		25 – 34 yrs old		35 – 64 yrs old	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF ATTEMPT						
2004	65.0	55.0 – 75.0	28.4	21.6 – 35.2	--[c]	--
2005	183.3	166.1 – 200.6	70.1	59.4 – 80.8	24.4	17.4 – 31.4
2006	265.3	244.2 – 286.5	91.3	78.8 – 103.8	30.3	22.4 – 38.3
2007	272.1	250.7 – 293.6	89.7	77.5 – 101.9	27.2	19.8 – 34.7
2008	151.2	135.6 – 166.9	56.8	47.4 – 66.2	24.8	17.8 – 31.8
2009	114.2	100.7 – 127.7	55.7	46.8 – 64.7	19.2	13.2 – 25.3
2010	86.9	74.9 – 99.0	53.7	45.1 – 62.4	20.2	14.0 – 26.4
2011	102.9	89.6 – 116.3	59.3	50.2 – 68.3	30.1	22.5 – 37.7
2012	86.5	73.8 – 99.3	51.3	42.8 – 59.9	21.9	15.3– 28.5
2013	119.7	104.5 – 134.9	68.4	58.2 – 78.6	31.5	23.4– 39.7

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2004 through 2013. [b] US Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n < 20) are not reported. Specifically, in 2004, there were fewer than 20 suicide attempts by Soldiers 35–34 years old, so a rate could not be calculated for that group in that year. [d] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not prepared for suicidal ideations until 2007.)

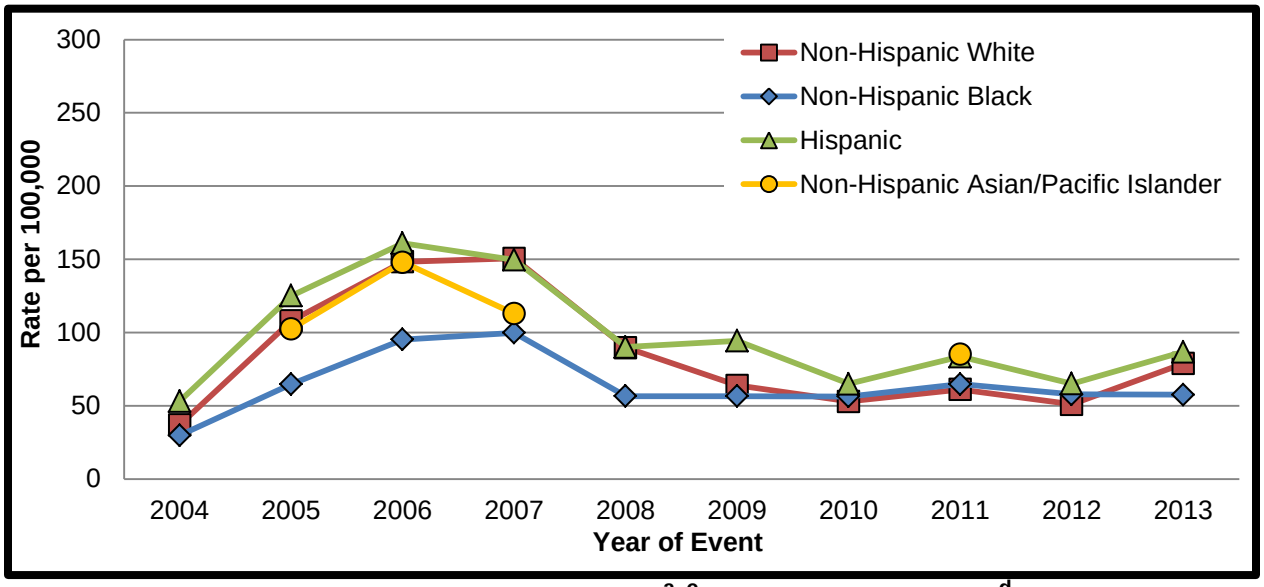


Figure E-3. Race-Ethnicity-Specific Rates[a–c] of Suicide Attempt,[d] per 100,000, U.S. Army Soldiers, 2004 – 2013

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2004 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n < 20) are not reported. Specifically, there were fewer than 20 suicide attempts by non-Hispanic Asian or Pacific Islander Soldiers in some years and by Native American or Alaska Native Soldiers in all years, so rates could not be calculated for those groups in those years. [d] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.)

Table E-4. Race-Ethnicity–Specific Rates[a–c] of Suicide Attempt,[d] per 100,000, U.S. Army Soldiers, 2004 – 2013

	Non-Hispanic White		Non-Hispanic Black		Hispanic		Non-Hispanic Native American/ Alaska Native		Non-Hispanic Asian/ Pacific Islander	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF ATTEMPT										
2004	37.0	31.2 – 42.8	29.9	21.1 – 38.7	53.2	35.6 – 70.8	--	--	--	--
2005	108.0	98.1 – 118.0	64.8	51.4 – 78.3	125.2	98.2 – 152.1	--	--	102.6	58.7 – 146.5
2006	148.4	136.5 – 160.3	95.3	78.4 – 112.2	161.1	130.4 – 191.7	--	--	148.0	95.1 – 201.0
2007	150.7	138.8 – 162.5	99.8	82.4 – 117.3	149.7	120.7 – 178.8	--	--	113.0	66.8 – 159.2
2008	89.7	80.7 – 98.6	56.7	43.7 – 69.6	90.2	68.1 – 112.3	--	--	--	--
2009	64.0	56.6 – 71.3	56.6	44.0 – 69.3	94.5	72.5 – 116.4	--	--	--	--
2010	53.0	46.3 – 59.7	56.4	43.8 – 69.1	65.0	47.0 – 83.0	--	--	--	--
2011	61.2	53.9 – 68.5	64.8	51.2 – 78.4	83.6	63.1 – 104.1	--	--	85.3	49.7 – 121.0
2012	51.1	44.2 – 57.9	57.8	44.7 – 70.9	65.1	46.9 – 83.3	--	--	--	--
2013	78.9	70.1 – 87.8	57.5	44.5 – 70.6	86.8	65.7 – 107.9	--	--	--	--

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2004 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n < 20) are not reported. Specifically, there were fewer than 20 suicide attempts by non-Hispanic Asian or Pacific Islander Soldiers in some years and by Native American or Alaska Native Soldiers in all years, so rates could not be calculated for those groups in those years. [d] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.)

Table E-5. Military Characteristics, Suicide Attempt Cases,[a,b] U.S. Army, 2004 – 2013

Military Characteristics – n (%)	Suicide Attempt Cases				Army Distribution[c]
	2004 – 2013 (n = 5320)		2013 (n = 469)		2013
COMPONENT					%
Regular Army	4708	(89)	431	(92)	83
Activated National Guard	369	(7)	30	(6)	10
Activated Army Reserve	241	(5)	7	(1)	6
Missing	2	(<1)	1	(<1)	
RANK					
E1–E4	4163	(78)	309	(66)	40
E5–E9	995	(19)	137	(29)	41
W1–W5	24	(<1)	5	(1)	3
Cadets	12	(<1)	0	(0)	0
O1–O3	87	(2)	12	(3)	7
O4–O10	37	(<1)	4	(<1)	6
NUMBER OF DEPLOYMENTS[d]					
0	2975	(56)	189	(40)	NA
1	1502	(28)	131	(28)	NA
2	604	(11)	98	(21)	NA
3	176	(3)	33	(7)	NA
4+	63	(1)	18	(4)	NA

Legend: E – Enlisted, O – Officer, W – Warrant Officer, 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] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.) [c] Proportions were provided by the Defense Manpower Data Center. [d] Refers to lifetime history of OEF, OIF, or OND deployment.

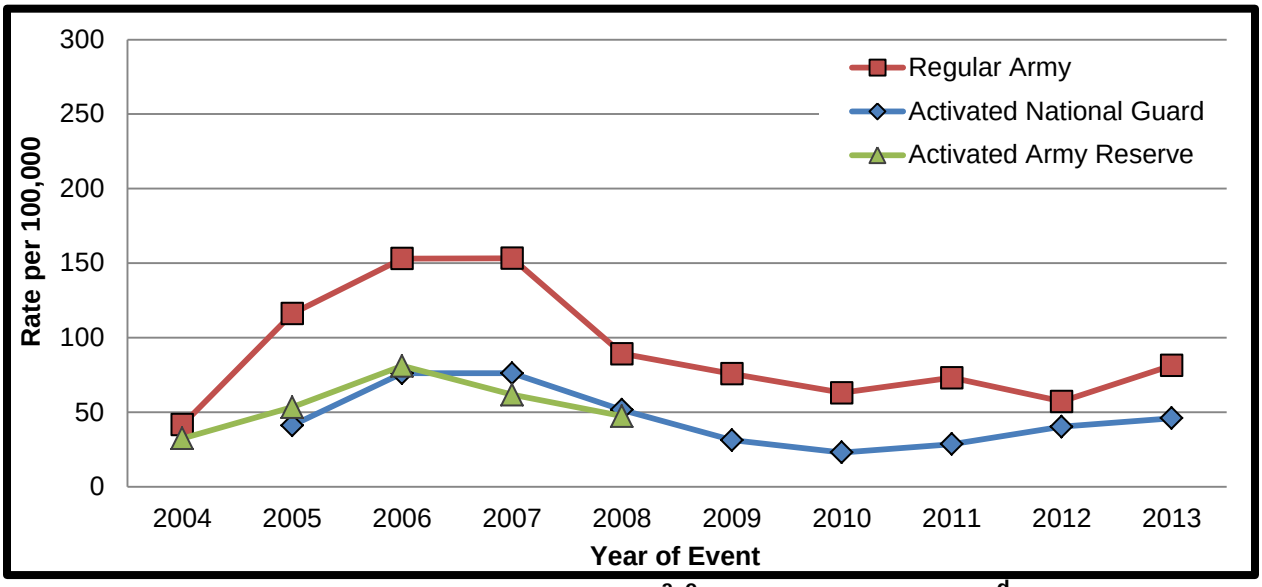


Figure E-4. Component-Specific Rates[a–c] of Suicide Attempt,[d] per 100,000, U.S. Army Soldiers, 2004 – 2013

Notes [a] Rates only include cases with identifiable demographic factors and population counts from 2004 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n < 20) are not reported. Specifically, in some years, there were fewer than 20 suicide attempts by activated National Guard or Army Reserve Soldiers, so rates could not be calculated for those groups in those years. [d] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.)

Table E-6. Component-Specific Rates[a–c] of Suicide Attempt,[d] per 100,000, U.S. Army Soldiers, 2004 – 2013

Component	Regular Army		Activated National Guard		Activated Army Reserve	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF ATTEMPT						
2004	41.7	36.0 – 47.4	--	--	32.5	19.7 – 45.2
2005	116.2	106.6 – 125.8	41.2	29.1 – 53.2	53.4	35.9 – 70.8
2006	153.2	142.3 – 164.1	76.2	57.5 – 94.8	81.1	57.9 – 104.3
2007	153.3	142.6 – 164.1	76.1	57.0 – 95.2	61.7	41.0 – 82.5
2008	89.2	81.2 – 97.3	51.6	36.5 – 66.7	47.3	30.1 – 64.6
2009	75.8	68.5 – 83.1	31.2	20.2 – 42.2	--	--
2010	63.1	56.5 – 69.7	23.1	13.2 – 32.9	--	--
2011	73.1	66.1 – 80.2	28.6	17.2 – 40.1	--	--
2012	57.3	51.0 – 63.6	40.3	25.9 – 54.7	--	--
2013	81.4	73.7 – 89.1	46.0	29.5 – 62.4	--	--

Notes [a] Rates only include cases with identifiable demographic factors and population counts from 2004 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n < 20) are not reported. Specifically, in some years, there were fewer than 20 suicide attempts by Guard or Reserve Soldiers, so rates could not be calculated for those groups in those years. [d] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.)

