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Department of Defense Health Related Behaviors Survey of Active Duty Military Personnel

February 2013

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2011 Health Related Behaviors Survey of Active Duty Military Personnel

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Executive Summary

At the end of 2011, the United States had faced a decade of war. U.S. Troops had been stationed overseas in Iraq and Afghanistan as part of Operations Enduring Freedom, Iraqi Freedom, and New Dawn. Over that time, the military experienced a sustained period of increased operations tempo, with many service members facing lengthy and multiple deployments and high combat exposure. While fighting a war is what service members are prepared and trained for, it also places heavy burdens on them and their families as they face long separations and put their lives and their health at risk. The 2011 Health Related Behaviors Survey of Active Duty Military Personnel (HRB) report presents findings on the health of the Armed Forces, including Army, Navy, Marine Corps, Air Force, and Coast Guard active duty personnel. The 2011 HRB offers valuable insight into the overall state of behavioral health of active duty personnel and identifies areas of strength and success as well as areas of concern to best inform policies and programs to effectively address the needs of service members and their families.

The 2011 HRB is the largest survey that anonymously gathers data on some of the most important behavioral health issues affecting the well-being of the U.S. military. The anonymous nature of the survey, coupled with the statistically-valid selection of a representative sample of service members, enables the Armed Forces to measure the prevalence rates of health behaviors. While the Department of Defense (DoD), each of the DoD Services, and the United States Coast Guard (USCG) collect administrative data on the outcomes or consequences of maladaptive health behaviors (e.g., number referred to substance abuse treatment), these administrative data often represent a small fraction of the problem, and underscore the need for self-reported measurement of the prevalence rates of these behaviors. The HRB survey ascertains estimates (+/- a small margin of error) of the prevalence of these behaviors, and as a result, provides the Armed Forces a data source that complements administrative records. The data collected over the past 30 years of this survey have been used by military leadership at all levels to make important policy and programmatic changes.

The 2011 HRB was conducted under the advisement of the Office of the Assistant Secretary of Defense for Health Affairs, TRICARE Management Activity (TMA), and the United States Coast Guard (USCG) by ICF International. This was the 11th iteration of the survey; it covers a wide array of health issues, including substance use (i.e., alcohol, tobacco, illicit drug, and prescription drug use and misuse), stress and mental health (e.g., gender-related stress, depressive and posttraumatic stress (PTS) symptoms, suicide, and self-injury), health in the context of deployment and combat exposure, including possible traumatic brain injury (TBI), and overall service commitment to the military.

The methodology has undergone extensive updates since the last iteration of the survey in 2008. The extent of the changes precludes direct comparison to prior iterations of the survey. Some of the major changes include:

- The mode of administration: For the first time, the survey was administered through a web-based format (versus a paper-based, group-administered, in-person format), which reduced burden on base-level unit leadership and the survey respondents themselves. The mode change to a web-based survey reduced costs and expanded the geographic reach of the survey, as the sample was not limited to military members confined to a specific set of bases or geographic areas.
- The sample design: The sample design of the survey was switched from a clustered sample design to a stratified random sample. The web-based administration eliminated the need to travel to installations; thus, a geographically clustered sample was no longer necessary. Service members were sampled without regard to their current duty location. The DoD sample was stratified by service, gender, and pay grade; the USCG sample was stratified by work setting (ashore, afloat, air), gender, and pay grade.
- The questionnaire: Many survey items were revised to improve measurement and item and response option clarity; some substance use measures were better aligned with current national civilian health surveys, such as the National Health Interview Survey (NHIS) conducted by the Centers for Disease Control and Prevention. Overall the questionnaire was shortened, eliminating outdated and unnecessary items, to reduce burden on respondents.
- The health issues assessed: The HRB also incorporated and expanded on a number of emerging health issues. These issues include a more refined assessment of prescription drug misuse, new forms of smokeless tobacco (e.g., nicotine dissolvables and electronic cigarettes), the culture of military substance use, personality traits associated with health behaviors (e.g., risk-taking, resilience, anger), self-inflicted injury, pain and pain management, and possible TBI based on standardized measures (Schwab et al., 2006).

The target population for the 2011 HRB included all members of the Army, Navy, Marine Corps, Air Force, and Coast Guard who were non-deployed and on active duty at the time of data collection. The eligible sample size was 154,011 from the DoD services and 14,653 from the USCG. The total number of usable, eligible respondents to the survey was 39,877; 34,416 from the DoD Services and 5,461 from the USCG. The overall DoD response rate was 22% and the overall Coast Guard response rate was 37%.

Invitations and reminders were sent on a staggered start schedule to reduce email and web-based survey server loads and because service branches provided the supporting documentation (e.g., letter

of support from command, whitelisting from each component's IT department) at different times. The initial batch of web-survey invitation emails to the original DoD sample was sent on 19 August, 2011. In addition, invitation and reminder postcards were sent to the physical address of individuals in the four DoD services who had no email address listed in the DMDC database; these individuals were concentrated among junior enlisted personnel. All individuals in the DoD sample missing email addresses were sent one invitation postcard and three reminder postcards. The postcards had the survey URL printed on the card as well as the link to support letters and helpdesk contact information. The initial invitation emails to USCG personnel were sent on 4 October, 2011. The last reminder email was sent on 29 December, 2011. The survey was closed on 11 January, 2012.

The following report is organized into 8 chapters: 1) Introduction, 2) Methodology, 3) Healthy People Objectives, Healthy Lifestyle and Disease Prevention, 4) Substance Use, including Alcohol Use, Illicit and Prescription Drug Use, Tobacco Use, and Culture of Substance Use, 5) Stress and Mental Health, 6) Deployment and Combat Exposure, 7) Service Commitment, and 8) Conclusions and Recommendations. Three appendices are also included that describe the constructs measured in the survey, the privacy and consent statement, and the online survey questionnaire. The following Executive Summary provides an overview of the major findings from the 2011 HRB.

Overview of Healthy People 2020 Objectives, Healthy Lifestyle and Disease Prevention

The findings from the 2011 HRB indicated that service members met 5 out of 8 *Healthy People 2020* objectives captured in the survey, including measures of obesity, healthy weight, exercise, seat belt use, and motorcycle helmet use. However, service members did not meet the *Healthy People* objectives set for cigarette use, smokeless tobacco use, and binge drinking. Other areas of healthy lifestyle and disease prevention covered in the HRB were strength training, nutrition, blood pressure and cholesterol levels, oral hygiene, mouth guard and hearing protection use, sleep, sexual health, gang-related activity, religiosity/spirituality, and health promotion in children living with active duty service members. The major findings for each of these substantive areas are summarized below (see Chapter 3 for details).

Healthy People 2020 Objectives

- Obesity: Approximately 13% of active duty personnel age 20 or older were classified as obese according to the Body Mass Index (BMI), which met the *Healthy People* objective of ≤30.5% and was lower than the civilian estimate of 33.9%. The Army (16.1%) and Navy (15.0%) reported the highest rates of obesity, and the Marine Corps reported the lowest rate (5.0%).
- Healthy Weight: Over one-third (34.7%) of active duty personnel age 20 or older were classified as a healthy weight, exceeding the *Healthy People* objective of ≥33.9% and the civilian estimate of

30.8%. The Marine Corps (40.0%) and Air Force (40.2%) reported the highest rates of healthy weight compared to all other services.

- Physical Activity: The majority of active duty personnel engaged in physical activity, with 74.9% reporting moderate or vigorous physical activity in the past 30 days, far exceeding the *Healthy People* objective of ≥47.9% and the civilian estimate of 43.5%. The Army (79.6%) and Marine Corps (77.8%) reported the highest rates of physical activity compared to all other services.
- Seat Belt Use: Active duty personnel engaged in seat belt use at high rates, with 98.5% reporting seat belt use when riding in a car, which exceeded the *Healthy People* objective of ≥92.4% and the civilian estimate of 84.0%. The Air Force reported a higher prevalence of seat belt use (99.4%) compared to all other services.
- Motorcycle Helmet Use: Most service members (93.8%) reported helmet use when riding on a motorcycle in the past 12 months, far exceeding the *Healthy People* objective of ≥73.7% and the civilian estimate of 67.0%.
- Cigarette Use: About one-quarter (24.5%) of service members reported cigarette use in the past 30 days, which did not meet the *Healthy People* objective of ≤12.0% and was higher than the civilian estimate of 20.6%. The Marine Corps reported the highest rate of cigarette use (31.9%) and the Air Force reported the lowest rate (17.2%).
- Smokeless Tobacco Use: The prevalence of smokeless tobacco use among all personnel in the past 30 days was 12.8%, which did not meet the *Healthy People* objective of ≤0.3% and was higher than the civilian estimate of 2.3%. Similar to cigarette use, the Marine Corps reported the highest rate of use (21.3%) and the Air Force reported the lowest rate (8.7%).
- Binge Drinking: Approximately one-third (33.1%) of active duty service members reported binge drinking in the past 30 days, which did not meet the *Healthy People* objective of ≤24.4% and was higher than the civilian estimate of 27.1%. The Marine Corps reported the highest rate of binge drinking (48.6%), and the Air Force reported the lowest rate (22.9%) and was the only service to meet the *Healthy People* objective.

Weight Management, Physical Activity, and Nutrition

- Across all ages, 35.7% of personnel reported a *healthy* weight, with 57.6% of females and 31.8% of males classified in the healthy range. In particular, females in the Marine Corps (82.5%), and males in the Marine Corps (38.6%) and Air Force (36.6%) were more often a healthy weight compared to all other services.
- Across all ages, 51.2% of service members were *overweight*, most often in the Coast Guard (57.2%) than all other services. For males, over half (54.2%) were classified by the BMI as overweight, and

a little over one-third (34.4%) of females were overweight. (Note: BMI does not account for body muscle mass which may contribute to the high rate of overweight service members.)

- For all ages, 12.4% of service members were classified as *obese*, most often in the Army (15.8%) and Navy (14.9%). For females, 6.4% were classified as obese, and for males, 13.5% were considered obese.
- Among all personnel, 10.5% were required to lose weight before joining the military, of which 13.1% were females and 10.0% were males; 3.2% of service members were currently enrolled in a mandatory weight control program, and the majority of personnel (96.0%) passed their most recent physical fitness test.
- Service members were physically active, with 63.1% reporting 150 minutes or more of moderate activity, and 42.6% reporting 150 minutes or more of vigorous physical activity per week. The Army (46.3%) and Marine Corps (46.3%) reported the most vigorous physical activity compared to other services.
- Close to half (45.5%) of service members reported strength training 3 or more days per week in the past 30 days, with the Marine Corps reporting strength training more often than other services (51.0%).
- Active duty personnel reported intake of key healthy foods at lower rates than recommended by nutritional standards of three or more servings per day, including consumption of fruits (11.2%), vegetables (12.9%), and whole grains (12.7%). On the other hand, service members reported consuming unhealthy foods at least two times or more per day, including snack foods (8.5%), sweets (8.7%), and sugary drinks (19.3%). In addition, one-third (33.2%) of active duty personnel reported consuming caffeinated drinks at least two times or more per day
- Just over one-third (37.2%) of personnel reported daily supplement/multivitamin use.

Other Health Behaviors

- Blood Pressure and Cholesterol Levels: Approximately 15% of active duty personnel were diagnosed by a doctor with high blood pressure in their lifetime and 13% were diagnosed by a doctor with high cholesterol in their lifetime.
- Oral Hygiene: The majority (60.0%) of active duty service members reported brushing their teeth 2 or more times per day, as recommended by the American Dental Association (ADA), whereas 30.6% of service members reported flossing their teeth daily, as recommended by the ADA. The Marine Corps reported the lowest frequency of brushing and flossing.
- Mouth Guard and Hearing Protection Use: Over half (51.3%) of active duty personnel reported always or often using a mouth guard in recommended situations, with Marine Corps reporting

the most use (62.3%). In addition, of the 67.4% of personnel exposed to loud noises from weapons firing or explosions, 87.7% reported always or often using hearing protection while exposed to loud noises.

- Sleep: Less than half (40.9%) of active duty personnel reported getting the recommended 7 to 8 hours of sleep per night. The Army, Navy, and Marine Corps reported the least amount of sleep.
- Sexual Health: Service members in the Marine Corps more often reported new sexual partners in the past 12 months, with 23.9% reporting 2 or more new partners. Across all services, the self-reported prevalence of STIs in the past year was 1.4%, and the lifetime rate was 10.8%.

Gang-Related Activity

- Across all services, 5.5% of active duty personnel noticed gang-related activities among active duty personnel in the past 12 months, most of which was reported by the Army (8.9%) than other services.
- Among all active duty personnel, 1.6% reported being approached to join a gang in the past 12 months or belonging to a gang while in the military.

Religiosity/Spirituality and Health Behaviors

- When examining levels of religiosity/spirituality among active duty personnel, 28.3% were classified as high, 35.3% were medium, 14.0% were low, and 22.4% indicated religiosity/spirituality was "not applicable" to them.
- Those with high religiosity/spirituality reported a lower prevalence of heavy alcohol use (4.8%), current cigarette smoking (15.9%), drinking and driving (4.0%), and low positive affect (6.7%) than personnel who reported lower levels of religiosity/spirituality.

Promoting Healthy Behaviors in Children Living with Military Personnel

- Across all services, 40.7% of active duty personnel reported living with 1 or more children, with 10.6% of Army personnel reporting 3 or more children in the home.
- The majority (94.7%) of active duty service members reported that they always or often promoted healthy food and beverage choices in their children.
- Over half (53.0%) of active duty personnel reported that it was very difficult for their children to access prescription medications in their home, whereas 5.0% reported that it was very easy for children to access prescriptions.

- Among current smokers, 9.1% reported often or sometimes smoking with children present, most often of which was in the Army (12.3%).

Overview of Substance Use

This section presents a summary of findings on alcohol use, illicit and prescription drug use and misuse, tobacco use, which includes smokeless tobacco use, and the culture of substance use in the military. The alcohol and smoking levels presented in the report are based on items from the 2010 National Health Interview Survey (NHIS), sponsored by the Centers for Disease Control and Prevention (CDC). More details on substance use in the military are provided in Chapter 4.

Alcohol Use

- Among current drinkers, 39.6% reported binge drinking in the past month, with the Marine Corps reporting the highest prevalence of binge drinking (56.7%), and the Air Force reporting the lowest prevalence (28.1%).
- When examining levels of drinking across all services, 9.9% were classified as abstainers, 5.7% were former drinkers, and 84.5% were current drinkers; 58.6% of all personnel were classified as infrequent/light drinkers, 17.5% were moderate drinkers, and 8.4% were classified as heavy drinkers.
- Heavy drinkers were more often in the Marine Corps (15.5%), had a high school education or less (12.6%), 21-25 years old (13.2%), unmarried (11.9%), and stationed OCONUS (9.9%).
- In general, active duty personnel who were heavy drinkers, initiated alcohol use at earlier ages, or drank at work more often reported higher work-related productivity loss, serious consequences from drinking, and engagement in risk behaviors than personnel who reported lower levels of drinking, began drinking at older ages, or did not drink at work.
- Across all drinking levels, 11.3% of active duty personnel were classified as problem drinkers (AUDIT≥8), with 58.4% of heavy drinkers considered problem drinkers compared to 22.6% of moderate drinkers and 3.8% of infrequent/light drinkers.
- About one-fifth (21.3%) of active duty personnel reported consuming an energy drink combined with alcohol in the past 30 days; this group was more often male (22.4%), had a high school education or less (29.7%), 18-20 years old (37.8%), unmarried (27.5%) or married with a spouse not present (24.8%), junior enlisted E1-E4 (28.0%), and stationed OCONUS (24.2%).
- The most commonly endorsed reasons for drinking among current drinkers were to celebrate (50.2%), enjoyment of drinking (46.2%), and to be sociable (33.4%). The most commonly

reported deterrent to drinking among all personnel was cost (22.6%), with abstainers, former and infrequent/light drinkers endorsing this more often than moderate and heavy drinkers.

- Of all active duty personnel, 1.5% indicated being currently in treatment or likely to seek treatment for alcohol use in the next 6 months. Of possible treatment options, seeking help from church (30.0%) or a military chaplain (29.7%) were most endorsed, and military residential treatment facilities (13.2%) and private residential treatment outside the military (12.7%) were most often cited as unfamiliar resources.

Illicit and Prescription Drug Use and Misuse

- Overall prohibited substance use (excluding prescription drug misuse) in the military was low, with about 1.4% reporting illicit drug, synthetic cannabis, or inhalant use in the past 12 months.[1]
- About one-quarter (24.9%) of active duty personnel reported prescription drug use (including proper use and misuse) in the past 12 months, composed of pain reliever (20.0%), sedative (13.4%), stimulant (2.8%), and anabolic steroid (1.4%) use and misuse. Army personnel most often reported prescription drug use (31.4%), and Coast Guard reported the least use (15.3%).
- Across all active duty personnel, 1.3% reported prescription drug misuse in the past 12 months. When examining just those who reported prescription drug use in the past year, 5.7% reported misuse, with steroids (16.6%) and stimulants (11.6%) most commonly misused among prescription drug users.
- The majority (89.8%) of active duty personnel reported receiving drug testing in the past year, with 27.5% tested in the past month, 62.3% tested more than one month ago but in the past year, 8.4% tested more than 1 year ago, and 1.8% reported no history of drug testing. Personnel in the Air Force most often reported never receiving drug testing (2.9%).

Tobacco Use

- When examining levels of cigarette smoking, the majority of active duty personnel were abstainers (58.7%) or former smokers (17.3%). Out of the 24.0% of current smokers, 8.2% were classified as infrequent smokers, 12.6% were light/moderate smokers, and 3.2% were heavy smokers.
- Similar to alcohol, earlier age of initiation for cigarette smoking was associated with being a heavy smoker in adulthood, with those who started smoking at age 14 or younger more likely to be a heavy smoker than those who began smoking at age 21 or older, particularly for males.

[1] The results obtained for illicit and prohibited substance use should be interpreted with caution as some of the data indicated a systematic pattern of response. See Chapter 4.2 for a more detailed explanation of the validity of the illicit drug use results.

- Current cigarette smokers were more often in the Marine Corps (30.8%), male (25.2%), had a high school education or less (37.1%), were junior enlisted E1-E4 (30.3%) or E5-E6 (28.0%), and were stationed OCONUS (25.6%).
- The most commonly cited reasons for cigarette smoking among current heavy smokers were to help relax or calm down (83.6%) and to help relieve stress (81.5%). In addition, over half (52.9%) reported smoking when drinking alcohol.
- Infrequent smokers more often reported that limiting areas where smoking is permitted and increasing prices on military installations would deter smoking compared to light/moderate and heavy smokers.
- Across all services, close to half (49.2%) reported any nicotine use in the past 12 months, with over 60% of Marine Corps reporting nicotine use in the past year. For all personnel, 22.6% reported cigar use, 10.2% reported pipe use, and 19.8% reported smokeless tobacco use in the past 12 months. Marine Corps reported higher cigar (32.5%), pipe (14.2%), and smokeless tobacco (31.9%) use compared to all other services.
- When examining new forms of smokeless tobacco, 4.6% reported using electronic or smoking nicotine delivery products, less than 1% reported using nicotine dissolvables or nicotine gel, and 1.6% reported using caffeinated smokeless tobacco in the past 12 months.
- Among heavy cigarette smokers, 45.2% endorsed prescription medication most often as the preferred form of treatment for nicotine dependence.
- The UCANQUIT2 online quit support was the least recognized of the treatment options, with 19.4% of infrequent smokers, 14.5% of light/moderate smokers, and 10.8% of heavy smokers indicating that they were not familiar with the treatment option.
- Among daily smokeless tobacco users, 44.3% endorsed stopping all at once or "cold turkey" as the preferred method of cessation, and 15.7% were unfamiliar with the UCANQUIT2 online quit support method.

Culture of Substance Use

- When examining social network facilitation of substance use in the military, active duty personnel most often reported that peers engaged in alcohol use (89.0%), cigarette use (73.1%), and smokeless tobacco use (61.2%) in their off-duty hours. Although less often reported, 6.5% reported peer marijuana use, and 4.5% reported peer prescription drug misuse.
- Cigarette (81.9%) and smokeless tobacco (77.7%) use was perceived among peers as highest in the Marine Corps compared to other services. In addition, peer alcohol use was perceived more

often in the Marine Corps (92.3%) and Coast Guard (92.9%), and peer marijuana use was perceived as highest in the Coast Guard (10.6%) than all other services.

- Across all services, active duty personnel reported that leadership most often deterred marijuana (92.8%) and prescription drug misuse (90.6%), and about half reported leadership deterrence of alcohol (51.2%), cigarettes (50.0%), and smokeless tobacco (48.1%). Leadership deterrence of alcohol was more often reported in the Navy (61.2%), and tobacco deterrence was more often reported in the Navy, Air Force, and Coast Guard than in the Army and Marine Corps.
- Heavy drinkers reported higher network facilitation of cigarette use (88.2%), marijuana use (15.2%), and prescription drug misuse (10.4%) compared to other levels of drinking. In addition, heavy and light/moderate smokers perceived higher peer facilitation of cigarette use than other smoking levels.

Overview of Stress and Mental Health

This section presents a summary of stress and mental health in the military, including military-related and personal stressors, gender-related stress, stress coping behaviors, posttraumatic stress (PTS), depression and anxiety symptoms, suicidal ideation and suicide attempts, self-inflicted injury, mental health and substance use, personality traits associated with health behaviors, including high risk taking, high anger propensity, low resilience, and low positive affect, abuse history, mental health treatment and perceived stigma for help-seeking.[2] Additional information on the results can be found in Chapter 5.

Military and Personal Stressors, Stress Coping Behaviors, and Gender-Related Stress

- The most commonly reported military-related stressors were being away from family and friends (42.3%) and changes in work load (41.5%). In general, women and heavy drinkers more often reported military-related stress than men and lower drinking levels.
- Regarding personal stressors, problems with money (30.2%) and family members' health problems (28.9%) were most frequently endorsed. Females more often reported personal stressors than males, and heavy drinkers more often reported problems with money and relationship problems (i.e., divorce/break-up, infidelity) than personnel with lower drinking levels.
- The most commonly endorsed methods for coping with stress were thinking of a plan to solve the problem (86.2%) and talking to a friend or family member (72.2%), with females more often reporting both of these strategies than males. In addition, males more often reported having a cigarette (21.5% vs. 17.7%) and drinking alcohol (23.8% vs. 21.0%), and females more often

[2] Mental health measures reflect self-reported symptoms, but do not represent clinical diagnoses of psychological conditions or suggest the need for treatment.

reported getting something to eat (52.8% vs. 42.8%) and sleeping (64.5% vs. 48.6%) as strategies to cope with stress.

- Over half (50.7%) of females reported stress related to their gender, whereas 25.5% of males reported gender-related stress.

Posttraumatic Stress, Depression, Anxiety, and Self-Harm Behaviors

- Overall, 5.0% of personnel reported high posttraumatic stress (PTS) symptoms, with those in the Army (7.2%) and Marine Corps (7.3%) reporting PTS symptoms more often than other services.
- Across all services, 16.7% of personnel reported high anxiety symptoms, with Marine Corps (22.0%) and Army (20.0%) reporting high anxiety symptoms more often than other services.
- For all services, 9.6% of active duty members reported symptoms indicative of high depression, which was more often reported in the Marine Corps (13.0%) and Army (11.8%).
- When examining self-harm behaviors, 7.9% of personnel reported suicidal ideation since joining the military, of which 3.9% reported ideation in the past year. In addition, 1.3% of service members reported attempting suicide since joining the military, with 0.5% reporting an attempt in the past year. In addition, 5.2% of service members reported self-inflicted injury since joining the military, which was reported more often in the Marine Corps (8.1%) than in other services.

Mental Health and Substance Use

- Heavy drinkers more often reported high overall stress (63.4%), high anxiety symptoms (32.9%), high depression symptoms (20.8%), high PTS symptoms (13.2%), suicidal ideation (10.6%), and abuse history (33.2%) compared to lower drinking levels.
- Similar to heavy drinkers, heavy cigarette smokers more often reported high overall stress (61.1%), high anxiety symptoms (35.4%), high depression symptoms (21.2%), and high PTS symptoms (16.2%) compared to lower smoking levels; there were fewer differences across smoking levels for suicidal ideation and history of abuse.

Personality Traits Associated with Mental Health

- Across all services, 10.3% of active duty personnel reported high risk-taking, 7.2% were classified as having high anger propensity, and 9.6% reported low positive affect. In particular, Marine Corps reported the highest levels of risk-taking (15.1%), and Marine Corps (10.4%) and Army (9.4%) personnel reported the highest levels of anger compared to all other services.

- Resilience levels were also examined, with 4.3% classified as low, 61.3% classified as moderate, and 34.4% reporting high resilience; there were few differences in resilience levels across services.
- Heavy drinkers more often reported high risk-taking (23.3%) and high anger (18.0%) than lower drinking levels.

Physical and Sexual Abuse History

- Overall, 24.5% of service members reported any history of physical abuse (17.1%) or unwanted sexual contact (14.3%) in their lifetime. Personnel in the Marine Corps more often reported physical abuse since joining the military by someone in the military (8.1%) compared to other services, and Navy more often reported unwanted sexual contact since joining the military by someone in the military (7.7%).
- When examining abuse history for women, close to half (48.3%) reported a history of lifetime abuse, with Marine Corps (57.7%) and Army (54.1%) reporting the most abuse history. Sexual abuse (42.0%) was more common than physical abuse (24.2%); 21.7% of women reported unwanted sexual contact since joining the military by someone in the military, of which 29.7% was reported in the Marine Corps.
- For men, 20.1% reported any history of lifetime abuse, most often in the Marine Corps (24.9%) and Army (23.0%). Physical abuse (15.8%) was more common than sexual abuse (9.2%), and physical abuse since joining the military by someone in the military was more often reported in the Marine Corps (8.0%) than all other services.

Mental Health Treatment and Perceived Stigma

- Across all services, 24.9% of active duty personnel reported receiving mental health treatment from a counseling professional in the past 12 months, with Army personnel reporting treatment more often (32.1%) than all other services.
- For all services, the most common reasons reported for seeking mental health treatment were depression (11.6%), anxiety (10.4%), stress management (10.3%), and family problems (10.2%). Army personnel most often sought treatment for depression (16.1%), anxiety (14.6%), and stress management (13.6%), whereas Marine Corps most often sought treatment for substance use problems (2.5%) compared to all other services.
- Over one-third (37.7%) of personnel indicated that seeking mental health treatment would damage a person's military career, which was most often endorsed in the Navy (42.1%) compared to all other services. For those who did seek help in the past year, 21.3% reported it had a negative effect on their career, most often in the Marine Corps (26.2%) and Navy (24.3%).

- Active duty personnel who perceived a need for mental health treatment but did not seek it more often reported it would damage a person's career (53.0%) than those who did seek treatment (40.5%).

Overview of Deployment and Combat Exposure

This chapter focuses on characteristics of both non-combat and combat deployments since September 11, 2001, including length and frequency of deployments and theater of operations, levels of combat exposure by stress, mental health, and substance use, characteristics associated with possible traumatic brain injury (TBI), and reasons for non-deployment and returning early from deployment. More details on the results can be found in Chapter 6.

Deployment Characteristics

- Across all services, 20.6% of active duty personnel reported a combat zone deployment in the past 12 months, with Army more often reporting combat deployments in the past year (25.7%) than other services. Army also reported the most combat deployments since September 11, 2001 (19.2% reported 3 or more combat deployments), the longest total time spent deployed (32.1% reported combat deployments since 9/11 totaling more than 18 months), and 40.9% reported the length of longest single combat deployment since 9/11 was 13 to 18 months, which was longer than all other services.
- Across all services, 13.1% reported a non-combat zone deployment in the past 12 months, with Coast Guard reporting the most non-combat deployments (25.4%) in the past year. Coast Guard personnel also reported the highest frequency of non-combat deployments since September 11, 2001 (28.0% reported 3 or more non-combat deployments), and the longest total time spent deployed (11.8% reported non-combat deployments since 9/11 totaling more than 18 months). However, the majority (85.9%) of Coast Guard personnel reported the length of longest single non-combat deployment since 9/11 was less than 6 months.
- Of the 16.6% of active duty personnel who were unable to deploy, the Marine Corps reported the highest frequency (22.5%) of non-deployment compared to all other services. Across all services, the most common reasons cited for non-deployment (other than an unspecified reason) were having an injury (31.5%) and having an illness or medical problem (23.4%). In addition, Coast Guard (39.6%) and Army (39.0%) personnel more often cited having an injury as a reason for non-deployment than other services.
- Of all personnel, 2.2% returned early from a deployment; the most common reasons cited (other than an unspecified reason) were a family situation (22.1%) and having an injury (12.1%).

Levels of Combat Exposure

- Across all services, 56.2% of personnel reported combat exposure, of which 22.5% was classified as high, 21.0% was moderate, and 12.7% was low exposure. Army personnel most often reported high combat exposure (41.9%), whereas just 1.2% of Coast Guard personnel reported high combat exposure. Air Force members most often reported moderate exposure (23.7%), and Navy members most often reported low combat exposure (26.0%) compared to all other services.
- Personnel with high combat exposure were more often male (24.8%), White, non-Hispanic (24.1%), had a college degree or higher (25.2%), were 36-45 years old (32.9%) or 46-65 years old (34.0%), and were married with a spouse not present (25.7%) or married with a spouse present (27.6%).

Combat Exposure, Theater of Operations, and Substance Use

- Personnel who experienced high combat were more likely to be classified as heavy drinkers (10.3%) and use prescription drugs (34.2%) than personnel exposed to lower levels of combat or no combat.
- Personnel combat deployed to a mission other than Operation Iraqi Freedom (OIF), Enduring Freedom (OEF), or New Dawn (OND) more often reported binge drinking in the past 30 days (37.0%). On the other hand, those serving in OIF, OEF, or OND more often reported prescription drug use (including proper use and misuse) in the past 12 months (28.8%).
- In general, those who were combat deployed since September 11, 2001 were more often current and heavy cigarette smokers than personnel who were not combat deployed.
- When examining increases in substance use during most recent deployment, Coast Guard (15.2%) and Navy (12.7%) personnel reported more alcohol use when deployed, Army reported more cigarette (20.7%) and cigar use (12.4%), and Marine Corps reported more cigarette (23.5%), cigar (10.7%), and smokeless tobacco use (15.9%) when deployed.

Combat Exposure, Theater of Operations, Stress and Mental Health

- For all services, 41.7% reported high overall stress; of those who experienced high combat exposure, 51.2% reported high stress levels. Further, 15.1% of personnel experienced high stress upon returning from deployment; of those with high combat exposure, 35.3% reported experiencing high stress after returning from deployment.
- Across all services, active duty personnel deployed for more than 18 months since 9/11 more often reported high PTS symptoms (7.9%) and high anger (10.1%) than personnel deployed for lesser amounts of time.

Possible Traumatic Brain Injury (TBI), Substance Use, Stress and Mental Health

- Across all services, 12.5% of active duty members whose most recent deployment was a combat deployment reported symptoms consistent with possible TBI, most often in the Army (18.0%) and in those with high combat exposure (24.2%).
- Among service members who were deployed (combat and/or non-combat) since 9/11, personnel with possible TBI were more often male (10.5%), had a high school education or less (12.7%) or some college education (11.2%), were married with a spouse not present (12.0%) or married with a spouse present (10.3%), and were junior enlisted E1-E4 (13.9%).
- Among service members who were deployed (combat and/or non-combat) since 9/11, personnel with possible TBI more often reported high overall stress compared to personnel with unlikely TBI (68.3% vs. 41.1%), high depression symptoms (22.5% vs. 8.3%), high anxiety symptoms (43.2% vs. 14.9%), high PTS symptoms (22.3% vs. 3.7%), suicidal ideation (9.9% vs. 3.2%), suicide attempts (2.1% vs. 0.3%), self-inflicted injury (12.9% vs. 4.7%), high risk-taking (18.1% vs. 8.8%), high anger (18.7% vs. 6.6%), and low positive affect (16.6% vs. 9.0%).
- In addition, active duty personnel who were deployed since 9/11 and indicated possible TBI more often reported binge drinking (39.2% vs. 32.7%), possible alcohol dependence (3.0% vs. 1.6%), prescription drug use (44.9% vs. 25.5%) and misuse (3.4% vs. 1.0%), current smoking (36.8% vs. 24.0%) and heavy smoking (6.9% vs. 3.5%), smokeless tobacco use (28.9% vs. 18.8%) and daily smokeless tobacco use (13.9% vs. 7.3%), compared to those with unlikely TBI.

Overview of Service Commitment

This chapter of the HRB report examines levels of service commitment in the military, and associations with substance use and mental health. Additional details on the findings of this section are presented in Chapter 7.

- Across all services, 22.2% of active duty personnel reported high service commitment, 53.7% reported moderate commitment, 17.8% reported low commitment, and 6.3% reported a detached level of commitment from the military.
- Personnel with high service commitment were more often male (22.8%), a college graduate or higher (31.7%), over age 46 (46.6%), married with a spouse present (26.5%), a warrant (47.4%) or senior ranking officer O4-O10 (47.5%), and stationed CONUS (23.3%).
- Personnel who reported detached service commitment more often had a high school education or less (8.4%), were 18-20 years old (8.6%) or 21-25 years old (11.1%), unmarried (8.9%) or married with a spouse not present (7.9%), junior enlisted E1-E4 (10.7%), and stationed OCONUS (8.1%).

- Coast Guard (26.8%) and Navy (26.4%) reported the highest level of service commitment, whereas Marine Corps personnel most often reported low (22.7%) or detached (9.5%) service commitment.
- Personnel with detached service commitment more often reported heavy alcohol use (20.3%), heavy cigarette smoking (6.6%), high depression symptoms (34.5%), high overall stress (77.9%), low resilience (12.0%), and the most work productivity loss (4.7 days) than those with higher levels of service commitment.

Overview of Conclusions and Recommendations

The last chapter of the 2011 HRB report provides general conclusions concerning the state of behavioral health of the U.S. military after a decade of war and increased operations tempo. The findings demonstrated that service members were generally resilient, and the state of behavioral health among active duty personnel was robust. Overall, the force was doing well in areas of fitness, exercise, and safety behaviors and had a high level of service commitment. In regards to areas in need of improvement, rates of alcohol and tobacco use, particularly smokeless tobacco use, were high. In addition, although prescription drug misuse was not as widespread as previous estimates have indicated, a sizable proportion of service members reported using prescription drugs, specifically pain relievers and sedatives. With regard to mental health, the HRB results, though not clinical diagnoses, showed that service members who experienced more deployments and combat exposure also reported a higher prevalence of PTS, depressive and anxiety symptoms, and suicidal ideation. Mental health conditions often co-occur with substance abuse and other health problems such as high stress. Reported rates of unwanted sexual contact, particularly among female service members, warrant attention and action.

Recommendations are provided to highlight ways the HRB survey can be effectively used by Armed Forces leadership, behavioral health service providers, researchers, and the public to inform the investment in and improvement of policies, services and prevention and treatment programs, and to support research to further examine the current and future needs of active duty service members and their families. Three overall recommendations were proposed:

- Guide military programs and policies
- Evaluate the effectiveness of interventions for service members and their families
- Provide researchers with a rich and comprehensive data set on the current state of behavioral health of service members

Enacting these recommendations would make the best use of the data gathered in this study and ultimately help to improve the behavioral health of the U.S. military. Improvements in the behavioral health of military personnel would directly impact their productivity and their commitment to the Armed Forces. Investing in behavioral health leads to a stronger force, enhanced readiness, and increased retention of service members.

Chapter 1: Introduction to the 2011 Health Related Behaviors Survey of Active Duty Military Personnel

The 2011 Health Related Behaviors Survey of Active Duty Military Personnel (HRB) is the largest survey that anonymously gathers data on some of the most important behavioral health issues affecting the well-being of the U.S. military. The HRB provides an assessment of issues such as substance use and abuse, stress, posttraumatic stress symptoms, depressive symptoms, possible traumatic brain injury, resilience, sexual and physical abuse history, and deployment-related outcomes from a representative sample of active duty members in each branch of the Department of Defense (DoD) services – the Army, Navy, Marine Corps, and Air Force – as well as the United States Coast Guard (USCG), herein collectively referred to as the Armed Forces.[3] The anonymous nature of the survey, coupled with the statistically-valid selection of a representative sample of service members, enables the Armed Forces to measure the prevalence rates of health behaviors. While DoD, each of the DoD Services, and USCG collect administrative data on the outcomes or consequences of maladaptive health behaviors (e.g., number referred to substance abuse treatment), these administrative data often represent a small fraction of the problem, and underscore the need for self-reported measurement of the prevalence rates of these behaviors. The HRB survey ascertains estimates (+/- a small margin of error) of the prevalence of these behaviors, and as a result, provides the Armed Forces a data source that complements, but cannot be duplicated with, administrative records. The data collected over the past 30 years of this survey have been used by military leadership at all levels to make important policy and programmatic changes. Since its inception, the HRB survey has had a substantial impact on the military health field.

Context for the 2011 HRB: At the end of 2011, the United States had faced a decade of war and increased operations tempo. U.S. Troops had been stationed overseas in Iraq and Afghanistan as part of Operations Enduring Freedom, Iraqi Freedom, and New Dawn, with many personnel serving multiple deployments. By volunteering to serve in the military, service men and women sign up to protect the United States from its enemies. Fighting a war provides service members the opportunity to put their training into action and fulfill their call to serve. It also places heavy burdens on service members and their families, as they face long separations and put their lives and their health at risk. A number of government institutions, charged with training and supporting service members, have also faced increased pressures and workloads with the increase in wartime activities. This comprehensive assessment of the state of the behavioral and mental health of the United States

[3] Title 10 of the Uniform Code of Military Justice (UCMJ) was established by Congress as the legal basis for the Armed Forces, inclusive of the Army, Navy, Marine Corps, Air Force, and Coast Guard services.

military will provide valuable insight into the welfare of our service members. Important questions that this survey addresses include:

- After a decade of war and heightened operations tempo, what was the state of behavioral health of the United States active duty military?
- What were the areas of strength where training, programs, and policies have done well to support and prepare service members?
- What areas warranted additional concern and attention?

Report Overview: This report details the results of the 2011 Department of Defense (DoD) Health Related Behaviors Survey of Active Duty Military Personnel (HRB), which was conducted under the advisement of the Office of the Assistant Secretary of Defense for Health Affairs, TRICARE Management Activity, and the United States Coast Guard (USCG) by ICF International of Fairfax, Virginia. The report presents data on the health of active duty military personnel subsumed under the DoD (Army, Navy, Marine Corps, Air Force) and the Department of Homeland Security (USCG) on issues pertaining to substance use (i.e., alcohol and tobacco use, illicit and prescription drug use and misuse) and the military culture surrounding substance use, stress, and mental health (e.g., depressive and posttraumatic stress (PTS) symptoms, mental health-related stigma, personality traits associated with mental health), deployment and combat exposure, including possible traumatic brain injury (TBI), health behaviors that map onto *Healthy People 2020* objectives (U.S. Department of Health and Human Services, 2010), and military service commitment. The findings from this survey will be critical for leadership within the Armed Forces to assess its current state of readiness and future policies related to personnel health; health care providers to develop appropriate prevention and treatment programs for current issues; and the research community and greater public to understand and respond to the current needs of service members.

Major Changes to the 2011 HRB: The 2011 HRB includes the most extensive changes in the survey since its inception in 1980. The research team took a fresh look at every aspect of the survey design. The decision to diverge from previous versions of the survey, including the switch to a more cost-effective and less burdensome mode of survey administration, allowed the research team the freedom to make dramatic changes to the methodology in an effort to update and improve the measurement of health behaviors of the Armed Forces while decreasing respondent burden. Some of the major changes to the 2011 HRB include:

- For the first time, the survey was administered through a web-based format (versus a paper-based, group-administered, in-person format), which reduced burden on base-level unit leadership and the survey respondents themselves from prior iterations of the survey. The mode change to a web-

based survey reduced costs and expanded the geographic reach of the survey as the sample was not limited to military members confined to a specific set of bases or geographic areas.

- The sample design of the survey was switched from a clustered sample design to a stratified random sample. The web-based administration eliminated the need to travel to installations; as such, a geographically clustered sample was no longer necessary. Service members were sampled without regard to their current duty location.
- Many survey items were revised to improve measurement and item and response option clarity; some substance use measures were better aligned with current national civilian health surveys, the National Health Interview Survey (NHIS) conducted by the Centers for Disease Control and Prevention, in particular. Overall, the questionnaire was shortened, eliminating outdated and unnecessary items, to reduce burden on respondents.
- Based largely on recommendations from DoD Subject Matter Experts (SMEs), the HRB also incorporated and expanded on a number of emerging health issues. These issues included a more refined assessment of prescription drug misuse, new forms of smokeless tobacco (e.g., nicotine dissolvables), the culture of military substance use, personality traits associated with health behaviors (e.g., resilience, anger), self-inflicted injury, pain and pain management, and possible TBI based on standardized measures (Schwab et al., 2006).

The following introduction describes the history of the survey, an overview of the current 2011 HRB, and the organizational structure of topics covered within this report.

1.1 History of the Health Related Behaviors Survey

The HRB is DoD's flagship health survey and represents DoD's largest anonymous, population-based health survey of military service members. The 2011 HRB is the 11th iteration of the survey. The survey is conducted approximately every three years. The survey was originally part of a DoD initiative to better inform substance abuse programs and policies pertaining to military personnel; it sought to quantify the extent of substance use among service members following the Vietnam War and to develop intervention programs and tailor public policies accordingly. Over time, survey modifications have expanded the scope of the study from substance abuse to an analysis of broader health behaviors and attitudes among active duty service members. For example, in 1985, new questions regarding health promotion efforts were added to the survey. Similarly, the 1988 version included additional questions on stress, nutrition and fitness, and attitudes surrounding HIV/AIDS. In 1992, the survey was further modified to include benchmarks to civilian estimates of substance use as well as *Healthy People* objectives and an inclusion of items on anabolic steroid use and problem gambling. The survey also took into account deployments for Operations Desert Shield and Desert Storm. The 2002 version incorporated, among other changes, questions to

assess unmet mental health care needs and placed more emphasis on women's health issues in the military. The last version of the survey in 2008 put more focus on deployment characteristics, such as level of combat exposure, and the relationship to mental health problems such as possible TBI. The study was also expanded in 2008 to include active duty Coast Guard personnel. The current 2011 version examines many of the same topic areas that have been covered in previous iterations of the survey; however, there were significant changes in survey methodology between the 2011 HRB and the earlier HRB surveys.[4]

Until the web-based administration of the 2011 HRB, previous surveys were conducted through an in-person, group-administered, paper-pencil data collection mode. Over the numerous renditions of the survey, the questionnaire length became increasingly burdensome; though adding new questions and topic sections allowed for increased coverage of personnel health issues, few items were deleted to account for these additions. As a result, in 2008 the length of the survey was 182 items requiring 535 responses. Thus, a key goal for the 2011 HRB was to diminish respondent burden by reducing the overall number of items included in the questionnaire. To achieve this goal, a questionnaire review was conducted by the DoD SMEs to determine each item's ability to target the most important current health-related issues. This process led to a 14% reduction in survey duration, with the final 2011 questionnaire consisting of 169 items requiring 458 responses. In addition, this review process allowed researchers and SMEs to align substance use items, drinking and smoking levels for example, with national civilian surveys, such as the National Health Interview Survey (NHIS; Centers for Disease Control and Prevention, 2010) for more accurate comparisons between military and civilian populations.

In many ways, the health issues assessed in this report and the way in which these behaviors are measured have changed drastically from the original HRB survey that was conducted over 30 years ago. In addition to the change in survey administration mode (from group-administered paper-pencil to individual computer-based), many of the questions used to measure the behaviors assessed in this survey have changed substantially beyond small textual edits from the questions and measures used in 2008.[5] There was also a fundamental change in screening items for the substance use sections, with the addition of skip logic to prevent those who did not engage in a given behavior from having to answer a number of questions on a topic that is not applicable to them. In addition, changes were also made to the sampling, weighting, data editing, and analysis. These changes, taken together,

[4] Details on the changes made to the methodology can be found in Chapter 2: Methodology.

[5] For example, in 2008, heavy drinkers were classified as those who drank 5 or more drinks per typical drinking occasion at least once a week. In 2011, heavy drinkers were classified as having more than 14 drinks per week for males, and more than 7 drinks per week for females in the past year, consistent with NHIS classification. To be classified as a heavy drinker in 2008, a person had to regularly binge drink, whereas in 2011 a heavy drinker did not necessarily have to be a binge drinker. As another example, in 2008, current smokers were considered those who had smoked at least 100 cigarettes in their lifetime and smoked at least one cigarette in the past 30 days. In 2011, current smokers were those who had smoked at least 100 cigarettes in their lifetime and reported currently smoking some days or every day, consistent with NHIS classification.

preclude a direct comparison to results from the previous administrations of the survey.[6] As a result of these extensive changes in the current version of the survey, comparisons and an analysis of trends in health behaviors of military personnel over the history of the survey are not included in this report. However, many of the modifications in the 2011 HRB allow direct comparison on select health issues to results of national health surveys among the general U.S. population (e.g., NHIS). Additionally, the results obtained from the 2011 HRB will serve as the baseline for future online survey administrations.

1.2 Overview of the 2011 Health Related Behaviors Survey

The 2011 HRB expands and improves on measurement of emerging issues with respect to health and risk behaviors based on previous iterations of the survey. In particular, the current survey methodology focuses on improvements in two main areas: the addition of new items that focus on health issues of relevance to the current active duty military and improvement of item clarity and measurement. The improvements to the survey in these areas are described below.

Among the new items included on the 2011 HRB are the following:

- Weight loss required to join the military;
- Exercise-related strength training;
- Vitamins and supplement use;
- Recency of annual health assessments;
- Exercise interference (i.e., deterrents to exercise);
- Injury history, including concussion and back injury;
- Likelihood of seeking treatment and preferred sources of treatment for alcohol use;
- Smoking reduction attempts;
- New forms of smokeless tobacco (e.g., e-pipes, e-cigarettes);
- Preferred treatment for smoking cessation;
- Culture of substance use (i.e., perceptions of acceptability and pressure to use alcohol, tobacco, and illicit and prescription drugs);
- Anger propensity;

[6] To conduct an analysis of trends over time, an adjustment would need to be done to the previous years' data to allow for comparison. Prior years' data, when similar qustions were asked, can be adjusted so that trendlines could continue, though based on the new mode of data collection. This was not done for this report.

- Resilience;
- Positive affect;
- Self-inflicted injury;
- Timing of deployment-related stress and prescription drug use;
- Use of alternative medicine;
- Mouth guard use;
- Frequency of explosion proximity; and
- Promotion of healthy behaviors among dependent children (e.g., nutritional choices).

Among the items altered to improve measurement are the following:

- Marital status and partner cohabitation;
- Alcohol use;
- Smokeless tobacco use;
- Prescription drug misuse;
- Stress (overall, and military- and gender-related);
- Depressive symptoms;
- Suicide ideation and attempts;
- Deployment length and type (i.e., combat or non-combat);
- Posttraumatic stress (PTS) symptoms;
- Anxiety symptoms;
- Sexual risk behaviors;
- Timing and perpetrator of physical and sexual abuse;
- Help-seeking stigma;
- Possible traumatic brain injury (TBI); and
- Level of service commitment.

1.3 Organization of the 2011 Health Related Behaviors Survey Report

The 2011 HRB report is organized into eight chapters and three appendices; chapters include the introduction, methodology, behavioral and mental health topic areas (five chapters), and conclusion and recommendations. Each of the five substantive chapters presents a brief summary of the topic under examination and organization of the findings, a definition of key measures, an overview of major findings, graphical figures to highlight key findings, and tables presenting analytic results. Specifically, the organization of the report is as follows:

- Chapter 2: Methodology includes a description of the population and sampling frames for DoD and USCG, questionnaire development, survey administration, characteristics of survey respondents, weighting procedures, analytic approach, key definitions and measures, an explanation of variability and suppression of estimates, and limitations of the survey.
- Chapter 3: Healthy Lifestyle and Disease Prevention presents findings on service members' health as well as findings in accordance with *Healthy People 2020* objectives, including weight management, physical activity and exercise, high blood pressure and cholesterol, nutrition and supplement use, oral hygiene, use of mouth guards and hearing protection, sleep behaviors, sexual behaviors, vehicle and motorcycle safety, medical treatment for injuries, gang-related activity, levels of religiosity/spirituality, and promotion of military children's health.
- Chapter 4: Substance Use is delineated into four subsections, including alcohol use, illicit and prescription drug use, tobacco use, and culture of substance use:
  - 4.1: Alcohol Use, including profiles of current drinkers, levels of alcohol use, binge drinking, consequences related to alcohol use, alcohol and energy drink consumption, facilitators and deterrents to drinking, and forms of treatment for alcohol abuse.
  - 4.2: Illicit and Prescription Drug Use, presenting prevalence rates of illicit and prescription drug use, prescription drug misuse, and drug testing.
  - 4.3: Tobacco Use, including prevalence of cigarette and smokeless tobacco use, levels of smoking, facilitators and deterrents to smoking, new forms of smokeless tobacco, tobacco cessation and reduction attempts, and treatment options for nicotine dependence.
  - 4.4: Culture of Substance Use, defined as facilitation of substance use by social networks and military leadership deterrence of substance use, and in relation to levels of alcohol and cigarette use.
- Chapter 5: Stress and Mental Health[7] presents findings for military-related stress, personal stressors, stress coping behaviors, and gender-related stress in the military, as well as estimates

[7] Mental health measures reflect self-reported symptoms, but do not represent clinical diagnoses.

for mental health issues such as posttraumatic stress (PTS) symptoms, suicidal ideation and suicide attempts, self-inflicted injury, anxiety and depressive symptoms, and physical and sexual abuse history. This chapter also covers personality traits related to health behaviors such as anger propensity, positive affect, and resilience, as well as mental health treatment options and stigma for help-seeking.

- Chapter 6: Deployment and Combat Exposure focuses on characteristics of both non-combat and combat deployments since September 11, 2001, including length and frequency of deployments and theater of operations, levels of combat exposure by stress, mental health, and substance use, changes in interpersonal relationships due to deployment, characteristics associated with possible traumatic brain injury (TBI), and reasons for non-deployment and returning early from deployment.
- Chapter 7: Service Commitment presents service members' level of commitment to the military, work interference from personal life demands, and service commitment and productivity loss due to substance use, mental health, and combat exposure.
- Chapter 8: Conclusions and Recommendations presents an overview of the main conclusions, a brief assessment of the overall state of the behavioral health of the Armed Forces after a decade of war, and concludes by providing general recommendations for using the HRB data to support the troops and their family members.

There are also three appendices to the report.

- Appendix A: Key Definitions and Measures provides a description of how variables and values were recoded, transformed, and combined for analysis and report presentation, including the calculation of scales and composite measures.
- Appendix B: Privacy and Consent Statement presents the informed consent page that respondents were presented with upon clicking the survey link.
- Appendix C: 2011 Health Related Behaviors Survey of Active Duty Military Personnel Web-based Questionnaire presents the online survey questionnaire and includes programmer instructions for online presentation, an indication of the questions that were presented on the same screen, and the words that were presented with special formatting such as colored text, underlining, or all capital letters. The questionnaire also includes the survey skip logic and the respondent base that was asked each question.

The information learned from the 2011 HRB can provide a useful framework for understanding the health and mission readiness of active duty military personnel in regards to both long-standing and emerging behavioral health issues to best inform policies and programs for military members and their families.

Chapter 2: Methodology of the 2011 Health Related Behaviors Survey of Active Duty Military Personnel

This chapter presents the methodology used to conduct the 2011 Health Related Behaviors Survey of Active Duty Military Personnel (HRB). In setting out to conduct the 2011 HRB, the research team reviewed all aspects of study design and implementation with an eye toward updating and improving survey implementation, measurement, and data quality. Though many items used in the 2011 HRB were similar to those used in the 2008 HRB, most were changed to improve measurement, transition the survey to a web-based data collection, and to bring the survey in line with current civilian health survey research standards and current best practices in the field of survey research. Although the target population and the topics addressed in the 2011 HRB were similar to those that have been historically measured with the HRB survey, the methodology used to conduct the HRB differed substantially from past HRB surveys, including the following key differences:

- The sample design was revised to select a stratified random sample rather than a clustered sample with replacement respondents selected by convenience; as such, the sample was no longer geographically confined to a select set of installations.
- The questionnaire was revised (item by item) and shortened. Item skip logic was implemented to reduce respondent burden.
- The mode of data collection changed from an in-person, paper-pencil group administration to a web-based, individual self-administered survey.

This chapter presents a detailed description of the methodology employed to conduct the 2011 HRB, highlighting the extensive changes made from the methodology that was previously employed to conduct the HRB surveys.

2.1 Population and Sample

The research objective of the HRB is to assess the state of the behavioral and mental health of the active duty military population. The target population for the 2011 HRB included all members of the Army, Navy, Marine Corps, Air Force and Coast Guard who were non-deployed and on active duty at the time of data collection. The sampling plans for the HRB surveys conducted in the past were designed to facilitate onsite data collection and employed a clustered sample design. Respondents from the original sample who were unable to or did not attend the group survey administration sessions were replaced with respondents who were selected based on convenience. Use of the online

data collection modality eliminated the need to consider installation location in the sample design, as there was no need for geographically clustered respondents, as well as the need for replacement respondents, as respondents were able to complete the survey at their convenience.

Due to differences in sampling frame construction, methodologically similar, but slightly different approaches to sampling were taken for the DoD services and the USCG. Both sampling plans were designed to allow for the collection of data representative of each of the services. Overviews of the sampling plans are presented below, first for the DoD services and then for the USCG.

2.1.1 Department of Defense Sample

The target population for the DoD HRB consisted of Active Duty members of the Army, Navy, Marine Corps, and Air Force. National Guard and Reserve members in Active Duty programs were not included in the population of interest. Those who were deployed at the time of the sample selection were excluded from the population. Sample members were not excluded if they did not have a valid email address or a valid physical address.

The Defense Manpower Data Center's (DMDC) July 2011 Active Duty Master Edit File (ADMF) was used to develop the sampling frame, construct strata, and determine the sample size and allocation. This file had all current contact information for members as of 30 June, 2011. The specified definition of the population resulted in a sampling frame with 1,222,627 eligible members who were not deployed (out of a total population of 1,421,189). Table 2.1 shows the population of each branch of service surveyed by strata at the time of sample selection. The four services were considered primary strata for sampling.

Table 2.1 – Population Parameters

	Army	Navy	Marine Corps	Air Force	All DoD Services
Gender					
Male	392,182	238,922	161,386	244,890	1,037,380
Female	66,321	47,473	12,583	58,870	185,247
Pay Grade					
E1-E4	210,222	115,970	101,496	109,237	536,925
E5-E6	118,396	97,558	40,833	103,142	359,929
E7-E9	48,060	24,431	12,840	30,493	115,824
W1-W5	12,895	1,419	1,849	0[a]	16,163
O1-O3	41,413	28,198	11,224	34,332	115,167
O4 and higher	27,517	18,819	5,727	26,556	78,619
Total	458,503	286,395	173,969	303,760	1,222,627

[a] The Air Force does not use the pay grade Warrant Officer.

After finalizing the sampling frame, an initial non-proportional stratified random sample of 281,872 members was selected. There were 12 sub-strata, defined as the six pay grade levels within gender.

Within each of the services, or primary strata, sample members were selected within each sub-stratum with equal probability and without replacement. Sampling rates varied across the strata, so individuals were not selected with equal probability overall. This initial sample file was randomly divided into three groups, a primary send out group and two secondary holdback samples. The two holdback samples were created in case response rates were lower than anticipated. All members in the Primary Sample Group were sent an initial survey invitation. After an assessment of survey completion rates by strata subsequent to the initial fielding of the Primary Sample Group, an additional 36,797 sample members from Holdback Group 1 (44.3%) were randomly selected disproportionately from strata and sent invitations to participate in the survey. This resulted in a total of 155,768 sample members who were invited to participate in the survey. No sample members from Holdback Group 2 were invited to participate in the survey. Table 2.2 presents a summary of the sample allocation by service.

Table 2.2 – DoD Sample Pull and Allocation to Sample Group

Service	Total Sample Pulled	Primary Sample	Holdback 1 Sent Out	Holdback 1 Not Sent	Holdback 2 Not Sent	Total Sent	Total Not Sent	Proportion Sent
Army	85,614	36,195	10,655	14,550	24,214	46,850	38,764	54.7%
Navy	63,245	26,661	7,489	11,140	17,955	34,150	29,095	54.0%
Marine Corps	71,118	29,916	9,584	11,480	20,138	39,500	31,618	55.5%
Air Force	61,895	26,199	9,069	9,154	17,473	35,268	26,627	57.0%
Total	281,872	118,971	36,797	46,324	79,780	155,768	126,104	55.3%

2.1.2 Coast Guard Sample

A census file of all USCG Active Duty (AD) members was obtained that was current as of 15 June, 2011. This formed the overall USCG AD population. This larger population was subdivided into two separate populations, one for a site-centered, clustered sample and one for a distributed, unclustered sample. The survey was administered to USCG AD members both onsite, in a paper-pencil group administration setting similar to prior HRB surveys, and online, comparable to the HRB data collected for the DoD services. This report only presents the data collected online. The first population involved a random selection of 10 installations (based on first 3-digit zip code proximity) with a probability of selection proportional to the size of installations. The installations were selected from a pool of all installations that had at least 300 USCG members. All members of this population were included in the sample (census of the 10 sites), and then randomly assigned to mode of completion, with exactly half assigned to an onsite survey administration and the remaining half assigned to an online survey administration. This census of 10 installations had 11,405 members and formed the Site-focused Population (SFP), with 5,702 allocated to the web-based survey administration.

The second population consisted of all other USCG members who were not part of the 10 chosen installations (total N=28,219). These members were geographically distributed throughout the U.S., forming the Distributed Population (DP). From this distributed population, 9,069 members were selected with stratified random sampling to participate in the online survey. The stratified sampling was disproportionately allocated to strata defined by work setting (air, afloat, ashore), gender, and pay grade. Table 2.3 displays the sample characteristics drawn from each population for the USCG.

Table 2.3 – Overall Coast Guard Population, Sub-Populations, and Sample Types by Selected Characteristics

	Total USCG Population	Distributed Population	Distributed Sample	Site-focused Population	Site-focused Sample
Work Setting					
Ashore	26,931	19,059	4,261	7,872	3,935
Afloat	8,735	6,236	3,592	2,499	1,249
Air	3,958	2,924	1,216	1,034	518
Gender					
Male	34,270	24,619	8,062	9,651	4,832
Female	5,354	3,600	1,007	1,754	870
Pay Grade					
E1-E4	12,862	9,750	5,095	3,112	1,588
E5-E6	14,825	11,012	2,678	3,813	1,888
E7-E9	4,371	3,010	415	1,361	681
W1-W5	1,505	1,011	166	494	229
O1-O3	3,585	2,298	515	1,287	658
O4 and higher	2,476	1,138	200	1,338	658
Total	39,624	28,219	9,069	11,405	5,702

2.2 Questionnaire Development

The 2011 HRB questionnaire was designed to reduce respondent burden and to be optimized for a web-based data collection methodology. The survey covered similar topics as those addressed in previous HRB surveys including substance use, stress and mental health, combat exposure and deployment, weight management and fitness, and general health, and allowed for benchmarking to selected *Healthy People* objectives. Subject matter expert groups were engaged to provide feedback on the survey questions in their domain of expertise, for example, nutrition, oral hygiene, alcohol use, tobacco use, drug use, safety, sexual risk behaviors, and mental health, among others. Many of these topics were addressed more efficiently than in previous iterations of the survey, with fewer questions; other topics were judiciously expanded. In addition, a number of new topics were addressed such as frequency of engaging in strength training activities, resilience, anger, motivation to use prescription drugs, the timing of prescriptions with respect to deployment, vitamin and

supplement use, and selected health-related issues concerning children living with active duty members. These changes are discussed in more detail in the sections that follow. A copy of the web-based questionnaire is included in Appendix C; the questionnaire presents the skip logic as well as the tailored display of items based on responses to previous questions.

2.2.1 Review and Revision of Items

In collaboration with DoD, USCG, and a number of subject matter experts (SMEs) throughout DoD and across the five services, the questionnaire was thoroughly reviewed and underwent major reconstruction. The goals of the review were as follows:

- To shorten the survey instrument to minimize respondent burden;
- To add skip pattern logic to aid in the goal of shortening the questionnaire;
- To eliminate any outdated measures or scales and bring questions in line with ongoing national civilian health surveys such as the Centers for Disease Control and Prevention's National Health Interview Survey;
- To assess the topics being addressed and add to or expand on existing measures of current issues of concern or interest to DoD and USCG; and
- To eliminate items that were not analyzed in the previous survey report.

To conduct the questionnaire review, the 2008 HRB questionnaire was divided into sections by topic. Suggested deletions and revisions were circulated to SMEs. Weekly teleconference and face-to-face meetings were held, addressing a different survey topic each week, to obtain and discuss SME feedback on the proposed changes. A total of 12 groups were given the opportunity to provide feedback. Questions were further refined to incorporate DoD, CG, and SME feedback.

Analyses of prior data were conducted to identify items for potential deletion in making recommendations for review by the SMEs. Factor analysis was performed on the 2008 HRB dataset as a data reduction technique using the principal components method of extraction with Promax (non-orthogonal) factor rotation. The goal was to identify redundant items to minimize respondent burden that would also maintain the psychometric validity of a given scale. This method identified a minimum number of items that collectively accounted for the largest amount of variance regarding the construct of interest. These analyses served as the starting point for making recommendations on which items should be maintained in the new iteration of the survey and which ones could be dropped. Additional factor analyses were performed on the 2011 HRB dataset to replicate factor loadings in a multi-factorial analysis. In the case of new measures that were added to the 2011 HRB to cover emerging topic areas or to increase the depth or breadth of the survey, factor analyses were also used to reduce the number of items for index construction. The technique was applied to

measures of work interference due to personal life demands, personality traits associated with health behaviors (i.e., positive affect, anger, resilience, risk-taking propensity), overall stress, and mental health issues (i.e., anxiety, depression, posttraumatic stress). Additional information on the construction of the final scales and coding of individual items can be found in Appendix A: Key Definitions and Measures.

2.2.2 Developing the Online Questionnaire

The survey was further refined to take full advantage of the switch to the online administration modality. With the paper surveys administered onsite in previous HRB surveys, respondents were asked all questions; those who indicated that they did not engage in a behavior, non-drinkers for example, were required to indicate that they did not drink throughout the entire alcohol section of the questionnaire. Web-based survey technology allows for the programming of skip logic to be incorporated into the questionnaire, skipping respondents over questions that are not applicable to them based on previous responses to survey questions. This skip logic design not only has the advantage of shortening the questionnaire, but also diminishes the need for data cleaning by reducing the number of inconsistent responses that respondents can provide.

In addition, because the survey was presented online, it was possible to require that respondents answer selected questions before advancing to the next question. Some basic demographic questions were required because they were important for weighting and assessing the representativeness of the respondent sample. In addition, some questions were required because they determined skip logic; in other words, responses to certain questions were required to determine the next question that respondents were asked. Some of these required questions collected sensitive information, such as the admission of substance use or the admission of behaviors or thoughts indicative of mental health concerns, such as suicidal ideation. When a sensitive question was required, a 'decline to answer' response was offered if the respondent attempted to skip the question without answering. The decline to answer option was not initially presented with the response set, but was offered on a second presentation of the question, if a respondent attempted to skip the question on the first presentation. This allowed respondents to proceed through the survey without being forced to answer questions that they did not feel comfortable completing. A 'decline to answer' option is not necessary on a paper survey in which respondents are able to progress past any questions that they do not wish to answer.

Additional web programming was used to highlight important words by using blue text. Some responses, such as "not familiar," were presented with a grayed-out background, setting it apart from the substantive responses to reduce the tendency to select an inaccurate response. All such programming edits are summarized in the web-based version of the questionnaire presented in Appendix C.

2.2.3 Cognitive Pretesting

After its initial construction, the survey instrument was pretested with junior-enlisted, active duty military personnel to identify any items or survey instructions that were unclear. It is a best practice to pretest the survey instrument with groups that would be most likely to have the greatest difficulty understanding the questionnaire. Junior enlisted personnel were used as pretest participants due to their relative lack of military experience compared to more senior personnel, and because they are generally known to have lower levels of education, be younger, and to have higher levels of risk behaviors. This group typically has the greatest difficulty understanding survey questions intended for military members, and thus could be expected to have the most useful feedback and suggestions to improve the survey. In April 2011, four pretest sessions were conducted separately with personnel from the Army, Marine Corps, Air Force, and Coast Guard. Twenty-two participants, all junior enlisted (i.e., between the ranks of E1 and E4) military personnel, participated in the pretest. The sessions were conducted at Fort Belvoir, VA (Army); Marine Corps Base Quantico, VA; Andrews Air Force Base, MD; and U.S. Coast Guard Yard, Baltimore, MD.

Each pretest session was conducted in either a classroom or conference room large enough to hold all participants and members of the research team and identical instructions were provided to participants at each session. Before beginning the survey, participants were provided a brief overview of the purpose and history of the survey, and were then handed identical paper copies of the survey to complete. Participants were instructed to complete the questionnaire as they normally would in a typical survey session, completing all of the relevant survey items and answering honestly. Participants were also instructed to circle any questions or specific responses or instructions that they found unclear, confusing, or difficult to answer, while taking the survey. Participants were informed that their answers would remain anonymous, and to that end, upon completion of the testing process, participants were given the option of keeping their survey or having it immediately shredded.

Once all participants had completed the questionnaire, the researchers guided a group discussion about the survey. The researchers began each discussion by first asking participants to share their comments, concerns, and criticisms about the survey in general, without focusing on specific survey items. The researchers then reviewed the survey with participants one page at a time, asking for comments on specific survey items and sections. Participants commented that they found the survey items and instructions, including the skip instructions, generally easy to understand. Some participants commented that the survey was long and time-consuming. Participants also offered numerous comments about specific survey items including suggestions for improving question and response option clarity, the addition of response options, the addition of clarification instructions, improvements to question format, and improvements to question flow and order. In addition, the researchers asked respondents about their Internet access and habits to determine the ability to reach intended respondents. Upon completion of the session, respondents were provided with food

and beverages in exchange for their participation in the sessions. The pretest sessions allowed for a sequential modification of the questionnaire - the questionnaire was modified slightly following the first two sessions and then pretested in two more sessions. Another series of modifications were made following the last pretest sessions.

Once the questionnaire and survey communication protocol were finalized, including informed consent and invite and reminder text, they were reviewed and approved by three Institutional Review Boards (IRB), including ICF International's IRB, DoD's IRB, and USCG's IRB.

2.3 Survey Administration

This section summarizes the procedures that were implemented to administer the web-based survey.

2.3.1 Service Liaison Officers

TMA and the USCG identified a senior officer or point of contact from each of the service branches to assist with and facilitate a number of data collection activities. These individuals, referred to as Service Liaison Officers (SLOs), were the main point of contact with each component's command structure. For the online data collection, these individuals were asked to perform three specific tasks:

- Work with their respective service's information technology (IT) departments to whitelist[8] the survey's URL on their respective computer systems,
- Obtain a letter of support from a ranking officer within their command hierarchy to encourage participation in the survey and to provide authenticity for the web-based survey, and
- Act as their service's primary point of contact for respondents regarding issues and questions and then refer issues over to ICF for resolution as needed.

2.3.2 Invitations and Reminders

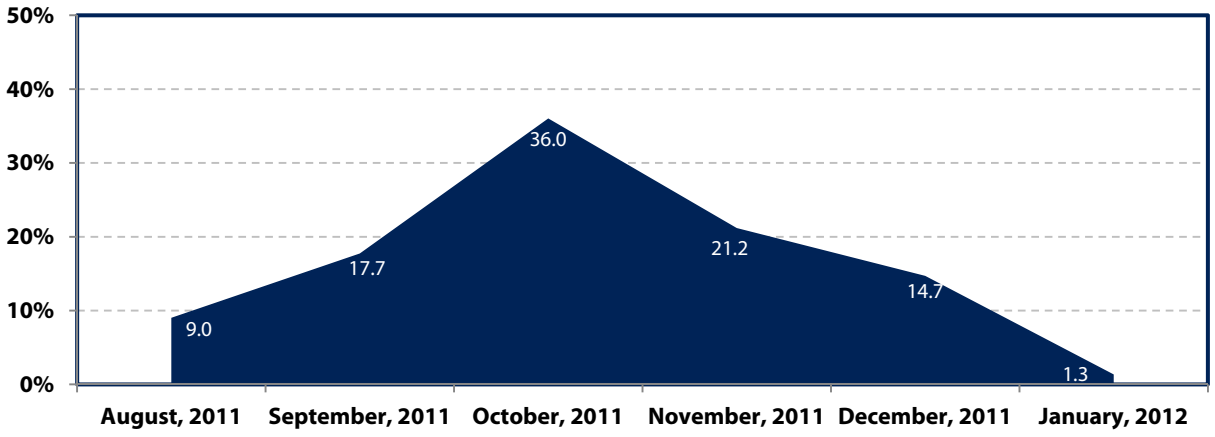
The survey communication strategy included sending email using TMA listservs with a TMA utility (.mil) email account specifically created for this project. The listserv approach did not allow for any email personalization to individuals; as such, the text of the invitation and reminder message was the same for all sampled service members. Listservs were initially set up for the DoD sample as well as for the USCG sample. Respondents who opted out of further communication contacts were removed from the listserv before sending each subsequent email.

[8] The opposite of "blacklist" which prohibits entry into a system, a "whitelist" provides a mechanism that permits passage through a system. This process also included the categorization of the survey URLs through the Air Forces' Blue Coat web filtering process in which an appropriate category was assigned to the URLs.

All respondents received 5 communications (1 invitation and 4 reminder emails). All emails included the URL for the web-based survey; a link to letters of support, as well as contact information for the helpdesk. The DoD letters of support were from ranking officials in the services and from the Assistant Secretary of Defense for Health Affairs, Dr. Jonathan Woodson and were posted on the TMA HPA&E website. The USCG letters of support were from VADM J. P. Currier, Deputy Commandant of Mission Support and RADM Mark J. Tedesco, Director of Health, Safety, and Work-Life and posted on the ALCOAST internet alert system.

Invitations and reminders were sent on a staggered start schedule to reduce email and web-based survey server loads and because service branches provided the supporting documentation (e.g., letter of support from command, whitelisting from each component's IT department) at different times. The initial batch of web-survey invitation emails to the original DoD sample was sent on 19 August, 2011. The initial invitation emails to USCG personnel were sent on 4 October, 2011. The last reminder email was sent on 29 December, 2011. Figure 2.A shows the percent of usable surveys completed by month; 63% of individuals completed the survey by the end of October 2011. As such, almost 40,000 usable surveys were collected over the five months of fielding. The survey was closed on 11 January, 2012.

Figure 2.A: Percentage of Usable Completes by Month of Completion



*Note: USCG invitations were initially mailed in October

The cognitive pretests indicated that junior enlisted (E1-E4) service members were less likely than more senior service members to have been issued a military email address, although this varied by service. This was further confirmed in discussions with the DoD SLOs. To try to reach this group of individuals in the four DoD services who had no email listed in the DMDC database, invitation and reminder postcards were sent to their physical address. All individuals missing email addresses were sent one invitation postcard and three reminder postcards. The postcards were multi-colored and eye-catching, with the survey URL printed on the card as well as the link to support letters and helpdesk contact information.

2.3.3 Ensuring Respondent Anonymity

The survey asked a number of questions on behaviors that are normally considered private and can result in serious consequences, especially in a military population. In some cases, reporting having engaged in a specific behavior would constitute admission of engaging in illegal activity (e.g., taking recreational drugs) and would be subject to the Uniform Code of Military Justice (UCMJ) discipline. It was therefore of the utmost importance that the survey be anonymous such that individuals' identifying information could not be connected to their responses. At the beginning of the survey individuals were presented with an informed consent page that included a privacy statement. Appendix B presents the text of this page. To maintain respondent anonymity, respondents were not issued survey logins or passwords so there was no way to know who of the sampled members had completed the survey and who had not. Sampled members were able to opt-out of receiving the additional reminders using a link that was provided in the reminder emails as well as at the beginning and end of the survey. All survey communications including initial invitations and postcards and all reminders indicated that the survey was anonymous. In addition, items that asked demographic information that might have provided enough information to identify individuals were asked with categorical response options in order to maintain anonymity.

2.3.4 Survey Support and Helpdesk

Technical support to address respondent concerns was provided by ICF's Survey Operations Center helpdesk. The helpdesk could be reached by email (2011HRBSurvey@icfi.com) or toll-free telephone number. The helpdesk responded to email and phone calls between 8 AM – 6 PM Eastern Standard/Daylight Time (EST); calls were automatically routed to voicemail outside of these hours. ICF responded to most messages or contacts within 1 to 2 business days. Respondents who wanted to verify the legitimacy of the request or authority of the survey or who had other questions needing to be addressed by a military source were forwarded to TMA's Contracting Office's Technical Representative or their service's SLO.

2.4 Respondents

This section summarizes the number and nature of respondents who completed some or all of the web-based survey.

2.4.1 Sample Losses

Table 2.4 presents the final responses to the online questionnaire as of 12 January, 2012, including sample losses. Sample members were lost from the sample for three main reasons: (1) self-reported ineligibility for the survey, (2) an inability to locate the sample member, and (3) non-participation in the survey or incomplete response to the survey.

Table 2.4 – Location of Sample Members							
	Sample Sent	No Initial email[1]	Bounceback	Postcard Returned Undeliverable	Address Insufficient	No Street Address	Located Sample
Army	46,850	1,719	8	424	52	332	46,034
Navy	34,150	895	12	222	30	161	33,725
Marine Corps	39,500	11,053	4	2,102	61	2,078	35,255
Air Force	35,268	298	0	36	14	53	35,165
Total DoD	155,768	13,965	24	2,784	157	2,624	150,179
Coast Guard	14,771	592	0	0	0	0	14,179

[1] Since DoD sample members were sent postcards to physical addresses, absence of an email address does indicate located status.