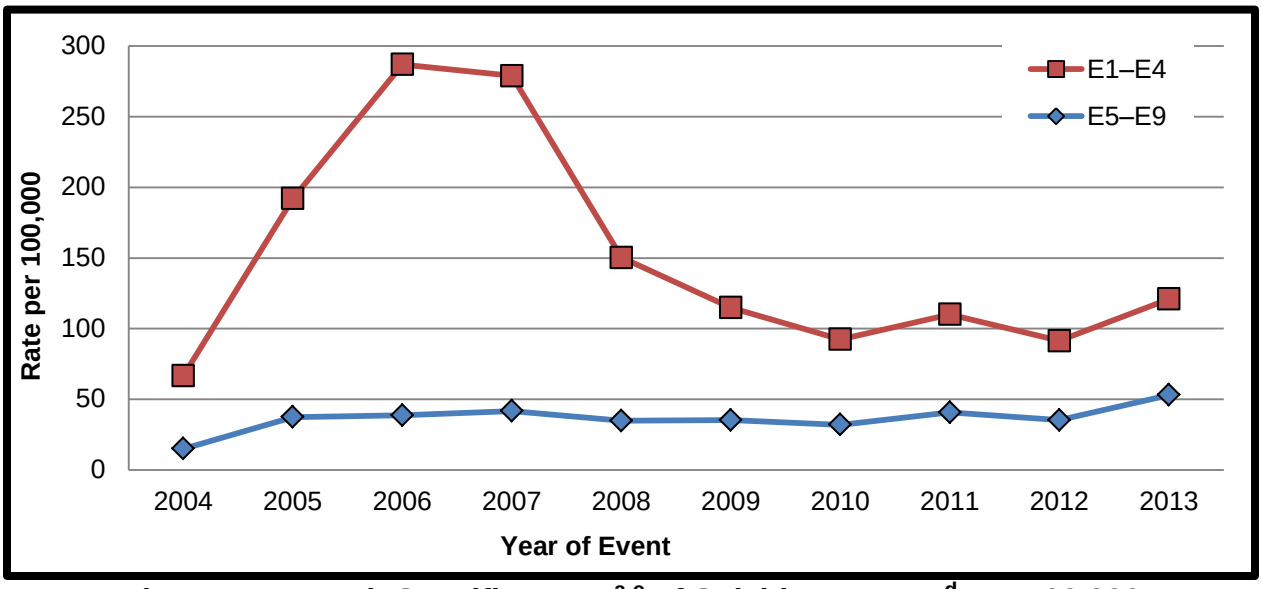


Figure E-5. Rank-Specific Rates[a-c] of Suicide Attempt,[d] per 100,000, U.S. Army Soldiers, 2004 – 2013

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2004 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n < 20) are not reported. Specifically, there were fewer than 20 suicide attempts by officers or warrant officers, so rates could not be calculated for those groups. [d] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.)

Table E-7. Rank-Specific Rates[a–c] of Suicide Attempt,[d] per 100,000, U.S. Army Soldiers, 2004 – 2013

Rank	E1 – E4		E5 – E9		O1 – O3		O4 – O10		W1 – W5	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF ATTEMPT										
2004	66.8	57.5 – 76.1	15.0	10.4 – 19.5	--	--	--	--	---	--
2005	192.0	175.6 – 208.5	37.4	30.3 – 44.6	--	--	--	--	--	--
2006	287.0	266.4 – 307.6	38.6	31.2 – 46.0	--	--	--	--	--	--
2007	278.9	258.9 – 299.0	41.7	34.0 – 49.4	--	--	--	--	--	--
2008	150.2	136.1 – 164.4	34.8	27.9 – 41.7	--	--	--	--	--	--
2009	114.9	102.8 – 126.9	35.2	28.4 – 42.1	--	--	--	--	--	--
2010	92.5	81.7 – 103.3	31.9	25.4 – 38.5	--	--	--	--	--	--
2011	110.1	98.2 – 122.0	40.6	33.1 – 48.1	--	--	--	--	--	--
2012	91.4	80.1 – 102.7	35.2	28.1 – 42.3	--	--	--	--	--	--
2013	120.9	107.5 – 134.4	53.0	44.1 – 61.9	--	--	--	--	--	--

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2004 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n < 20) are not reported. Specifically, there were fewer than 20 suicide attempts by officers or warrant officers, so rates could not be calculated for those groups. [d] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.)

Table E-8. Location and Method, Suicide Attempts,[a,b] U.S. Army, 2004 – 2013

Event Characteristic – n (%)	Suicide Attempts 2004 – 2013 (n = 5230)		Suicide Attempts 2013 (n = 348)	
LOCATION OF ATTEMPT[c]				
USA	4415	(83)	420	(90)
In Theater	307	(6)	13	(3)
Other[d]	318	(6)	33	(7)
Missing	258	(5)	3	(<1)
Unknown	22	(<1)	0	(0)
METHOD OF ATTEMPT[c]				
Gunshot Wound	326	(6)	49	(10)
Hanging/Asphyxiation	365	(7)	41	(9)
Drug/Alcohol Overdose	2845	(53)	247	(53)
Cutting	839	(16)	55	(12)
Other[e]	780	(15)	72	(15)
Missing	41	(<1)	2	(<1)
Unknown	124	(2)	3	(<1)

Notes: [a] Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.) [c] Location and method of attempt for suicide attempt cases from DoDSER. [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 E-9. Additional Characteristics, Suicide Attempts,[a,b] U.S. Army, 2004 – 2013

Event Characteristic – n (%)	Suicide Attempts			
	2004 – 2013 (n = 5320)		2013 (n = 469)	
SUBSTANCE INVOLVEMENT				
Event Involved Alcohol	1295	(24)	141	(30)
Event Involved Drugs	2688	(51)	242	(52)
EVENT DEPLOYMENT-RELATED[c,d]				
Pre-deployment	187	(4)	2	(<1)
Current deployment	412	(8)	13	(3)
Post-deployment	410	(8)	66	(14)
Orders to deploy	572	(11)	133	(28)
REPORTED MOTIVATION[e]				
Emotional Relief	1399	(26)	18	(4)
Hopelessness/Depression	1250	(24)	15	(3)
Impulse	415	(8)	6	(1)
Avoidance/Escape	456	(9)	4	(<1)
Individual Reasons	174	(3)	2	(<1)
Interpersonal Influence	32	(<1)	5	(1)
Other[f]	427	(8)	7	(1)
Unknown	294	(6)	2	(<1)
Missing	881	(17)	432	(92)
OTHER EVENT CHARACTERISTICS				
Communicated Prior to Event	1537	(29)	119	(25)

Notes: [a] Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.) [c] Whether the event was deployment-related and what the motivation for the event was are not matters of record, but are based on the information the provider gathered during the inquiry and on the opinion formed as a result of the inquiry. [d] Numbers reflect independent questions on the DoDSER. [e] May have more than one in years 2012–2013. [f] Includes other psychiatric symptoms or free text answers by the provider.

Table E-10. Legal History and Stressors from DoDSERs, Suicide Attempt Cases,[a,b] U.S. Army, 2004 – 2013

Legal History and Stressors – n (%)	Suicide Attempt Cases			
	2004 – 2013 (n = 5320)		2013 (n= 469)	
LEGAL HISTORY				
Article 15	936	(18)	84	(18)
Administrative Separation[c]	585	(11)	45	(10)
Civil Legal Problems	384	(7)	38	(8)
AWOL	304	(6)	14	(3)
Nonselection[d]	153	(3)	27	(6)
Courts Martial	160	(3)	13	(3)
Any of the above	1649	(31)	158	(34)
MEDICAL BOARD[e]				
Yes	422	(8)	81	(17)
STRESSORS[f]				
Relationship Problem	2487	(47)	245	(52)
Work Stress	2043	(38)	186	(40)
Victim of Abuse	1605	(30)	160	(34)
Spouse/Family/Friend Death	1438	(27)	171	(36)
Physical Health Problem	1071	(20)	137	(29)
Spousal/Family/Friend Suicide	673	(13)	83	(18)
Financial Stress	570	(11)	55	(12)
Spouse/Family Health Problem	519	(10)	49	(10)
Perpetrator of Abuse	396	(7)	42	(9)
Any of the above	4196	(79)	394	(84)
PROGRAM UTILIZATION				
Substance Abuse Services Use	933	(18)	115	(25)
Family Advocacy Program Use	306	(6)	35	(7)
Received Suicide Prevention Training[g]	1079	(20)	290	(62)

Legend: AWOL – absent without leave, 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] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.) [c] Considered for separation from the Army on the basis of conduct or ability to meet standards of duty performance and discipline. [d] Not selected for advanced schooling, promotion, or command. [e] Medical evaluation board to determine fitness for continued duty. [f] More than one stressor in lifetime may apply. [g] Data collection began in 2007.

Table E-11. Behavioral Health Indicators from PDHAs,[a] Suicide Attempt Cases, U.S. Army, 2004 – 2013

Behavioral Health Indicators – n (%)	Suicide Attempt Cases with PDHAs			
	2004 – 2013 (n = 748)		2013 (n = 57)	
DEPRESSION SYMPTOMS[b]				
Yes	386	(52)	29	(52)
No	352	(48)	27	(48)
POST-TRAUMATIC STRESS SYMPTOMS[c]				
Yes	292	(39)	27	(49)
No	450	(61)	28	(51)
SUICIDAL THOUGHTS	61	(8)	2	(4)
REFERRED FOR BH CARE[d]	169	(26)	17	(40)

Legend: PDHA – Post-Deployment Health Assessment, BH – behavioral health,
Notes: [a] Data from the most recent PDHA completed in the 12 months before the suicide attempt. [b] Patient Health Questionnaire-2 (PHQ-2). [c] PTSD Checklist – Civilian (PCL-C). [d] Referral to behavioral health in primary care or mental health specialty care within 24 hours, 7 days, or 30 days.

Table E-12. Behavioral Health Indicators from PDHRAs,[a] Suicide Attempt Cases, U.S. Army, 2005[b] – 2013

Behavioral Health Indicators – n (%)	Suicide Attempt Cases with PDHRAs			
	2005[b] – 2013 (n = 575)		2013 (n = 68)	
DEPRESSION SYMPTOMS[c]				
Yes	365	(64)	49	(72)
No	203	(36)	18	(28)
POST-TRAUMATIC STRESS SYMPTOMS[d]				
Yes	258	(46)	34	(51)
No	304	(54)	33	(49)
SUICIDAL THOUGHTS	29	(5)	3	(4)
REFERRED FOR BH CARE[e]	123	(25)	15	(25)

Legend: PDHRA – Post-Deployment Health Reassessment, BH – behavioral health.
Notes: [a] Data from the most recent PDHRA completed in the 12 months before the suicide attempt. [b] PDHRAs were first implemented in 2005. [c] Patient Health Questionnaire-2 (PHQ-2). [d] PTSD Checklist – Civilian (PCL-C).
[e] Referral to behavioral health in primary care or mental health specialty care within 24 hours, 7 days, or 30 days.

Table E-13. Alcohol Misuse Indicators,[a] Suicide Attempt Cases,[b] U.S. Army, 2009 – 2013

Alcohol Misuse Indicators – n (%)	Suicide Attempt Cases with PHAs			
	2009[c] – 2013 (n = 758)		2013 (n = 230)	
ALCOHOL MISUSE				
Positive Score[d]	187	(25)	56	(24)
High Positive Score[e]	26	(3)	7	(3)
Referred to ASAP	58	(8)	20	(9)
Received Alcohol-Related Education	430	(57)	126	(55)

Legend: PHA – periodic health assessment, AUDIT-C – Alcohol Use Disorders Identification Test, ASAP – Army Substance Abuse Program.
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 the AFMES or pending confirmation and thus may differ from counts published by G-1. [c] The AUDIT-C first appeared on PHAs in 2009. [d] A positive AUDIT-C score is 4 and above for males and 3 and above for females. [e] A high positive score is 8 and above.

Table E-14. Behavioral Health Indicators, Suicide Attempt Cases,[a,b] U.S. Army, 2004 – 2013

Behavioral Health Indicators – n (%)	Suicide Attempt Cases			
	2004 – 2013 (n = 5265)[c]		2013 (n = 463)[d]	
MEDICAL ENCOUNTERS[e]				
Inpatient Encounter Involving BH	1533	(29)	175	(38)
Outpatient Encounter Involving BH	4184	(79)	407	(88)
Encounter Involving BH within 30 Days of Event	3098	(59)	304	(66)
INCIDENT BH DIAGNOSES[f]				
Initial BH Diagnosis in Year Before Event	3014	(57)	271	(59)
BH DIAGNOSES[e,g]				
Any BH Diagnosis[h]	3701	(70)	362	(78)
More Than One BH Diagnosis[i]	2522	(48)	282	(61)
Any Mood Disorder	2373	(45)	241	(52)
Major Depression	1165	(22)	119	(26)
Other Depressive Disorders	1983	(38)	211	(46)
Bipolar Disorders	288	(5)	27	(6)
PTSD	715	(14)	107	(23)
Other Anxiety Disorders[j]	1194	(23)	177	(38)
Adjustment Disorder	2651	(50)	285	(62)
Substance Use Disorders[k]	1347	(26)	149	(32)
Personality Disorders[l]	565	(11)	35	(8)
Psychoses	168	(3)	19	(4)
Previous Suicide Attempt/Self-Harm[m]	710	(13)	64	(14)
Previous Suicidal Ideation[n]	768	(15)	125	(27)

Legend: BH – behavioral health, 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] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.) [c] Medical claims data were available for all but 55 cases. [d] Medical claims data were available for all but 6 cases. [e] May have more than one. [f] Soldiers with incident BH diagnoses are Soldiers who received their initial BH diagnosis in a period of time, in this case a year. [g] Soldiers counted in prevalent BH diagnoses have a history of BH diagnosis during their time in service. [h] Any BH Diagnosis is "yes" if one or more of the following is reported: Mood, PTSD, Other Anxiety Disorders, Adjustment Disorder, Substance Use Disorders, Personality Disorders, Psychosis. [i] More than One BH Diagnosis is "yes" if more than one of the aforementioned diagnoses is reported. [j] Other Anxiety Disorders include Panic Disorder, Generalized Anxiety Disorder, or Obsessive-Compulsive Disorder. [k] Substance Use Disorders include Drug or Alcohol Use Disorders. [l] Personality Disorders include Borderline or Antisocial Personality Disorders. [m] Based on ICE-9 E-codes for self-inflicted injuries which first appear in medical records in 2007. [n] Based on ICE-9 V-code for suicidal ideation which first appears in medical records in 2006.

Table E-15. Behavioral Health Indicators by Provider Type,[a] Suicide Attempt Cases [b,c] U.S. Army, 2004 – 2013

Behavioral Health Indicators – n (%)	Suicide Attempt Cases											
	2004 – 2013						2013					
	Total	Credentialed BH Clinicians	Other BH Providers	Primary Care Providers	Other Non-BH Providers	Provider Missing	Total	Credentialed BH Clinicians	Other BH Providers	Primary Care Providers	Other Non-BH Providers	Provider Missing
MEDICAL ENCOUNTERS[d]												
Inpatient Encounter Involving BH	1533	1178 (77)	10 (<1)	149 (10)	20 (1)	176 (11)	175	143 (82)	0 (0)	15 (9)	2 (1)	15 (9)
Outpatient Encounter Involving BH	4184	3404 (81)	119 (3)	583 (14)	12 (<1)	66 (2)	407	371 (91)	6 (1)	29 (7)	1 (<1)	0 (0)
Encounter Involving BH within 30 Days of Event	3098	2373 (77)	127 (4)	475 (15)	11 (<1)	112 (4)	304	263 (87)	6 (2)	33 (11)	2 (<1)	0 (0)
BH DIAGNOSES[d]												
Any BH Diagnosis[e]	3701	3306 (89)	112 (3)	217 (6)	5 (<1)	61 (2)	362	338 (93)	6 (2)	15 (4)	1 (<1)	2 (<1)
Any Mood Disorder	2373	1858 (78)	23 (<1)	384 (16)	11 (<1)	97 (4)	241	203 (84)	1(<1)	32 (13)	1 (<1)	4 (2)
Major Depression	1165	938 (81)	31 (3)	91 (8)	10 (<1)	95 (8)	119	101 (85)	4 (3)	7 (6)	0 (0)	7 (6)
Other Depressive Disorders	1983	1383 (70)	20 (1)	487 (25)	11 (<1)	82 (4)	211	162 (77)	2 (<1)	43 (20)	1 (<1)	3 (1)
Bipolar Disorders	288	216 (75)	3 (1)	35 (12)	1 (<1)	33 (11)	27	18 (67)	0 (0)	6 (22)	0 (0)	3 (11)

Table E-15. Behavioral Health Indicators by Provider Type,[a] Suicide Attempt Cases[b,c] U.S. Army, 2004 – 2013, continued

Behavioral Health Indicators – n (%)	Suicide Attempt Cases											
	2004 – 2013						2013					
	Total	Credentialed BH Clinicians	Other BH Providers	Primary Care Providers	Other Non-BH Providers	Provider Missing	Total	Credentialed BH Clinicians	Other BH Providers	Primary Care Providers	Other Non-BH Providers	Provider Missing
BH DIAGNOSES[d] (continued)												
PTSD	715	583 (82)	12 (2)	50 (7)	3 (<1)	67 (9)	107	95 (89)	1(<1)	5 (5)	0 (0)	6 (6)
Other Anxiety Disorders[f]	1194	794 (67)	27 (2)	288 (24)	10 (<1)	75 (6)	177	135 (76)	6 (3)	28 (16)	2 (1)	6 (3)
Adjustment Disorders	2651	2234 (84)	74 (3)	240 (9)	3 (<1)	100 (4)	285	255 (89)	6 (2)	21 (7)	0 (0)	3 (1)
Substance Use Disorders[g]	1347	904 (67)	204 (15)	147 (11)	13 (<1)	79 (6)	149	106 (71)	14 (9)	18 (12)	2 (1)	9 (6)
Personality Disorders[h]	565	396 (70)	11 (2)	30 (5)	2 (<1)	126 (22)	35	28 (80)	0 (0)	2 (6)	0 (0)	5 (14)
Psychoses	168	97 (58)	4 (2)	50 (30)	4 (2)	13 (8)	19	12 (63)	0 (0)	5 (26)	0 (0)	2 (11)

Legend: BH – behavioral health, PTSD – posttraumatic stress disorder.
Notes: [a] Each case is counted in the column of the most experienced BH provider whose claim indicated a BH encounter or diagnosis. Credentialed BH clinicians include psychiatrists and certified clinical social workers, among others. Examples of other BH providers include alcohol and drug abuse counselors and social work case managers. Primary care providers include corpsmen, family practice physicians, and primary care nurse practitioners. Other non-BH providers include surgeons, physical therapists, and gynecologists. [b] Suicide attempt cases in this table are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.) [d] May have more than one. [e] Any BH Diagnosis is "yes," if one or more of the following is reported: Mood, PTSD, Other Anxiety Disorders, Adjustment Disorder, Substance Use Disorders, Personality Disorders, Psychosis. [f] Other Anxiety Disorders include Panic Disorder, Generalized Anxiety Disorder, or Obsessive-Compulsive Disorder. [g] Substance Use Disorder includes Drug or Alcohol Use Disorders. [h] Personality Disorders include Borderline or Antisocial Personality Disorders.

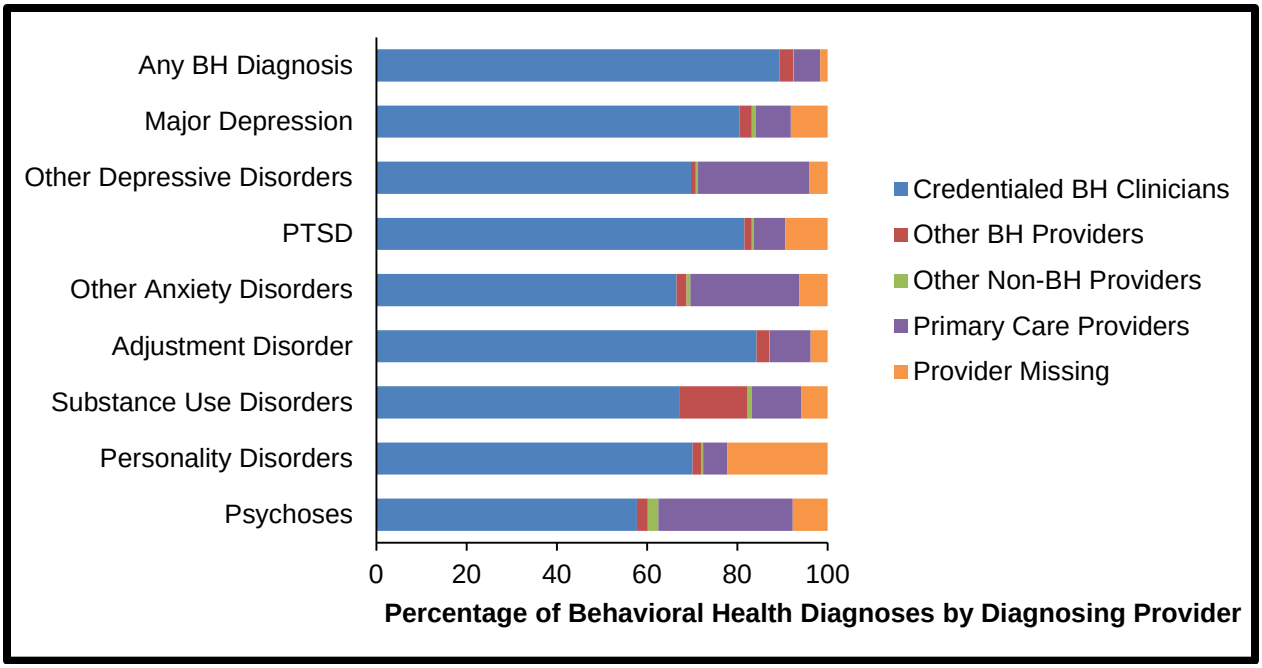


Figure E-6. Behavioral Health Diagnoses by Provider Type, Suicide Attempt Cases, 2004 – 2013