For those respondents in the DoD sample who had an email address, the numbers of emails that bounced backed from a receiving email system to the sending email address and that also indicated an invalid email address were recorded. Members who did not have an initial email address were sent a series of 4 postcards inviting them to participate in the web-based survey with a link to participate. The number of postcards returned undeliverable, incorrect addresses, or for whom there was no physical address was also recorded. For USCG sample members, only those who had an email address were invited to participate in the web-based questionnaire, no postcard invitations were sent to those who had no email address. As a result, 3.6% of the drawn sample (5,589 of 155,768) for DoD and 4.0% of the drawn samples for USCG were lost because the sample members could not be located.

2.4.2 Response Rates

An ineligibility proportion was determined for those in the sample who were selected and sent an invitation (See Table 2.5). Ineligibility was determined by survey responses; those who were not active duty members as determined on Question 1-A were considered ineligible (see Appendix C). The eligible sample represents the total sample after removing the expected proportion of ineligible respondents. A usable questionnaire from a respondent was determined based on completing all key demographic questions (service, gender, pay grade, and active duty status) and at least one question within the alcohol section of the survey had to have a valid response. Usable response rates were calculated based on the number of respondents who had a usable questionnaire divided by the eligible sample size standard. The response rate calculation, consistent with the American Association for Public Opinion Research (AAPOR) standards, is presented in Table 2.5, below.[9]

[9] American Association for Public Opinion Research. (Date unknown). *Response Rate - An Overview*. Retrieved June 19, 2012, from http://www.aapor.org/Response_Rates_An_Overview1.htm.

Table 2.5 – Determination of Usable Response Rate by Service					
	Sample N	Proportion Ineligible	Eligible Sample	Usable Respondents	Usable Response Rate
Army	46,850	2.60%	45,633	6,932	15.19%
Navy	34,150	0.50%	33,980	7,571	22.28%
Marine Corps	39,500	0.74%	39,209	8,339	21.27%
Air Force	35,268	0.22%	35,189	11,574	32.89%
Total DoD	155,768	1.13%	154,011	34,416	22.35%
Coast Guard	14,771	0.80%	14,653	5,461	37.27%

The overall DoD response rate was 22% and the overall Coast Guard response rate was 37%.

These online response rates obtained for the HRB were similar to other comparable DoD surveys conducted online, such as the "Don't Ask, Don't Tell" (DADT) survey conducted in 2010 on behalf of DoD and recent DoD *Status of Forces Surveys*. The response rate for the 2010 DADT survey was 28% for active duty members.[10] The DoD June 2010 *Status of Forces Survey of Active Duty Members* (SOFS-A) obtained a 25% response rate.[11] Response rates for all modes of survey administration, including in-person and telephone, have been declining in recent years and web-based surveys tend to have lower response rates than other survey administration modes.[12] Research by Groves (2006) and Keeter, Kennedy, Dimock, Best, and Craighill (2006) has shown that nonresponse rates are not necessarily indicative of validity or bias in a survey, as long as nonresponse is random and that reasons for not participating are not related to the key survey variables. Under such conditions, nonresponse does not jeopardize estimates.

In comparing response rates by key population subgroups, large differences may suggest the potential for nonresponse bias. To the extent that lower responding groups provide different answers to survey questions than higher responding groups, large differences in response rates across subgroups may suggest nonresponse bias. Table 2.6 presents the response rates for each stratum, which were defined by service, gender, and pay grade (with the addition of work setting for USCG). Consistent with other web-based surveys of service members, junior enlisted personnel, particularly males, had the lowest response rates.[13] In addition, consistent with other military surveys, the Army had the lowest response rate while the Air Force and the Coast Guard had the highest response rates. As discussed in more detail in the weighting section (below) post-stratification weights, adjusted for nonresponse, were computed by strata to adjust the respondent data file to be representative of the total active duty military population; despite the differences in response rates across the services, the

[10] Westat. (2010, November). Support to the DoD Comprehensive Review Working Group Analyzing the Impact of Repealing "Don't Ask, Don't Tell" - Volume 1: Findings From the Surveys. Rockville, MD: Author.
[11] Defense Manpower Data Center (DMDC) June 2010 *Status of Forces Survey of Active Duty Members* results briefing: http://www.phma.com/zpdsxxiii/presentations/DMDC.pdf
[12] Manfreda, K.L., Bosnjak, M., Berzelak, J., Haas, I., & Vehovar, V. (2008). Web surveys versus other survey modes: A meta-analysis comparing response rates. International Journal of Market Research, 50, 79-104; and Shih, T. & Fan, X. (2008). Comparing response rates from web and mail surveys: A meta-analysis. Field Methods, 20, 249-271.
[13] Defense Manpower Data Center (DMDC). *2010 Workplace and Gender Relations Survey of Active Duty Members*. Retrieved from http://www.dtic.mil/dtic/tr/fulltext/u2/a540906.pdf

weights were calculated to ensure that the groups within services were proportionally represented and, further, that the services were represented in the All Services estimates in proportion to their presence in the population.

Table 2.6 – Determination of Usable Response Rate by Strata

Strata	Sample N	Eligible Sample	Usable Respondents	Usable Response Rate
Army				
E1-E4, Male	19,833	19,317	997	5.16%
E5-E6, Male	5,977	5,822	1,141	19.60%
E7-E9, Male	2,129	2,074	709	34.19%
W1-W5, Male	2,111	2,056	531	25.83%
O1-O3, Male	2,109	2,054	404	19.67%
O4 and above, Male	1,447	1,409	752	53.36%
E1-E4, Female	8,009	7,801	882	11.31%
E5-E6, Female	2,429	2,366	551	23.29%
E7-E9, Female	857	835	278	33.30%
W1-W5, Female	513	500	167	33.42%
O1-O3, Female	814	793	256	32.29%
O4 and above, Female	622	606	264	43.58%
Total	**46,850**	**45,632**	**6,932**	**15.19%**
Navy				
E1-E4, Male	11,972	11,912	852	7.15%
E5-E6, Male	6,085	6,055	1,477	24.39%
E7-E9, Male	2,141	2,130	996	46.75%
W1-W5, Male	586	583	293	50.25%
O1-O3, Male	2,783	2,769	637	23.00%
O4 and above, Male	1,033	1,028	486	47.28%
E1-E4, Female	4,794	4,770	761	15.95%
E5-E6, Female	2,346	2,334	872	37.36%
E7-E9, Female	820	816	504	61.77%
W1-W5, Female	27	27	22	81.89%
O1-O3, Female	1,121	1,115	418	37.48%
O4 and above, Female	442	440	253	57.53%
Total	**34,150**	**33,979**	**7,571**	**22.28%**
Marine Corps				
E1-E4, Male	20,003	19,855	1,742	8.77%
E5-E6, Male	5,932	5,888	1,622	27.55%
E7-E9, Male	2,096	2,080	1,047	50.32%
W1-W5, Male	775	769	401	52.13%
O1-O3, Male	2,061	2,046	584	28.55%
O4 and above, Male	1,398	1,388	567	40.86%
E1-E4, Female	4,731	4,696	1,317	28.05%
E5-E6, Female	1,732	1,719	687	39.96%
E7-E9, Female	305	303	164	54.17%
W1-W5, Female	35	35	14	40.30%
O1-O3, Female	354	351	138	39.27%
O4 and above, Female	78	77	56	72.33%
Total	**39,500**	**39,208**	**8,339**	**21.27%**

Table 2.6 – Determination of Usable Response Rate by Strata

Strata	Sample N	Eligible Sample	Usable Respondents	Usable Response Rate
Air Force				
E1-E4, Male	12,026	12,000	2,680	22.33%
E5-E6, Male	5,973	5,960	2,226	37.35%
E7-E9, Male	2,540	2,534	1,263	49.83%
O1-O3, Male	3,395	3,388	879	25.95%
O4 and above, Male	1,326	1,323	530	40.06%
E1-E4, Female	4,778	4,767	1,643	34.46%
E5-E6, Female	2,339	2,334	1,017	43.58%
E7-E9, Female	1,025	1,023	552	53.97%
O1-O3, Female	1,332	1,329	499	37.55%
O4 and above, Female	534	533	285	53.49%
Total	**35,268**	**35,190**	**11,574**	**32.89%**
Coast Guard				
Ashore, E1-E4, Male	2,341	2,322	779	33.54%
Ashore, E5-E6, Male	2,449	2,429	1,146	47.17%
Ashore, E7-E9, Male	705	699	462	66.06%
Ashore WO1-WO5, Male	304	302	194	64.33%
Ashore, O1-O3, Male	556	552	273	49.50%
Ashore, O4 and above, Male	642	637	348	54.64%
Ashore, E1-E4, Female	505	501	217	43.32%
Ashore, E5-E6, Female	323	320	217	67.72%
Ashore, E7-E9, Female	75	74	51	68.55%
Ashore WO1-WO5, Female	29	29	21	73.00%
Ashore, O1-O3, Female	163	162	82	50.71%
Ashore, O4 and above, Female	104	103	63	61.07%
Afloat, E1-E4, Male	2,830	2,807	365	13.00%
Afloat, E5-E6, Male	1,038	1,030	365	35.45%
Afloat, E7-E9, Male	198	196	113	57.53%
Afloat WO1-WO5, Male	43	43	28	65.64%
Afloat, O1-O3, Male	187	186	72	38.81%
Afloat, O4 and above, Male	64	63	23	36.23%
Afloat, E1-E4, Female	270	268	64	23.89%
Afloat, E5-E9, Female	143	142	50	35.25%
Afloat, Officers, Female	68	67	25	37.06%
Air, E1-E4, Male	634	629	133	21.15%
Air, E5-E6, Male	546	542	176	32.49%
Air, E7-E9, Male	103	102	43	42.08%
Air WO1-WO5, Male	16	16	6	37.80%
Air, O1-O3, Male	193	191	70	36.56%
Air, O4 and above, Male	45	45	34	76.16%
Air, E1-E4, Female	103	102	21	20.55%
Air, E5-E9, Female	82	81	14	17.21%
Air, Officers, Female	12	12	6	50.40%
Total	14,771	14,653	5,461	37.27%

Response rates are just one way to assess the potential for nonresponse bias. Another approach to assess the validity of survey estimates is to compare the estimates with those from another source to see if they correspond with those obtained in other similar surveys. For example, the 2012 Evaluation of the TRICARE Program Report to Congress reported quarterly smoking rates for active duty service members in 2011 that ranged between 20% and 26% for 18-24 year olds, and ranged between 15% and 21% for 25-54 year olds.[14] By comparison, the smoking rates from the 2011 HRB for the DoD Services were 29.3% for 18-24 year olds and 22.2% for 25-54 year olds. The extent to which the results of the 2011 HRB are similar to findings from other surveys lends additional confidence in the validity of the 2011 HRB results.

In addition, a sample should be sufficiently large and diverse and with a minimum of nonresponse bias (or with sufficient off-setting biases) to obtain accurate point estimates. Though we do not have direct measure of nonresponse bias, the sample of usable surveys was large and diverse across survey strata, as indicated by the demographic results (see Table 2.7).

Table 2.7 – Usable Respondents by Service Group for Selected Service Member Characteristics

	Army	Navy	Marine Corps	Air Force	CG Site-focused	CG Distributed	All Services
Work Setting							
Ashore					1,982	1,871	3,853
Afloat					408	697	1,105
Air					182	321	503
Gender							
Male	4,534	4,741	5,963	7,578	2,133	2,497	27,446
Female	2,398	2,830	2,376	3,996	439	392	12,431
Pay Grade							
E1 - E4	1,879	1,613	3,059	4,323	481	1,098	12,453
E5 - E6	1,692	2,349	2,309	3,243	853	1,111	11,557
E7 - E9	987	1,500	1,211	1,815	421	252	6,186
W1 - W5	698	315	415	0	148	102	1,678
O1 - O3	660	1,055	722	1,378	304	219	4,338
O4 and higher	1,016	739	623	815	365	107	3,665
Total	**6,932**	**7,571**	**8,339**	**11,574**	**2,572**	**2,889**	**39,877**

2.5 Weighting the 2011 HRB Active Duty Sample

This section describes the weights that were calculated for the Department of Defense Services and for the Coast Guard. Because the approach to sampling differed between the two, weights were

[14] TRICARE Management Activity (TMA). (2012). Evaluation of the TRICARE Program: Access, Cost, and Quality. Fiscal Year 2012 Report to Congress. Retrieved from http://www.tricare.mil/hpae/_docs/TRICARE2012_02_28v5.pdf

calculated separately for DoD and the USCG. The calculation of weights for DoD is discussed first, followed by a discussion of weighting the USCG data.

2.5.1 Calculating Weights for the Department of Defense Services

All active duty members who were not deployed at the time the sample selection was drawn were included in the active duty sample. A total of 1,222,627 were in the DoD Active Duty member population at the time of the sample selection. A total of 155,768 respondents were selected to be in the send-out sample with 34,416 usable respondents.

A base weight was computed for each sampled case. This weight was created to compensate for disproportionate stratification and unequal selection probabilities from the active duty population. Within each military service, the sub-strata were defined by gender and rank group. For a case i in sub-stratum j of service k, the design weight was computed as:

$$w1_{ijk} = \frac{N_{jk}}{n_{jk}} \qquad [1]$$

where N_{jk} are the population counts and n_{jk} are the number sampled active duty members in sub-stratum j of service k.

A second weight adjusting for differential nonresponse was further computed. Within each service, the sub-strata were again defined by gender and rank group. For a case i in stratum j of service k, the weight that adjusted for nonresponse was computed as:

$$w2_{ijk} = \frac{n_{jk}}{r_{jk}} \qquad [2]$$

where n_{jk} were the number of sampled active duty members and r_{jk} were the number of completed cases in stratum j of service k.

The full weight adjusted for both unequal selection probabilities and differential nonresponses, and was calculated by the following:

$$w3_{ijk} = \frac{N_{jk}}{r_{jk}} \qquad [3]$$

When developing the weight for adjusting the nonresponse, those who reported that they were in the "Officer Trainee" rank were assigned to the stratum E5-E6.

2.5.2 Coast Guard Weights

Since there were two populations for USCG (Site-focused and Distributed), two separate weighting procedures were developed. For the site-focused sample, members were randomly divided between onsite and online modes of administration. Since, for the purposes of this report, results only present data from the online mode of administration, the online data were weighted to the proportions of the census of the 10 sites within the strata of work setting (air, afloat, ashore), gender, and pay grade using a post-stratification weight only. For the distributed sample, drawn from the population that excluded the 10 sites, a base weight was first computed using the proportions within strata of the distributed population, followed by a post-stratification weight to adjust for nonresponse. The weights, computed for each population separately, were used in combination to adjust the sample to be representative of the total USCG population (from both populations). Due to low numbers in specific strata in the population, in the samples pulled, and in the usable respondent sample, a number of strata were collapsed for weighting of both the Site-focused and Distributed samples. Specifically, for air and afloat work settings only, 2 strata were combined - females E5-E6 and E7-E9 - into one stratum (female E5-E9), and 3 strata were combined - female W1-W5, female O1-O3, and female O4 and above - into a single female officer stratum, since warrant officers are commissioned officers in the USCG. This reduced the total cells used from 36 (3 work settings X 2 gender categories X 6 pay grade categories) to 30 (for ashore – 6 pay grade categories each for males and females, but for afloat and air work settings, 6 pay grade categories for males but only 3 pay grade categories for females – E1-E4, E5-E9, Officer). The combined sample size (including both the site-focused and distributed samples) was used to compute sample weights as a proportion of the population.

Table 2.8 summarizes the effective sample sizes for the different services based on weight variances for both 2011 and 2008. It also includes a power analysis of the effective sample sizes for each service.

Table 2.8 – Summary of Weighting Efficiency and Consequent Confidence Interval

	Service	Total N of Usable Surveys	Weighting Efficiency - based on the variance of the weights	Effective N - Sample Size After Weighting	95% Confidence Interval[1]
2011	Army	6,932	61.3%	4,249	+/-1.50%
	Navy	7,571	61.3%	4,642	+/-1.43%
	Marine Corps	8,339	56.9%	4,743	+/-1.40%
	Air Force	11,574	87.3%	10,106	+/-0.96%
	Coast Guard	5,461	84.3%	4,605	+/-1.36%
2008	Army	5,927	72.8%	4,315	+/-1.48%
	Navy	6,637	68.5%	4,548	+/-1.44%
	Marine Corps	5,117	64.4%	3,297	+/-1.69%
	Air Force	7,009	78.8%	5,523	+/-1.31%
	Coast Guard	3,856	68.0%	2,621	+/-1.85%

[1] 95% of the time the population value will fall within this range of the sample estimate with a sample this size

These weights were used in nearly all of the analyses presented in this report. Weights were not used for the multivariate regression analyses in which the variables used to construct the weights, such as service, pay grade and gender, were used as predictors in the regression analyses. Any other unweighted estimates presented in the report are clearly labeled as such.

2.6 Analytic Approach

After the close of data collection, the survey data were cleaned of test cases and processed in preparation for analysis. This processing included relabeling of variables and response options for easier analysis.

The focus of the analyses presented in this report is to provide an assessment of the state of the behavioral health of active duty service members after a decade of deployments and increased operations tempo. The goal was to provide an assessment of the current estimates of the health related activities and risk behaviors assessed in the survey. These analyses are also meant to provide information to help evaluate and guide policy and program decisions, including the identification of the areas of strength and optimal health across the services as well as areas of concern that adversely affect personnel readiness.

This report is intended to serve as a baseline for future administrations of the HRB Survey of Active Duty Service Members. Due to the extensive changes, including item wording, scale definition and construction, sampling, weighting, data editing, and analysis, the new methodology employed for the 2011 HRB precludes direct comparisons of the survey results to prior administrations of the HRB survey. Trending the behaviors and attitudes that have been measured over time with prior HRB surveys requires adjustments to the survey estimates. Derived formulae that predict online data from onsite data can be applied to earlier survey iterations in order to 'backcast,' or adjust prior data to resemble data collected online, in situations where question wording and scale construction were similar between 2008 and 2011.[15] In this way, prior years' data can be adjusted so that trendlines could continue into the future, though based on the new mode of data collection. This was not done for this report. Although trends are not presented, the survey will still allow for relative comparisons between groups (services, respondents in different demographic categories, etc.). In other words, the survey will still identify which of the services or demographic groups have the highest and lowest rates of health and risk behaviors and allow for comparisons of these orders to the past HRBs. In addition, the survey allows for selected comparisons to civilian benchmarks.

[15] For example, a number of measures, such as heavy drinking and cigarette smoking, were defined differently between 2008 and 2011. In 2008, heavy drinkers were classified as those who drank 5 or more drinks per typical drinking occasion at least once a week. In 2011, heavy drinkers were classified as having more than 14 drinks per week for males, and more than 7 drinks per week for females in the past year, consistent with NHIS classification. To be classified as a heavy drinker in 2008, a person had to regularly binge drink, whereas in 2011 a heavy drinker did not necessarily have to be a binge drinker. As another example, in 2008, current smokers were considered those who had smoked at least 100 cigarettes in their lifetime and smoked at least one cigarette in the past 30 days. In 2011, current smokers were those who had smoked at least 100 cigarettes in their lifetime and reported currently smoking some days or every day, consistent with NHIS classification.

Most analyses presented in this report are two- or three-way crosstabulations; additional analyses included ANOVA and logistic regression. Chi Square tests of statistical significance were used for categorical variables, such as the use of vitamins and supplements or the reasons for limiting exercise, and ANOVA was used for significance testing with continuous variables, such as the average number of drinks it takes to feel drunk. In assessing statistical differences between estimates, Bonferroni adjustments were applied to p-values to minimize Type I error (i.e., false positives) as a result of performing multiple pairwise comparisons. Bonferroni is a conservative statistical adjustment to the alpha level based on the number of statistical comparisons performed.

Many of the analytic crosstabulations are presented by service and by pay grade. In the 2008 report, "DoD Services" were presented separately from "All Services". The 2011 report does not present DoD Services column, which collapsed results of the DoD Services, as there were no substantial differences between DoD Services and All Services. In 2008, pay grade columns were presented as E1-E3, E4-E6, E7-E9, W1-W5, O1-O3, and O4-O10. The 2011 pay grade survey item was revised to group E1 to E4 and E5 to E6. This change was made in response to requests from the services and to match other DoD surveys, enhancing comparability with other military data sources. As such, the 2011 report presents the pay grade columns as E1-E4, E5-E6, E7-E9, W1-W5, O1-O3, and O4-O10, with officer trainees included in the E5-E6 category.

2.7 Key Definitions and Measures

Some of the questions asked on the survey were meant to be presented individually. With such items, the presentation of responses varied by survey item. In some cases, all response options are presented in the analyses, whereas for other analyses, only the most at risk categories are presented. For some measures, the responses were dichotomized to indicate a "Yes/No" response pattern or the top two response options were combined to present those who strongly endorsed or frequently engaged in an activity.

Some survey questions, on the other hand, measured only one aspect of a construct and were meant to be combined into a scale. For established scales, such as the World Health Organization's Alcohol Use Disorders Identification Test (AUDIT) or the Body Mass Index (BMI) measure, responses to the individual items were combined in accordance with standard scoring instructions for the scales. For other scales, results are reported by dichotomizing responses (e.g. average top 2 box score). This uses an *a priori* determination of what constitutes a "High" value. The determination of a cutoff is independent of the distribution of responses for the particular sample. As an example, suppose there are 2 items that make up a scale, each with 5 response categories. A top 2 box on a 5 category scale are the values 4 and 5. Since there are 2 items we would double 4 (the minimum top 2 box score) to give us a cut-off value of 8. The value of 8 then becomes the *a priori* cut-off – people who score an 8, 9, or 10 would be labeled 'High'. Note that to score an '8' a person could have scores of 3 and 5 on

the two items or scores of 4 and 4. It is the sum of the minimum values that determines the cutoff. In this format, percentages are reported and can be presented easily. This format also allows comparisons across groups (e.g., Services, Pay Grades, etc.), and allows for an easy comparison to other samples with a different distribution of scores. Explanations of the recoding and transformations conducted on each of the individual measures are presented in Appendix A.

2.8 Variability and Suppression of Estimates

Most analytic tables present two numbers in each cell, the estimate and the standard error. The estimate typically represents the percentage of the population with the characteristics defined in the columns and rows of each table. The standard error is a measure of variability that is calculated when presenting survey estimates from a sample rather than from a census of all individuals in a population. The standard error can be used to calculate a confidence interval which represents a range of values around the survey estimate and is likely to include the true population value.

In reporting survey estimates, it is common to suppress estimates that may be statistically unreliable or may jeopardize respondent confidentiality due to low rates of event occurrence or small cell sizes.[16] Estimates considered to be unreliable were not reported in the tables. Estimates were considered unreliable if they were based on a small sample size or if they had large sampling errors. Large standard errors are often the result of small sample sizes and can also result from a great deal of variation or differences in the population on a given measure. Estimates were suppressed if the following criteria were met:

- For mean estimates, a relative standard error (RSE), the ratio of the standard error to the estimate, greater than 30%;[17]
- For estimates expressed as proportions, an RSE of the natural log of the estimate greater than 0.225;[18]
- The number of cases in the denominator of an estimate was fewer than 30 service members; or
- The estimate was very small and rounded to 0.0%.

Suppressed estimates are indicated with a cross (†) in the tables.

[16] Blumberg, S. J. (2008). Cell suppression. In P. J. Lavrakas (Ed.), Encyclopedia of survey research methods, volume 1. (p. 90). Los Angeles, CA: SAGE Publications, Inc.

[17] Klein, R.J., Proctor, S.E., Boudreault, M.A., & Turczyn, K.M. (2002). Healthy People 2010 Criteria for Data Suppression. *Healthy People 2010, 24*, 1-11. A number of surveys that provide Healthy People benchmarks use an RSE of greater than 30% as criterion for estimate suppression, including: Medical Expenditure Panel Survey (MEPS), National Ambulatory Medical Care Survey (NAMCS), National Health Interview Survey (NHIS), National Health and Nutrition Examination Survey (NHANES), National Hospital Ambulatory Medical Care Survey (NHAMCS), National Hospital Discharge Survey (NHDS), National Survey of Family Growth (NSFG).

[18] Use of the RSE is problematic with proportions because it imposes stricter suppression requirements on very small estimates than it does on very large estimates. The sample size required for small proportions to achieve a very small standard error is much larger than the sample size required for an estimate closer to 0.5. The RSE [-ln(p)] = SE(p)/(-p*ln(p)) where p is the estimate and SE(p) is the standard error of the estimate; for proportions greater than 50%, the RSE was calculated using 1-p. This is consistent with estimate suppression of proportions in prior Health Related Behaviors survey reports.

2.9 Study Limitations

As with all research, there are limitations to this survey that should be noted in interpreting the findings presented in this report. Firstly, the data reported were based on self-reports. In particular, individuals in the military may be less likely to report sensitive information such as receipt of mental health counseling or engagement in illegal activities, such as illicit drug use, due to a strict military code of conduct. Although survey respondents were assured of their anonymity in participating in the survey, survey invitations were distributed via military email addresses. Concerns about anonymity, particularly among those taking the survey on a military computer, may have resulted in an underreporting of some sensitive or illegal behaviors. The data in this report, particularly on sensitive and illegal behaviors, should be interpreted in the context of other sources of information on military personnel, such as administrative health records, spousal and others' reports of health behaviors, and observational studies of behaviors.

Secondly, although the response rate obtained for this survey is in line with comparable web-based health surveys of military personnel, some groups had lower response rates than others, namely males in the junior enlisted pay grades. One challenge of conducting an online survey with the active duty military population is that junior enlisted personnel, and in particular male junior enlisted members, are less likely to have regular access to computers and their email accounts depending on their current duty assignment or military occupational specialty, and those with difficulties in access may be different from those who have easier access on key measures assessed in this survey. Although post-stratification weights were calculated by strata and adjusted for nonresponse to adjust the sample to be representative of the total active duty population, lower response rates for some groups and higher response rates for others may increase the likelihood of under- or over-reporting of behaviors in this survey, and possibly bias the results as a result of an interaction between survey access and respondent characteristics. Thus, the results should be interpreted with some caution. Future surveys of this population, including iterations of the HRB, should keep in mind that junior enlisted personnel tend to have lower response rates and incorporate a strategy for improving response rates among this group.

Finally, due to the extensive changes in survey administration mode, moving from a self-administered questionnaire in a group setting to an individually administered computer-based methodology, a number of factors changed, including item wording, scale construction and measurement, data editing, sampling, weighting, and analysis. As a result, 2011 survey results cannot be directly trended to previous iterations of the HRB survey. Unless a longitudinal design is used with an exact replication of sample, items, and methodology, it is not possible to make inferences about changes in behaviors over time without taking into account the differences in the demographic composition of the service members surveyed over time. It is recommended that current survey results be benchmarked against similar web-based surveys of active duty personnel

who were surveyed during the same timeframe, as well as to civilian estimates that used the same items to assess behaviors, such as the National Health Interview Survey. However, such comparisons should be interpreted cautiously given that there are likely differences in measurement error between surveys because they employ varying methodologies. The 2011 HRB will serve as the baseline for future web-based iterations of the survey.

Chapter 3: Healthy Lifestyle and Disease Prevention

This chapter presents the results of a detailed analysis of various health promotion and healthy lifestyle activities of active duty service members. It assesses active duty service members' progress towards a number of the recently published *Healthy People 2020* objectives (U.S. Department of Health and Human Services [HHS], 2010) including tobacco and alcohol use, weight management, physical exercise, and safety behaviors such as seat belt and motorcycle helmet use. This chapter also presents an analysis of service members' diet and nutrition, supplement use, oral hygiene, sleep activities, sexual behaviors, gang-related activity, and some health conditions such as high blood pressure and cholesterol as well as receipt of medical treatment for injuries. The relationship between selected health behaviors, stress, and mental health measures and level of religiosity/spirituality is also analyzed. Finally, a brief analysis of health-related issues among children living with active duty services members is presented.

3.1 Overview of Key Measures of Healthy Lifestyle and Disease Prevention

One goal of the 2011 HRB was to assess service members' progress towards *Healthy People 2020* objectives. In December 2010, HHS launched a 10-year agenda to improve the health of the United States population and included a number of goals to help Americans live higher-quality, longer lives. The 2011 HRB provides a baseline assessment of the status of service members' health compared to these new, national objectives. The civilian estimates are presented for comparison; they are from various sources as presented in the *Healthy People 2020* Objectives (HHS, 2010).[19]

One measure of weight management is the Body Mass Index (BMI), an indirect measure of body fat, to detect possible weight problems. BMI was calculated from self-reported height and weight, and men and women were categorized into four possible outcomes based on their BMI: 1) underweight, 2) healthy weight, 3) overweight, and 4) obese. Categories were based on the criteria established by the Centers for Disease Control and Prevention (CDC) and by age; in accordance with the CDC, the criteria used for categorizing BMI for service members younger than 20 years old differed from the criteria used for adults aged 20 and older. For adults aged 20 and older, a BMI of less than 18.5 was considered underweight, a value of 18.5 to less than 25.0 was considered healthy weight, a value of 25.0 to less than 30.0 was considered overweight, and 30.0 or greater was considered obese. BMI does not distinguish between muscle mass and body fat in a person's body; as such, there may be

[19] Note that the *Healthy People 2020* Civilian comparisons are from the National Health Interview Survey, the National Survey on Drug Use and Health, the National Health and Nutrition Examination Survey, and the National Occupant Protection Use Survey; these surveys employ different methodologies than the 2011 HRB. Due to possible differences in measurement error, comparisons should be made with caution.

some misclassification of muscular individuals. The criteria used to classify BMI for individuals under 20 years old, as well as detailed descriptions of all other measures presented in this chapter, are presented in Appendix A: Key Definitions and Measures.

3.2 Overview of Findings

Status of Selected Healthy People 2020 Health Promotion Objectives

- Overall, in 2011, the military met or exceeded 5 of the 8 *Healthy People 2020* objectives that were included in the survey: obesity in those aged 20 or older, healthy weight in those aged 20 or older, moderate or vigorous physical activity in the past 30 days, seat belt use, and motorcycle helmet use, as shown in Table 3.1.
- Although the overall percentage of service members in the healthy weight group, at 34.7%, was higher than the *Healthy People 2020* objective of greater than 33.9%, the percentages of healthy weight members in the Army, Navy, and Coast Guard were just under the target.
- Rates of substance use among active duty service members were much higher than *Healthy People 2020* objectives for cigarette use in the past 30 days, smokeless tobacco use in the past 30 days, and binge drinking in the past 30 days.
- Notably, the percentage of Air Force members who binge drank in the past 30 days, at 22.9%, was just under the *Healthy People 2020* objective of less than or equal to 24.4% (see Table 3.1).

Weight Management

- Overall, 35.7% of active duty service members were classified as being at a healthy weight (see Table 3.2); 57.6% of female service members were classified at a healthy weight compared to 31.8% of male service members.
- As shown in Table 3.3, a very small percentage of service members were classified as being underweight, less than one percent.
- Overall, 51.2% of active duty personnel were classified as being overweight (see Table 3.4).
- In addition, 12.4% of active duty personnel were classified as obese (BMI $\geq$ 30.0), of which 13.5% were male and 6.4% were female (see Table 3.5).
- However, 3.2% of service members reported that they were currently enrolled in a mandatory weight control program (see Table 3.6).
- Approximately 10% of service members had to lose weight to join the military, with most men having to lose 10 or more pounds and most women having to lose between 5 and 20 pounds

(see Table 3.6). There were few differences across the services in the amount of weight that service members were required to lose before joining the military.

- The majority of active duty service members (96.0%) passed their most recent physical fitness test, as shown in Table 3.6.

Physical Activity, Strength Training, and Exercise Interference

- Among all active duty service members, nearly two-thirds (63.1%) engaged in at least 150 minutes of moderate physical activity per week on average. Just over one-quarter (25.9%) engaged in 300 minutes or more of moderate physical activity per week (see Table 3.7).
- Over half of all active duty service members (53.7%) engaged in vigorous physical activity for at least 75 minutes per week, on average, with most engaging in 150 minutes or more of vigorous physical activity per week on average (see Table 3.7).
- The Army had the highest percentage of members who engaged in 300 minutes or more of moderate physical activity per week on average compared to the other services. The Army and Marine Corps also had the highest percentages of members who engaged in 150 minutes or more of vigorous physical activity per week on average.
- As shown in Table 3.7, 45.5% of active duty service members engaged in strength training activities three or more days per week.
- Among all personnel, 26.9% indicated that they worked out as much as they would like, as shown in Table 3.7. The most frequently endorsed reasons that service members did not work out as much as they would like were "not enough time" (31.4%), followed by "the demands of my personal/family life" (25.1%). Few personnel (5.6%) indicated that the "absence or inconvenience of exercise facilities" deterred working out, reinforcing that the message to exercise is being received by service members.
- As shown in Table 3.8, 73.4% of active duty service members never limited their usual activities due to poor physical health. The Coast Guard had the highest percentage of members (82.4%) who were never limited in their usual activities by poor physical health. The Army, on the other hand, had the lowest percentage of members (67.4%) who were never limited in their usual activities by poor physical health.
- Female service members reported higher rates of limitations to their usual activities compared to their male counterparts. As shown in Table 3.8, among 18–20 and 21–25 year olds, the percentage of female service members who reported that poor physical health limited their usual activities once a week or more was nearly double the percentage of male service members in those age groups.

- For males in particular, a larger percentage of older service members reported that their usual activities were limited by poor physical health once a week or more compared to younger service members (see Table 3.8).

Selected Health Conditions

- Approximately 10% of all active duty service members indicated that they were told by a doctor within the prior two years that they had high blood pressure, as shown in Table 3.9. Among all service members, 85.3% reported that they were never told by a doctor that they had high blood pressure.
- As shown in Table 3.9, 8.9% of active duty service members indicated that they were told within the prior two years that they had high cholesterol. The Marine Corps had the smallest share of members with high cholesterol, about half the percentage of Army, Navy and Coast Guard members. The Marine Corps also had the lowest share of members who were told that they had high triglycerides in the past two years.
- Among all active duty service members, 27.3% indicated that they were not advised by a doctor to quit smoking within the past year, whereas 21.7% indicated that they were advised by a doctor to quit smoking; the remaining 51.0% indicated that they do not currently smoke (see Table 3.9).

Frequency of Intake of Different Types of Food and Supplement Use

- Active duty personnel reported intake of key healthy foods at lower rates than recommended by nutritional standards of three or more servings per day, including consumption of fruits (11.2%), vegetables (12.9%), and whole grains (12.7%). In contrast, a higher percentage of service members reported consumption of lean protein (41.1%) and dairy (38.8%) in line with nutritional recommendations of at least two times or more per day (see Table 3.10).
- On the other hand, active duty service members reported consuming unhealthy foods at least two times or more per day, including snack foods (8.5%), sweets (8.7%), and sugary drinks (19.3%). In addition, one-third (33.2%) of active duty personnel reported consuming caffeinated drinks at least two times or more per day (see Table 3.10).
- Among all service members, 37.2% took multiple vitamins and minerals, like Centrum or One-A-Day, once a day or more, and 22.2% took individual vitamins, such as calcium or iron, once a day or more (see Table 3.11).
- As shown in Table 3.11, 33.4% of all active duty service members used legal body-building supplements in the past year. Use of body-building supplements was the highest among the Marine Corps, with 23.5% using once a day or more and 22.2% using in the past year, but less frequently than once a day.

- Approximately one-third (32.1%) of all active duty service members reported taking fish oil supplements in the past year, with 17.8% using once a day or more and 14.3% reporting use in the past year, but less frequently than once a day (see Table 3.11).

Oral Hygiene and Safety

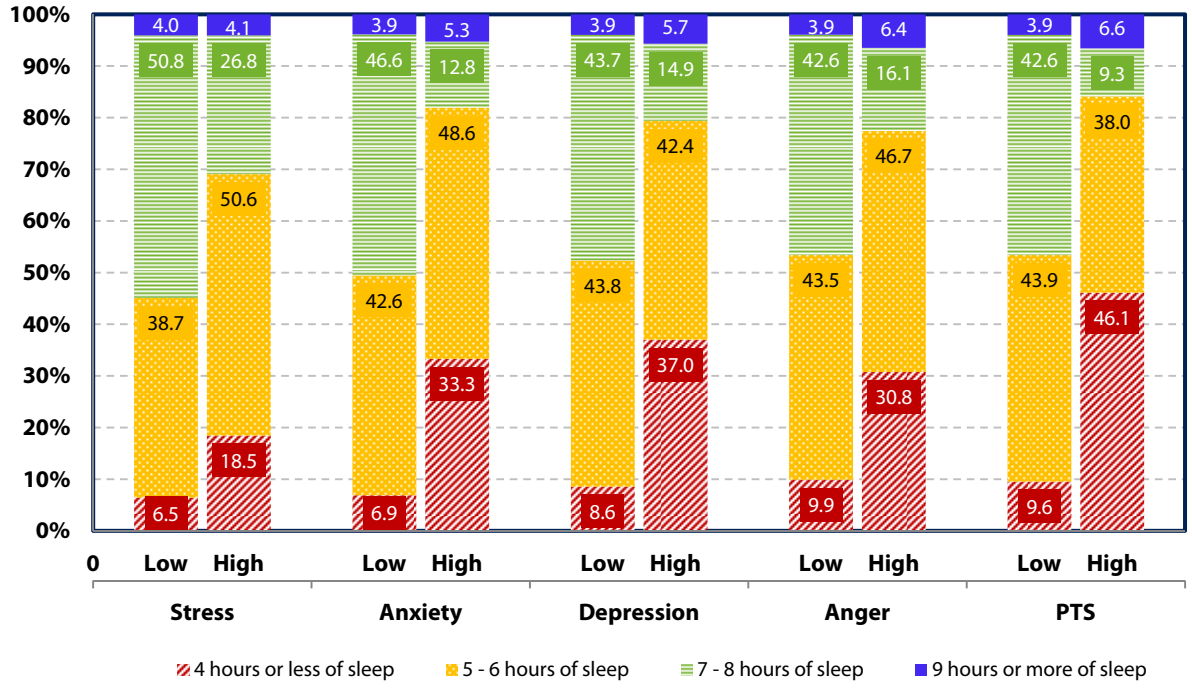
- Across all services, the majority (60.0%) of active duty personnel reported brushing their teeth the recommended two or more times a day, with Navy, Air Force, and Coast Guard reporting the highest frequency of teeth brushing. On the other hand, 6.4% of personnel reported brushing their teeth several times a week or less, with Marine Corps reporting the lowest frequency of teeth brushing (see Table 3.12).
- Approximately 60% of active duty service members reported flossing their teeth a few times a week or more, with over one-third (33.7%) of Navy personnel reporting teeth flossing daily. Conversely, 17.9% of personnel reported teeth flossing less than once a month, with approximately one-quarter (24.3%) of Marine Corps reporting teeth flossing less than once a month (see Table 3.12).
- Among all personnel, 51.3% reported using a mouth guard in recommended situations 'always/often,' with Marine Corps reporting the most frequent use (62.3%), and Navy and Coast Guard personnel reporting use 'seldom/never' more often than other services, as shown in Table 3.12. Overall, 10.0% of service members indicated that they did not have a mouth guard, with the Marine Corps being the most likely to have mouth guards.

Average Number of Hours of Sleep Per Night in Past 7 Days

- Across all services, 40.9% of personnel reported an average of 7 to 8 hours of sleep per night in the past 7 days, with 43.5% reporting 5 to 6 hours, and 11.4% reporting 4 hours or less of sleep per night in the past week (see Table 3.13).
- Army, Navy, and Marine Corps reported less hours of sleep per night than Air Force and Coast Guard, with Army, Navy, and Marine Corps more often reporting 4 hours or less of sleep, and Air Force and Coast Guard more often reporting 7 or 8 hours of sleep per night, as shown in Table 3.13.
- Active duty personnel who reported the recommended 7 to 8 hours of sleep per night were more often a college graduate or higher, married with a spouse present, and officer pay grades, as shown in Table 3.13.
- Figure 3.A compares service members on select mental health measures including high levels of overall stress, anxiety, depression, anger propensity, and posttraumatic stress (PTS) and the amount of sleep that they reported getting on average in the past 7 days. Overall, almost half of

personnel with low levels of overall stress, anxiety, depression, anger propensity, and PTS reported sleeping the recommended 7 to 8 hours per night on average. Comparatively, less than 20% of individuals who reported high levels of anxiety, depression, anger propensity, and PTS reported sleeping 7 to 8 hours per night on average. Of those with high levels of anxiety, depression, anger propensity, and PTS, 30% or more reported getting 4 or fewer hours of sleep per night on average.

Figure 3.A: Average Number of Hours of Sleep per Night in the Past Week for Select Mental Health Measures



Note: Graph presents weighted data.

Average Number of Hours of Sleep per Night in the Past Week, Q141; Overall Stress Level, Q119, Q120, Anxiety Level, Q126; Depression Level, Q125C, Q125E; Anger Propensity, Q134, Q139C, Q139I, Q168B; Posttraumatic Stress Level, Q128B, Q128D, Q128E, Q128F.

Sexual Health Behaviors and Sociodemographic Characteristics of Service Members Who Never Use a Condom With a New Partner

- Across all services, about one-quarter (25.9%) of personnel reported being unmarried and sexually active, defined as engaging in sexual intercourse with at least one partner in the past 12 months. Marine Corps personnel were more often classified in this group than other services, as shown in Table 3.14.
- The majority (67.9%) of active duty service members reported no new sexual partners in the past 12 months, with Army, Air Force, and Coast Guard more often reporting no new partners than Navy and Marine Corps. Conversely, Marine Corps personnel reported the highest number of

new sexual partners in the past year compared to all other services, with close to one-quarter (23.9%) reporting two or more new sexual partners in the past year (see Table 3.14).

- Of married and unmarried personnel who reported having a new sexual partner in the past 12 months, over one-third (35.1%) reported 'always' using condoms, whereas one-quarter (25.0%) reported 'never' using condoms with a new sexual partner. Although the survey did not ask about partner characteristics, Table 3.14 and Table 3.15 present the characteristics of those who reported 'never' using a condom with a new partner. Those reporting no condom use were more often in the Army than Navy, Air Force and Coast Guard, as shown in Table 3.14. In addition, personnel who reported never using a condom with a new sexual partner in the past 12 months were more often over age 36, married with a spouse present, and stationed CONUS (see Table 3.15).
- Across all services, 1.4% of active duty personnel reported a sexually transmitted infection (STI) in the past 12 months. In addition, approximately 10% of personnel reported a lifetime history of an STI (see Table 3.14).

Vehicle and Motorcycle Safety, Past 12 Months

- Across all services, the vast majority (98.5%) of personnel reported using a seat belt 'always/often' when driving in a personally owned vehicle, as shown in Table 3.16.
- About 18% of active duty personnel reported driving or riding on a motorcycle in the past 12 months, with Coast Guard reporting use more often than other services, as shown in Table 3.16. The majority (93.8%) of personnel who used motorcycles reported 'always/often' using a helmet, as shown in Table 3.16.

Exposure to Loud Noises and Use of Hearing Protection, Past 12 Months

- Across all services, 67.4% of personnel reported exposure in close proximity to weapons firing or explosions, with a little under half (45.0%) reporting exposure from 1 to 10 times in the past 12 months, as shown in Table 3.17.
- Active duty personnel who reported exposure to loud noises from weapons or explosions were more often in the Marine Corps (82.1%) and Army (81.6%) compared to all other services. Navy personnel were least often exposed to loud noises, with just over half (51.0%) reporting close proximity to weapons firing or explosions (see Table 3.17).
- Of those exposed to loud noises from weapons firing or explosions, the majority (71.3%) reported 'always' using hearing protection while exposed, with Coast Guard reporting 'always' using hearing protection more often than other services, as shown in Table 3.17.

Medical Treatment for Injuries, Past 12 Months

- Among all active duty personnel, 2.9% reported being treated for an injury that resulted from a car or motorcycle accident, 24.4% reported being treated for an overuse injury, and 11.2% reported being treated for another type of injury in the past 12 months. Army members more often reported an overuse injury than all other services (see Table 3.18).
- A similar pattern was observed for heavy drinkers, although slightly larger shares of heavy drinkers reported an injury in the past 12 months compared to all service members, as shown in Table 3.18.
- Across all services, 5.5% of active duty personnel reported that they noticed gang-related activities among active duty personnel in the past 12 months, with Army reporting this more often (8.9%) than other services. About 1.6% of all service members were either approached about joining a gang or belonged to a gang, with Army and Navy personnel more often reporting belonging to a gang than Air Force personnel (see Table 3.19).

Selected Health Behaviors, Stress, and Mental Health Measures, by Religiosity/Spirituality

- Overall, 28.3% of active duty service members were classified as high religiosity, 35.3% were classified as medium, 14.0% were classified as low, and 22.4% indicated that religion was not applicable (see Table 3.20).
- Active duty personnel who reported low or not applicable religiosity/spirituality more often reported heavy alcohol use and current cigarette smoking than personnel who reported medium or high religiosity/spirituality, and more often reported prescription drug misuse than personnel who reported high religiosity/spirituality, as shown in Table 3.20.
- Active duty personnel who reported low religiosity/spirituality more often reported drinking and driving and seldom or never using seat belts than personnel who reported medium or high religiosity/spirituality. In addition, those who reported low religiosity/spirituality more often reported seldom or never using motorcycle helmets compared to those who reported medium religiosity/spirituality (see Table 3.20).
- Service members who reported low or not applicable religiosity/spirituality more often reported high levels of anxiety, depression, and suicide ideation than personnel who reported high religiosity/spirituality. There were no significant differences between levels of religiosity/spirituality for those with a high overall stress level (see Table 3.20).
- Active duty personnel who reported low or not applicable religiosity/spirituality more often reported high anger propensity than personnel who reported medium or high religiosity/spirituality, and personnel who reported not applicable religiosity/spirituality more often had low resilience and low positive affect than all other levels, as shown in Table 3.20.

Children Living With Active Duty Personnel and Health-Related Issues

- Across all services, 40.7% of active duty personnel reported living with one or more children, with Marine Corps personnel more often reporting no children (68.4%) compared to the other services, as shown in Table 3.21.
- Among personnel living with children, the majority of personnel reported living with biological children (37.3%), followed by 6.1% living with step-children, as shown in Table 3.21.
- The vast majority (94.7%) of active duty service members living with children reported that they promote healthy food and beverage choices in their children. In addition, most (53.0%) reported that it was very difficult for children to access prescription medications in their home (see Table 3.21).
- Less than 10% of current smokers reported 'often or sometimes' smoking with their children present, as shown in Table 3.21.

3.3 Tables

The following tables present an in-depth analysis of health and disease prevention activities, as well as a number of other lifestyle and risk behaviors, among service members.

Table 3.1 – Status of Selected Healthy People 2020 Health Promotion Objectives, by Service

Measure	2020 Objective[1]	Civilian Estimates[1]	Service[7]					
			Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Any Cigarette Use, Past 30 Days	≤12.0%	20.6%	27.0 (0.7)[c,d,e]	24.8 (0.7)[c,d,e]	31.9 (0.7)[a,b,d,e]	17.2 (0.4)[a,b,c,e]	20.4 (0.6)[a,b,c,d]	24.5 (0.3)
Smokeless Tobacco Use, Past 30 Days	≤0.3%	2.3%	13.7 (0.6)[b,c,d]	10.7 (0.5)[a,c,d,e]	21.3 (0.6)[a,b,d,e]	8.7 (0.3)[a,b,c,e]	13.5 (0.5)[b,c,d]	12.8 (0.3)
Binge Drinking, Past 30 Days	≤24.4%	27.1%	31.8 (0.7)[b,c,d,e]	36.1 (0.7)[a,c,d,e]	48.6 (0.8)[a,b,d,e]	22.9 (0.4)[a,b,c,e]	39.6 (0.7)[a,b,c,d]	33.1 (0.4)
Obese (Age 20 or older)[3]	≤30.5%	33.9%	16.1 (0.6)[c,d,e]	15.0 (0.6)[c,d,e]	5.0 (0.3)[a,b,d,e]	9.9 (0.3)[a,b,c]	10.9 (0.5)[a,b,c]	12.7 (0.3)[2]
Healthy Weight (Age 20 or older)[4]	≥33.9%	30.8%	30.8 (0.8)[c,d]	32.7 (0.7)[c,d]	40.0 (0.8)[a,b,e]	40.2 (0.5)[a,b,e]	31.3 (0.7)[c,d]	34.7 (0.4)[2]
Moderate or Vigorous Physical Activity, Past 30 Days[5]	≥47.9%	43.5%	79.6 (0.6)[b,d,e]	68.4 (0.7)[a,c,d]	77.8 (0.6)[b,d,e]	73.6 (0.4)[a,b,c,e]	66.8 (0.7)[a,c,d]	74.9 (0.3)[2]
Seat Belt Use[6]	≥92.4%	84.0%	98.4 (0.3)[d]	98.0 (0.3)[d]	97.9 (0.3)[d]	99.4 (0.1)[a,b,c,e]	98.4 (0.2)[d]	98.5 (0.1)[2]
Motorcycle Helmet Use, Past 12 Months[6]	≥73.7%	67.0%	94.0 (1.4)	92.2 (1.6)[d]	92.7 (1.3)[d]	95.3 (0.8)[b,c]	94.3 (1.0)	93.8 (0.7)[2]

Note: Table displays the percentage of military personnel, by Service, who reported the characteristic shown in each row of the table. The standard error of each estimate is presented in parentheses.

[1]Department of Health and Human Services (2010). *Healthy People 2020,* Retrieved May 2012 from http://healthypeople.gov.

[2]Met or exceeded *Healthy People 2020* objective.

[3]Obesity is based on BMI, which is calculated from self-reported height and weight and is defined as BMI of 30.0 or higher for adults 20 years old or older.

[4]Healthy weight is based on BMI, which is calculated from self-reported height and weight and is defined as BMI between 18.5 and 25.0 for adults 20 years old or older.

[5]Defined as engaging in moderate physical activity (exertion that raises heart rate and breathing, but able to carry on a conversation comfortably during the activity) for at least 150 or more minutes per week or vigorous physical activity (exertion high enough to make it difficult to carry on a conversation during the activity) for at least 75 or more minutes per week.

[6]Reported wearing seat belts or helmets "always" or "often." Objective on helmet use was subsetted to personnel who rode a motorcycle in the past 12 months.

[7]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Current Cigarette Smoker, Past 30 Days, Q61, Q64; Smokeless Tobacco User, Past 30 Days, Q72, Q75; Alcohol Binge Episode, Past 30 Days, Q51; BMI, Q4, Q15, Q16, Q17; Moderate Physical Activity, Past 30 Days, Q23A, Q24A; Vigorous Physical Activity, Past 30 Days, Q23B, Q24B; Frequency of Seat Belt Use, Past 12 Months, Q106; Frequency of Motorcycle Helmet Use, Past 12 Months, Q107).

Table 3.2 – Healthy Weight as Measured by BMI, by Service, Gender, and Age

	Service[1]					
Gender/Age Group	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Males						
18-19	85.7 (4.6)	†	83.9 (3.2)	82.7 (2.9)	†	84.4 (2.2)
20-25	44.3 (1.8)[d]	41.0 (1.5)[d]	44.9 (1.1)[d]	50.4 (1.1)[a,b,c]	45.2 (1.7)	45.2 (0.7)
26-35	25.7 (1.2)[d]	27.8 (1.2)[d]	30.7 (1.3)[e]	32.9 (0.9)[a,b,e]	25.3 (1.1)[c,d]	28.4 (0.6)
36-45	17.0 (1.2)	17.6 (1.4)	20.2 (1.9)	20.4 (1.0)	16.5 (1.3)	18.1 (0.7)
46-65	15.5 (2.5)	20.5 (3.0)	19.6 (5.3)	25.1 (2.7)[e]	12.7 (2.4)[d]	18.5 (1.5)
Total males	27.9 (0.8)[c,d]	29.4 (0.8)[c,d]	38.6 (0.8)[a,b,e]	36.6 (0.6)[a,b,e]	27.7 (0.8)[c,d]	31.8 (0.4)
Females						
18-19	79.1 (1.1)	†	†	86.2 (5.7)	†	85.7 (4.2)
20-25	65.4 (4.0)[c]	56.3 (2.9)[c]	83.3 (2.8)[a,b,d,e]	65.0 (1.9)[c]	65.6 (3.4)[c]	64.5 (1.6)
26-35	56.7 (3.3)[c]	50.6 (3.1)[c]	78.8 (4.4)[a,b,d,e]	57.1 (1.9)[c]	57.6 (3.0)[c]	56.4 (1.6)
36-45	38.7 (4.3)	40.9 (5.1)	†	51.5 (2.8)[e]	29.7 (5.8)[d]	43.8 (2.3)
46-65	†	†	†	61.9 (6.9)	†	50.9 (5.1)
Total females	54.7 (2.1)[c]	52.5 (1.9)[c,d]	82.5 (2.2)[a,b,d,e]	59.8 (1.2)[b,c]	56.9 (2.1)[c]	57.6 (1.0)
Total						
18-19	84.4 (4.3)	86.8 (5.3)	85.5 (2.8)	83.3 (2.6)	†	84.7 (1.9)
20-25	47.7 (1.7)[d]	44.4 (1.4)[d]	47.9 (1.1)[d]	53.6 (0.9)[a,b,c]	49.0 (1.5)	48.5 (0.7)
26-35	30.3 (1.2)[d]	31.2 (1.1)[d]	33.7 (1.3)	37.7 (0.8)[a,b,e]	29.8 (1.1)[d]	32.6 (0.6)
36-45	19.8 (1.2)[d]	20.1 (1.3)[d]	22.7 (1.9)	25.6 (1.0)[a,b,e]	17.5 (1.3)[d]	21.3 (0.7)
46-65	19.5 (2.6)[d]	23.6 (3.0)	20.8 (5.4)	31.0 (2.6)[a,e]	14.1 (2.4)[d]	22.5 (1.5)
All personnel	31.8 (0.8)[c,d]	33.2 (0.7)[c,d]	41.8 (0.8)[a,b,e]	41.2 (0.5)[a,b,e]	31.6 (0.7)[c,d]	35.7 (0.4)

Note: Table displays the percentage of military personnel, by Service, gender, and age group, who met the criteria for being a healthy weight. The standard error of each estimate is presented in parentheses. Healthy weight is defined as BMI $\geq$ 18.5 but < 25.0 for adults 20 years old or older. For the criteria used to classify personnel 18 and 19 years old, see Appendix A.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (BMI, Q4, Q15, Q16, Q17).

Table 3.3 – Underweight as Measured by BMI, by Service, Gender, and Age

Gender/Age Group	Service[1] Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Males						
18-19	2.9 (2.2)	†	1.1 (0.9)	1.3 (0.9)	†	1.6 (0.8)
20-25	0.3 (0.2)	0.5 (0.2)	0.5 (0.2)	0.9 (0.2)	0.3 (0.2)	0.6 (0.1)
26-35	0.7 (0.2)	0.4 (0.2)	0.2 (0.1)	0.4 (0.1)	0.3 (0.1)	0.5 (0.1)
36-45	0.3 (0.2)	0.1 (0.1)	0.4 (0.3)	†	0.2 (0.2)	0.2 (0.1)
46-65	†	†	†	†	†	0.1 (0.1)
Total males	0.5 (0.1)	0.3 (0.1)	0.4 (0.1)	0.5 (0.1)	0.3 (0.1)	0.4 (0.1)
Females						
18-19	†	†	†	†	†	†
20-25	0.7 (0.7)	3.2 (1.0)	2.6 (1.2)	1.3 (0.4)	1.8 (1.0)	1.8 (0.4)
26-35	1.6 (0.8)	1.9 (0.8)	2.1 (1.6)	1.9 (0.5)	0.8 (0.6)	1.7 (0.4)
36-45	†	2.2 (1.5)	†	0.3 (0.3)	†	0.7 (0.4)
46-65	†	†	†	†	†	1.1 (1.1)
Total females	0.9 (0.4)	2.4 (0.6)	2.3 (0.8)	1.3 (0.3)	1.3 (0.5)	1.5 (0.2)
Total						
18-19	2.8 (1.9)	†	1.1 (0.8)	1.1 (0.7)	†	1.5 (0.7)
20-25	0.4 (0.2)	1.1 (0.3)	0.7 (0.2)	1.0 (0.2)	0.6 (0.2)	0.8 (0.1)
26-35	0.8 (0.2)	0.6 (0.2)	0.4 (0.2)	0.7 (0.1)	0.4 (0.1)	0.7 (0.1)
36-45	0.3 (0.2)	0.3 (0.2)	0.5 (0.3)	0.1 (0.1)	0.3 (0.2)	0.2 (0.1)
46-65	†	†	†	0.4 (0.4)	†	0.2 (0.2)
All personnel	0.5 (0.1)	0.7 (0.1)	0.6 (0.1)	0.7 (0.1)	0.4 (0.1)	0.6 (0.1)

Note: Table displays the percentage of military personnel, by Service, gender, and age group, who met the criteria for being underweight. The standard error of each estimate is presented in parentheses. Underweight is defined as BMI < 18.5 for adults 20 years old or older. For the criteria used to classify personnel18 and 19 years old, see Appendix A.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (BMI, Q4, Q15, Q16, Q17).

Table 3.4 – Overweight as Measured by BMI, by Service, Gender, and Age

	Service[1]					
Gender/Age Group	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Males						
18-19	11.4 (4.2)	†	14.0 (3.0)	15.4 (2.8)	†	13.4 (2.1)
20-25	45.5 (1.8)	45.7 (1.6)	50.6 (1.1)[d]	44.3 (1.0)[c,e]	50.3 (1.7)[d]	46.7 (0.7)
26-35	55.8 (1.4)[c,e]	56.0 (1.3)[c,e]	62.4 (1.4)[a,b,d]	54.4 (0.9)[c,e]	62.9 (1.2)[a,b,d]	56.6 (0.7)
36-45	60.3 (1.6)[c]	60.2 (1.7)[c]	71.9 (2.1)[a,b,d]	62.3 (1.2)[c]	65.0 (1.7)	61.8 (0.8)
46-65	63.1 (3.7)	64.5 (3.6)	70.5 (6.1)	61.0 (3.0)	66.1 (3.4)	63.5 (1.8)
Total males	54.4 (0.9)[e]	54.1 (0.8)[e]	55.8 (0.8)[e,d]	52.2 (0.6)[c,e]	60.3 (0.8)[a,b,c,d]	54.2 (0.4)
Females						
18-19	†	†	†	13.8 (5.7)	†	13.1 (4.1)
20-25	32.0 (3.9)[c]	33.4 (2.7)[c]	13.3 (2.6)[a,b,d,e]	29.9 (1.8)[c]	30.4 (3.3)[c]	29.7 (1.5)
26-35	33.9 (3.2)	39.3 (3.0)[c]	17.8 (4.2)[b,d,e]	34.3 (1.8)[c]	36.4 (3.0)[c]	34.7 (1.5)
36-45	49.3 (4.4)	45.1 (5.2)	†	40.0 (2.8)	57.2 (6.3)	45.1 (2.3)
46-65	†	†	†	30.2 (6.5)	†	40.0 (5.0)
Total females	37.3 (2.7)[c]	37.0 (1.8)[c]	14.2 (2.0)[a,b,d,e]	33.1 (1.1)[c]	37.1 (2.1)[c]	34.4 (0.9)
Total						
18-19	12.9 (4.0)	13.2 (5.3)	12.4 (2.6)	15.1 (2.5)	†	13.4 (1.8)
20-25	43.3 (1.7)	43.0 (1.4)	47.7 (1.1)[c]	41.1 (0.9)[c,e]	46.6 (1.5)[d]	43.8 (0.7)
26-35	52.6 (1.3)[c,e]	53.5 (1.2)[c,e]	59.6 (1.3)[a,b,d]	50.4 (0.8)[c,e]	59.2 (1.1)[a,b,d]	53.3 (0.6)
36-45	58.9 (1.5)[c]	58.6 (1.7)[c]	69.6 (2.1)[a,b,d]	58.6 (1.1)[c,e]	64.5 (1.6)[d]	59.7 (0.8)
46-65	60.6 (3.2)	61.8 (3.4)	69.6 (6.1)	56.1 (2.8)	65.7 (3.3)	60.6 (1.7)
All personnel	51.9 (0.8)[d,e]	51.3 (0.8)[d,e]	52.8 (0.8)[de]	48.4 (0.5)[a,b,c,e]	57.2 (0.8)[a,b,c,d]	51.2 (0.4)

Note: Table displays the percentage of military personnel, by Service, gender, and age group, who met the criteria for being overweight. The standard error of each estimate is presented in parentheses. Overweight is defined as a BMI ≥ 25.0 but < 30.0 for adults 20 years old or older. For the criteria used to classify personnel 18 and 19 years old, see Appendix A.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (BMI, Q4, Q15, Q16, Q17).

Table 3.5 – Obese as Measured by BMI, by Service, Gender, and Age

Gender/Age Group	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Males						
18-19	†	†	1.1 (0.9)	0.6 (0.6)	†	0.5 (0.4)
20-25	9.9 (1.1)[c,d,e]	12.8 (1.0)[c,d,e]	4.0 (0.4)[a,b]	4.4 (0.4)[a,b]	4.2 (0.7)[a,b]	7.6 (0.4)
26-35	17.8 (1.1)[c,d,e]	15.8 (0.9)[c,d,e]	6.7 (0.7)[a,b,d,e]	12.3 (0.6)[a,b,c]	11.5 (0.8)[a,b,c]	14.5 (0.5)
36-45	22.4 (1.4)[c,d]	22.1 (1.5)[c,d]	7.5 (1.2)[a,b,d,e]	17.2 (1.0)[a,b,c]	18.3 (1.4)[c]	19.9 (0.7)
46-65	21.4 (2.9)	15.0 (2.7)	8.8 (3.8)	13.9 (2.1)	21.0 (3.0)	17.9 (1.5)
Total males	17.2 (0.7)[c,d,e]	16.2 (0.6)[c,d,e]	5.2 (0.4)[a,b,d,e]	10.6 (0.4)[a,b,c]	11.8 (0.5)[a,b,c]	13.5 (0.3)
Females						
18-19	†	†	†	†	†	†
20-25	1.9 (1.1)	7.2 (1.5)[c]	0.9 (0.7)[b]	3.8 (0.8)	2.1 (1.0)	4.0 (0.6)
26-35	7.8 (1.8)	8.2 (1.7)	†	6.7 (1.0)	5.1 (1.4)	7.2 (0.8)
36-45	11.8 (2.8)	11.8 (3.3)	†	8.2 (1.6)	11.0 (4.0)	10.4 (1.4)
46-65	†	†	†	5.4 (3.2)	†	8.0 (2.8)
Total females	7.1 (1.1)[c]	8.1 (1.0)[c]	1.0 (0.6)[a,b,d,e]	5.7 (0.6)[c]	4.7 (0.9)[c]	6.4 (0.5)
Total						
18-19	†	†	1.0 (0.8)	0.5 (0.5)	†	0.4 (0.3)
20-25	8.6 (0.9)[c,d,e]	11.5 (0.9)[c,d,e]	3.7 (0.4)[a,b]	4.3 (0.4)[a,b]	3.8 (0.6)[a,b]	7.0 (0.3)
26-35	16.4 (0.9)[c,de]	14.7 (0.8)[c,d,e]	6.3 (0.7)[a,b,d,e]	11.2 (0.5)[a,b,c]	10.6 (0.7)[a,b,c]	13.4 (0.4)
36-45	21.1 (1.3)[c,d]	21.0 (1.4)[c,d]	7.2 (1.2)[a,b,d,e]	15.7 (0.8)[a,b,c]	17.7 (1.3)[c]	18.8 (0.6)
46-65	19.8 (2.6)	14.4 (2.5)	8.5 (3.7)	12.5 (1.9)	20.0 (2.8)	16.7 (1.3)
All personnel	15.8 (0.6)[c,d,e]	14.9 (0.5)[c,d,e]	4.9 (0.3)[a,b,d,e]	9.7 (0.3)[a,b,c]	10.8 (0.5)[a,b,c]	12.4 (0.3)

Note: Table displays the percentage of military personnel, by Service, gender, and age group, who met the criteria for being obese. The standard error of each estimate is presented in parentheses. Obese is defined as a BMI ≥ 30.0 for adults 20 years old or older. For the criteria used to classify personnel18 and 19 years old, see Appendix A.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (BMI, Q4, Q15, Q16, Q17).

Table 3.6 – Weight Loss History and Physical Fitness, by Service and Gender

Weight Loss History / Physical Fitness	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Had to Lose Weight to Join Military						
Males	10.4 (0.5)[b]	8.1 (0.4)[a,c,d]	12.3 (0.5)[b,d,e]	9.8 (0.3)[b,c]	8.7 (0.4)[c]	10.0 (0.2)
Females	16.4 (1.5)[c]	11.8 (1.2)	14.5 (1.9)	10.3 (0.7)[a]	12.7 (1.3)	13.1 (0.6)
Total	11.3 (0.5)[b,e]	8.7 (0.4)[a,c]	12.5 (0.5)[b,d,e]	9.9 (0.3)[c]	9.2 (0.4)[a,c]	10.5 (0.2)
Amount of Weight Loss to Join the Military						
Males						
Less than 5 pounds	6.3 (1.2)	4.9 (1.2)	4.2 (0.9)	6.5 (0.9)	5.4 (1.2)	5.7 (0.6)
5 to 9 pounds	20.6 (2.1)	19.0 (2.2)	15.5 (1.6)[e]	21.2 (1.5)	24.1 (2.3)[c]	19.6 (1.0)
10 to 19 pounds	32.7 (2.4)	37.2 (2.7)	39.2 (2.1)	38.4 (1.7)	35.5 (2.6)	36.1 (1.2)
20 pounds or more	40.5 (2.5)	38.8 (2.8)	41.0 (2.1)	33.9 (1.7)	35.0 (2.6)	38.6 (1.2)
Females						
Less than 5 pounds	8.1 (2.7)	9.9 (3.2)	17.1 (5.4)	17.1 (2.7)	20.0 (4.5)	11.7 (1.7)
5 to 9 pounds	32.5 (4.7)	28.6 (4.8)	34.3 (6.8)	32.4 (3.3)	28.7 (5.1)	31.6 (2.4)
10 to 19 pounds	37.1 (4.8)	38.5 (5.1)	30.2 (6.6)	31.0 (3.3)	37.5 (5.5)	35.5 (2.5)
20 pounds or more	22.3 (4.2)	23.0 (4.4)	18.4 (5.6)	19.3 (2.8)	13.8 (3.9)	21.2 (2.1)
Currently Enrolled in Mandatory Weight Control Program						
Males	3.8 (0.3)[d]	3.5 (0.3)[d]	2.8 (0.2)[d]	1.5 (0.1)[a,b,c,e]	3.1 (0.3)[d]	3.0 (0.1)
Females	4.9 (0.9)	6.3 (0.9)[d]	4.1 (1.1)	2.7 (0.4)[b]	3.5 (0.7)	4.5 (0.4)
Total	3.9 (0.3)[d]	4.0 (0.3)[c,d]	2.9 (0.2)[b,d]	1.8 (0.1)[a,b,c,e]	3.2 (0.3)[d]	3.2 (0.1)
Passed Most Recent Physical Fitness Test						
Males	95.7 (0.4)[b,c,e]	97.2 (0.3)[a,d]	97.6 (0.2)[a,d]	94.8 (0.2)[b,c,e]	97.0 (0.3)[a,d]	96.1 (0.2)
Females	96.2 (0.9)	94.0 (1.0)	98.0 (0.9)	93.7 (0.6)	95.6 (0.9)	94.9 (0.4)
Total	95.7 (0.3)[c]	96.7 (0.3)[d]	97.6 (0.2)[a,d]	94.6 (0.2)[b,c,e]	96.8 (0.3)[d]	96.0 (0.1)

Note: Table displays the percentage of military personnel, by Service and gender, who reported the weight loss and weight management history indicated. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Required to Lose Weight and Amount of Weight Loss to Join Military, Q22, Q22A; Currently Enrolled in Mandatory Weight Control Program, Q21; Passed Most Recent Physical Fitness Test, Q35).

Table 3.7 – Physical Activity, Strength Training, and Exercise Interference, Past Month, by Service

Exercise	Service[1] Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Moderate Physical Activity[2]						
Less than 150 minutes per week	31.3 (0.7)[b,d,e]	42.0 (0.7)[a,c]	34.8 (0.7)[a,b,d,e]	40.7 (0.5)[a,c,e]	43.7 (0.7)[a,c,d]	36.8 (0.4)
150 minutes or more per week	35.8 (0.7)[d]	37.0 (0.7)[d]	35.5 (0.7)[d]	41.0 (0.5)[a,b,c,e]	35.3 (0.7)[d]	37.2 (0.4)
300 minutes or more per week	33.0 (0.7)[b,c,d,e]	21.0 (0.6)[a,c,d]	29.7 (0.7)[a,b,d,e]	18.3 (0.4)[a,b,c,e]	21.0 (0.6)[a,c,d]	25.9 (0.3)
Vigorous Physical Activity[3]						
Less than 75 minutes per week	42.9 (0.8)[b,e]	53.4 (0.7)[a,c,d]	42.9 (0.7)[b,d,e]	45.4 (0.5)[b,c,e]	54.9 (0.7)[a,c,d]	46.3 (0.4)
75 minutes or more per week	10.7 (0.5)[d]	10.2 (0.5)[d]	10.9 (0.5)[d]	12.9 (0.3)[a,b,c,e]	10.2 (0.5)[d]	11.1 (0.2)
150 minutes or more per week	46.3 (0.8)[b,d,e]	36.4 (0.7)[a,c,d]	46.3 (0.7)[b,d,e]	41.6 (0.5)[a,b,c,e]	34.9 (0.7)[a,c,d]	42.6 (0.4)
Strength Training[4]						
Less than one day per week	24.9 (0.7)[b,e]	33.7 (0.7)[a,c,d]	25.2 (0.6)[b,e]	24.4 (0.4)[b,e]	32.0 (0.7)[a,c,d]	27.0 (0.3)
1 to 2 days per week	28.1 (0.7)[c]	25.9 (0.7)[d]	23.9 (0.6)[a,d,e]	30.2 (0.5)[b,c,e]	27.5 (0.7)[c,d]	27.5 (0.3)
3 or more days per week	47.0 (0.8)[b,c,e]	40.4 (0.7)[a,c,d]	51.0 (0.7)[a,b,d,e]	45.5 (0.5)[b,c,e]	40.6 (0.7)[a,c,d]	45.5 (0.4)
Exercise Interference						
Not enough time	26.5 (0.7)[b,c,d,e]	35.5 (0.7)[a,d]	33.5 (0.7)[a,e]	33.0 (0.5)[a,b,e]	37.2 (0.7)[a,c,d]	31.4 (0.3)
Absence/Inconvenience of exercise facilities	6.0 (0.4)[c,e]	5.3 (0.3)[e]	4.4 (0.3)[a,e]	5.3 (0.2)[e]	9.2 (0.4)[a,b,c,d]	5.6 (0.2)
The mission I've been assigned	23.8 (0.7)[b,c,e]	15.4 (0.5)[a,c,d,e]	20.5 (0.6)[a,b,d]	22.6 (0.4)[b,c]	20.7 (0.6)[a,b]	21.1 (0.3)
Policy/Command took precedence	12.0 (0.5)[b,c,d]	18.0 (0.6)[a,c,d,e]	15.0 (0.5)[a,b,d]	8.6 (0.3)[a,b,c,e]	13.1 (0.5)[b,d]	13.0 (0.2)
I had an injury	27.2 (0.7)[b,c,d,e]	14.8 (0.5)[a,c,d,e]	21.2 (0.6)[a,b,d,e]	18.6 (0.4)[a,b,c,e]	12.3 (0.5)[a,b,c,d]	21.0 (0.3)
I don't like to exercise	6.1 (0.4)[e]	6.9 (0.4)[e]	6.5 (0.4)[e]	6.3 (0.2)[e]	8.9 (0.4)[a,b,c,d]	6.5 (0.2)
I haven't had anyone to work out with at times I could	7.4 (0.4)[c,d]	8.4 (0.4)[d,e]	9.0 (0.4)[a,d,e]	6.1 (0.2)[a,b,c]	6.0 (0.4)[b,c]	7.5 (0.2)
The demands of my personal/ family life	22.2 (0.6)[b,c,d,e]	26.9 (0.7)[a,e]	24.8 (0.6)[a,e]	26.8 (0.4)[a,e]	33.0 (0.7)[a,b,c,d]	25.1 (0.3)
Another reason	11.9 (0.5)[d]	11.1 (0.5)	10.6 (0.4)	10.1 (0.3)[a]	10.3 (0.4)	11.1 (0.2)
I exercise as much as I would like	25.5 (0.7)[d]	27.6 (0.7)	26.4 (0.6)[d]	28.8 (0.5)[a,c,e]	25.7 (0.6)[d]	26.9 (0.3)

Note: Table displays the percentage of military personnel, by Service, who reported the physical fitness and exercise activity levels indicated. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[2]Moderate physical activity is defined as "exertion that raises heart rate and breathing, but able to carry on a conversation comfortably during the activity."

[3]Vigorous physical activity is defined as "exertion that is high enough to find it difficult to carry on a conversation during the activity."

[4]Strength training is defined as "using weights or resistance training to increase muscle strength."

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Moderate Physical Activity, Past 30 Days, Q23A, Q24A; Vigorous Physical Activity, Past 30 Days, Q23B, Q24B; Frequency of Strength Training, Past 30 Days, Q23C; Exercise Interference, Past 30 Days, Q34).