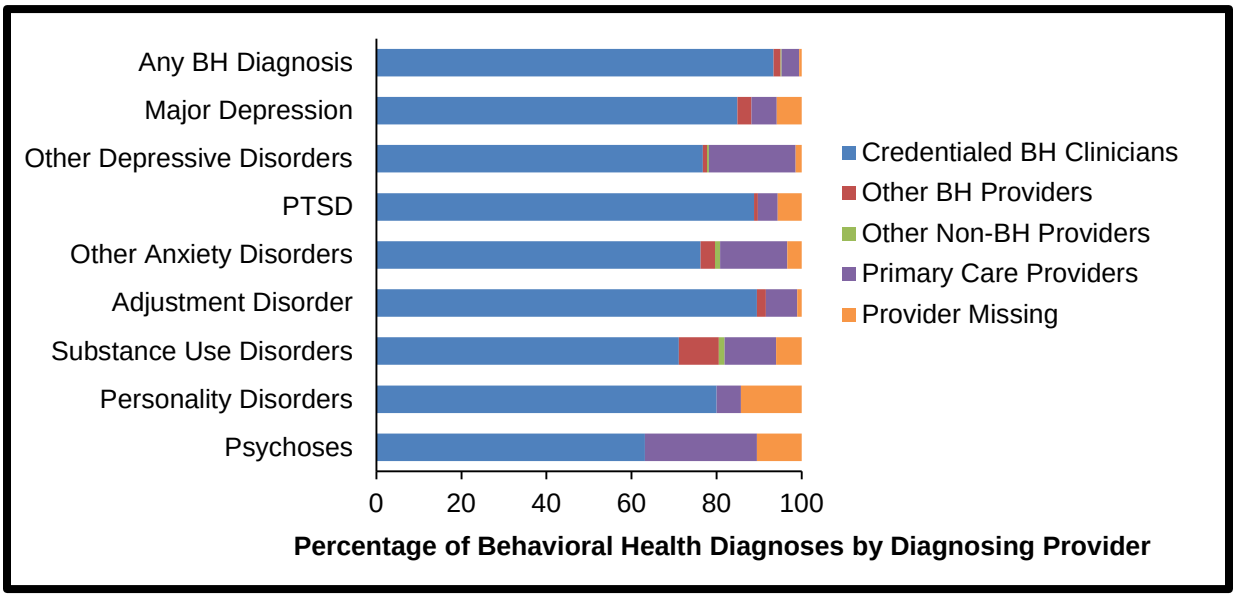


Figure E-7. Behavioral Health Diagnoses by Provider Type, Suicide Attempt Cases, 2013

Table E-16. Traumatic Brain Injuries, Suicide Attempt Cases,[a,b] U.S. Army, 2004 – 2013

Traumatic brain injuries – n (%)	Suicide Attempt Cases			
	2004 – 2013 (n = 5265)[c]		2013 (n = 463)[d]	
MEDICAL ENCOUNTERS[e]				
Inpatient Encounter Involving TBI	102	(2)	12	(3)
Outpatient Encounter Involving TBI	547	(10)	82	(18)
Encounter Involving TBI in 30 Days Before Event	104	(2)	13	(3)
Encounter Involving TBI in Year Before Event	334	(6)	40	(9)
TBI DIAGNOSES[e,f]				
Any TBI Diagnosis	504	(10)	76	(16)
First TBI Diagnosis in Year Before Event	226	(4)	25	(5)

Legend: TBI – traumatic brain injury

Notes: [a] Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not prepared for suicidal ideations until 2007.) [c] The total number of 2004–2013 suicide attempt cases is 5320; however, medical claims data are not available for 55 cases. [d] The total number of 2013 suicide attempt cases is 469; however, medical claims data are not yet available for 6 cases. [e] May have more than one. [f] Based on ICE-9 codes for traumatic brain injuries provided by the Defense and Veterans Brain Injury Center (DVBIC).

Table E-17. Pain,[a] Suicide Attempt Cases,[b,c] U.S. Army, 2004 – 2013

Medical Indicators – n (%)	Suicide Attempt Cases			
	2004 – 2013 (n = 5265)[d]		2013 (n = 463)[e]	
ENCOUNTERS				
Encounter for Pain in Year Before Event	2444	(46)	258	(56)
Encounter for Pain in 30 Days Before Event	956	(18)	111	(24)
DIAGNOSES				
Pain Diagnosis in Year Before Event	2193	(42)	241	(52)

Notes: [a] ICE-9 codes indicating pain include 307.8–307.89, 337.2–337.29, 338–338.4 (omitting 338.2 and 338.28), 724–725.40, 786.5–786.52, 388.72, 729.5, 723.1, 780.96, and 784.0. [b] Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.) [d] Medical claims data were available for all but 55 cases. [e] Medical claims data were available for all but 6 cases.

Table E-18. Sleep Problems,[a] Suicide Attempt Cases,[b,c] U.S. Army, 2004 – 2013

Medical Indicators – n (%)	Suicide Attempt Cases			
	2004 – 2013 (n = 5265)[d]		2013 (n = 463)[e]	
ENCOUNTERS				
Encounter for Sleep in Year Before Event	1033	(20)	162	(35)
Encounter for Sleep in 30 Days Before Event	383	(7)	63	(14)
DIAGNOSES				
Sleep Diagnosis in Year Before Event	776	(15)	136	(29)

Notes: [a] ICE-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. [b] Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.) [d] Medical claims data were available for all but 55 cases. [e] Medical claims data were available for all but 6 cases.

Table E-19. Polypharmacy, Suicide Attempt Cases,[a,b] U.S. Army, 2004 – 2013

Category – n (%)	Suicide Attempt Cases	
	2004 – 2013 (n = 5320)	2013 (n = 469)
POLYPHARMACY		
Any Polypharmacy[c]	761 (14)	86 (18)
Category 1[d]	55 (1)	8 (2)
Category 2[e]	142 (3)	17 (4)
Category 3[f]	14 (<1)	4 (<1)
Category 4[g]	21 (<1)	0 (0)
Category 5[h]	240 (5)	24 (5)
Category 6[i]	220 (4)	27 (6)
Category 7[j]	69 (1)	6 (1)

Notes: [a] Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b] DoDSERs from 2005–2006 with missing event type were resolved as suicide attempt cases if they could not be confirmed as suicide cases. (DoDSERs were not reported for suicidal ideations until 2007.) [c] Met at least one criterion for polypharmacy, as defined by OTSG Policy 13-032 definition, at the time of the event. [d] Met all three polypharmacy criteria. [e] Met the multiple psychotropic prescriptions and opioid prescription criteria, but not the utilization of care criterion. [f] Met the multiple psychotropic prescriptions and utilization of care criteria, but not the opioid prescription criterion. [g] Met the opioid prescription and utilization of care criteria, but not the multiple psychotropic prescriptions criterion. [h] Met only the opioid prescription criteria. [i] Met only the multiple psychotropic prescriptions criterion. [j] Met only the utilization of care criterion.

Table E-20. History of Drug Testing, Suicide Attempt Cases,[a] U.S. Army, 2004 – 2013

Event Characteristic – n (%)	Suicide Attempt Cases 2004 – 2013 (n = 4416)[b]		Suicide Attempt Cases 2013 (n = 427)[b]	
DRUG TEST HISTORY				
Positive drug test	420	(10)	39	(9)
More than one positive drug test	133	(32)	10	(26)
Positive drug test within 365 days	328	(78)	28	(72)
POSITIVE DRUG TESTS				
Amphetamines	72	(17)	3	(8)
Cannabis	202	(48)	18	(46)
Cocaine	163	(39)	10	(26)
Oxycodone/Oxymorphone	17	(4)	7	(18)
Opiates	19	(5)	5	(13)
Heroin	2	(<1)	0	(0)
Steroids	1	(<1)	0	(0)
Barbiturates	2	(<1)	0	(0)

Notes: [a] Suicide attempt cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b] Drug testing history is available only for cases who have a record of a drug test in the Drug & Alcohol Management Information System (DAMIS).

Table E-21. History of ASAP Intake,[a] Suicide Attempt Cases,[b] U.S. Army, 2004 – 2013

Event Characteristic – n (%)	Suicide Attempt Cases			
	2004 – 2013 (n = 5320)		2013 (n = 469)	
ASAP INTAKE SCREENING EVER				
Screened for Intake	1146	(22)	153	(33)
Enrolled for Treatment[c]	838	(73)	117	(76)
ASAP INTAKE SCREENING IN PREVIOUS YEAR				
Screened for Intake	728	(14)	92	(20)
Enrolled for Treatment[c]	542	(74)	78	(85)

Legend: ASAP – Army Substance Abuse Program.

Notes: [a] Data from 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] Proportion 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, 2007 – 2013

Demographic Characteristics – n (%)	Suicidal Ideation Cases				Army Distribution[b]
	2007 – 2013 (n = 5795)		2013 (n = 910)		2013
SEX					%
Male	4575	(79)	727	(80)	86
Female	1220	(21)	183	(20)	14
AGE (YR)					
17–24	3323	(57)	471	(52)	31
25–34	1756	(30)	300	(33)	40
35–64	713	(12)	139	(15)	29
Missing	3	(<1)	0	(0)	
Mean	25	(±7.1)	26	(±7.4)	
Mode	20		20		
RACE-ETHNICITY					
Non-Hispanic White	3841	(66)	548	(60)	61
Non-Hispanic Black	934	(16)	166	(18)	21
Hispanic	717	(12)	138	(15)	12
Non-Hispanic Asian/Pacific Islander	225	(4)	42	(5)	5
Non-Hispanic Native American/ Alaskan Native	68	(1)	15	(2)	1
Unknown	4	(<1)	1	(<1)	
Missing	6	(<1)	0	(0)	
MARITAL STATUS					
Single	3075	(53)	446	(49)	NA
Married	2430	(42)	411	(45)	NA
Divorced	256	(4)	48	(5)	NA
Other[c]	23	(<1)	2	(<1)	NA
Unknown	8	(<1)	1	(<1)	

Legend: 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] Proportions were provided by the Defense Manpower Data Center. [c] Includes widowed and legally separated.

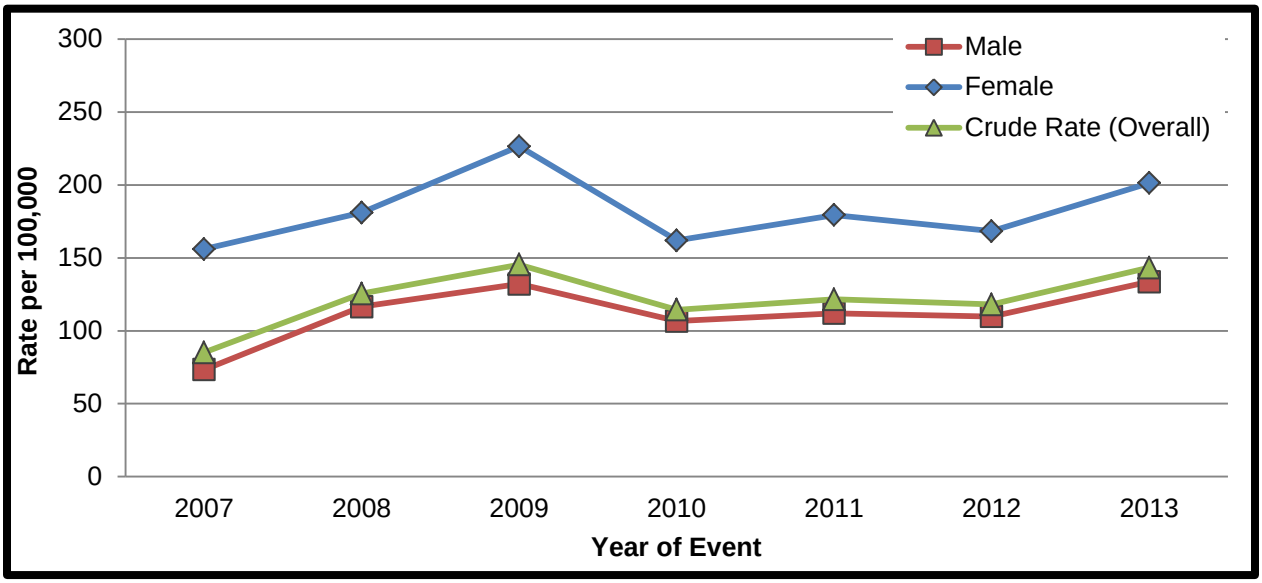


Figure F-1. Overall Crude Rate vs. Sex-Specific Rates[a-c] of Suicidal Ideation, per 100,000, U.S. Army Soldiers, 2007 – 2013

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2007 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center.

Table F-2. Overall Crude Rate vs. Sex-Specific Rates[a,b] of Suicidal Ideation, per 100,000, U.S. Army Soldiers, 2007 – 2013

	Overall		Sex			
			Male		Female	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF EVENT						
2007	85.1	78.0 – 92.2	73.4	66.3 – 80.6	156.0	130.3 – 181.7
2008	125.6	117.1 – 134.0	116.5	107.7 – 125.2	181.0	154.0 – 208.0
2009	145.4	136.5 – 154.2	132.1	123.0 – 141.2	226.5	197.0 – 255.9
2010	114.4	106.5 – 122.3	106.7	98.5 – 114.9	162.0	136.9 – 187.0
2011	121.5	113.4 – 129.7	112.1	103.6 – 120.5	179.5	152.9 – 206.0
2012	118.1	109.8 – 126.3	109.8	101.2 – 118.4	168.4	142.1 – 194.6
2013	143.3	134.0 – 152.7	133.6	123.9 – 143.4	201.4	172.2 – 230.6

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2007 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center.

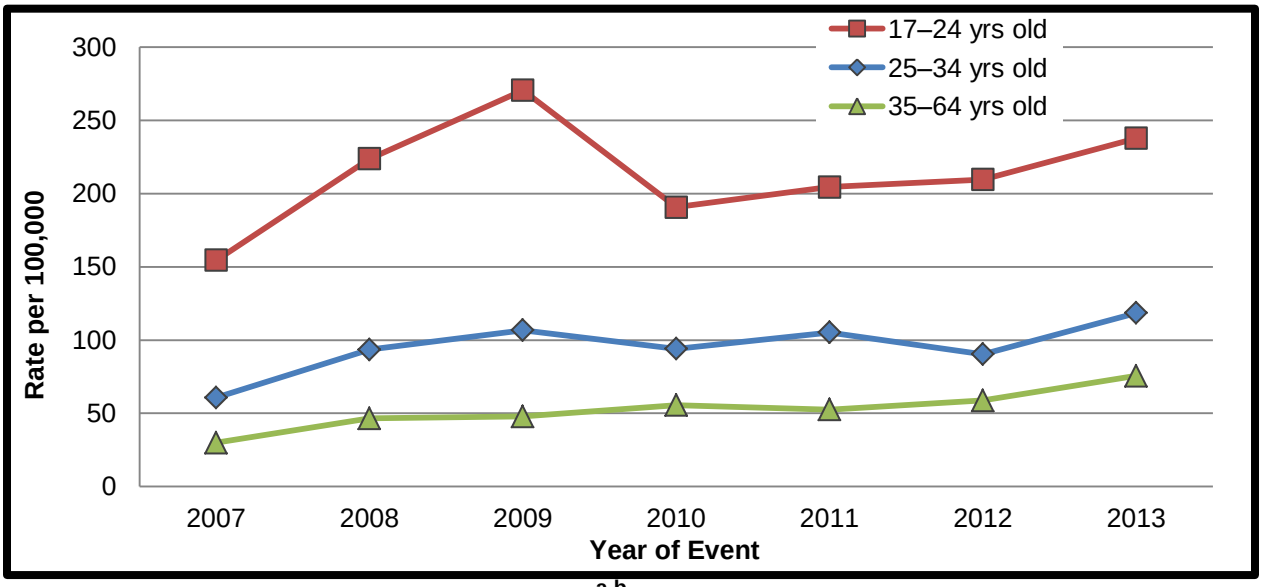


Figure F-2. Age-Specific Rates[a,b] of Suicidal Ideation, per 100,000, U.S. Army Soldiers, 2007 – 2013

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2007 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center.

Table F-3. Age-Specific Rates[a,b] of Suicidal Ideation, per 100,000, U.S. Army Soldiers, 2007 – 2013

Age	17 – 24 yrs old		25 – 34 yrs old		35 – 64 yrs old	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF EVENT						
2007	154.6	138.4 – 170.7	60.7	50.6 – 70.7	29.9	22.1 – 37.7
2008	223.9	204.8 – 243.0	93.5	81.4 – 105.5	46.5	36.9 – 56.1
2009	270.7	249.9 – 291.5	106.7	94.3 – 119.0	47.9	38.3 – 57.4
2010	190.8	172.9 – 208.6	94.1	82.7 – 105.5	55.6	45.4 – 65.9
2011	204.5	185.6 – 223.4	105.2	93.2 – 117.3	52.6	42.5 – 62.7
2012	209.7	189.8 – 229.5	90.4	79.0 – 101.8	58.8	48.0 – 69.7
2013	237.9	216.4 – 259.4	118.6	105.2 – 132.0	75.6	63.0 – 88.2

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2007 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center.

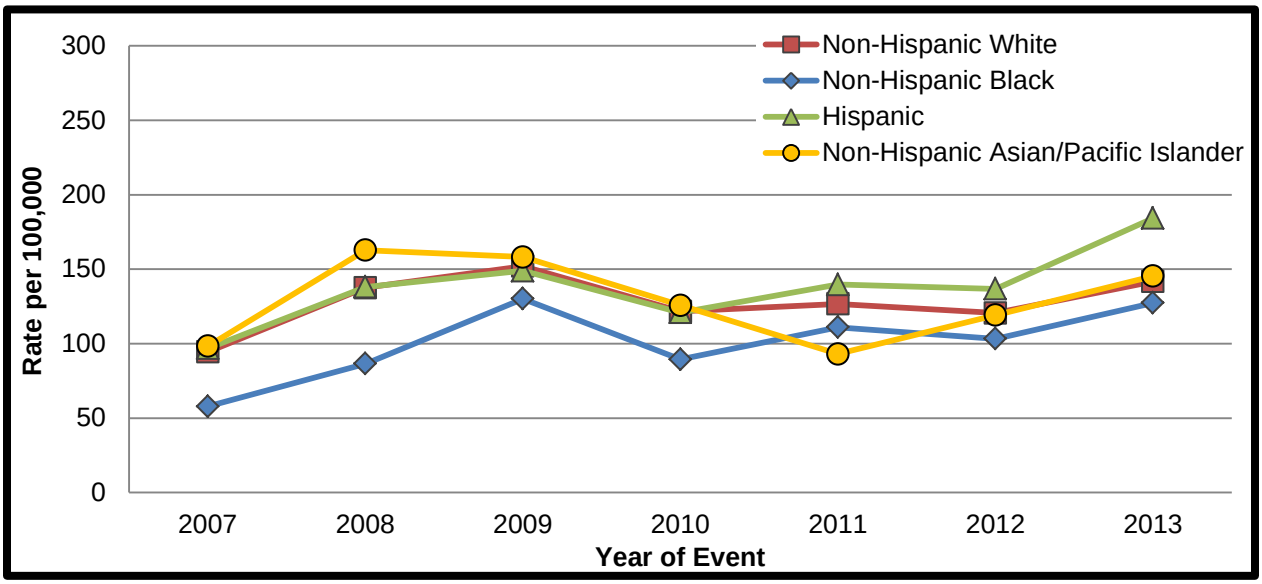


Figure F-3. Race-Ethnicity–Specific Rates[a–c] of Suicidal Ideation, per 100,000, U.S. Army Soldiers, 2007 – 2013

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2007 through 2013.
[b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center.
[c] Unstable rates (n < 20) are not reported. Specifically, there were fewer than 20 cases of suicidal ideation by non-Hispanic Native American/Alaska Native Soldiers, so rates could not be calculated for that group.

Table F-4. Race-Ethnicity–Specific Rates[a–c] of Suicidal Ideation, per 100,000, U.S. Army Soldiers, 2007 – 2013

Race-ethnicity	Non-Hispanic White		Non-Hispanic Black		Hispanic		Non-Hispanic Native American/ Alaskan Native[c]		Non-Hispanic Asian/ Pacific Islander	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF EVENT										
2007	94.5	85.1 – 103.9	57.8	44.6 – 71.1	96.9	73.5 – 120.2	--	--	98.3	55.2 – 141.4
2008	137.6	126.5 – 148.6	86.5	70.6 – 102.5	138.1	110.8 – 165.4	--	--	162.8	109.6 – 216.0
2009	152.1	140.7 – 163.4	130.2	111.0 – 149.4	149.0	121.4 – 176.6	--	--	158.2	107.9 – 208.5
2010	121.7	111.6 – 131.9	89.4	73.6 – 105.3	120.9	96.3 – 145.4	--	--	125.7	81.4 – 169.9
2011	126.7	116.2 – 137.2	111.0	93.2 – 128.8	139.7	113.3 – 166.2	--	--	93.1	55.8 – 130.3
2012	120.6	110.1 – 131.2	103.3	85.8 – 120.8	136.8	110.4 – 163.3	--	--	119.2	79.1 – 159.2
2013	141.8	130.0 – 153.7	127.4	108.0 – 146.7	184.3	153.6 – 215.1	--	--	145.4	101.4 – 189.4

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2007 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [c] Unstable rates (n < 20) are not reported. Specifically, there were fewer than 20 cases of suicidal ideation by non-Hispanic Native American/Alaska Native Soldiers, so rates could not be calculated for that group.

Table F-5. Military Characteristics, Suicidal Ideation Cases,[a] U.S. Army, 2007 – 2013

Military Characteristics – n (%)	Suicidal Ideation Cases				Army Distribution[b]
	2007 – 2013 (n = 5795)		2013 (n = 910)		2013
COMPONENT					%
Regular Army	4970	(86)	808	(89)	83
Activated National Guard	493	(9)	59	(6)	10
Activated Army Reserve	325	(6)	38	(4)	6
Missing	7	(<1)	5	(1)	
RANK					
E1–E4	4429	(76)	618	(68)	40
E5–E9	1124	(19)	236	(26)	41
W1–W5	21	(<1)	10	(1)	3
Cadets	40	(<1)	0	(0)	0
O1–O3	102	(2)	27	(3)	7
O4–O10	63	(1)	11	(1)	6
NUMBER OF DEPLOYMENTS[c]					
0	3034	(52)	469	(52)	NA
1	1614	(28)	209	(23)	NA
2	727	(13)	117	(13)	NA
3	317	(5)	74	(8)	NA
4+	103	(2)	41	(5)	NA

Legend: E – Enlisted, O – Officer, W – Warrant Officer, 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] Proportions were provided by the Defense Manpower Data Center. [c] Refers to lifetime history of OEF, OIF, or OND deployment.