Table 3.8 – Limited Usual Activities due to Poor Physical Health, Past Month, by Service, Gender, and Age

Service and Gender/ Age Group[a]	Poor Physical Health Limited Usual Activities		
	Never	Less Than Once a Week	Once a Week or More
Service			
Army	67.4 (0.7)[2,3,4,5]	17.2 (0.6)[2,4,5]	15.4 (0.6)[2,3,4,5]
Navy	78.3 (0.6)[1,3,5]	13.4 (0.5)[1]	8.3 (0.4)[1,3,5]
Marine Corps	72.9 (0.6)[1,2,4,5]	15.2 (0.5)[5]	11.9 (0.5)[1,2,4,5]
Air Force	77.3 (0.4)[1,3,5]	13.8 (0.3)[1]	8.9 (0.3)[1,3,5]
Coast Guard	82.4 (0.6)[1,2,3,4]	12.6 (0.5)[1,3]	5.0 (0.3)[1,2,3,4]
Males			
18-20	82.2 (1.3)[3,4,5]	13.0 (1.2)	4.8 (0.8)[2,3,4,5]
21-25	77.9 (0.7)[4,5]	13.4 (0.5)[4]	8.6 (0.4)[1,3,4,5]
26-35	76.2 (0.6)[1,4,5]	13.3 (0.4)[4]	10.5 (0.4)[1,2,4]
36-45	69.7 (0.8)[1,2,3]	16.0 (0.6)[2,3]	14.3 (0.6)[1,2,3]
46-65	70.7 (1.7)[1,2,3]	16.0 (1.4)	13.3 (1.3)[1,2]
Total males	75.3 (0.4)	14.1 (0.3)	10.7 (0.3)
Females			
18-20	64.0 (3.6)	22.3 (3.1)	13.7 (2.5)
21-25	63.8 (1.7)	21.7 (1.4)	14.6 (1.2)
26-35	64.5 (1.5)	20.7 (1.3)	14.8 (1.1)
36-45	60.0 (2.3)	21.4 (1.9)	18.6 (1.8)
46-65	61.6 (5.0)	21.4 (4.2)	17.0 (3.9)
Total females	63.3 (0.9)	21.3 (0.8)	15.4 (0.7)
Total			
18-20	78.9 (1.3)[3,4,5]	14.7 (1.1)	6.5 (0.8)[2,3,4,5]
21-25	75.5 (0.6)[4,5]	14.8 (0.5)	9.7 (0.4)[1,4,5]
26-35	74.4 (0.5)[1,4,5]	14.4 (0.4)[4]	11.2 (0.4)[1,4]
36-45	68.5 (0.8)[1,2,3]	16.7 (0.6)[3]	14.8 (0.6)[1,2,3]
46-65	69.5 (1.6)[1,2,3]	16.7 (1.3)	13.8 (1.2)[1,2]
Total	73.4 (0.3)	15.2 (0.3)	11.4 (0.2)

Note: Table displays the percentage of military personnel, by Service, gender, and age group, who did and did not limit their usual activities because of poor physical health in the past month. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between the rows within each group. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same group. For example, consider the Male rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (Males, 18-20) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (Males, 21-25) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Males, 26-35) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Males, 36-45) at the 95% confidence level after Bonferroni adjustment.
[5]Indicates estimate is significantly different from the estimate in row #5 (Males, 46-65) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Frequency of Limiting Usual Activities Due to Poor Physical Health, Past 30 Days, Q33).

Table 3.9 – Selected Health Conditions, by Service

Health Condition	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
High Blood Pressure						
Within the past 2 years	13.2 (0.5)[b,c,d,e]	9.3 (0.4)[a,d]	10.1 (0.4)[a,d,e]	7.5 (0.3)[a,b,c]	7.7 (0.4)[a,c]	10.3 (0.2)
More than 2 years ago	4.7 (0.3)[c]	4.7 (0.3)[c]	2.9 (0.2)[a,b,d,e]	4.4 (0.2)[c]	4.1 (0.3)[c]	4.4 (0.1)
Never been told I had a problem	82.1 (0.6)[b,c,d,e]	86.1 (0.5)[a,d,e]	87.0 (0.5)[a]	88.0 (0.3)[a,b]	88.2 (0.5)[a,b]	85.3 (0.3)
High Blood Sugar						
Within the past 2 years	1.6 (0.2)[c,d]	1.5 (0.2)[c,d]	0.7 (0.1)[a,b,e]	0.6 (0.1)[a,b,e]	1.2 (0.2)[c,d]	1.2 (0.1)
More than 2 years ago	0.3 (0.1)	0.8 (0.1)	0.5 (0.1)	0.4 (0.1)	0.7 (0.1)	0.5 (0.1)
Never been told I had a problem	98.1 (0.2)[c,d]	97.7 (0.2)[c,d]	98.9 (0.2)[a,b,e]	99.0 (0.1)[a,b,e]	98.0 (0.2)[c,d]	98.3 (0.1)
High Cholesterol						
Within the past 2 years	10.3 (0.5)[c,d]	9.8 (0.4)[c,d]	5.5 (0.3)[a,b,d,e]	7.6 (0.3)[a,b,c,e]	10.5 (0.5)[c,d]	8.9 (0.2)
More than 2 years ago	4.4 (0.3)[c]	5.5 (0.3)[c]	2.6 (0.2)[a,b,d,e]	4.8 (0.2)[c]	5.1 (0.3)[c]	4.5 (0.2)
Never been told I had a problem	85.2 (0.5)[c,d,e]	84.8 (0.5)[c,d]	91.9 (0.4)[a,b,d,e]	87.6 (0.3)[a,b,c,e]	84.4 (0.5)[a,c,d]	86.6 (0.2)
Low HDL Cholesterol (Good Cholesterol)						
Within the past 2 years	5.6 (0.4)[c,d]	4.9 (0.3)[c]	1.9 (0.2)[a,b,d,e]	3.9 (0.2)[a,c,e]	5.6 (0.3)[c,d]	4.5 (0.2)
More than 2 years ago	1.6 (0.2)[b,c]	2.5 (0.2)[a,c]	0.8 (0.1)[a,b,d,e]	2.0 (0.1)[c]	2.3 (0.2)[c]	1.8 (0.1)
Never been told I had a problem	92.8 (0.4)[c]	92.6 (0.4)[c,d]	97.3 (0.2)[a,b,d,e]	94.1 (0.2)[b,c,e]	92.1 (0.4)[c,d]	93.7 (0.2)
High Triglycerides (Blood Fat)						
Within the past 2 years	4.4 (0.3)[c,e]	4.5 (0.3)[c,e]	1.6 (0.2)[a,b,d,e]	3.8 (0.2)[c,e]	5.8 (0.3)[a,b,c,d]	4.0 (0.1)
More than 2 years ago	1.6 (0.2)[b,c]	2.5 (0.2)[a,c]	0.6 (0.1)[a,b,d,e]	1.9 (0.1)[c]	2.3 (0.2)[c]	1.8 (0.1)
Never been told I had a problem	94.0 (0.4)[c,e]	93.1 (0.4)[c]	97.7 (0.2)[a,b,d,e]	94.2 (0.2)[c,e]	91.9 (0.4)[a,c,d]	94.3 (0.2)
Advised to Quit Smoking in Past 12 Months						
Yes	23.0 (0.7)[c,d]	21.4 (0.6)[c,d]	27.1 (0.7)[a,b,d,e]	16.6 (0.4)[a,b,c,e]	21.7 (0.6)[c,d]	21.7 (0.3)
No	27.7 (0.7)[b,e]	24.6 (0.6)[a,c,d]	28.9 (0.7)[b,e]	28.9 (0.5)[b,e]	23.7 (0.6)[a,c,d]	27.3 (0.3)
Don't Smoke	49.3 (0.8)[b,c,d,e]	54.0 (0.7)[a,c]	44.0 (0.7)[a,b,d,e]	54.4 (0.5)[a,c]	54.7 (0.7)[a,c]	51.0 (0.4)

Note: Table displays the percentage of military personnel, by Service, who reported being told by a doctor or other health professional that they had the indicated health condition within the recency categories listed in the rows of this table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (History of Health Conditions, Q26; Advised to Quit Smoking, Past 12 Months, Q36).

Table 3.10 – Frequency of Food Intake, by Food Category and Service

Food Category/ Service[a]	Frequency of Food Intake: 3 or more times per day	2 times per day	1 time per day	3 to 6 times per week	1 to 2 times per week	Rarely/ Never
Fruits						
Army	10.8 (0.5)	19.8 (0.6)[2,4,5]	24.6 (0.7)[5]	21.1 (0.6)[5]	16.7 (0.6)[2,4,5]	7.1 (0.4)[2,3,4,5]
Navy	11.8 (0.5)	23.9 (0.6)[1,3]	25.1 (0.6)[5]	20.5 (0.6)	14.3 (0.5)[1,3,5]	4.4 (0.3)[1,5]
Marine Corps	10.2 (0.4)	20.7 (0.6)[2,4,5]	25.8 (0.6)[5]	21.2 (0.6)[5]	16.5 (0.5)[2,4,5]	5.5 (0.3)[1,4,5]
Air Force	11.7 (0.3)	24.7 (0.4)[1,3]	25.2 (0.4)[5]	20.5 (0.4)	14.0 (0.3)[1,3,5]	4.1 (0.2)[1,3,5]
Coast Guard	11.8 (0.5)	26.0 (0.6)[1,3]	28.9 (0.7)[1,2,3,4]	18.6 (0.6)[1,3]	11.9 (0.5)[1,2,3,4]	2.8 (0.2)[1,2,3,4]
All Services	11.2 (0.2)	22.2 (0.3)	25.1 (0.3)	20.7 (0.3)	15.3 (0.3)	5.4 (0.2)
Starchy Vegetables						
Army	4.3 (0.3)	14.0 (0.5)	25.4 (0.7)[5]	25.8 (0.7)	23.5 (0.7)	7.0 (0.4)[5]
Navy	4.3 (0.3)	13.8 (0.5)	25.8 (0.6)	25.6 (0.6)	23.8 (0.6)	6.8 (0.4)[5]
Marine Corps	4.7 (0.3)[4,5]	14.8 (0.5)	25.8 (0.6)	25.9 (0.6)	22.2 (0.6)	6.7 (0.4)[5]
Air Force	3.4 (0.2)[3]	13.6 (0.3)	26.1 (0.4)	27.1 (0.4)	24.0 (0.4)	5.8 (0.2)
Coast Guard	3.5 (0.3)[3]	14.4 (0.5)	28.2 (0.7)[1]	26.1 (0.6)	22.6 (0.6)	5.2 (0.3)[1,2,3]
All Services	4.1 (0.1)	14.0 (0.3)	25.8 (0.3)	26.1 (0.3)	23.5 (0.3)	6.6 (0.2)
Vegetables						
Army	12.9 (0.5)[3]	26.0 (0.7)[4,5]	25.8 (0.7)	21.9 (0.6)[5]	9.7 (0.5)[3,5]	3.8 (0.3)[4,5]
Navy	13.7 (0.5)[3]	27.8 (0.7)[5]	23.5 (0.6)[3,5]	21.4 (0.6)[5]	10.1 (0.4)[3,5]	3.5 (0.3)[5]
Marine Corps	10.1 (0.4)[1,2,4,5]	25.7 (0.6)[4,5]	26.8 (0.6)[2]	20.9 (0.6)[5]	12.1 (0.5)[1,2,4,5]	4.4 (0.3)[4,5]
Air Force	13.5 (0.3)[3]	29.7 (0.5)[1,3,5]	25.0 (0.4)	20.1 (0.4)[5]	8.9 (0.3)[3,5]	2.8 (0.2)[1,3,5]
Coast Guard	13.6 (0.5)[3]	33.0 (0.7)[1,2,3,4]	26.8 (0.7)[2]	17.5 (0.6)[1,2,3,4]	7.1 (0.4)[1,2,3,4]	1.9 (0.2)[1,2,3,4]
All Services	12.9 (0.2)	27.5 (0.3)	25.3 (0.3)	21.1 (0.3)	9.8 (0.2)	3.5 (0.1)
Whole Grains						
Army	12.5 (0.5)	26.8 (0.7)[4,5]	23.9 (0.7)[5]	20.4 (0.6)	11.9 (0.5)[4,5]	4.4 (0.3)[3,4,5]
Navy	13.3 (0.5)	26.4 (0.6)[4,5]	24.5 (0.6)[5]	19.4 (0.6)	12.1 (0.5)[4,5]	4.3 (0.3)[3,4,5]
Marine Corps	12.3 (0.5)	26.5 (0.6)[4,5]	26.5 (0.6)	20.1 (0.6)	11.5 (0.5)[4,5]	3.1 (0.3)[1,2]
Air Force	12.8 (0.3)	30.5 (0.5)[1,2,3]	25.4 (0.4)	19.0 (0.4)	9.6 (0.3)[1,2,3,5]	2.6 (0.2)[1,2]
Coast Guard	12.3 (0.5)	30.7 (0.7)[1,2,3]	27.1 (0.7)[1,2]	18.9 (0.6)	8.0 (0.4)[1,2,3,4]	3.0 (0.3)[1,2]
All Services	12.7 (0.2)	27.7 (0.3)	24.9 (0.3)	19.8 (0.3)	11.2 (0.2)	3.7 (0.1)

Table 3.10 – Frequency of Food Intake, by Food Category and Service

Food Category/ Service[a]	Frequency of Food Intake: 3 or more times per day	2 times per day	1 time per day	3 to 6 times per week	1 to 2 times per week	Rarely/ Never
Dairy						
Army	13.2 (0.5)	25.2 (0.7)[4,5]	27.0 (0.7)	18.6 (0.6)[5]	11.3 (0.5)[4,5]	4.7 (0.3)[4,5]
Navy	12.3 (0.5)	25.0 (0.6)[4,5]	27.1 (0.7)	18.7 (0.6)[5]	11.6 (0.5)[4,5]	5.3 (0.3)[4,5]
Marine Corps	12.1 (0.5)	24.2 (0.6)[4,5]	29.5 (0.7)	18.2 (0.6)[5]	11.7 (0.5)[4,5]	4.3 (0.3)[4,5]
Air Force	11.9 (0.3)	29.2 (0.5)[1,2,3]	28.9 (0.5)	17.4 (0.4)	9.7 (0.3)[1,2,3,5]	2.9 (0.2)[1,2,3]
Coast Guard	13.3 (0.5)	31.2 (0.7)[1,2,3]	29.3 (0.7)	15.5 (0.5)[1,2,3]	7.9 (0.4)[1,2,3,4]	2.7 (0.2)[1,2,3]
All Services	12.6 (0.2)	26.2 (0.3)	27.9 (0.3)	18.2 (0.3)	10.9 (0.2)	4.3 (0.1)
Lean Protein						
Army	13.2 (0.5)	26.6 (0.7)[4,5]	24.6 (0.7)	22.1 (0.6)	10.6 (0.5)[4,5]	2.9 (0.3)[4,5]
Navy	13.3 (0.5)	26.9 (0.7)[4,5]	24.9 (0.6)	21.1 (0.6)	11.1 (0.5)[4,5]	2.7 (0.2)[4,5]
Marine Corps	14.6 (0.5)	26.5 (0.6)[4,5]	25.8 (0.6)	20.8 (0.6)	9.8 (0.4)[5]	2.5 (0.2)[4,5]
Air Force	13.4 (0.3)	30.1 (0.5)[1,2,3]	25.7 (0.4)	20.5 (0.4)	8.7 (0.3)[1,2,5]	1.5 (0.1)[1,2,3]
Coast Guard	13.3 (0.5)	31.7 (0.7)[1,2,3]	26.9 (0.7)	19.7 (0.6)	7.2 (0.4)[1,2,3,4]	1.2 (0.2)[1,2,3]
All Services	13.5 (0.2)	27.6 (0.3)	25.2 (0.3)	21.2 (0.3)	10.1 (0.2)	2.4 (0.1)
Snack Foods						
Army	2.7 (0.3)[4]	5.4 (0.3)[2,3]	14.9 (0.5)[5]	19.2 (0.6)	34.2 (0.7)	23.7 (0.7)[2,3,4,5]
Navy	2.6 (0.2)[4]	7.0 (0.4)[1,4]	15.6 (0.5)	19.8 (0.6)	34.4 (0.7)[3]	20.5 (0.6)[1]
Marine Corps	3.3 (0.3)[4,5]	7.0 (0.4)[1,4]	16.9 (0.5)	21.2 (0.6)	31.6 (0.7)[2,4,5]	20.0 (0.6)[1]
Air Force	1.7 (0.1)[1,2,3]	5.6 (0.2)[2,3]	15.8 (0.4)	20.5 (0.4)	35.3 (0.5)[3]	21.2 (0.4)[1]
Coast Guard	2.0 (0.2)[3]	6.2 (0.4)	17.4 (0.6)[1]	20.8 (0.6)	34.5 (0.7)[3]	19.2 (0.6)[1]
All Services	2.5 (0.1)	6.0 (0.2)	15.6 (0.3)	20.0 (0.3)	34.2 (0.3)	21.7 (0.3)
Sweets						
Army	3.2 (0.3)[4,5]	5.8 (0.4)	14.6 (0.5)[5]	17.8 (0.6)	33.3 (0.7)	25.3 (0.7)[5]
Navy	2.9 (0.2)[4,5]	6.2 (0.4)	16.1 (0.5)	18.0 (0.6)	34.0 (0.7)[3]	22.8 (0.6)[3]
Marine Corps	3.5 (0.3)[4,5]	6.4 (0.4)	15.3 (0.5)[5]	16.8 (0.5)[4]	30.9 (0.7)[2,4,5]	27.1 (0.6)[2,4,5]
Air Force	1.8 (0.1)[1,2,3]	5.5 (0.2)	15.1 (0.4)[5]	18.9 (0.4)[3]	35.0 (0.5)[3]	23.6 (0.4)[3]
Coast Guard	1.9 (0.2)[1,2,3]	5.9 (0.3)	17.7 (0.6)[1,3,4]	17.6 (0.6)	34.6 (0.7)[3]	22.3 (0.6)[1,3]
All Services	2.8 (0.1)[1,2,3]	5.9 (0.2)	15.3 (0.3)	18.0 (0.3)	33.6 (0.3)	24.5 (0.3)

Table 3.10 – Frequency of Food Intake, by Food Category and Service

Food Category/ Service[a]	Frequency of Food Intake: 3 or more times per day	2 times per day	1 time per day	3 to 6 times per week	1 to 2 times per week	Rarely/ Never
Sugary Drinks						
Army	9.7 (0.5)[2,4,5]	11.9 (0.5)[4,5]	15.9 (0.6)[3]	16.1 (0.6)	20.9 (0.6)[2]	25.6 (0.7)[3,4,5]
Navy	7.3 (0.4)[1,3,4,5]	11.1 (0.5)[3,4,5]	15.5 (0.5)[3]	15.6 (0.5)	24.2 (0.6)[1,3,5]	26.3 (0.6)[3,4,5]
Marine Corps	10.1 (0.4)[2,4,5]	13.3 (0.5)[2,4,5]	19.2 (0.6)[1,2,4,5]	17.8 (0.6)[4,5]	20.1 (0.6)[2,4]	19.6 (0.6)[1,2,4,5]
Air Force	5.6 (0.2)[1,2,3]	9.4 (0.3)[1,2,3]	17.0 (0.4)[3]	15.7 (0.4)[3]	22.9 (0.4)[3]	29.4 (0.5)[1,2,3,5]
Coast Guard	4.8 (0.3)[1,2,3]	9.1 (0.4)[1,2,3]	16.0 (0.5)[3]	14.2 (0.5)[3]	21.5 (0.6)[2]	34.3 (0.7)[1,2,3,4]
All Services	8.1 (0.2)	11.2 (0.2)	16.5 (0.3)	16.1 (0.3)	22.0 (0.3)	26.1 (0.3)
Caffeinated Drinks						
Army	18.5 (0.6)[2,3,4]	18.2 (0.6)[5]	20.7 (0.6)[2,4,5]	11.1 (0.5)	12.9 (0.5)[3,5]	18.6 (0.6)[4,5]
Navy	14.9 (0.5)[1,4,5]	17.6 (0.6)[5]	23.3 (0.6)[1]	11.4 (0.5)	13.5 (0.5)[5]	19.3 (0.6)[5]
Marine Corps	14.6 (0.5)[1,4,5]	16.4 (0.5)[5]	22.4 (0.6)	12.6 (0.5)[5]	15.2 (0.5)[1,5]	18.9 (0.6)[4,5]
Air Force	12.0 (0.3)[1,2,3,5]	17.0 (0.4)[5]	23.6 (0.4)[1]	12.2 (0.3)[5]	14.2 (0.3)[5]	20.9 (0.4)[1,3,5]
Coast Guard	19.2 (0.6)[2,3,4]	21.5 (0.6)[1,2,3,4]	24.5 (0.6)[1]	9.8 (0.4)[3,4]	10.7 (0.5)[1,2,3,4]	14.3 (0.5)[1,2,3,4]
All Services	15.6 (0.3)	17.6 (0.3)	22.3 (0.3)	11.6 (0.2)	13.6 (0.2)	19.2 (0.3)
Fried Foods						
Army	1.8 (0.2)[4,5]	3.7 (0.3)	9.5 (0.5)[3]	17.3 (0.6)[3]	43.5 (0.8)[3]	24.2 (0.7)[3]
Navy	1.6 (0.2)[4]	4.6 (0.3)[4,5]	9.7 (0.4)[3]	19.0 (0.6)	43.3 (0.7)[3]	21.8 (0.6)[4,5]
Marine Corps	2.4 (0.2)[4,5]	4.4 (0.3)[4,5]	11.6 (0.5)[1,2,4]	20.2 (0.6)[1,4,5]	40.0 (0.7)[1,2,4]	21.4 (0.6)[1,4,5]
Air Force	1.0 (0.1)[1,2,3]	3.3 (0.2)[2,3]	9.0 (0.3)[3]	17.5 (0.4)[3]	45.2 (0.5)[3,5]	24.0 (0.4)[2,3,5]
Coast Guard	1.1 (0.2)[1,3]	3.2 (0.3)[2,3]	9.8 (0.4)	17.3 (0.6)[3]	42.2 (0.7)[4]	26.3 (0.7)[2,3,4]
All Services	1.6 (0.1)	3.9 (0.1)	9.7 (0.2)	18.1 (0.3)	43.3 (0.4)	23.3 (0.3)

Note: Table displays the percentage of military personnel, by Service, who indicated each frequency of consuming the listed food categories (e.g., fruits, vegetables, whole grains). The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between the rows within each food category group. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in row #1-5 within the same group. In other words:

[1]Indicates estimate is significantly different from the estimate in row #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[5]Indicates estimate is significantly different from the estimate in row #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Frequency of Food Intake in a Typical Week, Q27).

Table 3.11 – Supplement Use, Past 12 Months, by Service

	Service[1]					
Multiple Vitamins and Minerals	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Once a day or more	37.1 (0.7)[c]	38.0 (0.7)[c]	34.1 (0.7)[a,b,d,e]	38.2 (0.5)[c]	37.6 (0.7)[c]	37.2 (0.4)
Used in past year, less than once a day	18.3 (0.6)[b,c]	22.0 (0.6)[a,d]	22.0 (0.6)[a,d]	19.3 (0.4)[b,c]	20.4 (0.6)	20.0 (0.3)
Never in past year	44.6 (0.8)[b]	40.0 (0.7)[a,c,d]	43.9 (0.7)[b]	42.5 (0.5)[b]	42.0 (0.7)	42.9 (0.4)
Individual Vitamins or Minerals						
Once a day or more	22.8 (0.6)	22.1 (0.6)	22.6 (0.6)	21.2 (0.4)	21.0 (0.6)	22.2 (0.3)
Used in past year, less than once a day	16.3 (0.6)[b,c]	20.6 (0.6)[a,d,e]	21.0 (0.6)[a,d,e]	16.7 (0.4)[b,c]	17.9 (0.6)[b,c]	18.1 (0.3)
Never in past year	60.9 (0.8)[b,c]	57.3 (0.7)[a,d,e]	56.3 (0.7)[a,d,e]	62.1 (0.5)[b,c]	61.1 (0.7)[b,c]	59.8 (0.4)
Antioxidants						
Once a day or more	20.1 (0.6)	21.6 (0.6)	21.7 (0.6)	19.8 (0.4)	21.0 (0.6)	20.6 (0.3)
Used in past year, less than once a day	19.3 (0.6)[b,c,e]	23.1 (0.6)[a,d]	25.3 (0.6)[a,d,e]	19.9 (0.4)[b,c,e]	22.2 (0.6)[a,c,d]	21.2 (0.3)
Never in past year	60.6 (0.8)[b,c,e]	55.3 (0.7)[a,d]	53.1 (0.7)[a,d,e]	60.3 (0.5)[b,c,e]	56.9 (0.7)[a,c,d]	58.2 (0.4)
Legal Body-Building Supplements						
Once a day or more	15.5 (0.6)[c,e]	14.7 (0.5)[c]	23.5 (0.6)[a,b,d,e]	15.2 (0.4)[c,e]	13.3 (0.5)[a,c,d]	16.3 (0.3)
Used in past year, less than once a day	14.3 (0.5)[b,c,d]	18.0 (0.6)[a,c]	22.2 (0.6)[a,b,d,e]	17.5 (0.4)[a,c]	16.0 (0.5)[c]	17.1 (0.3)
Never in past year	70.2 (0.7)[b,c,d]	67.3 (0.7)[a,c,e]	54.4 (0.7)[a,b,d,e]	67.2 (0.5)[a,c,e]	70.7 (0.7)[b,c,d]	66.7 (0.3)
Herbal Supplements						
Once a day or more	9.5 (0.5)[e]	9.8 (0.4)[e]	10.3 (0.4)[d,e]	8.5 (0.3)[c]	7.3 (0.4)[a,b,c]	9.4 (0.2)
Used in past year, less than once a day	13.1 (0.5)[b,c]	16.0 (0.5)[a,c,d,e]	18.6 (0.6)[a,b,d,e]	12.6 (0.3)[b,c]	13.7 (0.5)[b,c]	14.4 (0.3)
Never in past year	77.4 (0.6)[b,c]	74.3 (0.6)[a,c,d,e]	71.1 (0.7)[a,b,d,e]	78.9 (0.4)[b,c]	79.1 (0.6)[b,c]	76.2 (0.3)

Table 3.11 – Supplement Use, Past 12 Months, by Service

Multiple Vitamins and Minerals	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Weight Loss Products						
Once a day or more	11.7 (0.5)[c,d,e]	10.8 (0.5)[c,d,e]	14.7 (0.5)[a,b,d,e]	8.6 (0.3)[a,b,c,e]	5.7 (0.3)[a,b,c,d]	11.0 (0.2)
Used in past year, less than once a day	9.6 (0.5)[c]	10.6 (0.5)[c,d,e]	13.8 (0.5)[a,b,d,e]	8.7 (0.3)[b,c]	8.2 (0.4)[b,c]	10.1 (0.2)
Never in past year	78.7 (0.6)[c,d,e]	78.6 (0.6)[c,d,e]	71.5 (0.7)[a,b,d,e]	82.8 (0.4)[a,b,c,e]	86.1 (0.5)[a,b,c,d]	78.9 (0.3)
Fish Oil						
Once a day or more	18.0 (0.6)	18.2 (0.6)	17.7 (0.6)	17.2 (0.4)	18.2 (0.6)	17.8 (0.3)
Used in past year, less than once a day	12.9 (0.5)[b,c]	15.8 (0.5)[a,d]	17.5 (0.6)[a,d,e]	13.3 (0.3)[b,c]	14.6 (0.5)[c]	14.3 (0.3)
Never in past year	69.1 (0.7)[b,c]	66.0 (0.7)[a,d]	64.8 (0.7)[a,d]	69.5 (0.5)[b,c]	67.2 (0.7)	67.8 (0.3)

Note: Table displays the percentage of military personnel, by Service, who reported use of the listed supplements as defined by the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Supplement Use, Q28).

Table 3.12 – Oral Hygiene and Safety, by Service

Hygiene and Safety Measures	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Brush Teeth with Fluoride Toothpaste						
Two or more times a day	58.3 (0.8)[b,c,d,e]	63.0 (0.8)[a,c]	53.3 (0.8)[a,b,d,e]	62.7 (0.5)[a,c]	65.2 (0.8)[a,c]	60.0 (0.4)
Once a day	35.8 (0.8)[b,d,e]	30.8 (0.8)[a,c]	37.5 (0.8)[b,d,e]	31.6 (0.5)[a,c]	29.7 (0.7)[a,c]	33.7 (0.4)
Several times a week, but less than once a day	3.7 (0.3)	3.4 (0.3)[c]	5.0 (0.4)[b,d,e]	2.9 (0.2)[c]	2.6 (0.3)[c]	3.6 (0.1)
Once a week	0.6 (0.1)	0.8 (0.1)	1.0 (0.2)	0.7 (0.1)	0.5 (0.1)	0.7 (0.1)
A few times a month or less	1.6 (0.2)[c]	2.0 (0.2)[c]	3.2 (0.3)[a,b,d,e]	2.1 (0.2)[c]	2.0 (0.2)[c]	2.1 (0.1)
Floss Teeth						
Once a day	31.6 (0.8)[c]	33.7 (0.8)[c,d,e]	24.2 (0.7)[a,b,d,e]	30.0 (0.5)[b,c]	29.2 (0.7)[b,c]	30.6 (0.4)
A few times a week	28.5 (0.8)[e]	29.3 (0.7)	27.3 (0.7)[d,e]	30.9 (0.5)[c]	31.8 (0.8)[a,c]	29.2 (0.4)
Once a week	10.0 (0.5)	10.5 (0.5)	10.0 (0.5)	11.0 (0.3)	10.3 (0.5)	10.4 (0.2)
Several times a month, but less than once a week	11.0 (0.5)[c,e]	11.3 (0.5)[c,e]	14.2 (0.6)[a,b,d]	12.3 (0.4)[c]	14.0 (0.6)[a,b]	11.9 (0.3)
Less than once a month	18.9 (0.7)[b,c,d,e]	15.2 (0.6)[a,c]	24.3 (0.7)[a,b,d,e]	15.9 (0.4)[a,c]	14.7 (0.6)[a,c]	17.9 (0.3)
Mouth Guard Use in Recommended Situations						
Always/Often	54.7 (1.0)[b,c,d,e]	34.3 (1.2)[a,c,d]	62.3 (0.9)[a,b,d,e]	48.9 (0.8)[a,b,c,e]	35.9 (1.2)[a,c,d]	51.3 (0.5)
Sometimes	11.4 (0.6)[b]	7.9 (0.7)[a,c,d]	13.5 (0.6)[b,d,e]	10.3 (0.5)[b,c]	9.8 (0.7)[c]	11.0 (0.3)
Seldom/Never	24.9 (0.9)[b,e]	40.2 (1.2)[a,c,d]	22.0 (0.7)[b,d,e]	27.7 (0.7)[b,c,e]	40.2 (1.2)[a,c,d]	27.7 (0.5)
Do not have mouth guard	9.0 (0.6)[a,b,d,e]	17.6 (0.9)[a,c,d]	2.2 (0.3)[a,b,d,e]	13.1 (0.5)[a,b,c]	14.2 (0.9)[a,c]	10.0 (0.3)

Note: Table displays the percentage of military personnel, by Service, who reported the indicated frequencies of brushing and flossing their teeth and mouth guard use. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Frequency of Brushing Teeth with Fluoride Toothpaste, Q104; Frequency of Flossing Teeth, Q105; Frequency of Mouth Guard Use, Q103).

Table 3.13 – Average Number of Hours of Sleep per Night in Past 7 Days, by Selected Sociodemographic Characteristics

Characteristic[a]	Average Hours of Sleep (Past 7 Days)			
	4 hours or less	5 or 6 hours	7 or 8 hours	9 hours or more
Service				
Army	14.2 (1.1)[4,5]	47.6 (1.5)[4,5]	35.0 (1.5)[4,5]	3.1 (0.5)
Navy	12.0 (0.9)[4,5]	42.9 (1.4)[4]	39.8 (1.4)[4,5]	5.2 (0.6)
Marine Corps	14.2 (1.0)[4,5]	45.6 (1.4)[4]	35.3 (1.4)[4,5]	4.9 (0.6)
Air Force	6.1 (0.5)[1,2,3]	37.4 (0.9)[1,2,3]	52.5 (1.0)[1,2,3]	4.0 (0.4)
Coast Guard	5.3 (0.7)[1,2,3]	41.3 (1.5)[1]	50.0 (1.5)[1,2,3]	3.4 (0.5)
All Services	11.4 (0.5)	43.5 (0.7)	40.9 (0.7)	4.1 (0.3)
Gender				
Male	11.4 (0.5)	44.2 (0.8)[2]	41.0 (0.8)	3.4 (0.3)[2]
Female	11.9 (1.2)	39.1 (1.9)[1]	40.5 (1.9)	8.5 (1.1)[1]
Race/Ethnicity				
White, non-Hispanic	10.4 (0.5)[2]	43.4 (0.8)	42.6 (0.8)[2]	3.6 (0.3)[2]
African-American, non-Hispanic	14.8 (1.5)[1]	42.3 (2.1)	36.3 (2.1)[1]	6.6 (1.1)[1]
Hispanic	12.5 (1.4)	44.0 (2.0)	38.3 (2.0)	5.3 (0.9)
Other	14.5 (2.0)	46.7 (2.9)	35.6 (2.8)	3.3 (1.0)
Education				
High School or less	16.5 (1.2)[2,3]	43.5 (1.6)	32.2 (1.5)[2,3]	7.8 (0.9)[2,3]
Some college	13.0 (0.7)[1,3]	45.7 (1.0)[3]	37.6 (1.0)[1,3]	3.7 (0.4)[1,3]
College graduate or higher	5.6 (0.6)[1,2]	40.0 (1.3)[2]	52.0 (1.3)[1,2]	2.3 (0.4)[1,2]
Age				
18-20	12.5 (2.2)	39.1 (3.3)	41.6 (3.3)	6.7 (1.7)[3,5]
21-25	12.9 (1.0)	40.9 (1.4)[4]	39.6 (1.4)	6.7 (0.7)[3,4,5]
26-35	11.1 (0.7)	43.8 (1.2)	42.1 (1.2)	3.0 (0.4)[1,2]
36-45	10.6 (1.0)	47.9 (1.6)[2]	38.6 (1.5)	2.9 (0.5)[2]
46-65	8.1 (1.8)	43.5 (3.3)	47.1 (3.3)	1.3 (0.7)[1,2]
Family Status				
Not married	13.7 (0.8)[3]	41.0 (1.2)[3]	39.4 (1.1)[3]	5.9 (0.6)[3]
Married, spouse not present	17.4 (1.8)[3]	44.5 (2.4)	34.5 (2.3)[3]	3.6 (0.9)
Married, spouse present	8.9 (0.5)[1,2]	45.1 (1.0)[1]	43.1 (1.0)[1,2]	2.9 (0.3)[1]
Pay Grade				
E1-E4	14.1 (0.8)[5,6]	40.9 (1.1)[2,3]	38.7 (1.1)[5,6]	6.3 (0.5)[2,3,5,6]
E5-E6	13.5 (0.9)[5,6]	46.2 (1.3)[1,5]	36.8 (1.3)[5,6]	3.5 (0.5)[1]
E7-E9	11.7 (1.5)[5,6]	52.1 (2.3)[1,5]	34.7 (2.2)[5,6]	1.6 (0.6)[1]
W1-W5	6.6 (2.9)	48.9 (5.8)	42.3 (5.7)	2.2 (1.7)
O1-O3	2.8 (0.7)[1,2,3]	38.3 (2.1)[2,3]	56.9 (2.1)[1,2,3]	1.9 (0.6)[1]
O4-O10	2.9 (0.9)[1,2,3]	43.8 (2.5)	52.5 (2.6)[1,2,3]	0.9 (0.5)[1]
Region				
CONUS[b]	10.9 (0.5)[2]	43.5 (0.8)	41.5 (0.8)	4.0 (0.3)
OCONUS[c]	13.2 (1.0)[1]	43.6 (1.5)	39.0 (1.5)	4.2 (0.6)

Note: Table displays the percentage of military personnel, by sociodemographic characteristic, who reported their average hours of sleep per night in the past 7 days. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel who were stationed within the 48 contiguous States in the continental United States (excluding Alaska and Hawaii).

[c]Refers to personnel who were stationed outside the continental United States.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Average Hours of Sleep, Past 7 Days, Q141).