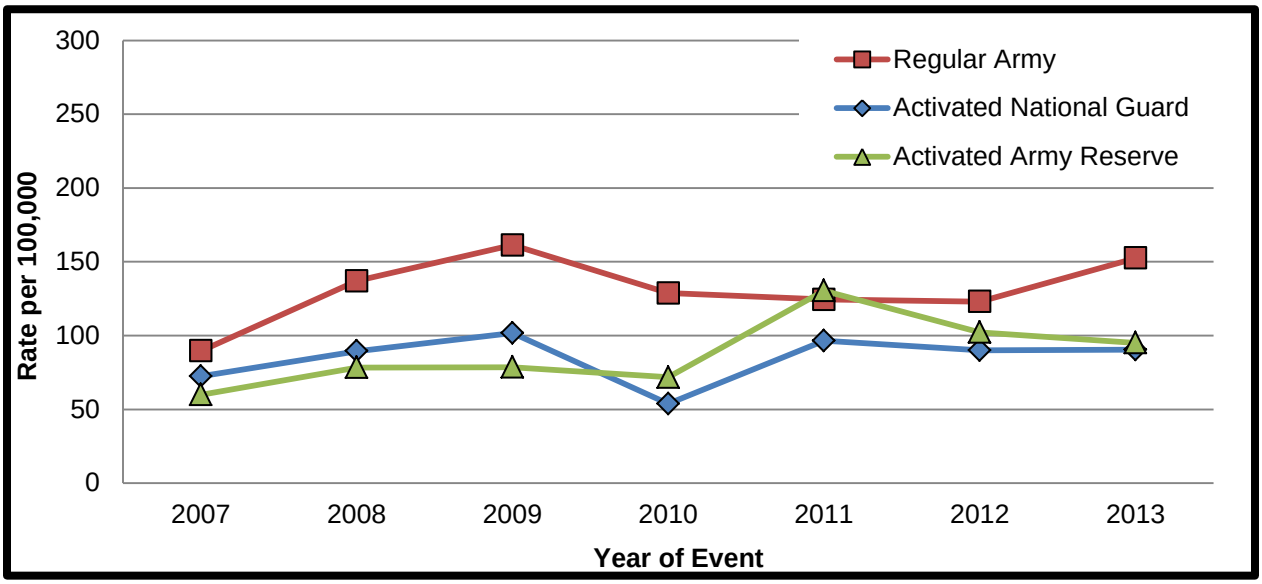


Figure F-4. Component-Specific Rates of Suicidal Ideation,[a,b] per 100,000, U.S. Army Soldiers, 2007 – 2013

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2001 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center.

Table F-6. Component-Specific Rates of Suicidal Ideation,[a,b] per 100,000, U.S. Army Soldiers, 2007 – 2013

Component	Regular Army		Activated National Guard		Activated Army Reserve	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF EVENT						
2007	89.6	81.4 – 97.8	72.4	53.7 – 91.0	59.9	39.5 – 80.4
2008	137.0	127.0 – 146.9	89.4	69.6 – 109.3	78.4	56.2 – 100.5
2009	161.3	150.7 – 172.0	101.7	81.9 – 121.6	78.6	57.2 – 100.0
2010	128.8	119.4 – 138.2	53.8	38.7 – 68.8	71.8	50.3 – 93.3
2011	124.4	115.2 – 133.6	96.5	75.5 – 117.6	130.4	99.2 – 161.6
2012	123.0	113.7 – 132.2	90.0	68.5 – 111.6	102.2	72.0 – 132.4
2013	152.5	142.0 – 163.1	90.4	67.4 – 113.5	95.1	64.8 – 125.3

Notes: [a] Rates only include cases with identifiable demographic factors and population counts from 2001 through 2013.
[b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center.

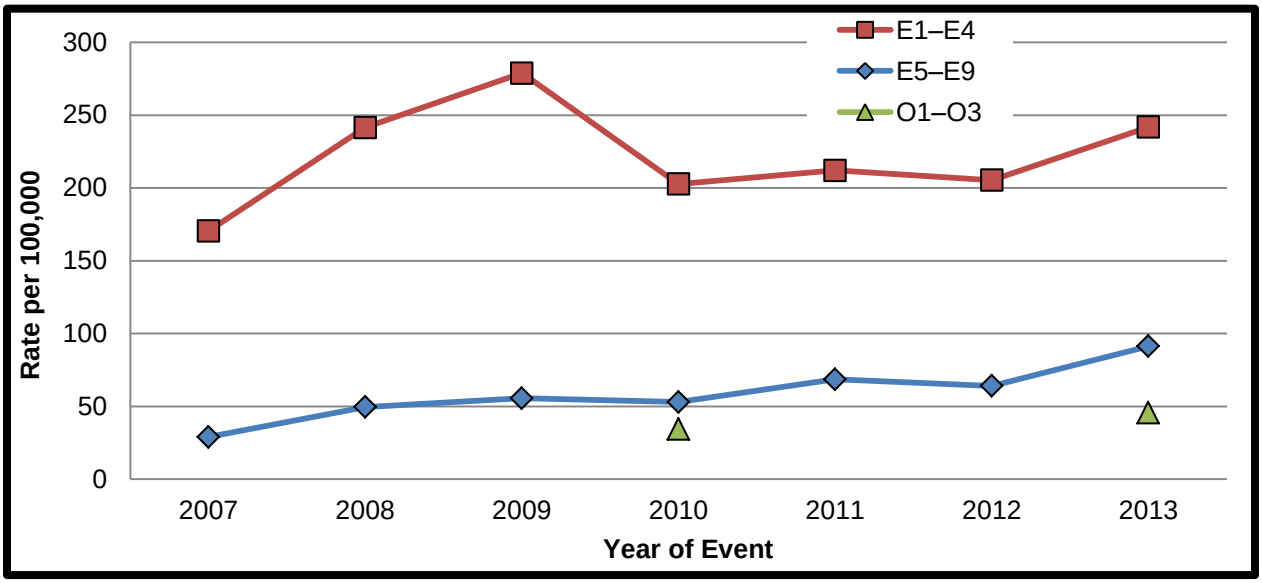


Figure F-5. Rank-Specific Rates[a–c] of Suicidal Ideation, per 100,000, U.S. Army Soldiers, 2007 – 2013

Notes [a] Rates only include cases with identifiable military factors and population counts from 2007 through 2013.
[b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center.
[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-7. Rank-Specific Rates,[a–c] of Suicidal Ideation, per 100,000, U.S. Army Soldiers, 2007 – 2013

Rank	E1 – E4		E5 – E9		O1 – O3		O4 – O10		W1 – W5	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
YEAR OF EVENT										
2007	170.6	154.9 – 186.2	29.0	22.6 – 35.5	--	--	--	--	--	--
2008	241.6	223.6 – 259.5	49.5	41.3 – 57.8	--	--	--	--	--	--
2009	278.8	260.0 – 297.6	55.6	47.0 – 64.2	--	--	--	--	--	--
2010	202.7	186.7 – 218.7	53.0	44.5 – 61.4	34.4	19.3 – 49.5	--	--	--	--
2011	212.1	195.6 – 228.6	68.6	58.8 – 78.3	--	--	--	--	--	--
2012	205.3	188.4 – 222.3	64.0	54.4 – 73.6	--	--	--	--	--	--
2013	241.9	222.8 – 260.9	91.3	79.7 – 103.0	45.8	28.5 – 63.0	--	--	--	--

Notes [a] Rates only include cases with identifiable military factors and population counts from 2007 through 2013. [b] U.S. Army population counts used to calculate rates were provided by the Defense Manpower Data Center. [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-8. Location and Additional Characteristics,[a] Suicidal Ideations, U.S. Army, 2007 – 2013

Event Characteristic – n (%)	Suicidal Ideations			
	2007 – 2013 (n = 5795)		2013 (n = 910)	
LOCATION OF IDEATION				
USA	5142	(89)	794	(87)
In Theater	268	(5)	14	(2)
Other[b]	302	(5)	89	(10)
Missing	37	(<1)	13	(1)
Unknown	46	(<1)	0	(0)
EVENT DEPLOYMENT-RELATED[c,d]				
Pre-deployment	114	(2)	8	(<1)
Current deployment	232	(4)	11	(1)
Post-deployment	514	(9)	96	(11)
Orders to deploy	703	(12)	131	(14)

Notes: [a] Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b] Primarily Europe or Korea. [c] Whether the event was deployment-related is not a matter of record, but is based on the information the provider gathered during the inquiry and on the opinion formed as a result of the inquiry. [d] Numbers reflect independent questions on the DoDSER.

Table F-9. Legal History and Stressors from DoDSERs, Suicidal Ideation Cases,[a] U.S. Army, 2007 – 2013

Legal History and Stressors – n (%)	Suicidal Ideation Cases			
	2007 – 2013 (n = 5795)		2013 (n = 910)	
LEGAL HISTORY				
Article 15	919	(16)	154	(17)
Administrative Separation[b]	539	(9)	101	(11)
Civil Legal Problems	395	(7)	68	(7)
AWOL	353	(6)	34	(4)
Nonselection[c]	173	(3)	45	(5)
Courts Martial	146	(3)	22	(2)
Any of the above	1629	(28)	277	(30)
MEDICAL BOARD[d]				
Yes	462	(8)	99	(11)
STRESSORS[e]				
Relationship Problem	2379	(41)	370	(41)
Work Stress	2138	(37)	337	(37)
Victim of Abuse	1682	(29)	271	(30)
Spouse/Family/Friend Death	1516	(26)	295	(32)
Physical Health Problem	1117	(19)	207	(23)
Spousal/Family/Friend Suicide	659	(11)	136	(15)
Financial Stress	609	(11)	97	(11)
Spouse/Family Health Problem	530	(9)	99	(11)
Perpetrator of Abuse	334	(6)	52	(6)
Any of the above	4478	(77)	716	(79)
PROGRAM UTILIZATION				
Substance Abuse Services	786	(14)	137	(15)
Family Advocacy Program	302	(5)	60	(7)
Suicide Prevention Training	1661	(29)	442	(49)

Legend: AWOL – absent without leave, DoDSER – Department of Defense Suicide Event Report.
Notes: [a] Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b] Considered for separation from the Army on the basis of conduct or ability to meet standards of duty performance and discipline. [c] Not selected for advanced schooling, promotion, or command. [d] Medical evaluation board to determine fitness for continued duty. [e] More than one stressor in lifetime may apply.

Table F-10. Behavioral Health Indicators from PDHAs,[a] Suicidal Ideation Cases, U.S. Army, 2007 – 2013

Behavioral Health Indicators – n (%)	Suicidal Ideation Cases with PDHAs			
	2007 – 2013 (n = 954)		2013 (n = 75)	
DEPRESSION SYMPTOMS[b]				
Yes	537	(58)	45	(61)
No	395	(42)	29	(39)
POST-TRAUMATIC STRESS SYMPTOMS[c]				
Yes	381	(41)	37	(50)
No	549	(59)	37	(50)
SUICIDAL THOUGHTS	48	(5)	1	(1)
REFERRED FOR BH CARE[d]	215	(30)	24	(40)

Legend: PDHA – Post-Deployment Health Assessment, BH – behavioral health.
Notes: [a] Data from the most recent PDHA completed in the 12 months before the suicide attempt. [b] Patient Health Questionnaire-2 (PHQ-2). [c] PTSD Checklist – Civilian (PCL-C). [d] Referral to behavioral health in primary care or mental health specialty care within 24 hours, 7 days, or 30 days.

Table F-11. Behavioral Health Indicators from PDHRAs,[a] Suicidal Ideation Cases, U.S. Army, 2007 – 2013

Behavioral Health Indicators – n (%)	Suicidal Ideation Cases with PDHRAs			
	2007 – 2013 (n = 872)		2013 (n = 79)	
DEPRESSION SYMPTOMS[a]				
Yes	599	(70)	49	(63)
No	261	(30)	29	(37)
POST-TRAUMATIC STRESS SYMPTOMS[b]				
Yes	445	(52)	39	(50)
No	415	(48)	39	(50)
SUICIDAL THOUGHTS	61	(7)	4	(5)
REFERRED FOR BH CARE[c]	147	(20)	17	(24)

Legend: PDHRA – Post-Deployment Health Reassessment, BH – behavioral health.
Notes: [a] Data from the most recent PDHRA completed in the 12 months before the suicide attempt. [b] Patient Health Questionnaire-2 (PHQ-2). [c] PTSD Checklist – Civilian (PCL-C). [d] Referral to behavioral health in primary care or mental health specialty care within 24 hours, 7 days, or 30 days.

Table F-12. Alcohol Misuse Indicators,[a] Suicidal Ideation Cases,[b] U.S. Army, 2009 – 2013

Alcohol Misuse Indicators – n (%)	Suicidal Ideation Cases with PHAs	
	2009[c] – 2013 (n = 1267)	2013 (n = 416)
ALCOHOL MISUSE		
Positive Score[d]	284 (22)	89 (21)
High Positive Score[e]	42 (3)	11 (3)
Referred to ASAP	94 (7)	31 (7)
Received Alcohol-Related Education	707 (56)	237 (57)

Legend: PHA – periodic health assessment, AUDIT-C – Alcohol Use Disorders Identification Test, ASAP – Army Substance Abuse Program.
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 the AFMES or pending confirmation and thus may differ from counts published by G-1. [c] The AUDIT-C first appeared on PHAs in 2009. [d] A positive AUDIT-C score is 4 and above for males and 3 and above for females. [e] A high positive score is 8 and above.

Table F-13. Behavioral Health Indicators, Suicidal Ideation Cases,[a] U.S. Army, 2007 – 2013

Behavioral Health Indicators – n (%)	Suicidal Ideation Cases			
	2007 – 2013 (n = 5717)[b]		2013 (n = 888)[c]	
MEDICAL ENCOUNTERS[d]				
Inpatient Encounter Involving BH	1427	(25)	206	(23)
Outpatient Encounter Involving BH	4577	(80)	729	(82)
Encounter Involving BH within 30 Days of Event	3442	(60)	556	(63)
INCIDENT BH DIAGNOSES[e]				
Initial BH Diagnosis in Year Before Event	3274	(57)	492	(55)
PREVALENT BH DIAGNOSES[d,f]				
Any BH Diagnosis[g]	4171	(73)	670	(75)
More Than One BH Diagnosis[h]	2828	(49)	469	(53)
Any Mood Disorder	2685	(47)	433	(49)
Major Depression	1278	(22)	213	(24)
Other Depressive Disorders	2296	(40)	375	(42)
Bipolar Disorders	323	(6)	34	(4)
PTSD	907	(16)	165	(19)
Other Anxiety Disorders[i]	1396	(24)	268	(30)
Adjustment Disorders	3159	(55)	520	(59)
Substance Use Disorders[j]	1219	(21)	180	(20)
Personality Disorders[k]	437	(8)	57	(6)
Psychoses	183	(3)	27	(3)
Previous Suicide Attempt/Self-Harm[l]	259	(5)	22	(2)
Previous Suicidal Ideation[m]	1106	(19)	165	(19)

Legend: BH – behavioral health, 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] Medical claims data were available for all but 78 cases. [c] Medical claims data were available for all but 22 cases. [d] May have more than one. [e] Soldiers with incident BH diagnoses are Soldiers who received their initial BH diagnosis in a period of time, in this case a year. [f] Soldiers counted in prevalent BH diagnoses have a history of BH diagnosis during their time in service. [g] Any BH Diagnosis is "yes" if one or more of the following is reported: Mood, PTSD, Other Anxiety Disorders, Adjustment Disorder, Substance Use Disorders, Personality Disorders, Psychosis. [h] More than One BH Diagnosis is "yes" if more than one of the aforementioned diagnoses is reported. [i] Other Anxiety Disorders include Panic Disorder, Generalized Anxiety Disorder, or Obsessive-Compulsive Disorder. [j] Substance Use Disorders include Drug or Alcohol Use Disorders. [k] Personality Disorders include Borderline or Antisocial Personality Disorders. [l] Based on ICF-9 E-codes for self-inflicted injuries. [m] Based on ICD-9 V-code for suicidal ideation.

Table F-14. Behavioral Health Indicators by Provider Type,[a] Suicidal Ideation Cases,[b] U.S. Army, 2007 – 2013

Behavioral Health Indicators – n (%)	Suicidal Ideation Cases											
	2007 – 2013						2013					
	Total	Credentialed BH Clinicians	Other BH Providers	Primary Care Providers	Other Non-BH Providers	Provider Missing	Total	Credentialed BH Clinicians	Other BH Providers	Primary Care Providers	Other Non-BH Providers	Provider Missing
MEDICAL ENCOUNTERS[c]												
Inpatient Encounter Involving BH	1428	1137 (80)	10(<1)	82 (6)	19 (1)	180(13)	207	169 (82)	0 (0)	12 (6)	3 (1)	23(11)
Outpatient Encounter Involving BH	4578	3973 (87)	118 (3)	428 (9)	14(<1)	45(<1)	729	676 (93)	9 (1)	43 (6)	1(<1)	0 (0)
Encounter Involving BH within 30 Days of Event	3443	2754 (80)	152 (4)	455 (13)	16(<1)	66 (2)	556	485 (87)	10 (2)	57(10)	3(<1)	1(<1)
BH DIAGNOSES[c]												
Any BH Diagnosis[d]	4172	3882 (93)	93 (2)	152 (4)	3(<1)	42 (1)	670	634 (95)	11 (2)	24 (4)	0 (0)	1(<1)
Any Mood Disorder	2687	2075 (77)	50 (2)	478 (18)	6(<1)	78 (3)	434	374 (86)	2(<1)	50(12)	1(<1)	7 (2)
Major Depression	1279	1038 (81)	28 (2)	113 (9)	3(<1)	97 (8)	214	181 (85)	3 (1)	21(10)	0 (0)	9 (4)
Other Depressive Disorders	2297	1533 (67)	57 (2)	619 (27)	8(<1)	80 (3)	375	296 (79)	3(<1)	67(18)	2(<1)	7 (2)
Bipolar Disorders	323	245 (76)	5 (2)	42 (13)	1(<1)	30 (9)	34	24 (71)	2 (6)	3 (9)	0 (0)	5(15)

Table F-14. Behavioral Health Indicators by Provider Type,[a] Suicidal Ideation Cases[b] U.S. Army, 2007 – 2013, continued

Behavioral Health Indicators – n (%)	Suicidal Ideation Cases											
	2007 – 2013						2013					
	Total	Credentialed BH Clinicians	Other BH Providers	Primary Care Providers	Other Non-BH Providers	Provider Missing	Total	Credentialed BH Clinicians	Other BH Providers	Primary Care Providers	Other Non-BH Providers	Provider Missing
BH DIAGNOSES[c] (continued)												
PTSD	907	765 (84)	31 (3)	52 (6)	3 (<1)	56 (6)	165	155 (94)	2 (1)	6 (4)	0 (0)	2 (1)
Other Anxiety Disorders[e]	1397	1001 (72)	32 (2)	285 (20)	11 (<1)	68 (5)	268	216 (81)	3 (1)	38 (14)	2 (<1)	9 (3)
Adjustment Disorders	3160	2773 (88)	95 (3)	217 (7)	6 (<1)	69 (2)	520	475 (91)	10 (2)	31 (6)	1 (<1)	3 (<1)
Substance Use Disorders[f]	1220	811 (66)	198 (16)	137 (11)	15 (1)	59 (5)	180	126 (70)	24 (13)	22 (12)	2 (1)	6 (3)
Personality Disorders[g]	437	298 (68)	10 (2)	26 (6)	1 (<1)	102 (23)	57	45 (79)	1 (2)	1 (2)	0 (0)	10 (18)
Psychoses	183	112 (61)	1 (<1)	42 (23)	8 (4)	20 (11)	27	12 (44)	0 (0)	9 (33)	1 (4)	5 (19)

Legend: BH – behavioral health, PTSD – posttraumatic stress disorder.

Notes: [a] Each case is counted in the column of the most experienced BH provider whose claim indicated a BH encounter or diagnosis. Credentialed BH clinicians include psychiatrists and certified clinical social workers, among others. Examples of other BH providers include alcohol and drug abuse counselors and social work case managers. Primary care providers include corpsmen, family practice physicians, and primary care nurse practitioners. Other non-BH providers include surgeons, physical therapists, and gynecologists. [b] Suicidal ideation cases in this table are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c] May have more than one. [d] Any BH Diagnosis is "yes," if one or more of the following is reported: Mood, PTSD, Other Anxiety Disorders, Adjustment Disorder, Substance Use Disorders, Personality Disorders, Psychosis. [e] Other Anxiety Disorders include Panic Disorder, Generalized Anxiety Disorder, or Obsessive-Compulsive Disorder. [f] Substance Use Disorder includes Drug or Alcohol Use Disorders. [g] Personality Disorders include Borderline or Antisocial Personality Disorders.