Table 3.14 – Sexual Health of Married and Unmarried Personnel, by Service

Characteristic	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Number of New Partners, Past 12 Months						
No new sex partners	69.9 (0.8)[b,c]	65.5 (0.8)[a,c,d,e]	59.3 (0.8)[a,b,d,e]	71.3 (0.5)[b,c]	70.8 (0.7)[b,c]	67.9 (0.4)
1 partner	15.8 (0.6)	16.1 (0.6)	16.8 (0.6)[d,e]	14.6 (0.4)[c]	14.1 (0.6)[c]	15.7 (0.3)
2-4 partners	10.1 (0.5)[b,c]	12.7 (0.5)[a,c,d]	16.0 (0.6)[a,b,d,e]	10.7 (0.3)[b,c]	11.4 (0.5)[c]	11.6 (0.3)
5 or more partners	4.2 (0.3)[b,c]	5.7 (0.4)[a,c,d,e]	7.9 (0.4)[a,b,d,e]	3.4 (0.2)[b,c]	3.8 (0.3)[b,c]	4.8 (0.2)
Frequency of Condom Use with New Partner, Past 12 Months						
Always	31.2 (1.5)[d,e]	36.7 (1.4)	33.4 (1.2)[d,e]	40.3 (1.0)[a,c]	39.2 (1.5)[a,c]	35.1 (0.7)
Often	16.3 (1.2)	17.7 (1.1)	19.3 (1.0)	17.4 (0.8)	17.7 (1.2)	17.4 (0.5)
Sometimes	13.4 (1.1)	12.7 (1.0)	12.9 (0.9)	11.7 (0.7)	11.4 (1.0)	12.7 (0.5)
Seldom	10.1 (1.0)	10.3 (0.9)	10.3 (0.8)	8.4 (0.6)	8.4 (0.9)	9.7 (0.4)
Never	29.1 (1.4)[b,d,e]	22.6 (1.2)[a]	24.1 (1.1)	22.3 (0.9)[a]	23.3 (1.3)[a]	25.0 (0.6)
History of Sexually Transmitted Infection						
Yes, contracted within past 12 months	1.3 (0.2)[e]	1.8 (0.2)[d,e]	1.4 (0.2)[e]	1.1 (0.1)[b,e]	0.6 (0.1)[a,b,c,d]	1.4 (0.1)
Yes, contracted more than 1 year ago	11.4 (0.5)[c,e]	11.7 (0.5)[c,e]	9.0 (0.5)[a,b]	10.4 (0.3)	8.8 (0.5)[a,b]	10.8 (0.2)
No	85.5 (0.6)[e]	84.8 (0.6)[c,d,e]	87.5 (0.5)[b]	86.9 (0.4)[b,e]	89.5 (0.5)[a,b,d]	86.1 (0.3)
Have not been tested	1.7 (0.2)	1.7 (0.2)	2.1 (0.2)[e]	1.6 (0.1)	1.2 (0.2)[c]	1.7 (0.1)
Sexually Active Unmarried Personnel[2]	21.5 (1.3)[b,c,d,e]	28.4 (1.4)[a,c]	32.2 (1.4)[a,b,d,e]	26.8 (0.9)[a,c]	26.5 (1.3)[a,c]	25.9 (0.7)

Note: Table displays the percentage of all personnel, including married and unmarried military personnel, by Service, who reported the listed sexual health behaviors or indicators. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[2]Sexually active was defined as engaging in sexual intercourse with at least one partner in the past 12 months.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Number of New Sexual Partners, Past 12 Months, Q94; Frequency of Condom Use with New Sexual Partners, Past 12 Months, Q95; History of Sexually Transmitted Infection, Q97; Sexual Activity of Unmarried Personnel, Q18, Q93).

Table 3.15 – Sociodemographic Characteristics of Married and Unmarried Personnel who Never Use Condoms with a New Partner, Past 12 Months, by Service

	Service[1]					
Characteristic[a]	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Gender						
Male	29.6 (1.6)	23.1 (1.3)	24.0 (1.2)	22.1 (1.0)	23.5 (1.4)	25.3 (0.7)
Female	26.7 (3.3)	20.4 (2.7)	24.9 (3.9)	23.0 (1.9)	22.0 (3.3)	23.8 (1.5)
Race/Ethnicity						
White, non-Hispanic	29.8 (1.9)	23.6 (1.6)	25.0 (1.4)	24.2 (1.1)[2]	23.3 (1.5)	26.0 (0.8)[2]
African-American, non-Hispanic	22.6 (3.1)	20.0 (2.8)	19.9 (3.2)	14.1 (2.1)[1]	20.3 (5.0)	20.0 (1.5)[1,4]
Hispanic	30.6 (3.8)	17.4 (2.9)	21.0 (2.4)	19.8 (2.3)	23.4 (3.8)	23.3 (1.6)[4]
Other	38.8 (6.1)	30.9 (4.9)	33.5 (5.5)	20.7 (4.0)	29.8 (7.4)	32.5 (2.8)[2,3]
Education						
High School or less	30.1 (3.0)	19.7 (2.0)[3]	23.9 (1.6)	18.6 (1.8)[3]	20.4 (2.4)	23.6 (1.1)[3]
Some college	29.0 (2.0)	22.1 (1.7)[3]	24.1 (1.7)	21.6 (1.1)[3]	23.7 (1.8)	24.6 (0.9)
College graduate or higher	28.3 (2.9)	30.8 (3.4)[1,2]	25.1 (3.9)	28.0 (2.1)[1,2]	26.2 (3.1)	28.4 (1.5)[1]
Age						
18-20	27.6 (5.6)	10.2 (3.7)[4]	16.3 (2.4)[3,4]	14.4 (2.3)[3,4]	18.0 (6.0)	17.7 (1.9)[3,4,5]
21-25	22.8 (2.5)	21.4 (1.9)	24.1 (1.6)	16.4 (1.3)[3,4]	15.0 (1.9)[3,4]	21.1 (1.0)[3,4,5]
26-35	29.4 (2.4)	21.5 (2.0)	29.2 (2.6)[1]	25.3 (1.7)[1,2,4]	25.6 (2.2)[2]	26.3 (1.1)[1,2,4,5]
36-45	34.8 (3.8)	29.7 (3.9)[1]	38.8 (5.8)[1]	40.4 (3.3)[1,2,3]	37.0 (4.7)[2]	34.9 (2.0)[1,2,3,5]
46-65	†	†	†	†	†	52.8 (6.2)[1,2,3,4]
Family Status						
Not married	18.2 (1.5)[2,3]	13.5 (1.2)[2,3]	17.4 (1.1)[2,3]	14.3 (0.8)[2,3]	15.7 (1.3)[2,3]	15.9 (0.6)[2,3]
Married, spouse not present	35.3 (4.6)[1,3]	34.3 (4.2)[1,3]	31.7 (4.3)[1,3]	36.1 (4.7)[1,3]	29.1 (4.7)[1,3]	34.4 (2.3)[1,3]
Married, spouse present	54.0 (3.2)[1,2]	51.1 (3.3)[1,2]	48.9 (3.1)[1,2]	54.5 (2.5)[1,2]	53.5 (3.8)[1,2]	52.7 (1.6)[1,2]

Table 3.15 – Sociodemographic Characteristics of Married and Unmarried Personnel who Never Use Condoms with a New Partner, Past 12 Months, by Service

	Service[1]					
Characteristic[a]	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Pay Grade						
E1-E4	26.9 (1.9)	19.8 (1.5)	21.9 (1.3)[3]	16.5 (1.0)[2,3,6]	15.1 (1.6)[2,3,5]	21.8 (0.8)[2,3,4,6]
E5-E6	30.0 (2.9)	23.7 (2.3)	30.0 (2.9)	28.7 (1.7)[1]	29.8 (2.5)[1]	28.0 (1.3)[1,3,4]
E7-E9	39.0 (6.0)	35.5 (6.6)	41.0 (6.6)[1,5]	41.2 (4.7)[1,5]	33.0 (6.2)[1]	38.8 (3.1)[1,2,5]
W1-W5	†	†	†	-----	†	†
O1-O3	24.9 (5.1)	24.2 (4.6)	17.2 (4.5)[3]	22.4 (2.9)[3]	29.3 (5.2)[1]	23.3 (2.3)[3,4,6]
O4-O10	†	†	†	34.0 (5.7)[1]	†	39.8 (4.7)[1,5]
Region						
CONUS[b]	29.9 (1.7)	24.3 (1.5)	25.6 (1.3)[2]	23.0 (1.0)	22.4 (1.4)	26.2 (0.7)[2]
OCONUS[c]	26.4 (2.9)	19.6 (2.0)	19.8 (2.0)[1]	19.9 (1.7)	30.2 (4.2)	21.9 (1.2)[1]

Note: Table displays the percentage of married and unmarried military personnel, by sociodemographic characteristics, who reported having at least one new sexual partner in the past 12 months and never using condoms with a new partner. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel who were stationed within the 48 contiguous States in the continental United States (excluding Alaska and Hawaii).

[c]Refers to personnel who were stationed outside the continental United States.

-----Not applicable.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Number of New Sexual Partners, Past 12 Months, Q94; Frequency of Condom Use with New Sexual Partners, Past 12 Months, Q95).

Table 3.16 – Vehicle and Motorcycle Safety, Past 12 Months, by Service

	Service[1]					
Safety or Use Measure	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Seat Belt Use in Personally Owned Vehicle						
Always/Often	98.4 (0.2)[d]	98.0 (0.2)[d]	97.9 (0.2)[d]	99.4 (0.1)[a,b,c,e]	98.4 (0.2)[d]	98.5 (0.1)
Never	0.4 (0.1)[d]	0.4 (0.1)[d]	0.3 (0.1)[d]	0.1 (0.1)[a,b,c]	0.2 (0.1)	0.3 (0.1)
Motorcycle Helmet Use						
Always/Often	94.0 (0.9)	92.2 (1.0)[d]	92.7(0.8)[d]	95.3 (0.5)[b,c]	94.3 (0.7)	93.8 (0.4)
Never	3.1 (0.6)	4.6 (0.7)[e]	3.6 (0.6)	2.8 (0.4)	2.0 (0.4)[b]	3.4 (0.3)
Motorcycle Use						
40 or more times	7.0 (0.4)[e]	6.5 (0.4)[c,e]	8.5 (0.5)[b,d]	5.8 (0.3)[c,e]	9.2 (0.5)[a,b,d]	6.8 (0.2)
1 to 39 times	10.7 (2.0)[e]	10.1 (2.0)[e]	10.7 (1.9)[e]	10.9 (1.3)[e]	13.7 (1.7)[a,b,c,d]	10.7 (0.9)
Did not drive or ride on a motorcycle	82.3 (0.6)[e]	83.4 (0.6)[c,e]	80.8 (0.6)[b,d,e]	83.4 (0.4)[c,e]	77.1 (0.7)[a,b,c,d]	82.4 (0.3)

Note: Table displays the percentage of military personnel, by Service, who reported the seat belt, motorcycle helmet, and motorcycle use frequencies listed in the rows of the table. Personnel who reported that they did not drive or ride in a car were excluded from these analyses. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Frequency of Seat Belt Use, Past 12 Months, Q106; Motorcycle Helmet Use, Past 12 Months, Q107; Motorcycle Use, Past 12 Months, Q110).

Table 3.17 – Estimates of Exposure to Loud Noises and Use of Hearing Protection, Past 12 Months, by Service

Measure	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Number of Times in Close Proximity to Weapons Firing or Explosions						
0 times	18.4 (0.7)[b,d,e]	49.0 (0.8)[a,c,d,e]	17.9 (0.6)[b,d,e]	46.2 (0.5)[a,b,c,e]	36.7 (0.8)[a,b,c,d]	32.6 (0.4)
1-10 times	49.9 (0.8)[b,d,e]	35.7 (0.8)[a,c,d,e]	52.3 (0.8)[b,d,e]	42.3 (0.5)[a,b,c]	43.4 (0.8)[a,b,c]	45.0 (0.4)
11-20 times	13.5 (0.6)[b,d,e]	6.6 (0.4)[a,c,d,e]	12.7 (0.5)[b,d,e]	5.2 (0.2)[a,b,c,e]	10.0 (0.5)[a,b,c,d]	9.7 (0.2)
21-39 times	5.9 (0.4)[b,d,e]	3.0 (0.3)[a,c]	5.3 (0.4)[b,d,e]	2.3 (0.2)[a,b,c,e]	3.2 (0.3)[a,c,d]	4.2 (0.2)
40 or more times	12.2 (0.6)[b,d,e]	5.7 (0.4)[a,b,d]	11.8 (0.5)[b,d,e]	4.0 (0.2)[a,b,c,e]	6.7 (0.4)[a,c,d]	8.5 (0.2)
Total Exposed	81.6 (0.7)[b,d,e]	51.0 (0.8)[a,c,d,e]	82.1 (0.6)[b,d,e]	53.8 (0.5)[a,b,c,e]	63.3 (0.8)[a,b,c,d]	67.4 (0.4)
Hearing Protection While Exposed to Weapons Firing or Explosions						
Always	69.1 (0.9)[b,d,e]	77.9 (1.0)[a,c,e]	60.1 (0.9)[a,b,d,e]	77.9 (0.6)[a,c,e]	83.8 (0.8)[a,b,c,d]	71.3 (0.4)
Often	18.7 (0.7)[b,c,d,e]	11.7 (0.7)[a,c]	22.4 (0.8)[a,b,d,e]	11.3 (0.5)[a,c]	9.9 (0.6)[a,c]	16.4 (0.4)
Sometimes	6.4 (0.5)[c,d,e]	4.5 (0.5)[c]	9.4 (0.5)[a,b,d,e]	4.7 (0.3)[a,c]	3.8 (0.4)[a,c]	6.2 (0.2)
Seldom	3.2 (0.3)[e]	2.3 (0.3)[c]	4.3 (0.4)[b,d,e]	2.5 (0.2)[c,e]	1.2 (0.2)[c,d]	3.0 (0.2)
Never	2.6 (0.3)[e]	3.6 (0.4)[e]	3.8 (0.3)[e]	3.5 (0.3)[e]	1.3 (0.2)[a,b,c,d]	3.1 (0.2)

Note: Table displays the percentage of military personnel, by Service, who were exposed to noise from weapons firing or explosions and the frequency they use hearing protection. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Frequency of Exposure to Loud Noises, Past 12 Months, Q112; Use of Hearing Protection when Exposed to Loud Noises, Past 12 Months, Q112A).

Table 3.18 – Medical Treatment for Injuries, Past 12 Months, by Service

	Service[1]					
Accident or Injury	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Car or Motorcycle Accident	2.8 (0.3)	3.4 (0.3)[d]	3.0 (0.3)	2.3 (0.2)[b]	2.6 (0.3)	2.9 (0.1)
Other Accidental Injury	12.7 (0.6)[b,d]	9.8 (0.5)[a,c]	12.3 (0.5)[b,d]	9.7 (0.3)[a,c]	10.6 (0.5)	11.2 (0.3)
Overuse Injury	30.5 (0.8)[b,c,d,e]	19.2 (0.6)[a,c]	24.6 (0.7)[a,b,d,e]	20.9 (0.4)[a,c,e]	16.8 (0.6)[a,c,d]	24.4 (0.3)
Non-Heavy Drinkers						
Car or Motorcycle Accident	2.8 (0.3)	3.4 (0.3)[d]	2.8 (0.3)	2.3 (0.2)[b]	2.4 (0.3)	2.8 (0.2)
Other Accidental Injury	12.6 (0.6)[b,d]	9.6 (0.6)[a]	11.8 (0.6)[d]	9.6 (0.4)[a,c]	11.0 (0.6)	11.0 (0.3)
Overuse Injury	31.0 (0.9)[b,c,d,e]	19.7 (0.8)[a,c]	24.8 (0.8)[a,b,d,e]	21.0 (0.5)[a,c,e]	17.2 (0.7)[a,c,d]	24.7 (0.4)
Heavy Drinkers						
Car or Motorcycle Accident	3.1 (1.0)	3.0 (1.0)[d]	3.8 (0.8)	1.8 (0.8)[b]	4.0 (1.2)	3.1 (0.5)
Other Accidental Injury	16.5 (2.2)	10.2 (1.7)	15.4 (1.6)	14.6 (2.0)	10.4 (1.8)	14.4 (1.0)
Overuse Injury	33.0 (2.8)[b,e]	19.3 (2.2)[a]	25.2 (1.9)	25.7 (2.4)	18.1 (2.3)[a]	26.6 (1.2)

Note: Table displays the percentage of all military personnel and personnel classified as non-heavy or heavy drinkers, by Service, who received medical treatment for the listed accidents and/or injuries. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Medical Treatment for Injuries, Past 12 Months, Q111; Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47).

Table 3.19 – Gang-Related Activity in the Military, by Service

Type of Gang Experience	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Noticed Gang-Related Activities Among Active Duty Personnel, Past 12 Months	8.9 (0.5)[b,c,d,e]	4.5 (0.3)[a,d,e]	4.9 (0.4)[a,d,e]	2.3 (0.2)[a,b,c,e]	1.4 (0.2)[a,b,c,d]	5.5 (0.2)
Approached About Joining a Gang, Past 12 Months	1.4 (0.2)[d]	1.0 (0.2)[d]	1.0 (0.2)[d]	0.4 (0.1)[a,b,c,e]	0.8 (0.1)[d]	1.0 (0.1)
Belonged to a Gang While in the Military	0.8 (0.1)[d]	0.9 (0.2)[d]	0.5 (0.1)	0.4 (0.1)[a,b]	0.6 (0.1)	0.6 (0.1)

Note: Table displays the percentage of military personnel, by Service, who reported that they had experienced gang-related activities. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Experience with Gangs in the Military, Q113).

Table 3.20 – Selected Health Risk Behaviors, Stress and Mental Health Measures, by Levels of Religiosity/Spirituality

	Religiosity/Spirituality[1]				
Measure	**High**	**Medium**	**Low**	**Not Applicable**	**Total**
Heavy Alcohol Use	4.8 (0.3)[b,c,d]	8.0 (0.4)[a,c,d]	11.0 (0.7)[a,b]	10.6 (0.5)[a,b]	8.1 (0.2)
Current Cigarette Smoker	15.9 (0.6)[b,c,d]	24.3 (0.6)[a,c,d]	27.2 (1.0)[a,b]	29.7 (0.8)[a,b]	23.5 (0.3)
Any Prescription Drug Misuse[2]	0.8 (0.1)[c,d]	1.2 (0.1)	2.0 (0.3)[a]	1.7 (0.2)[a]	1.3 (0.1)
Risk Behaviors					
Drinking and driving	4.0 (0.3)[b,c,d]	5.6 (0.3)[a,c]	8.0 (0.6)[a,b,d]	6.0 (0.4)[a,c]	5.6 (0.2)
Sometimes, seldom, or never used seat belts	0.9 (0.1)[c,d]	1.4 (0.2)[c]	2.4 (0.3)[a,b]	1.8 (0.2)[a]	1.5 (0.1)
Sometimes, seldom, or never used helmet	6.3 (0.8)	4.2 (0.6)[c]	10.0 (1.3)[b]	6.7 (0.9)	6.2 (0.4)
High Anxiety Level	15.3 (0.6)[c,d]	16.2 (0.5)	18.6 (0.8)[a]	17.9 (0.7)[a]	16.7 (0.3)
High Depression Level	8.4 (0.4)[c,d]	9.5 (0.4)	10.8 (0.7)[a]	10.5 (0.5)[a]	9.6 (0.2)
Suicidal Ideation	3.2 (0.3)[c,d]	3.6 (0.3)[d]	4.9 (0.5)[a]	4.9 (0.4)[a,b]	3.9 (0.2)
High Overall Stress	40.7 (0.7)	42.1 (0.7)	43.4 (1.1)	41.9 (0.8)	41.9 (0.4)
High Anger Propensity	6.1 (0.4)[c,d]	6.4 (0.3)[c,d]	8.6 (0.6)[a,b]	9.0 (0.5)[a,b]	7.2 (0.2)
Low Resilience	3.2 (0.3)[c,d]	3.2 (0.2)[c,d]	4.8 (0.5)[a,b,d]	6.9 (0.4)[a,b,c]	4.3 (0.2)
Low Positive Affect	6.7 (0.4)[b,c,d]	8.1 (0.4)[a,c,d]	11.4 (0.7)[a,b,d]	14.5 (0.6)[a,b,c]	9.6 (0.2)
Total	28.3 (0.4)	35.3 (0.4)	14.0 (0.3)	22.4 (0.3)	

Note: Table displays the percentage of military personnel, by religiosity/spirituality levels, who reported the health risk, stress and mental health measures as indicated in the rows of the table. The standard error of each estimate is presented in parentheses. Respondents were asked to what extent they agreed with the statement, "My religious/spiritual beliefs influence how I make personal decisions in my life."

[1]Significance tests were conducted between all levels of religiosity/spirituality. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-4. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (High) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Medium) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Low) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Not Applicable) at the 95% confidence level after Bonferroni adjustment.

[2]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)."

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drinking Level, Q4, Q38, Q39, Q40, Q46, Q47; Current Cigarette Smoker, Q61, Q64; Any Prescription Drug Misuse, Q84, Q86, Q87, Q89; Drinking and Driving, Q44B, Q44C; Frequency of Seat Belt Use, Past 12 Months, Q106; Motorcycle Helmet Use, Past 12 Months, Q107; Anxiety Level, Q126; Depression Level, Q125C, Q125E; Suicidal Ideation, Q137, Q137A; Overall Stress Level, Q119, Q120; Anger Propensity, Q134, Q139C, Q139I, Q168B; Resilience Level, Q139A, Q139B, Q139J, Q168A, Q168C, Q168I; Positive Affect, Q125A, Q125D; Religiosity/Spirituality Index, Q115).

Table 3.21 – Children Living with Active Duty Personnel and Selected Health Promotion Behaviors, by Service

	Service[1]					
Measure	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Number of Children						
None	56.1 (0.8)[b,c]	60.3 (0.7)[a,c]	68.4 (0.7)[a,b,d,e]	58.2 (0.5)[c]	57.4 (0.7)[c]	59.3 (0.4)
One	17.0 (0.6)[c]	16.4 (0.5)[c]	13.6 (0.5)[a,b,d,e]	16.4 (0.4)[c]	16.9 (0.6)[c]	16.2 (0.3)
Two	16.3 (0.6)[c]	14.8 (0.5)[c,d,e]	11.4 (0.5)[a,b,d,e]	16.9 (0.4)[b,c]	17.5 (0.6)[b,c]	15.5 (0.3)
Three or more	10.6 (0.5)[b,c,d,e]	8.5 (0.4)[a,c]	6.7 (0.4)[a,b,d]	8.5 (0.3)[a,c]	8.2 (0.4)[a]	9.0 (0.2)
Relationship to Active Duty Member						
Biological children	39.3 (0.7)[c]	36.9 (0.7)[c,e]	28.6 (0.7)[a,b,d,e]	39.1 (0.5)[c]	40.8 (0.7)[b,c]	37.3 (0.3)
Step-children	7.9 (0.4)[b,c,d,e]	5.1 (0.3)[a]	5.3 (0.3)[a,e]	5.0 (0.2)[a,e]	3.9 (0.3)[a,c,d]	6.1 (0.2)
Adopted children	1.6 (0.2)[b,c,e]	0.7 (0.1)[a]	0.7 (0.1)[a]	1.1 (0.1)	0.7 (0.1)[a]	1.1 (0.1)
Foster children	0.1 (0.1)	†	†	0.1 (0.1)	†	†
Other children	0.9 (0.1)	0.8 (0.1)	0.5 (0.1)	0.6 (0.1)	0.6 (0.1)	0.8 (0.1)
Promotion of Healthy Food and Beverage Choices						
Always/Often	94.7 (0.5)	94.2 (0.5)	94.3 (0.6)	95.5 (0.3)	94.0 (0.5)	94.7 (0.3)
Never	0.2 (0.1)	0.4 (0.1)	0.4 (0.2)	0.3 (0.1)	0.4 (0.1)	0.3 (0.1)
Ease of Access to Prescription Medications						
Very easy	5.4 (0.5)	5.0 (0.5)	4.0 (0.5)	4.8 (0.3)	5.6 (0.5)	5.0 (0.2)
Very difficult	52.1 (1.2)	53.4 (1.2)	53.8 (1.3)	54.2 (0.8)[e]	49.6 (1.1)[d]	53.0 (0.6)
No such medications	14.4 (0.8)[c,e]	15.8 (0.9)	19.3 (1.0)[a,d]	16.0 (0.6)[c]	18.0 (0.9)[a]	15.7 (0.4)
Current Smokers who Smoke with Children Present (Often, Sometimes)	12.3 (1.0)[c,d,e]	8.8 (0.9)[d]	6.0 (0.7)[a]	5.6 (0.6)[a,b]	5.8 (0.8)[a]	9.1 (0.5)

Note: Table displays the percentage of military personnel, by Service, who reported experiences living with children and selected health promotion behaviors as indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Number of Children Living at Current Duty Station, Q25, Q25A; Relationship to Active Duty Member, Q25B; Frequency of Health Food and Beverage Promotion in Children, Q25C; Children's Access to Prescription Medications in the Home, Q25D; Frequency of Smoking with Children Present, Q67).

Chapter 4: Substance Use

Chapter 4 is presented in four subsections, as follows:

- Section 4.1. Alcohol Use presents an analysis of alcohol use and abuse in the military.
- Section 4.2. Illicit and Prescription Drug Use presents an analysis of illicit and prescription drug use as well as prescription drug misuse among active duty military personnel.
- Section 4.3. Tobacco Use presents an analysis of cigarette smoking and smokeless tobacco use as well as use of pipes and cigars.
- Section 4.4. Culture of Substance Use presents findings on the culture of substance use in the military, including social network facilitation and leadership deterrence of the use of substances.

4.1 Alcohol Use

This section presents the results of a detailed analysis of alcohol use in the military including the current prevalence rates of alcohol use among active duty service members, classifying service members by level of drinking, prevalence of binge drinking in the last 30 days, number of drinks to feel drunk, age at first use, and a number of drinking facilitators and deterrents to drinking. Results also show the relationship of alcohol use to work-related productivity loss, serious personal and legal consequences, and engaging in additional risk behaviors. Estimates of the likelihood that personnel will seek treatment for their alcohol use are presented as well as preferences for possible sources of treatment.

Overview of Key Measures of Alcohol Use

The survey included a number of measures of alcohol use to provide a comprehensive assessment of the extent of alcohol use among active duty service members and associated risk behaviors and problems. Definitions for all of the measures reported in this section are explained in Appendix A: Key Definitions and Measures. As discussed in Chapter 2: Methodology, skip and branching logic were used in the web-based questionnaire. Respondents who indicated that they had not had at least 12 drinks of alcohol over their entire lifetime and did not drink alcohol in the past 12 months were not asked many of the alcohol measures as they were not applicable to them.

Respondents were classified into five drinking levels – lifetime abstainers, former drinkers, current light/infrequent drinkers, moderate drinkers, and heavy drinkers. This classification scheme was based on the definitions established by the 2010 National Health Interview Survey (NHIS) from the

Centers for Disease Control and Prevention (CDC); the survey questions from the 2011 HRB that served as the basis for the classification were also from the NHIS and therefore allowed for a direct comparison to civilian estimates.[20] Many of the analyses, in this and subsequent chapters, were conducted by these drinking levels, defined as follows:

- Abstainers had fewer than 12 alcoholic drinks in their lifetime;
- Former drinkers had at least 12 drinks in their lifetime, but did not drink in the past 12 months;
- Infrequent/Light drinkers had fewer than 4 drinks per week on average in the past 12 months;
- Moderate drinkers had 4 to 14 drinks per week on average for males, and 4 to 7 drinks per week on average for females, in the past 12 months; and
- Heavy drinkers had more than 14 drinks per week on average for males, and more than 7 drinks per week on average for females, in the past 12 months.[21]

Civilian benchmarks for binge drinking were from the 2010 National Survey on Drug Use and Health (NSDUH), sponsored by Substance Abuse and Mental Health Services Administration (SAMHSA).[22]

Overview of Findings

Alcohol Use Among Current Drinkers

- Active duty service members who were current drinkers consumed alcohol an average of 6.2 days per month, with Marine Corps members reporting the most days of drinking per month (7.5 days on average), and Air Force members reporting the fewest days of drinking per month (4.8 days on average), as shown in Table 4.1.1.
- Current drinkers reported that, on average, the largest number of drinks that they consumed in the past 30 days was 5.4 drinks, and that they needed 5.6 drinks, on average, to feel drunk in the past 12 months (see Table 4.1.1).
- Figure 4.1.A compares the median number of drinks that service members reported they needed to feel drunk, and the median largest number of drinks consumed on one occasion in the past month, by drinking level. The solid (blue) line shows the median number of drinks that active duty personnel reported they needed to feel drunk, and the dashed (green) line shows the

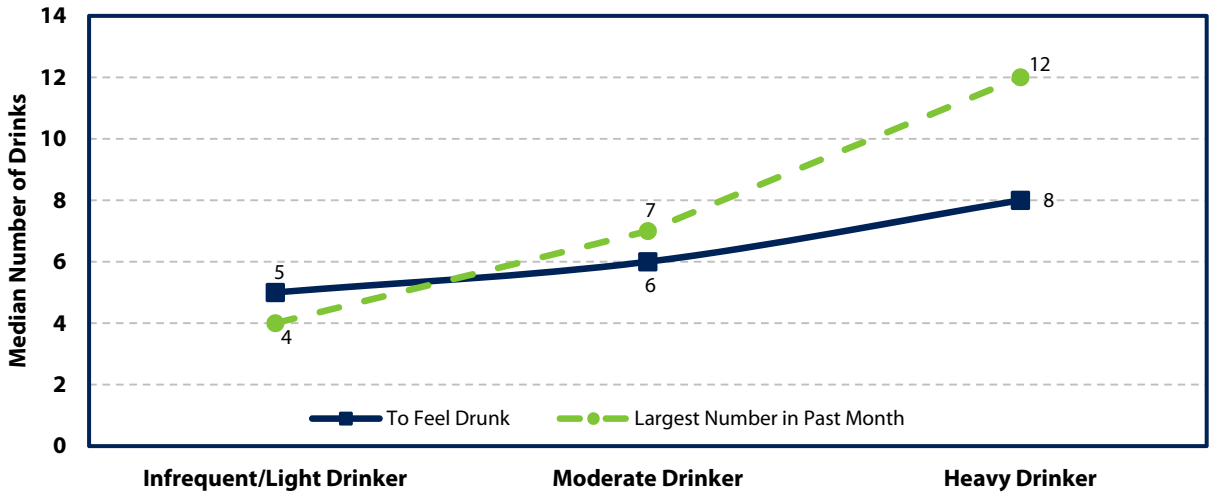
[20] Some respondents were not classifiable based on responses to these questions. Two additional, similar questions were used to classify these additional respondents. In Table 4.1.9, which presents direct comparisons to civilian estimates from the NHIS, the drinking level classification scheme without the use of the additional questions was used for direct comparison. All other tables report the modified classification.

[21] The drinking classification used in the 2011 HRB differs from the classification of drinking levels used in previous iterations of the HRB. The drinking level classification scheme used in previous HRB reports was adapted from Mulford and Miller (1960) and further informed by Rachal et al. (1980) and Rachal, Hubbard, Williams and Tuchfeld (1976). The change in classification for the 2011 HRB brought the survey in line with current standards in a national civilian health survey, the NHIS by the CDC, allowing for civilian comparisons.

[22] At the time of report production, the 2011 National Survey on Drug Use and Health public use data file was not yet available.

median largest number of drinks consumed on any one occasion in the past 30 days. Among infrequent/light drinkers, the largest number of drinks consumed on any one occasion in the past month was lower than the number of drinks needed to feel drunk. However, among both moderate and heavy drinkers, the largest number of drinks consumed on any one occasion in the past month exceeded the median number of drinks needed to feel drunk. In addition, moderate and heavy drinkers indicated having a higher tolerance for alcohol than infrequent/light drinkers; those with higher intensity drinking reported they needed more drinks to feel drunk than infrequent/light drinkers.

Figure 4.1.A: Median Number of Drinks Needed to Feel Drunk in the Past Year and Largest Number of Drinks on One Occasion in the Past Month, by Drinking Level Classification

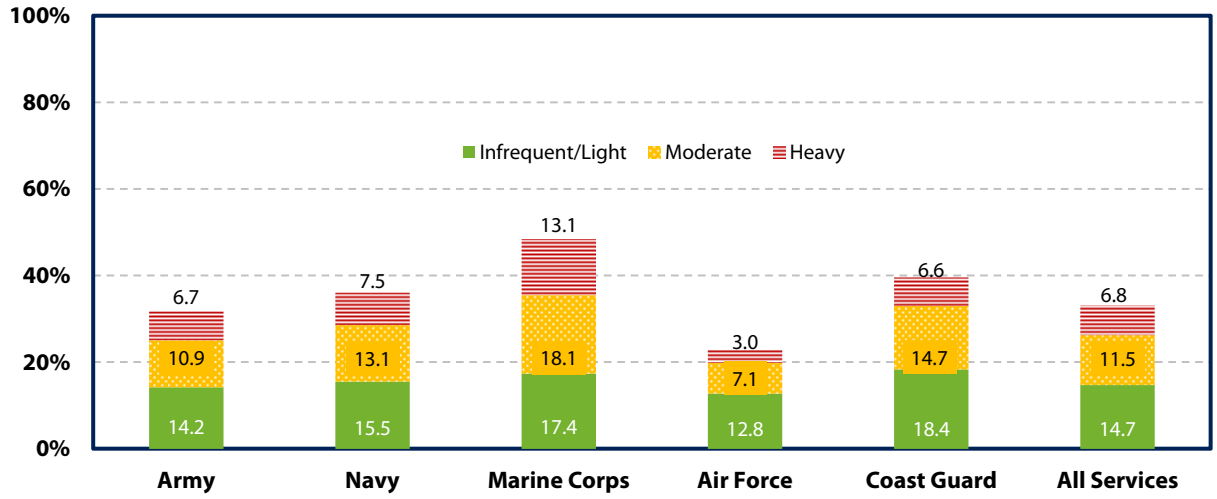


Note: Graph presents weighted data.
Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; Number of Drinks Needed To Feel Drunk, Q42A; Largest Number of Drinks, Q50.

Binge Drinking Among Current Drinkers

- Among current drinkers, as shown in Table 4.1.1, 39.6% reported binge drinking at least once in the past 30 days, defined as having 5 or more drinks for males and 4 or more for females on the same occasion, and 27.8% reported feeling drunk 7 or more times in the past year.
- Figure 4.1.B presents the prevalence of binge drinking in the past 30 days by service, with prevalence parsed by drinking level. It shows that even infrequent/light drinkers engage in binge drinking. Overall estimates for binge drinking in the services are around 33%, except for Marine Corps (almost 50%) and Air Force (around 23%). Among all service members, 15% were infrequent/light drinkers who binge drank in the past 30 days, 12% were moderate drinkers who binge drank in the past 30 days, and 7% were heavy drinkers who binge drank in the past 30 days. In the Marine Corps, 17% of members were infrequent/light drinkers who binge drank at least once in the past 30 days, 18% were moderate drinkers who binged in the past 30 days, and 13% were heavy drinkers who binged in the past 30 days.

Figure 4.1.B: Breakdown of Past 30 Day Binge Drinkers, by Drinking Level and Service

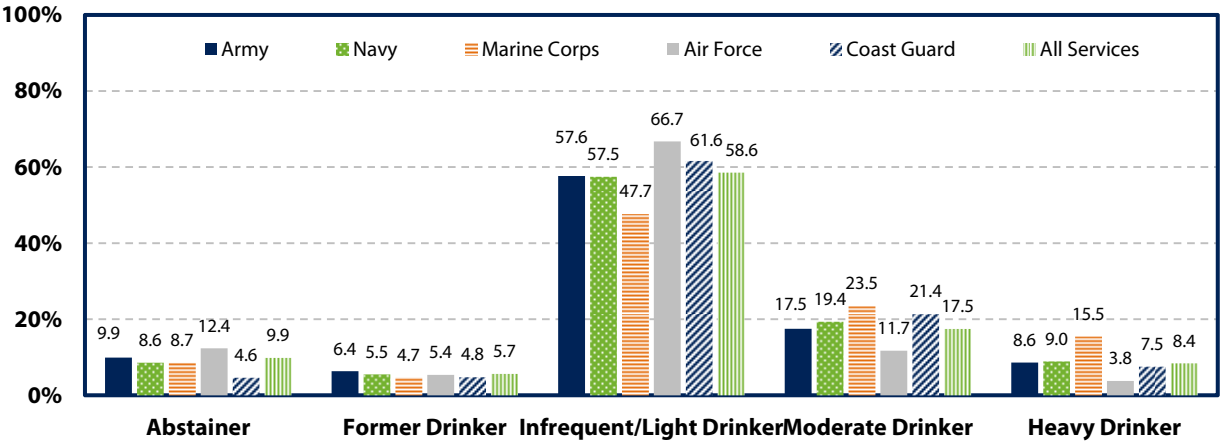


Note: Graph presents weighted data.
Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; Alcohol Binge Episode, Q51.

Levels of Drinking Among Active Duty Military Personnel

- Among all active duty service members, 9.9% were lifetime abstainers, 5.7% were former drinkers, 58.6% were current infrequent or light drinkers, 17.5% were moderate drinkers, and 8.4% were heavy drinkers (see Table 4.1.2).
- Figure 4.1.C shows the distribution of drinking levels by service. Approximately 16% of personnel across all services were categorized as either a lifetime abstainer or a former drinker. By comparison, close to 60% of all service members were classified as infrequent/light drinkers. In addition, Marine Corps members had the highest percentage of service members in both the moderate and heavy drinker categories, whereas the Air Force had the lowest percentage.

Figure 4.1.C: Drinking Levels, by Service



Note: Graph presents weighted data.
Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47.

- Table 4.1.2 shows that while men were more often moderate drinkers than women, equal percentages of men and women, about 8%, were heavy drinkers across all services. In each of the five services, there were larger percentages of moderate drinkers among men than women, but in the Navy, Air Force, and Coast Guard there were larger percentages of heavy drinkers among women than men (see Table 4.1.3 – Table 4.1.7).
- As shown in Table 4.1.9 and Table 4.1.10, a larger percentage of the military were heavy and binge drinkers compared to the civilian population (8.8% v. 5.1%), although it is important to note the military population is younger overall than the civilian population. When examining heavy drinking by age group, as seen in Table 4.1.9, a higher percentage of younger services members were classified as heavy drinkers compared to their civilian counterparts, while rates of heavy drinking among older service members were comparable to their civilian counterparts. Although overall a larger percentage of service members than civilians binge drank in the past 30 days, comparisons by age group showed that service members binge drank at comparable or lower rates than their civilian counterparts, as shown in Table 4.1.10.
- Over half of all heavy drinkers (58.4%) had an AUDIT score indicating that they were at risk for alcohol problems, drinking at hazardous or worse drinking levels. Over 10% of current drinkers (11.3%) had an AUDIT score that indicated their drinking was at hazardous or worse levels (see Table 4.1.14).

Alcohol Related Consequences

- Nearly one-third of heavy drinkers (32.4%) reported experiencing one or more of the work-related productivity loss indicators, 30.0% reported experiencing one or more serious consequences, and 32.2% reported engaging in one or more risk behaviors, as shown in Table 4.1.11.
- As shown in Table 4.1.12, earlier age of first alcohol use was associated with higher rates of experiencing work-related productivity loss, serious consequences, and risk behaviors. Individuals in the Marine Corps who started drinking prior to age 21 were more likely to have an AUDIT score in the Hazardous (8-15) range than those from other services, while individuals in the Air Force who started drinking prior to age 21 were more likely to be in the Low Risk (8 or lower) range on the AUDIT scale than those in all other services (see Table 4.1.15).
- Drinking at work was associated with higher rates of experiencing work-related productivity loss, serious consequences, and risk behaviors, as shown in Table 4.1.13. In addition, 10.6% of service members who drank at work had an AUDIT score indicating possible dependence, whereas 1.9% of those who did not drink at work had an AUDIT score indicating possible dependence (see Table 4.1.16).

Mixing Alcohol with Energy Drinks

- Of current drinkers, those who were male, had less than a college degree, were younger, unmarried, junior enlisted pay grades, and stationed OCONUS more often combined an energy drink with an alcoholic beverage in the past 30 days (see Table 4.1.17).

Facilitators and Deterrents to Drinking

- As shown in Table 4.1.18, the top three reasons that respondents gave for drinking alcohol were to celebrate (50.2%), because they enjoyed drinking (46.2%), and to be social (33.4%). In addition, 10.8% of current drinkers indicated they drank to forget about problems, and almost 13.8% indicated they drank to cheer up when in a bad mood. Almost 9% of all active duty service members indicated drinking was part of being in their unit, and 5.1% indicated drinking to the point of losing control was acceptable.
- The cost of alcohol was the primary deterrent to consumption (22.6% overall), while all other deterrents were endorsed with much less frequency (<10%). However, between about 15% and 30% of individuals identified as abstainers or former drinkers endorsed all the listed deterrents with the exception of difficulty to get (obtain) which was reported by 10.4% of abstainers and 4.8% of former drinkers (see Table 4.1.18).

Likely Form of Treatment

- Among current drinkers, the most likely forms of treatment or assistance for alcohol use cited were church (30.0%) and a military chaplain (29.7%), and between 18% and 27% indicated likely use of the other forms of treatment. Over 10% of current drinkers reported not being familiar with the alcohol treatment programs of Military OneSource (11.5% not familiar) and Military Residential Treatment facilities (13.2% not familiar), see Table 4.1.19. Less than 1% of service members indicated that they would likely seek treatment in the next 6 months or that they were already in treatment.

Tables

The following tables present an in-depth analysis of alcohol use in the military.

Table 4.1.1 – Alcohol Use Among Current Drinkers, by Service

Measure/Type of Estimate	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Average Drinking Days Per Month[2]	6.3 (0.13)[c,d,e]	6.6 (0.12)[c,d]	7.5 (0.13)[a,b,d,e]	4.8 (0.07)[a,b,c,e]	6.9 (0.11)[a,c,d]	6.2 (0.06)
Largest Number of Drinks, Past 30 Days[2]	5.4 (0.10)[c,d]	5.4 (0.09)[c,d]	7.7 (0.12)[a,b,d,e]	4.1 (0.04) [a,b,c,e]	5.2 (0.07)[c,d]	5.4 (0.05)
Number of Drinks to Feel Drunk[3]	5.7 (0.06) [b,c,d,e]	5.4 (0.05)[a,c,d]	6.5 (0.06)[a,b,d,e]	4.9 (0.03) [a,b,c,e]	5.3 (0.04) [a,c,d]	5.6 (0.03)
Alcohol Binge Episode, Past 30 Days[4]	38.4 (0.8)[b,c,d,e]	42.5 (0.8)[a,c,d]	56.7 (0.8)[a,b,d,e]	28.1 (0.5)[a,b,c,e]	44.0 (0.8)[a,c,d]	39.6 (0.4)
Felt Drunk 7 or More Times in Past Year[3]	26.7 (0.7)[c,d]	29.0 (0.7)[c,d]	44.6 (0.8)[a,b,d,e]	18.2 (0.4)[a,b,c,e]	27.3 (0.7)[c,d]	27.8 (0.4)

Note: Table displays estimates of current drinkers, by Service, who reported the alcohol measures listed in the rows of the table. Estimates are for current drinkers only, not all active duty military personnel. The estimates for average drinking days, largest number of drinks, and number of drinks to feel drunk are average values, whereas entries for alcohol binge episode and felt drunk 7 or more times in the past year are percentages. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[2]Estimates computed among persons who drank any alcohol in the past 30 days.

[3]Estimates computed among those who reported they drank enough to feel drunk in the past 12 months.

[4]Defined as having consumed five or more drinks (four for females) on the same occasion at least once during the past 30 days.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Average Drinking Days, Q39; Largest Number of Drinks, Q50; Number of Drinks to Feel Drunk, Q42A; Alcohol Binge Episode, Q51; Felt Drunk 7 or More Times in Past Year, Q42).

Table 4.1.2 – Drinking Levels for All Services, by Sociodemographic Characteristics

	Drinking Level				
			Current Drinkers		
Sociodemographic Characteristic[a]	Abstainer	Former Drinker	Infrequent/Light	Moderate	Heavy
Gender					
Male	9.5 (0.2)[2]	5.6 (0.2)	56.8 (0.4)[2]	19.6 (0.3)[2]	8.5 (0.2)
Female	11.8 (0.6)[1]	6.1 (0.4)	68.3 (0.9)[1]	5.4 (0.4)[1]	8.3 (0.5)
Race/Ethnicity					
White, non-Hispanic	7.7 (0.2)[2,3,4]	5.3 (0.2)[2]	59.0 (0.4)	19.2 (0.4)[2,3,4]	8.8 (0.3)[4]
African-American, non-Hispanic	15.9 (0.7)[1,3]	6.8 (0.5)[1]	56.5 (1.0)	13.3 (0.7)[1,3]	7.5 (0.5)
Hispanic	11.7 (0.6)[1,2,4]	5.7 (0.5)	57.7 (1.0)	15.9 (0.7)[1,2,4]	9.0 (0.6)[4]
Other	15.7 (1.1)[1,3]	6.5 (0.7)	60.8 (1.4)	11.1 (0.9)[1,3]	5.9 (0.7)[1,3]
Education					
High School or less	14.0 (0.5)[2,3]	6.0 (0.4)	47.7 (0.8)[2,3]	19.7 (0.6)[2,3]	12.6 (0.5)[2,3]
Some college	8.2 (0.3)[1,3]	5.8 (0.2)	59.7 (0.5)[1,3]	17.5 (0.4)[1,3]	8.7 (0.3)[1,3]
College graduate or higher	9.5 (0.4)[1,2]	5.0 (0.3)	65.6 (0.7)[1,2]	15.5 (0.5)[1,2]	4.4 (0.3)[1,2]
Age					
18-20	48.2 (1.6)[2,3,4,5]	10.7 (1.0)[2,3,4]	26.6 (1.4)[2,3,4,5]	8.8 (0.9)[2,3,4,5]	5.7 (0.7)[2]
21-25	7.8 (0.4)[1]	2.9 (0.2)[1,3,4,5]	54.8 (0.7)[1,3,4,5]	21.2 (0.6)[1,3,4,5]	13.2 (0.5)[1,3,4,5]
26-35	6.8 (0.3)[1]	5.0 (0.3)[1,2,4,5]	62.3 (0.6)[1,2,4]	18.0 (0.5)[1,2,4]	7.9 (0.3)[2,4,5]
36-45	6.9 (0.4)[1]	7.9 (0.4)[1,2,3]	65.5 (0.8)[1,2,3]	14.9 (0.6)[1,2,3]	4.8 (0.4)[2,3]
46-65	8.9 (1.0)[1]	9.1 (1.0)[2,3]	61.3 (1.7)[1,2]	15.8 (1.3)[1,2]	4.8 (0.8)[2,3]
Family Status					
Not married	12.7 (0.4)[2,3]	4.6 (0.3)[3]	52.2 (0.6)[2,3]	18.5 (0.5)[3]	11.9 (0.4)[2,3]
Married, spouse not present	9.3 (0.7)[1]	5.1 (0.5)	59.1 (1.2)[1,3]	17.3 (0.9)	9.2 (0.7)[1,3]
Married, spouse present	8.0 (0.3)[1]	6.4 (0.2)[1]	62.7 (0.5)[1,2]	16.8 (0.4)[1]	6.0 (0.2)[1,2]

Table 4.1.2 – Drinking Levels for All Services, by Sociodemographic Characteristics

	Drinking Level				
			Current Drinkers		
Sociodemographic Characteristic[a]	**Abstainer**	**Former Drinker**	**Infrequent/Light**	**Moderate**	**Heavy**
Pay Grade					
E1-E4	14.8 (0.4)[2,3,4,5,6]	5.6 (0.3)[3,5]	52.0 (0.6)[2,3,4,5,6]	17.2 (0.4)	10.4 (0.3)[2,3,5,6]
E5-E6	6.1 (0.3)[1]	6.0 (0.3)[5]	61.7 (0.6)[1,5,6]	17.5 (0.5)	8.6 (0.4)[1,5,6]
E7-E9	4.8 (0.5)[1]	7.7 (0.6)[1,5,6]	63.0 (1.1)[1]	17.7 (0.9)	6.8 (0.6)[1,5,6]
W1-W5	5.2 (1.4)[1]	6.0 (1.5)	65.9 (2.9)[1]	16.5 (2.3)	6.4 (1.5)
O1-O3	7.1 (0.6)[1]	3.5 (0.4)[1,2,3]	67.0 (1.1)[1,2]	18.2 (0.9)	4.1 (0.5)[1,2,3]
O4-O10	6.9 (0.7)[1]	4.6 (0.6)[3]	67.6 (1.3)[1,2]	17.5 (1.1)	3.4 (0.5)[1,2,3]
Region					
CONUS[b]	10.0 (0.2)	5.7 (0.2)	59.5 (0.4)[2]	16.8 (0.3)[2]	8.0 (0.2)[2]
OCONUS[c]	9.6 (0.4)	5.4 (0.3)	55.5 (0.8)[1]	19.6 (0.6)[1]	9.9 (0.5)[1]
Total	9.9 (0.2)	5.7 (0.2)	58.6 (0.4)	17.5 (0.3)	8.4 (0.2)

Note: Table displays the percentage of military personnel, by sociodemographic characteristics, who were classified in the drinking levels as indicated in the columns of this table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47).

Table 4.1.3 – Drinking Levels for the Army, by Sociodemographic Characteristics

	Drinking Level				
			Current Drinkers		
Sociodemographic Characteristic[a]	Abstainer	Former Drinker	Infrequent/Light	Moderate	Heavy
Gender					
Male	9.6 (0.5)	6.3 (0.4)	55.9 (0.8)[2]	19.5 (0.7)[2]	8.6 (0.5)
Female	11.6 (1.3)	6.6 (1.0)	67.8 (1.9)[1]	5.4 (0.9)[1]	8.5 (1.1)
Race/Ethnicity					
White, non-Hispanic	7.3 (0.5)[2,3,4]	6.2 (0.5)	58.2 (1.0)	19.5 (0.8)[2,4]	8.8 (0.5)
African-American, non-Hispanic	15.6 (1.4)[1]	7.4 (1.0)	56.1 (1.9)	13.4 (1.3)[1]	7.5 (1.0)
Hispanic	12.0 (1.3)[1]	6.0 (1.0)	57.4 (2.0)	15.3 (1.5)	9.2 (1.2)
Other	17.6 (2.3)[1]	6.1 (1.5)	56.7 (3.0)	11.9 (2.0)[1]	7.7 (1.6)
Education					
High School or less	12.5 (1.2)[2]	6.5 (0.9)	48.7 (1.8)[2,3]	21.0 (1.5)[3]	11.3 (1.1)[3]
Some college	8.2 (0.6)[1,3]	6.5 (0.5)	58.2 (1.1)[1]	17.6 (0.8)	9.5 (0.6)[3]
College graduate or higher	11.2 (0.9)[2]	5.9 (0.7)	62.2 (1.4)[1]	15.2 (1.0)[1]	5.5 (0.6)[1,2]
Age					
18-20	50.1 (4.1)[2,3,4,5]	9.9 (2.4)[2]	27.1 (3.6)[2,3,4,5]	9.0 (2.3)[2]	3.8 (1.6)[2]
21-25	8.4 (1.0)[1]	3.4 (0.6)[1,4,5]	52.5 (1.8)[1,3,4]	22.0 (1.5)[1,4]	13.7 (1.2)[1,3,4,5]
26-35	7.6 (0.7)[1]	5.0 (0.6)[4,5]	60.7 (1.3)[1,2]	17.5 (1.0)	9.1 (0.7)[2,4]
36-45	7.5 (0.8)[1]	8.5 (0.9)[2,3]	63.2 (1.5)[1,2]	15.6 (1.1)[2]	5.2 (0.7)[2,3]
46-65	9.8 (1.9)[1]	11.3 (2.1)[2,3]	57.4 (3.2)[1]	15.6 (2.4)	5.9 (1.5)[2]
Family Status					
Not married	13.2 (0.9)[3]	4.8 (0.6)[3]	51.4 (1.4)[2,3]	17.9 (1.1)	12.6 (0.9)[3]
Married, spouse not present	9.2 (1.3)	6.2 (1.1)	59.4 (2.2)[1]	16.1 (1.6)	9.1 (1.3)
Married, spouse present	8.2 (0.6)[1]	7.2 (0.5)[1]	60.7 (1.0)[1]	17.5 (0.8)	6.4 (0.5)[1]

Table 4.1.3 – Drinking Levels for the Army, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Drinking Level				
			Current Drinkers		
	Abstainer	Former Drinker	Infrequent/Light	Moderate	Heavy
Pay Grade					
E1-E4	14.4 (0.8)[2,3,5,6]	6.4 (0.6)	54.6 (1.1)[5]	16.4 (0.8)	8.2 (0.6)[2]
E5-E6	5.8 (0.7)[1]	6.4 (0.7)	58.2 (1.5)	18.2 (1.2)	11.5 (1.0)[1,5,6]
E7-E9	6.0 (1.1)[1]	7.7 (1.3)	57.3 (2.4)	19.9 (1.9)	9.0 (1.4)
W1-W5	5.9 (2.2)	5.5 (2.1)	67.1 (4.3)	15.7 (3.4)	5.9 (2.2)
O1-O3	7.0 (1.3)[1]	5.0 (1.1)	64.6 (2.4)[1]	17.4 (1.9)	6.0 (1.2)[2]
O4-O10	6.9 (1.6)[1]	5.6 (1.5)	63.9 (3.0)	19.9 (2.5)	3.9 (1.2)[2]
Region					
CONUS[b]	9.8 (0.5)	6.5 (0.4)	58.7 (0.9)[2]	16.8 (0.7)[2]	8.2 (0.5)
OCONUS[c]	10.4 (1.0)	5.9 (0.8)	54.1 (1.6)[1]	19.7 (1.3)[1]	9.9 (1.0)
Total	9.9 (0.5)	6.4 (0.4)	57.6 (0.8)	17.5 (0.6)	8.6 (0.4)

Note: Table displays the percentage of military personnel in the Army, by sociodemographic characteristics, who were classified in the drinking levels as indicated in the columns of this table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47).

Table 4.1.4 – Drinking Levels for the Navy, by Sociodemographic Characteristics

	Drinking Level				
			Current Drinkers		
Sociodemographic Characteristic[a]	Abstainer	Former Drinker	Infrequent/Light	Moderate	Heavy
Gender					
Male	8.1 (0.4)[2]	5.4 (0.4)	55.9 (0.8)[2]	22.0 (0.7)[2]	8.6 (0.5)[2]
Female	11.4 (1.2)[1]	6.2 (0.9)	65.4 (1.7)[1]	6.1 (0.9)[1]	10.9 (1.1)[1]
Race/Ethnicity					
White, non-Hispanic	5.7 (0.4)[2,3,4]	4.8 (0.4)	56.6 (0.9)[4]	23.1 (0.8)[2,3,4]	9.8 (0.6)[4]
African-American, non-Hispanic	16.3 (1.4)[1,3]	6.7 (0.9)	54.4 (1.9)[4]	14.4 (1.3)[1]	8.3 (1.0)[4]
Hispanic	9.2 (1.2)[1,2]	6.2 (1.0)	60.4 (2.0)	15.3 (1.5)[1,4]	8.8 (1.2)[4]
Other	14.4 (1.7)[1]	7.5 (1.3)	64.7 (2.4)[1,2]	9.3 (1.4)[1,3]	4.1 (1.0)[1,2,3]
Education					
High School or less	11.0 (0.9)[2]	6.2 (0.7)[3]	49.3 (1.5)[2,3]	20.2 (1.2)	13.3 (1.0)[2,3]
Some college	7.6 (0.6)[1]	6.0 (0.5)[3]	57.8 (1.0)[1,3]	19.4 (0.8)	9.1 (0.6)[1,3]
College graduate or higher	8.2 (0.8)	3.9 (0.6)[1,2]	65.0 (1.4)[1,2]	18.5 (1.1)	4.2 (0.6)[1,2]
Age					
18-20	49.4 (3.9)[2,3,4,5]	11.2 (2.5)[2,3]	24.3 (3.3)[2,3,4,5]	10.1 (2.4)[2,3]	5.0 (1.7)[2]
21-25	6.8 (0.7)[1]	3.1 (0.5)[1,3,4]	52.9 (1.4)[1,3,4]	22.1 (1.2)[1,4]	15.1 (1.0)[1,3,4,5]
26-35	6.3 (0.6)[1]	5.3 (0.5)[1,2]	60.0 (1.2)[1,2]	20.8 (1.0)[1]	7.6 (0.6)[2,4]
36-45	7.6 (0.9)[1]	7.1 (0.9)[2]	64.2 (1.6)[1,2]	16.4 (1.2)[2]	4.7 (0.7)[2,3]
46-65	7.2 (1.8)[1]	6.8 (1.8)	62.6 (3.4)[1]	18.7 (2.7)	4.7 (1.5)[2]
Family Status					
Not married	9.8 (0.7)[3]	5.3 (0.5)	52.5 (1.2)[3]	19.9 (0.9)	12.6 (0.8)[3]
Married, spouse not present	10.8 (1.5)[3]	4.4 (1.0)	57.0 (2.3)	18.4 (1.8)	9.4 (1.4)[3]
Married, spouse present	7.3 (0.5)[1,2]	6.0 (0.5)	61.4 (1.0)[1]	19.2 (0.8)	6.1 (0.5)[1,2]

Table 4.1.4 – Drinking Levels for the Navy, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Drinking Level				
			Current Drinkers		
	Abstainer	Former Drinker	Infrequent/Light	Moderate	Heavy
Pay Grade					
E1-E4	12.4 (0.8)[2,3,5,6]	5.6 (0.5)	51.0 (1.2)[2,3,5,6]	18.2 (0.9)	12.7 (0.8)[2,3,5.6]
E5-E6	6.9 (0.6)[1]	6.3 (0.6)	59.1 (1.2)[1]	19.8 (1.0)	8.0 (0.7)[1,5]
E7-E9	4.6 (1.1)[1]	5.9 (1.2)	64.9 (2.4)[1]	19.1 (2.0)	5.4 (1.2)[1]
W1-W5	†	†	†	†	†
O1-O3	5.8 (1.1)[1]	2.8 (0.8)	65.2 (2.2)[1]	22.3 (2.0)	3.9 (0.9)[1,2]
O4-O10	4.4 (1.2)[1]	4.7 (1.2)	66.6 (2.7)[1]	20.8 (2.3)	3.5 (1.1)[1]
Region					
CONUS[b]	8.6 (0.5)	5.5 (0.4)	59.3 (0.9)[2]	18.5 (0.7)[2]	8.2 (0.5)[2]
OCONUS[c]	8.9 (0.8)	5.7 (0.7)	52.4 (1.4)[1]	21.9 (1.2)[1]	11.1 (0.9)[1]
Total	8.6 (0.4)	5.5 (0.3)	57.5 (0.7)	19.4 (0.6)	9.0 (0.4)

Note: Table displays the percentage of military personnel in the Navy, by sociodemographic characteristics, who were classified in the drinking levels as indicated in the columns of this table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47).

Table 4.1.5 – Drinking Levels for the Marine Corps, by Sociodemographic Characteristics

	Drinking Level				
			Current Drinkers		
Sociodemographic Characteristic[a]	Abstainer	Former Drinker	Infrequent/Light	Moderate	Heavy
Gender					
Male	8.2 (0.4)[2]	4.5 (0.3)	46.8 (0.8)[2]	24.8 (0.7)[2]	15.7 (0.6)
Female	14.1 (1.9)[1]	6.7 (1.4)	59.2 (2.7)[1]	6.3 (1.3)[1]	13.8 (1.9)
Race/Ethnicity					
White, non-Hispanic	7.2 (0.5)[2,3,4]	4.2 (0.4)	46.8 (0.9)	25.1 (0.8)[2]	16.8 (0.7)
African-American, non-Hispanic	12.2 (1.5)[1]	5.8 (1.1)	52.4 (2.3)	17.3 (1.7)[1]	12.2 (1.5)
Hispanic	10.5 (1.1)[1]	5.7 (0.8)	47.8 (1.7)	22.4 (1.4)	13.6 (1.2)
Other	12.7 (2.2)[1]	5.8 (1.6)	49.1 (0.7)	18.5 (2.6)	13.9 (2.3)
Education					
High School or less	12.2 (0.7)[2,3]	4.9 (0.5)	41.8 (1.1)[2,3]	22.1 (0.9)	19.0 (0.9)[2,3]
Some college	6.2 (0.5)[1]	4.5 (0.5)	49.1 (1.1)[1,3]	25.0 (1.0)	15.2 (0.8)[1,3]
College graduate or higher	5.5 (0.9)[1]	4.4 (0.8)	61.6 (1.9)[1,2]	22.8 (1.7)	5.7 (0.9)[1,2]
Age					
18-20	31.8 (2.0)[2,3,4,5]	10.4 (1.3)[2,3]	33.4 (2.0)[2,3,4,5]	13.1 (1.5)[2,3]	11.4 (1.4)[2]
21-25	6.4 (0.6)[1,3]	2.7 (0.4)[1,3,4]	44.9 (1.2)[1,3,4]	26.3 (1.0)[1,4]	19.7 (0.9)[1,3,4]
26-35	3.6 (0.5)[1,2]	4.6 (0.6)[1,2]	52.7 (1.4)[1,2,4]	25.4 (1.2)[1]	13.7 (0.9)[2,4]
36-45	4.4 (1.0)[1]	6.5 (1.1)[2]	61.0 (2.3)[1,2,3]	19.6 (1.8)[2]	8.5 (1.3)[2,3]
46-65	4.7 (2.8)[1]	5.9 (3.1)	61.5 (6.4)[1]	21.6 (5.4)	6.2 (3.2)
Family Status					
Not married	11.7 (0.7)[2,3]	4.2 (0.4)	40.1 (1.1)[2,3]	24.1 (0.9)	19.8 (0.9)[3]
Married, spouse not present	5.4 (1.1)[1]	5.0 (1.1)	49.0 (2.4)[1]	24.4 (2.1)	16.3 (1.8)[3]
Married, spouse present	6.3 (0.5)[1]	5.1 (0.5)	54.6 (1.1)[1]	22.7 (0.9)	11.3 (0.7)[1,2]

Table 4.1.5 – Drinking Levels for the Marine Corps, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Drinking Level				
			Current Drinkers		
	Abstainer	Former Drinker	Infrequent/Light	Moderate	Heavy
Pay Grade					
E1-E4	12.2 (0.6)[2,3,5,6]	4.7 (0.4)	41.3 (0.9)[2,3.5,6]	23.0 (0.8)	18.9 (0.8)[2,3,5,6]
E5-E6	3.5 (0.6)[1]	4.5 (0.6)	54.1 (1.5)[1]	24.5 (1.3)	13.4 (1.0)[1,5,6]
E7-E9	4.5 (1.1)[1]	6.9 (1.4)	57.0 (2.7)[1]	20.4 (2.2)	11.3 (1.7)[1]
W1-W5	4.1 (2.8)	6.8 (3.6)	57.0 (7.1)	22.7 (6.0)	9.4 (4.2)
O1-O3	4.2 (1.2)[1]	3.2 (1.0)	60.4 (2.8)[1]	27.2 (2.6)	5.1 (1.3)[1,2]
O4-O10	3.5 (1.5)[1]	3.5 (1.5)	64.7 (3.9)[1]	24.2 (3.5)	4.1 (1.6)[1,2]
Region					
CONUS[b]	8.7 (0.5)	4.8 (0.4)	47.8 (0.8)	23.5 (0.7)	15.3 (0.6)
OCONUS[c]	8.7 (0.9)	4.3 (0.6)	46.9 (1.5)	23.6 (1.3)	16.4 (1.1)
Total	8.7 (0.4)	4.7 (0.3)	47.7 (0.7)	23.5 (0.6)	15.5 (0.5)

Note: Table displays the percentage of military personnel in the Marine Corps, by sociodemographic characteristics, who were classified in the drinking levels as indicated in the columns of this table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47).

Table 4.1.6 – Drinking Levels for the Air Force, by Sociodemographic Characteristics

	Drinking Level				
			Current Drinkers		
Sociodemographic Characteristic[a]	Abstainer	Former Drinker	Infrequent/Light	Moderate	Heavy
Gender					
Male	12.4 (0.4)	5.4 (0.3)	65.2 (0.5)[2]	13.5 (0.4)[2]	3.6 (0.2)[2]
Female	12.5 (0.8)	5.4 (0.5)	73.1 (1.0)[1]	4.5 (0.5)[1]	4.6 (0.5)[1]
Race/Ethnicity					
White, non-Hispanic	10.5 (0.4)[2,3,4]	5.2 (0.3)	68.0 (0.5)[2,3]	12.4 (0.4)[2,4]	3.9 (0.2)[4]
African-American, non-Hispanic	18.9 (1.2)[1]	6.7 (0.8)	61.7 (1.5)[1,4]	9.0 (0.9)[1]	3.7 (0.6)[4]
Hispanic	16.0 (1.1)[1]	4.8 (0.7)	63.3 (1.5)[1]	11.6 (1.0)	4.3 (0.6)[4]
Other	16.7 (1.7)[1]	5.6 (1.1)	69.0 (2.1)[2]	7.7 (1.2)[1]	0.9 (0.4)[1,2,3]
Education					
High School or less	27.1 (1.2)[2,3]	6.8 (0.7)[3]	51.1 (1.3)[2,3]	11.6 (0.9)	3.4 (0.5)
Some college	10.3 (0.4)[1]	5.5 (0.3)	67.6 (0.6)[1,3]	12.1 (0.4)	4.5 (0.3)[3]
College graduate or higher	9.5 (0.5)[1]	4.5 (0.4)[1]	72.4 (0.8)[1,2]	11.1 (0.6)	2.5 (0.3)[2]
Age					
18-20	64.6 (2.0)[2,3,4,5]	11.6 (1.3)[2,3]	19.4 (1.7)[2,3,4,5]	2.8 (0.7)[2,3,4,5]	1.7 (0.5)[2]
21-25	9.6 (0.6)[1,4]	2.5 (0.3)[1,3,4,5]	67.8 (0.9)[1,3,4]	14.6 (0.7)[1,3,4]	5.5 (0.5)[1,3,4,5]
26-35	8.2 (0.5)[1]	4.8 (0.4)[1,2,4]	71.7 (0.8)[1,2]	11.7 (0.5)[1,2]	3.6 (0.3)[2]
36-45	6.4 (0.6)[1,2]	8.1 (0.6)[2,3]	72.1 (1.0)[1,2]	10.4 (0.7)[1,2]	3.0 (0.4)[2]
46-65	10.7 (1.7)[1]	7.0 (1.4)[2]	70.1 (2.6)[1]	11.3 (1.8)[1]	0.8 (0.5)[2]
Family Status					
Not married	16.5 (0.6)[2,3]	4.2 (0.3)[3]	60.3 (0.8)[2,3]	13.6 (0.6)[3]	5.3 (0.4)[3]
Married, spouse not present	11.3 (1.3)[1]	3.5 (0.8)[3]	69.7 (1.9)[1]	12.3 (1.3)	3.3 (0.7)
Married, spouse present	9.7 (0.4)[1]	6.3 (0.3)[1,2]	70.7 (0.6)[1]	10.4 (0.4)[1]	2.8 (0.2)[1]

Table 4.1.6 – Drinking Levels for the Air Force, by Sociodemographic Characteristics

	Drinking Level				
			Current Drinkers		
Sociodemographic Characteristic[a]	**Abstainer**	**Former Drinker**	**Infrequent/Light**	**Moderate**	**Heavy**
Pay Grade					
E1-E4	21.2 (0.7)[2,3,4,5]	4.9 (0.4)[3,4]	57.2 (0.8)[2,3,4,5]	11.8 (0.5)	4.9 (0.4)[3,4,5]
E5-E6	7.2 (0.4)[1,3]	6.1 (0.4)[3,4]	71.2 (0.8)[1]	11.4 (0.5)	4.1 (0.3)[4]
E7-E9	3.6 (0.6)[1,2,4,5]	9.2 (0.9)[1,2,4,5]	72.9 (1.4)[1]	11.7 (1.0)	2.5 (0.5)[1]
O1-O3	9.7 (0.9)[1,3]	2.4 (0.5)[1,2,3]	73.6 (1.3)[1]	12.6 (1.0)	1.7 (0.4)[1,2]
O4-O10	9.7 (1.0)[1,3]	3.7 (0.6)[3]	72.6 (1.5)[1]	11.5 (1.1)	2.4 (0.5)[1]
Region					
CONUS[b]	13.0 (0.4)[2]	5.5 (0.3)	66.9 (0.5)	11.1 (0.4)[2]	3.5 (0.2)[2]
OCONUS[c]	10.2 (0.7)[1]	4.8 (0.5)	66.1 (1.0)	14.1 (0.7)[1]	4.9 (0.5)[1]
Total	12.4 (0.3)	5.4 (0.2)	66.7 (0.5)	11.7 (0.3)	3.8 (0.2)

Note: Table displays the percentage of military personnel in the Air Force, by sociodemographic characteristic, who were classified in the drinking levels as indicated in the columns of this table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47).

Table 4.1.7 – Drinking Levels for the Coast Guard, by Sociodemographic Characteristics

	Drinking Level				
			Current Drinkers		
Sociodemographic Characteristic[a]	Abstainer	Former Drinker	Infrequent/Light	Moderate	Heavy
Gender					
Male	4.5 (0.3)	4.9 (0.3)	60.3 (0.8)[2]	23.3 (0.7)[2]	7.0 (0.4)[2]
Female	5.5 (0.9)	4.4 (0.8)	70.1 (1.8)[1]	9.2 (1.2)[1]	10.8 (1.3)[1]
Race/Ethnicity					
White, non-Hispanic	4.1 (0.3)	4.9 (0.4)	60.5 (0.8)[3]	22.7 (0.7)[3]	7.7 (0.4)
African-American, non-Hispanic	6.2 (1.6)	3.9 (1.3)	64.4 (3.2)	18.0 (2.5)	7.4 (1.7)
Hispanic	5.9 (1.0)	3.5 (0.8)	66.6 (2.0)[1]	15.8 (1.6)[1]	8.1 (1.2)
Other	7.7 (1.9)	7.0 (1.8)	63.3 (3.4)	17.3 (2.7)	4.7 (1.5)
Education					
High School or less	7.7 (0.9)[2,3]	5.5 (0.7)	56.4 (1.6)[2,3]	21.4 (1.3)	9.0 (0.9)[3]
Some college	3.9 (0.4)[1]	4.9 (0.4)	61.7 (1.0)[1,3]	21.6 (0.8)	8.0 (0.5)[3]
College graduate or higher	3.7 (0.6)[1]	3.9 (0.6)	66.3 (1.4)[1,2]	20.9 (1.2)	5.4 (0.7)[1,2]
Age					
18-20	46.7 (5.2)[2,3,4,5]	12.9 (3.5)[2,3,4]	30.5 (4.8)[2,3,4,5]	6.1 (2.5)[2,3]	3.8 (2.0)
21-25	4.6 (0.7)[1]	2.7 (0.5)[1,4,5]	57.5 (1.6)[1,4]	26.1 (1.4)[1,4,5]	9.2 (0.9)[4]
26-35	3.3 (0.4)[1]	4.3 (0.5)[1]	61.5 (1.1)[1,4]	23.3 (1.0)[1,4]	7.6 (0.6)
36-45	2.5 (0.5)[1]	5.4 (0.8)[1,2]	69.4 (1.6)[1,2,3]	17.2 (1.3)[2,3]	5.6 (0.8)[2]
46-65	4.7 (1.5)[1]	8.6 (2.0)[2]	61.5 (3.4)[1]	16.1 (2.6)[2]	9.1 (2.0)
Family Status					
Not married	6.1 (0.6)[3]	3.3 (0.4)[3]	57.6 (1.2)[3]	23.5 (1.1)[3]	9.6 (0.7)[3]
Married, spouse not present	3.1 (0.9)	2.2 (0.8)[3]	63.5 (2.6)	23.5 (2.3)	7.7 (1.5)
Married, spouse present	4.0 (0.4)[1]	6.0 (0.5)[1,2]	63.9 (0.9)[1]	19.8 (0.8)[1]	6.3 (0.5)[1]

Table 4.1.7 – Drinking Levels for the Coast Guard, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Drinking Level				
			Current Drinkers		
	Abstainer	Former Drinker	Infrequent/Light	Moderate	Heavy
Pay Grade					
E1-E4	8.2 (0.7)[2,3,5]	3.8 (0.5)[3]	56.2 (1.3)[2,4,5,6]	23.4 (1.1)	8.3 (0.7)
E5-E6	3.1 (0.4)[1]	4.9 (0.5)	62.7 (1.2)[1]	21.3 (1.0)	8.0 (0.7)
E7-E9	2.1 (0.6)[1]	7.9 (1.2)[1]	63.1 (2.2)	18.8 (1.7)	8.1 (1.2)
W1-W5	2.1 (1.1)	6.7 (1.9)	68.0 (3.6)[1]	17.4 (2.9)	5.8 (1.8)
O1-O3	2.9 (0.8)[1]	4.0 (1.0)	67.0 (2.3)[1]	21.3 (2.0)	4.8 (1.1)
O4-O10	3.9 (1.2)	3.3 (1.1)	69.3 (2.7)[1]	18.4 (2.3)	5.0 (1.3)
Region					
CONUS[b]	4.6 (0.3)	4.8 (0.3)	61.8 (0.8)	21.3 (0.6)	7.5 (0.4)
OCONUS[c]	4.9 (0.9)	5.0 (0.9)	60.4 (2.1)	22.0 (1.8)	7.7 (1.1)
Total	4.6 (0.3)	4.8 (0.3)	61.6 (0.7)	21.4 (0.6)	7.5 (0.4)

Note: Table displays the percentage of military personnel in the Coast Guard, by sociodemographic characteristics, who were classified in the drinking levels as indicated in the columns of this table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47).