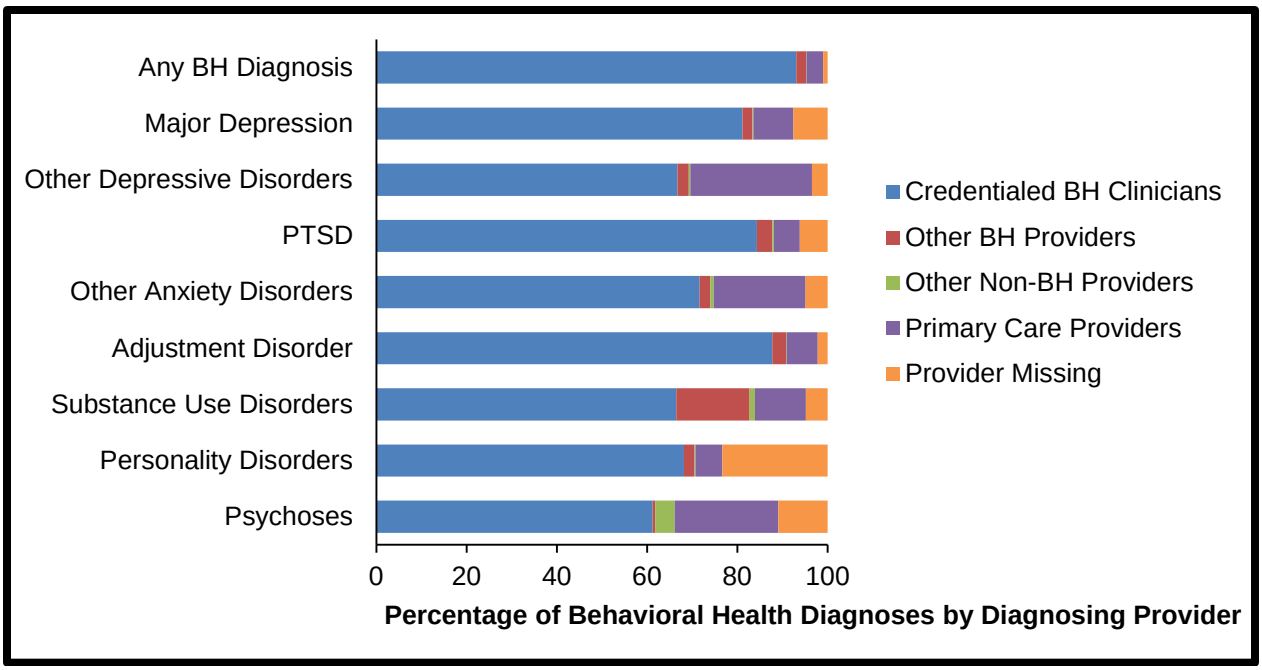


Figure F-6. Behavioral Health Diagnoses by Provider Type, Suicidal Ideation Cases, 2007 – 2013

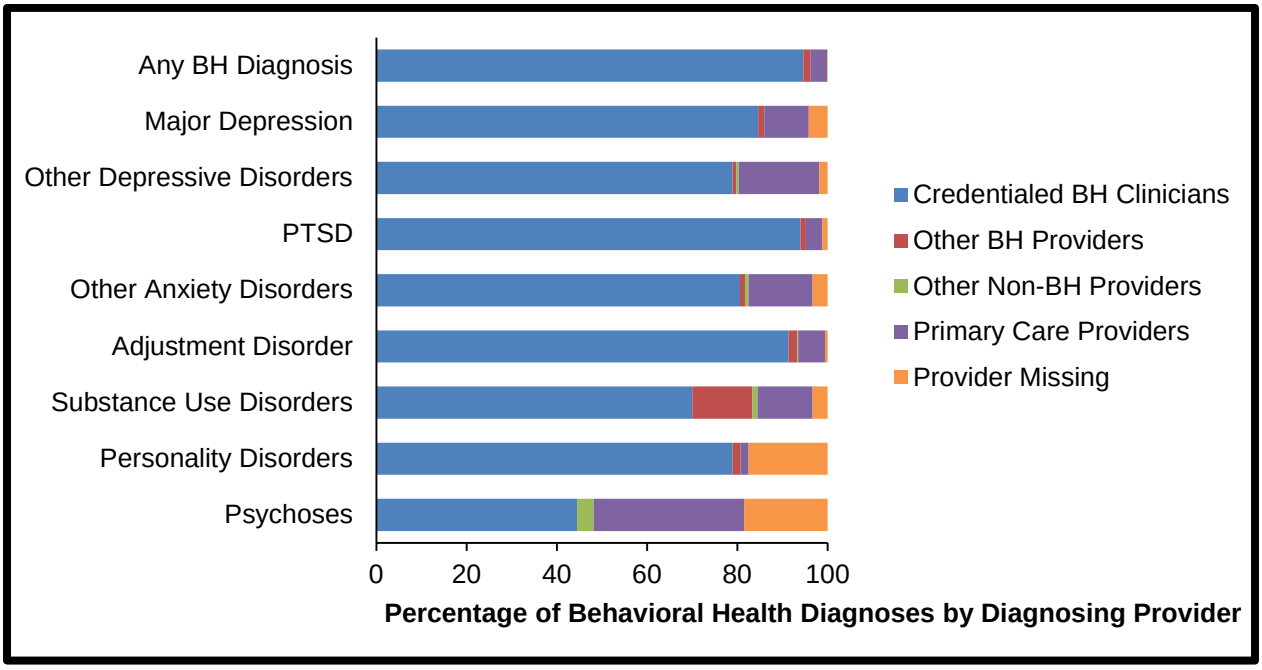


Figure F-7. Behavioral Health Diagnoses by Provider Type, Suicidal Ideation Cases, 2013

Table F-15. Traumatic Brain Injuries, Suicidal Ideation Cases,[a] U.S. Army, 2007 – 2013

Traumatic brain injuries – n (%)	Suicidal Ideation Cases			
	2007 – 2013 (n = 5717)[b]		2013 (n = 888)[c]	
MEDICAL ENCOUNTERS[d]				
Inpatient Encounter Involving TBI	88	(2)	17	(2)
Outpatient Encounter Involving TBI	608	(11)	112	(13)
Encounter Involving TBI in 30 Days Before Event	111	(2)	13	(1)
Encounter Involving TBI in Year Before Event	387	(7)	62	(7)
TBI DIAGNOSES[d,e]				
Any TBI Diagnosis	550	(10)	104	(12)
First TBI Diagnosis in Year Before Event	232	(4)	38	(4)

Legend: TBI – traumatic brain injury
Notes: [a] Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b] The total number of 2007–2013 suicidal ideation cases is 5795; however, medical claims data are not available for 78 cases. [c] The total number of 2013 suicidal ideation cases is 910; however, medical claims data are not yet available for 22 cases. [d] May have more than one. [e] Based on ICF-9 codes for traumatic brain injuries provided by the Defense and Veterans Brain Injury Center (DVBIC).

Table F-16. Pain,[a] Suicidal Ideation Cases,[b] U.S. Army, 2007 – 2013

Medical Indicator – n (%)	Suicidal Ideation Cases			
	2007 – 2013 (n = 5717)[c]		2013 (n = 888)[d]	
ENCOUNTERS				
Encounter for Pain in Year Before Event	2726	(48)	459	(52)
Encounter for Pain in 30 Days Before Event	1077	(19)	180	(20)
DIAGNOSES				
Pain Diagnosis in Year Before Event	2461	(43)	425	(48)

Notes: [a] ICF-9 codes indicating pain include 307.8–307.89, 337.2–337.29, 338–338.4 (omitting 338.2 and 338.28), 724–725.40, 786.5–786.52, 388.72, 729.5, 723.1, 780.96, and 784.0. [b] Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c] Medical claims data were available for all but 78 cases. [d] Medical claims data were available for all but 22 cases.

Table F-17. Sleep Problems,[a] Suicidal Ideation Cases,[b] U.S. Army, 2007 – 2013

Medical Indicator – n (%)	Suicidal Ideation Cases			
	2007 – 2013 (n = 5717)[c]		2013 (n = 888)[d]	
ENCOUNTERS				
Encounter for Sleep in Year Before Event	1320	(23)	276	(31)
Encounter for Sleep in 30 Days Before Event	446	(8)	93	(10)
DIAGNOSES				
Sleep Diagnosis in Year Before Event	1012	(18)	219	(25)

Notes: [a] ICF-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. [b] Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c] Medical claims data were available for all but 78 cases. [d] Medical claims data were available for all but 22 cases.

Table F-18. Polypharmacy, Suicidal Ideation Cases,[a] U.S. Army, 2007 – 2013

Category – n (%)	Suicidal Ideation Cases	
	2007 – 2013 (n = 5795)	2013 (n = 910)
POLYPHARMACY		
Any Polypharmacy[b]	766 (13)	109 (12)
Category 1[c]	40 (<1)	6 (<1)
Category 2[d]	169 (3)	22 (2)
Category 3[e]	13 (<1)	3 (<1)
Category 4[f]	25 (<1)	3 (<1)
Category 5[g]	247 (4)	33 (4)
Category 6[h]	210 (4)	36 (4)
Category 7[i]	62 (1)	6 (<1)

Notes: [a] Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b] Met at least one criterion for polypharmacy, as defined by OTSG Policy 13-032 definition, at the time of the event. [c] Met all three polypharmacy criteria. [d] Met the multiple psychotropic prescriptions and opioid prescription criteria, but not the utilization of care criterion. [e] Met the multiple psychotropic prescriptions and utilization of care criteria, but not the opioid prescription criterion. [f] Met the opioid prescription and utilization of care criteria, but not the multiple psychotropic prescriptions criterion. [g] Met only the opioid prescription criterion. [h] Met only the multiple psychotropic prescriptions criterion. [i] Met only the utilization of care criterion.

Table F-19. History of Drug Testing, Suicidal Ideation Cases,[a] U.S. Army, 2007 – 2013

Event Characteristic – n (%)	Suicidal Ideation Cases			
	2007 – 2013 (n = 4874)[b]		2013 (n = 765)[b]	
DRUG TEST HISTORY				
Positive drug test	441	(9)	42	(5)
More than one positive drug test	153	(35)	15	(36)
Positive drug test within 365 days	318	(72)	31	(74)
POSITIVE DRUG TESTS				
Amphetamines	53	(12)	6	(14)
Cannabis	268	(61)	24	(57)
Cocaine	151	(34)	13	(31)
Oxycodone/Oxymorphone	24	(5)	7	(17)
Opiates	15	(3)	4	(10)
Heroin	3	(<1)	0	(0)
Steroids	2	(<1)	0	(0)
Barbiturates	2	(<1)	0	(0)

Notes: [a] Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [b] Drug testing history is available only for cases who have a record of a drug test in the Drug & Alcohol Management Information System (DAMIS).

Table F-20. History of ASAP Intake,[a] Suicidal Ideation Cases,[b] U.S. Army, 2007 – 2013

Event Characteristic – n (%)	Suicidal Ideation Cases			
	2007 – 2013 (n = 5795)		2013 (n = 910)	
ASAP INTAKE SCREENING				
Screened for Intake	1063	(18)	184	(20)
Enrolled for Treatment[c]	762	(72)	134	(73)
ASAP INTAKE SCREENING IN PREVIOUS YEAR				
Screened for Intake	634	(11)	98	(11)
Enrolled for Treatment[c]	476	(75)	81	(83)

Legend: ASAP – Army Substance Abuse Program.

Notes: [a] Data from the Drug and Alcohol Management Information System (DAMIS). [b] Suicidal ideation cases are from DoDSERs, which are available only for cases serious enough to warrant hospitalization or evacuation. [c] Proportion of cases screened for intake.

Glossary

ABHIDE
Army Behavioral Health Integrated Data Environment

AFHSC
Armed Forces Health Surveillance Center

AFMES
Armed Forces Medical Examiner System

AIPH
Army Institute for Public Health

ASAP
Army Substance Abuse Program

AUDIT-C
Alcohol Use Disorders Identification Test

AWOL
Absent without leave

BH
Behavioral health

BSHOP
Behavioral and Social Health Outcomes Program

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

MDR
Military Health System Data Repository

MEDCOM
United States Army Medical Command

MTF
Medical Treatment Facility

NA
Not Available

NOS
Not Otherwise Specified

O1–O10
Officer rank

OEF
Operation Enduring Freedom

OIF
Operation Iraqi Freedom

OMB
Office of Management and Budget

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

USAPHC
United States Army Public Health Command

W1–W5
Warrant Officer rank