Table 4.1.8 – Sociodemographic Correlates of Heavy Drinkers, Past 12 Months

Sociodemographic Characteristic[a]	Heavy Drinkers: Prevalence	Heavy Drinkers: Odds Ratio (95% CI)[b]
Service		
Army	8.6 (0.4)[3,4]	1.24 (1.08, 1.43)*
Navy	9.0 (0.4)[3,4]	1.15 (1.00, 1.32)
Marine Corps	15.5 (0.5)[1,2,4,5]	1.79 (1.58, 2.03)*
Air Force	3.8 (0.2)[1,2,3,5]	0.49 (0.42, 0.56)*
Coast Guard	7.5 (0.4)[3,4]	1.00
Gender		
Male	8.5 (0.2)	0.90 (0.83, 0.98)*
Female	8.3 (0.5)	1.00
Race/Ethnicity		
White, non-Hispanic	8.8 (0.3)[4]	1.00
African-American, non-Hispanic	7.5 (0.5)	0.73 (0.65, 0.82)*
Hispanic	9.0 (0.6)[4]	0.81 (0.72, 0.90)*
Other	5.9 (0.7)[1,3]	0.51 (0.42, 0.63)*
Education		
High School or less	12.6 (0.5)[2,3]	1.63 (1.40, 1.90)*
Some college	8.7 (0.3)[1,3]	1.43 (1.24, 1.64)*
College graduate or higher	4.4 (0.3)[1,2]	1.00
Family Status		
Not married	11.9 (0.4)[2,3]	1.81 (1.66, 1.98)*
Married, spouse not present	9.2 (0.7)[1,3]	1.34 (1.17, 1.54)*
Married, spouse present	6.0 (0.2)[1,2]	1.00
Pay Grade		
E1-E4	10.4 (0.3)[2,3,5,6]	1.55 (1.24, 1.94)*
E5-E6	8.6 (0.4)[1,5,6]	1.57 (1.26, 1.95)*
E7-E9	6.8 (0.6)[1,5,6]	1.41 (1.13, 1.77)*
W1-W5	6.4 (1.5)	1.27 (0.96, 1.66)
O1-O3	4.1 (0.5)[1,2,3]	0.99 (0.79, 1.24)
O4-O10	3.4 (0.5)[1,2,3]	1.00
Region		
CONUS[c]	8.0 (0.2)[2]	0.84 (0.77, 0.92)*
OCONUS[d]	9.9 (0.5)[1]	1.00
Total	8.4 (0.2)	

Note: Prevalence estimates are percentages among military personnel in each sociodemographic group who were classified as heavy alcohol users. The standard error of each estimate is presented in parentheses. Odds ratios are from logistic regression analyses predicting heavy drinking; the odds ratio of the reference group is equal to 1.00.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]95% CI = 95% confidence interval of the odds ratio. An asterisk (*) beside an estimate indicates the estimate is significantly different from the reference group.

[c]Refers to personnel who were stationed within the 48 contiguous States in the continental United States.

[d]Refers to personnel who were stationed outside the continental United States.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Heavy Alcohol Use, Past 12 Months, Q4, Q38, Q39, Q40, Q46, Q47).

Table 4.1.9 – Comparisons of the Prevalence of Heavy Drinkers Among Military Personnel and Civilians, Past 12 Months, by Gender and Age Group

	Comparison Population[2]						
Gender/Age Group	**Civilian[1]**	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Gender							
Males	5.7 (0.3)[b,c,d,e,g]	8.9 (0.5)[a,d,e]	9.1 (0.5)[a,d,e]	16.7 (0.6)[a,b,c,e,f]	3.8 (0.2)[a,b,c,d,f]	7.4 (0.4)[d,e]	8.9 (0.2)[a]
Females	4.6 (0.2)[b,c,d,f,g]	8.5 (1.2)[a,e]	11.2 (1.2)[a,e]	14.1 (2.0)[a,e]	4.5 (0.5)[b,c,d,f]	11.6 (1.4)[a,e]	8.4 (0.4)[a]
Age							
18-20	2.5 (0.5)[d,g]	3.9 (1.7)[d]	3.7 (1.6)[d]	12.7 (1.6)[a,b,c,e]	1.8 (0.6)[d]	4.2 (2.2)	5.9 (0.8)[a]
21-25	6.9 (0.6)[b,c,d,g]	14.7 (1.3)[a,d,e]	16.5 (1.1)[a,d,e,f]	21.1 (1.0)[a,b,c,e,f]	5.8 (0.5)[b,c,d,f]	10.1 (1.0)[c,d,e]	14.3 (0.5)[a]
26-35	4.5 (0.3)[b,c,d,f,g]	9.3 (0.8)[a,d,e]	8.1 (0.7)[a,d,e]	14.3 (1.0)[a,b,c,e,f]	3.8 (0.3)[b,c,d,f]	8.0 (0.7)[a,d,e]	8.2 (0.4)[a]
36-45	5.0 (0.4)	5.1 (0.7)	4.8 (0.7)	8.5 (1.4)[e]	3.0 (0.4)[d,f]	5.8 (0.8)[e]	4.8 (0.4)
46-65	5.4 (0.3)[e]	5.5 (1.5)[e]	4.6 (1.5)	5.9 (3.2)	0.9 (0.5)[a,b,f]	9.6 (2.1)[e]	4.6 (0.8)
Total	5.1 (0.2)[b,c,d,e,f,g]	8.8 (0.5)[a,d,e]	9.4 (0.5)[a,d,e]	16.5 (0.6)[a,b,c,e,f]	3.9 (0.2)[a,b,c,d,f]	8.0 (0.4)[a,d,e]	8.8 (0.2)[a]

Note: Table displays the percentage of military personnel, by gender, age group, and Service, who were classified as heavy alcohol users in the past 12 months. The standard error of each estimate is presented in parentheses. A heavy alcohol user is defined as someone who consumed more than 14 drinks per week on average for males, and more than 7 drinks per week on average for females in the past year. Data were not adjusted for sociodemographic differences between the civilian and military populations, though the civilian data were limited to 18 to 65 year olds.

[1]Civilian data source: National Health Interview Survey (NHIS), 2011. To allow for direct comparison, the table presents the Heavy Drinking Level for the 2011 HRB that does not use the additional questions (Q46, Q47); in all other tables, these two additional questions were used to classify those who were not classifiable based strictly on NHIS coding.

[2]Significance tests were conducted between Civilians and all pairs of Services as well as between Civilians and All Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-7. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Civilian) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Army) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Navy) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[f]Indicates estimate is significantly different from the estimate in column #6 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.
[g]Indicates estimate is significantly different from the estimate in column #7 (All Services) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Heavy Alcohol Use, Past 12 Months, Q4, Q38, Q39, Q40).

Table 4.1.10 – Comparisons of the Prevalence of Binge Drinking Among Military Personnel and Civilians, Past 30 Days, by Gender and Age Group

		Comparison Population[2]					
Gender/Age Group	**Civilian[1]**	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Gender							
Males	38.0 (0.6)[b,d,e,g]	33.6 (0.9)[a,d,e]	37.7 (0.8)[b,d,e]	49.3 (0.8)[a,b,c,e,f]	23.7 (0.5)[a,b,c,d,f]	40.5 (0.9)[b,d,e]	34.8 (0.4)[a]
Females	18.9 (0.4)[c,d,f,g]	24.3 (1.9)[d]	28.5 (1.8)[a,e]	34.6 (2.8)[a,b,e]	18.8 (1.0)[c,d,f]	34.5 (2.1)[a,b,e]	24.6 (0.9)[a]
Age							
18-20	33.6 (0.7)[b,c,e,f,g]	19.9 (3.4)[a,d,e]	21.5 (3.2)[a,d,e]	33.6 (2.1)[b,c,e,f]	10.1 (1.3)[a,b,c,d]	14.4 (3.7)[a,d]	21.5 (1.3)[a]
21-25	45.7 (0.6)[d,e,f]	43.8 (1.8)[d,e,f]	49.3 (1.5)[d,e]	56.6 (1.2)[a,b,c,e]	33.1 (1.0)[a,b,c,d,f]	52.1 (1.7)[a,b,e]	45.4 (0.8)
26-34	36.1 (0.8)[d,e,f]	36.3 (1.3)[d,e]	37.3 (1.2)[d,e]	49.6 (1.5)[a,b,c,e,f]	22.8 (0.8)[a,b,c,d,f]	41.3 (1.2)[a,d,e]	34.9 (0.6)
35-49	26.9 (0.6)[d,e,g]	23.7 (1.2)[d,e,f]	25.3 (1.3)[d,e]	34.3 (2.0)[a,b,c,e]	15.6 (0.8)[a,b,c,d,f]	30.0 (1.4)[b,e]	23.2 (0.6)[a]
50-64	17.3 (0.8)	12.4 (3.8)	11.5 (3.5)	†	8.9 (2.6)	23.7 (5.5)	12.0 (2.0)
Total	28.3 (0.4)[b,c,d,e,f,g]	32.2 (0.8)[a,c,d,e,f]	36.1 (0.8)[a,b,d,e,f]	48.2 (0.8)[a,b,c,e,f]	22.7 (0.5)[a,b,c,d,f]	39.7 (0.8)[a,b,c,d,e]	33.3 (0.4)[a]

Note: Table displays the percentage of military personnel, by gender, age group, and Service, who were classified as alcohol binge drinkers in the past 30 days. The standard error of each estimate is presented in parentheses. Data were not adjusted for sociodemographic differences between the civilian and military populations, though the civilian data were limited to 18 to 65 year olds.

[1]Civilian data source: National Survey on Drug Use and Health (NSDUH), 2010. The NSDUH defined binge drinking for males and females as 5 or more drinks on one occasion, whereas the 2011 HRB defined binge drinking for males as 5 or more drinks and for females as 4 or more drinks on one occasion. Age categories included in the NSDUH public use data file required that the analysis be limited to 18-64 year olds.The age distribution of the civilian population was not adjusted to reflect the age distribution of the military, resulting in disproportionate representation of younger ages in the military and therefore, a higher estimate of binge drinking across all services.

[2]Significance tests were conducted between Civilians and all pairs of Services as well as between Civilians and All Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-7. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Civilian) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Army) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Navy) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[f]Indicates estimate is significantly different from the estimate in column #6 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.
[g]Indicates estimate is significantly different from the estimate in column #7 (All Services) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Alcohol Binge Episode, Q51).

Table 4.1.11 – Negative Effects of Alcohol Use, Past 12 Months, by Service and Drinking Level

Alcohol-Related Consequences and Risk Behaviors/Service	Drinking Level[1]			
	Infrequent/Light	Moderate	Heavy	Total
Work-Related Productivity Loss (1 or More Items)				
Army	4.0 (0.4)[b,c]	13.5 (1.3)[a,c]	31.0 (2.5)[a,b]	8.7 (0.5)
Navy	5.2 (0.4)[b,c]	17.3 (1.3)[a,c]	31.9 (2.4)[a,b]	10.6 (0.5)
Marine Corps	8.7 (0.6)[b,c]	21.7 (1.3)[a,c]	39.4 (1.9)[a,b]	17.7 (0.6)
Air Force	2.3 (0.2)[b,c]	9.8 (0.9)[a,c]	22.4 (2.2)[a,b]	4.3 (0.2)
Coast Guard	4.6 (0.4)[b,c]	16.4 (1.2)[a,c]	30.6 (2.6)[a,b]	9.5 (0.5)
All Services	4.3 (0.2)[b,c]	15.5 (0.7)[a,c]	32.4 (1.2)[a,b]	9.4 (0.2)
Serious Consequences (1 or More Items)				
Army	5.3 (0.5)[b,c]	15.7 (1.4)[a,c]	29.0 (2.5)[a,b]	9.9 (0.5)
Navy	6.4 (0.5)[b,c]	12.0 (1.1)[a,c]	30.0 (2.3)[a,b]	10.1 (0.5)
Marine Corps	9.4 (0.6)[b,c]	22.9 (1.3)[a,c]	35.2 (1.8)[a,b]	17.7 (0.6)
Air Force	3.3 (0.2)[b,c]	9.9 (0.9)[a,c]	22.7 (2.2)[a,b]	5.2 (0.3)
Coast Guard	4.1 (0.4)[b,c]	13.6 (1.1)[a,c]	24.3 (2.4)[a,b]	8.0 (0.4)
All Services	5.4 (0.2)[b,c]	15.1 (0.6)[a,c]	30.0 (1.2)[a,b]	9.8 (0.2)
Risk Behaviors (1 or More Items)				
Army	5.1 (0.5)[b,c]	16.7 (1.4)[a,c]	35.2 (2.6)[a,b]	10.6 (0.5)
Navy	5.6 (0.5)[b,c]	14.1 (1.2)[a,c]	32.2 (2.3)[a,b]	10.3 (0.5)
Marine Corps	7.8 (0.6)[b,c]	17.1 (1.2)[a,c]	30.6 (1.8)[a,b]	14.4 (0.6)
Air Force	2.7 (0.2)[b,c]	11.5 (0.9)[a,c]	24.5 (2.3)[a,b]	4.9 (0.2)
Coast Guard	5.6 (0.4)[b,c]	16.9 (1.2)[a,c]	34.7 (2.6)[a,b]	10.7 (0.5)
All Services	4.8 (0.2)[b,c]	15.3 (0.6)[a,c]	32.2 (1.2)[a,b]	9.7 (0.2)
Work-Related Productivity Loss (2 or More Items)				
Army	1.5 (0.3)[b,c]	4.7 (0.8)[a,c]	16.6 (2.0)[a,b]	3.7 (0.3)
Navy	1.7 (0.3)[b,c]	6.0 (0.8)[a,c]	17.3 (2.0)[a,b]	4.3 (0.3)
Marine Corps	3.6 (0.4)[b,c]	9.2 (0.9)[a,c]	23.6 (1.7)[a,b]	8.6 (0.5)
Air Force	0.5 (0.1)[b,c]	3.7 (0.6)[a,c]	10.8 (1.7)[a,b]	1.4 (0.1)
Coast Guard	1.1 (0.2)[b,c]	6.6 (0.8)[a,c]	14.5 (2.0)[a,b]	3.5 (0.3)
All Services	1.5 (0.1)[b,c]	5.8 (0.4)[a,c]	17.8 (1.0)[a,b]	4.0 (0.2)

Table 4.1.11 – Negative Effects of Alcohol Use, Past 12 Months, by Service and Drinking Level

Alcohol-Related Consequences and Risk Behaviors/Service	Drinking Level[1]			
	Infrequent/Light	Moderate	Heavy	Total
Serious Consequences (2 or More Items)				
Army	1.5 (0.3)[b,c]	6.8 (1.0)[a,c]	12.1 (1.8)[a,b]	3.7 (0.3)
Navy	1.6 (0.3)[b,c]	3.8 (0.7)[a,c]	15.0 (1.8)[a,b]	3.5 (0.3)
Marine Corps	3.1 (0.4)[b,c]	8.1 (0.9)[a,c]	20.1 (1.5)[a,b]	7.5 (0.4)
Air Force	1.0 (0.1)[b,c]	3.4 (0.5)[a,c]	9.4 (1.6)[a,b]	1.8 (0.1)
Coast Guard	1.1 (0.2)[b,c]	3.6 (0.6)[a,c]	6.8(1.4)[a,b]	2.2 (0.2)
All Services	1.6 (0.1)[b,c]	5.6 (0.4)[a,c]	14.4 (0.9)[a,b]	3.7 (0.2)
Risk Behaviors (2 or More Items)				
Army	1.4 (0.2)[b,c]	5.9 (0.9)[a,c]	16.6 (2.0)[a,b]	3.9 (0.3)
Navy	1.9 (0.3)[b,c]	4.4 (0.7)[a,c]	16.0 (1.8)[a,b]	3.9 (0.3)
Marine Corps	2.5 (0.3)[b,c]	7.0 (0.8)[a,c]	16.6 (1.4)[a,b]	6.2 (0.4)
Air Force	0.6 (0.1)[b,c]	4.3 (0.6)[a,c]	13.0 (1.8)[a,b]	1.7 (0.1)
Coast Guard	1.8 (0.3)[b,c]	7.3 (0.9)[a,c]	20.1 (2.2)[a,b]	4.6 (0.3)
All Services	1.4 (0.1)[b,c]	5.5 (0.4)[a,c]	16.2 (0.9)[a,b]	3.7 (0.2)

Note: Table displays the percentage of military personnel who reported negative effects of alcohol use in the past 12 months (work-related productivity loss, serious consequences, and risk behaviors), by Service and drinking level group. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all drinking levels. A superscripted letter adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in column #1-3. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Infrequent/Light) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Heavy) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; Work-Related Productivity Loss, Q43C, Q43F-H, Q44I, Q45A-F; Serious Consequences, Q43A-B, Q43D-E, Q43I-M, Q44C, Q44F-H, Q44J-K; Risk Behaviors, Q44A-B, Q44D-E).

Table 4.1.12 – Negative Effects of Alcohol Use, Past 12 Months, by Age at First Use of Alcohol and Service

Alcohol-Related Consequences and Risk Behaviors/Age at First Alcohol Use[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Work-Related Productivity Loss (1 or More Items)						
14 years old or younger	12.5 (1.3)[3,4]	14.3 (1.3)[3,4]	24.3 (1.5)[2,3,4]	7.2 (0.8)[3,4]	13.9 (1.4)[3,4]	14.1 (0.7)[2,3,4]
15-17 years old	8.9 (0.8)[4]	11.3 (0.9)[4]	18.7 (1.1)[1,3,4]	5.6 (0.5)[4]	10.0 (0.8)[4]	10.2 (0.4)[1,3,4]
18-20 years old	6.6 (0.8)[1]	8.7 (0.9)[1]	13.3 (1.1)[1,2,4]	3.9 (0.4)[1,4]	8.9 (0.9)[1,4]	7.3 (0.4)[1,2,4]
21 years old or older	4.3 (0.8)[1,2]	5.4 (0.9)[1,2]	6.0 (1.2)[1,2,3]	1.5 (0.3)[1,2,3]	3.2 (0.7)[1,2,3]	3.7 (0.4)[1,2,3]
Total	8.1 (0.5)	10.1 (0.5)	17.3 (0.6)	4.2 (0.2)	9.3 (0.5)	8.9 (0.2)
Serious Consequences (1 or More Items)						
14 years old or younger	12.4 (1.3)[4]	15.1 (1.3)[2,3,4]	22.9 (1.4)[2,3,4]	7.7 (0.8)[3,4]	11.2 (1.3)[3,4]	14.0 (0.7)[2,3,4]
15-17 years old	9.5 (0.9)[4]	9.0 (0.8)[1]	18.2 (1.0)[1,3,4]	6.1 (0.5)[4]	9.1 (0.7)[4]	9.9 (0.4)[1,4]
18-20 years old	9.0 (1.0)[4]	8.7 (0.9)[1]	13.7 (1.2)[1,2,4]	5.0 (0.5)[1,4]	6.7 (0.8)[1,4]	8.5 (0.5)[1,4]
21 years old or older	5.3 (0.9)[1,2,3]	6.8 (1.0)[1]	6.8 (1.3)[1,2,3]	2.6 (0.3)[1,2,3]	2.4 (0.6)[1,2,3]	4.7 (0.4)[1,2,3]
Total	9.2 (0.5)	9.8 (0.5)	17.0 (0.6)	5.0 (0.3)	7.7 (0.4)	9.3 (0.2)
Risk Behaviors (1 or More Items)						
14 years old or younger	15.9 (1.4)[2,3,4]	15.4 (1.3)[3,4]	20.8 (1.4)[2,3,4]	9.7 (0.9)[2,3,4]	17.8 (1.5)[2,3,4]	15.6 (0.7)[2,3,4]
15-17 years old	11.0 (0.9)[1,3,4]	12.2 (0.9)[3,4]	14.7 (0.9)[1,3,4]	6.3 (0.5)[1,3,4]	12.1 (0.8)[1,4]	10.8 (0.4)[1,3,4]
18-20 years old	7.1 (0.9)[1,2]	7.7 (0.9)[1,2,4]	8.9 (1.0)[1,2]	3.8 (0.4)[1,2,4]	9.0 (0.9)[1,4]	6.7 (0.4)[1,2,4]
21 years old or older	4.6 (0.9)[1,2]	3.5 (0.7)[1,2,3]	5.7 (1.2)[1,2]	1.8 (0.3)[1,2,3]	1.8 (0.5)[1,2,3]	3.4 (0.3)[1,2,3]
Total	9.8 (0.5)	10.1 (0.5)	13.7 (0.6)	4.8 (0.2)	10.6 (0.5)	9.2 (0.2)
Work-Related Productivity Loss (2 or More Items)						
14 years old or younger	6.6 (1.0)[2,3,4]	7.0 (0.9)[2,3,4]	12.7 (1.1)[3,4]	2.7 (0.5)[3,4]	5.6 (0.9)[3,4]	7.0 (0.5)[2,3,4]
15-17 years old	3.6 (0.5)[1,4]	4.1 (0.6)[1]	9.4 (0.8)[3,4]	1.7 (0.3)[4]	3.9 (0.5)[4]	4.2 (0.3)[1,3,4]
18-20 years old	2.7 (0.5)[1]	3.8 (0.6)[1]	6.2 (0.8)[1,2,4]	1.3 (0.3)[1]	2.7 (0.5)[1]	3.0 (0.3)[1,2,4]
21 years old or older	0.9 (0.4)[1,2]	2.7 (0.6)[1]	2.2 (0.7)[1,2,3]	0.6 (0.2)[1,2]	0.9 (0.4)[1,2]	1.3 (0.2)[1,2,3]
Total	3.4 (0.3)	4.7 (0.3)	8.6 (0.5)	1.4 (0.1)	3.4 (0.3)	3.8 (0.2)

Table 4.1.12 – Negative Effects of Alcohol Use, Past 12 Months, by Age at First Use of Alcohol and Service

Alcohol-Related Consequences and Risk Behaviors/Age at First Alcohol Use[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Serious Consequences (2 or More Items)						
14 years old or younger	5.8 (0.9)[2,4]	6.7 (0.9)[2,3,4]	11.1 (1.1)[2,3,4]	2.8 (0.5)[3,4]	3.9 (0.8)[4]	6.4 (0.4)[2,3,4]
15-17 years old	3.3 (0.5)	3.1 (0.5)[1]	6.6 (0.7)[1,4]	2.0 (0.3)	2.0 (0.4)	3.4 (0.2)[1,4]
18-20 years old	2.4 (0.5)[1]	3.0 (0.6)[1]	5.7 (0.8)[1,4]	1.4 (0.3)[1]	2.3 (0.5)[4]	2.7 (0.3)[1,4]
21 years old or older	2.0 (0.6)[1]	1.5 (0.5)[1]	1.9 (0.7)[1,2,3]	1.1 (0.2)[1]	0.5 (0.3)[1,3]	1.5 (0.2)[1,2,3]
Total	3.3 (0.3)	3.5 (0.3)	7.0 (0.4)	1.7 (0.1)	2.2 (0.2)	3.4 (0.2)
Risk Behaviors (2 or More Items)						
14 years old or younger	7.1 (1.0)[3,4]	7.0 (0.9)[3,4]	9.4 (1.0)[2,3,4]	4.0 (0.6)[2,3,4]	9.9 (1.2)[2,3,4]	7.0 (0.5)[2,3,4]
15-17 years old	4.5 (0.6)[3,4]	4.8 (0.6)[4]	5.7 (0.6)[1,4]	2.1 (0.3)[1,3,4]	5.0 (0.6)[1,4]	4.3 (0.3)[1,3,4]
18-20 years old	2.1 (0.5)[1,2]	2.7 (0.5)[1,4]	4.1 (0.7)[1,4]	1.1 (0.2)[1,2,4]	2.9 (0.5)[1,4]	2.3 (0.2)[1,2,4]
21 years old or older	0.5 (0.3)[1,2]	0.8 (0.4)[1,2,3]	1.3 (0.6)[1,2,3]	0.2 (0.1)[1,2,3]	0.8 (0.4)[1,2,3]	0.5 (0.1)[1,2,3]
Total	3.7 (0.3)	4.0 (0.3)	5.7 (0.4)	1.6 (0.1)	4.6 (0.3)	3.5 (0.2)

Note: Table displays the percentage of military personnel who reported negative effects of alcohol use in the past 12 months (work-related productivity loss, serious consequences, and risk behaviors), by age at first use of alcohol and Service. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows of age at first alcohol use. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in row #1-4. In other words:

[1]Indicates estimate is significantly different from the estimate in row #1 (14 years old or younger) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (15-17 years old) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (18-20 years old) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (21 years old or older) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Age at First Use, Q59; Work-Related Productivity Loss, Q43C, Q43F-H, Q44I, Q45A-F; Serious Consequences, Q43A-B, Q43D-E, Q43I-M, Q44C, Q44F-H, Q44J-K; Risk Behaviors, Q44A-B, Q44D-E).

Table 4.1.13 – Negative Effects of Alcohol Use, Past 12 Months, by Drinking at Work and Service

Alcohol-Related Consequences and Risk Behaviors/ Consumption at Work	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Work-Related Productivity Loss (1 or More Items)						
Drank at work	†	36.0 (6.2)[d]	46.8 (6.2)[d]	15.0 (4.1)[b,c]	†	35.1 (3.5)
Did not drink at work	8.3 (0.5)[c,d]	10.3 (0.5)[c,d]	17.1 (0.6)[a,b,d,e]	4.2 (0.2)[a,b,c,e]	9.5 (0.5)[c,d]	9.0 (0.2)
Serious Consequences (1 or More Items)						
Drank at work	31.4 (8.1)	37.5 (6.3)[d]	44.7 (6.1)[d]	14.9 (4.2)[b,c]	†	32.7 (3.4)
Did not drink at work	9.5 (0.5)[c,d]	9.7 (0.5)[c,d]	17.3 (0.6)[a,b,d,e]	5.2 (0.3)[a,b,c,e]	8.0 (0.4)[c,d]	9.5 (0.2)
Risk Behaviors (1 or More Items)						
Drank at work	†	43.6 (6.3)[d]	42.8 (6.1)[d]	20.5 (4.5)[b,c]	†	37.3 (3.5)
Did not drink at work	10.0 (0.5)[c,d]	9.8 (0.5)[c,d]	13.7 (0.6)[a,b,d,e]	4.8 (0.2)[a,b,c,e]	10.7 (0.5)[c,d]	9.2 (0.2)
Work-Related Productivity Loss (2 or More Items)						
Drank at work	21.5 (7.3)	28.4 (5.8)[d]	38.7 (6.1)[d]	8.0 (3.1)[b,c]	†	24.4 (3.2)
Did not drink at work	3.4 (0.3)[c,d]	4.1 (0.3)[c,d]	8.2 (0.5)[a,b,d,e]	1.4 (0.1)[a,b,c,e]	3.5 (0.3)[c,d]	3.7 (0.2)
Serious Consequences (2 or More Items)						
Drank at work	16.9 (6.5)	21.0 (5.3)	29.6 (5.6)[d]	8.3 (3.2)[c]	†	19.1 (2.9)
Did not drink at work	3.3 (0.3)[c,d,e]	3.4 (0.3)[c,d,e]	7.0 (0.4)[a,b,d,e]	1.8 (0.2)[a,b,c]	2.1 (0.2)[a,b,c]	3.4 (0.2)
Risk Behaviors (2 or More Items)						
Drank at work	17.7 (6.6)	27.4 (5.7)[d]	35.4 (5.9)[d]	9.1 (3.2)[b,c]	†	22.4 (3.0)
Did not drink at work	3.7 (0.3)[c,d]	3.6 (0.3)[c,d]	5.6 (0.4)[a,b,d]	1.6 (0.1)[a,b,c,e]	4.7 (0.3)[d]	3.5 (0.2)

Note: Table displays the percentage of military personnel who reported negative effects of alcohol use in the past 12 months (work-related productivity loss, serious consequences, and risk behaviors), by alcohol consumption at work and Service. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drank at Work, Q52; Work-Related Productivity Loss, Q43C, Q43F-H, Q44I, Q45A-F; Serious Consequences, Q43A-B, Q43D-E, Q43I-M, Q44C, Q44F-H, Q44J-K; Risk Behaviors, Q44A-B, Q44D-E).

Table 4.1.14 – AUDIT Score, by Drinking Level and Service

	Service[1]					
Drinking Level/AUDIT	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Infrequent/Light						
AUDIT Score of <8 (Low Risk)	95.9 (0.4)[c,d]	96.0 (0.4)[c,d]	93.1 (0.6)[a,b,d,e]	97.9 (0.2)[a,b,c]	96.9 (0.3)[c]	96.2 (0.2)
AUDIT Score of 8-15 (Hazardous Drinking)	2.8 (0.3)[c,d,e]	2.2 (0.3)[c,d]	5.2 (0.5)[a,b,d,e]	0.7 (0.1)[a,b,c,e]	1.6 (0.2)[a,c,d]	2.3 (0.1)
AUDIT Score of 16-19 (Harmful Drinking)	†	0.1 (0.1)	0.3 (0.1)	†	0.1 (0.0)	0.1 (0.0)
AUDIT Score of 20+ (Possible Dependence)	1.2 (0.2)	1.7 (0.3)	1.5 (0.3)	1.4 (0.1)	1.4 (0.2)	1.4 (0.1)
Moderate						
AUDIT Score of <8 (Low Risk)	74.7 (1.6)[d,e]	80.4 (1.4)[c,d]	69.4 (1.4)[b,d,e]	86.3 (1.0)[a,b,c,e]	81.8 (1.3)[a,c,d]	77.3 (0.7)
AUDIT Score of 8-15 (Hazardous Drinking)	21.8 (1.6)[d,e]	16.3 (1.3)[c]	26.5 (1.4)[b,d,e]	12.6 (1.0)[a,c]	16.0 (1.2)[a,c]	19.5 (0.7)
AUDIT Score of 16-19 (Harmful Drinking)	1.8 (0.5)[d]	1.9 (0.5)[d]	2.3 (0.5)[d]	0.2 (0.1)[a,b,c,e]	1.3 (0.4)[d]	1.6 (0.2)
AUDIT Score of 20+ (Possible Dependence)	1.7 (0.5)	1.4 (0.4)	1.9 (0.4)	0.9 (0.3)	0.9 (0.3)	1.5 (0.2)
Heavy						
AUDIT Score of <8 (Low Risk)	42.8 (2.7)	41.9 (2.5)	34.7 (1.8)[d,e]	51.6 (2.6)[c]	48.6 (2.7)[c]	41.7 (1.3)
AUDIT Score of 8-15 (Hazardous Drinking)	40.5 (2.7)	47.2 (2.5)	47.9 (1.9)	39.8 (2.6)	42.6 (2.7)	44.0 (1.3)
AUDIT Score of 16-19 (Harmful Drinking)	10.4 (1.6)[b]	4.3 (1.0)[a]	8.0 (1.0)	5.0 (1.1)	5.2 (1.2)	7.6 (0.7)
AUDIT Score of 20+ (Possible Dependence)	6.2 (1.3)	6.6 (1.3)	9.5 (1.1)[d,e]	3.7 (1.0)[c]	3.6 (1.0)[c]	6.8 (0.6)

Table 4.1.14 – AUDIT Score, by Drinking Level and Service

	Service[1]					
Drinking Level/AUDIT	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Total						
AUDIT Score of <8 (Low Risk)	88.2 (0.5)[c,d,e]	88.5 (0.5)[c,d]	79.1 (0.6)[a,b,d,e]	95.0 (0.2)[a,b,c,e]	90.3 (0.4)[a,c,d]	88.7 (0.2)
AUDIT Score of 8-15 (Hazardous Drinking)	9.0 (0.5)[c,d]	8.8 (0.4)[c,d]	16.2 (0.6)[a,b,d,e]	3.5 (0.2)[a,b,c,e]	7.6 (0.4)[c,d]	8.6 (0.2)
AUDIT Score of 16-19 (Harmful Drinking)	1.2 (0.2)[d]	0.8 (0.1)[c,d]	1.9 (0.2)[b,d,e]	0.2 (0.1)[a,b,c,e]	0.7 (0.1)[c,d]	1.0 (0.1)
AUDIT Score of 20+ (Possible Dependence)	1.6 (0.2)[c]	1.9 (0.2)[d]	2.7 (0.2)[a,d,e]	1.3 (0.1)[b,c]	1.4 (0.2)[c]	1.7 (0.1)

Note: Table displays the percentage of military personnel who reported each range of AUDIT scores, by drinking level group and Service. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; AUDIT, Q46, Q47, Q48A-F, Q49A-B).

Table 4.1.15 – AUDIT Score, by Age at First Use of Alcohol and Service

	Service[1]					
Age Group/AUDIT	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
14 Years Old or Younger						
AUDIT Score of <8 (Low Risk)	77.6 (1.6)[c,d]	81.3 (1.4)[c,d]	66.6 (1.6)[a,b,d,e]	90.2 (0.9)[a,b,c,e]	83.0 (1.5)[c,d]	78.9 (0.8)
AUDIT Score of 8-15 (Hazardous Drinking)	17.9 (1.5)[c,d]	14.0 (1.3)[c,d]	25.1 (1.5)[a,b,d,e]	7.9 (0.8)[a,b,c,e]	13.6 (1.3)[c,d]	16.3 (0.7)
AUDIT Score of 16-19 (Harmful Drinking)	2.2 (0.6)	1.4 (0.4)[c]	3.8 (0.6)[b,d]	0.7 (0.3)[c]	1.9 (0.5)	2.0 (0.3)
AUDIT Score of 20+ (Possible Dependence)	2.3 (0.6)	3.3 (0.7)[d]	4.6 (0.7)[d,e]	1.1 (0.3)[b,c]	1.5 (0.5)[c]	2.7 (0.3)
15-17 Years Old						
AUDIT Score of <8 (Low Risk)	87.5 (1.0)[c,d]	86.1 (1.0)[c,d]	75.3 (1.1)[a,b,d,e]	92.7 (0.5)[a,b,c,e]	88.1 (0.8)[c,d]	86.5 (0.5)
AUDIT Score of 8-15 (Hazardous Drinking)	9.2 (0.8)[c,d]	11.1 (0.9)[c,d]	19.8 (1.1)[a,b,d,e]	5.6 (0.5)[a,b,c,e]	9.8 (0.8)[c,d]	10.5 (0.4)
AUDIT Score of 16-19 (Harmful Drinking)	1.9 (0.4)[d]	0.8 (0.3)	2.2 (0.4)[d,e]	0.4 (0.1)[a,c]	0.7 (0.2)[c]	1.3 (0.2)
AUDIT Score of 20+ (Possible Dependence)	1.4 (0.3)	2.0 (0.4)	2.7 (0.4)[d]	1.3 (0.2)[c]	1.4 (0.3)	1.7 (0.2)
18-20 Years Old						
AUDIT Score of <8 (Low Risk)	88.8 (1.1)[c,d]	90.8 (0.9)[c,d]	83.8 (1.2)[a,b,d,e]	95.6 (0.4)[a,b,c,e]	92.0 (0.8)[c,d]	90.4 (0.5)
AUDIT Score of 8-15 (Hazardous Drinking)	8.6 (0.9)[c,d]	7.3 (0.8)[c,d]	12.9 (1.1)[a,b,d,e]	3.2 (0.4)[a,b,c,e]	6.2 (0.8)[c,d]	7.5 (0.4)
AUDIT Score of 16-19 (Harmful Drinking)	1.0 (0.3)	0.6 (0.2)	1.5 (0.4)	†	0.6 (0.2)	0.7 (0.1)
AUDIT Score of 20+ (Possible Dependence)	1.6 (0.4)	1.3 (0.4)	1.8 (0.4)	1.1 (0.2)	1.2 (0.3)	1.4 (0.2)

Table 4.1.15 – AUDIT Score, by Age at First Use of Alcohol and Service

	Service[1]					
Age Group/AUDIT	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
21 Years Old or Older						
AUDIT Score of <8 (Low Risk)	94.4 (0.9)[d]	92.6 (1.0)[d,e]	89.8 (1.5)[d,e]	97.5 (0.3)[a,b,c]	96.3 (0.8)[b,c]	94.8 (0.4)
AUDIT Score of 8-15 (Hazardous Drinking)	3.6 (0.7)[c,d]	5.2 (0.9)[d,e]	8.4 (1.4)[a,d,e]	1.1 (0.2)[a,b,c]	1.9 (0.6)[b,c]	3.4 (0.3)
AUDIT Score of 16-19 (Harmful Drinking)	0.3 (0.2)	0.5 (0.3)	0.5 (0.4)	0.1 (0.1)	0.2 (0.2)	0.3 (0.1)
AUDIT Score of 20+ (Possible Dependence)	1.7 (0.5)	1.7 (0.5)	1.3 (0.6)	1.4 (0.2)	1.6 (0.5)	1.5 (0.2)
Total						
AUDIT Score of <8 (Low Risk)	88.2 (0.5)[c,d,e]	88.5 (0.5)[c,d]	79.1 (0.6)[a,b,d,e]	95.0 (0.2)[a,b,c,e]	90.6 (0.4)[a,c,d]	88.7 (0.3)
AUDIT Score of 8-15 (Hazardous Drinking)	9.0 (0.5)[c,d]	8.8 (0.4)[c,d]	16.2 (0.6)[a,b,d,e]	3.5 (0.2)[a,b,c,e]	7.6 (0.4)[c,d]	8.6 (0.2)
AUDIT Score of 16-19 (Harmful Drinking)	1.2 (0.2)[d]	0.8 (0.1)[c,d]	1.9 (0.2)[b,d,e]	0.2 (0.1)[a,b,c,e]	0.7 (0.1)[c,d]	1.0 (0.1)
AUDIT Score of 20+ (Possible Dependence)	1.6 (0.2)[c]	1.9 (0.2)[d]	2.7 (0.2)[a,d,e]	1.3 (0.1)[b,c]	1.4 (0.2)[c]	1.7 (0.1)

Note: Table displays the percentage of military personnel who reported each range of AUDIT scores, by age at first alcohol use and Service. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Age at First Alcohol Use, Q59; AUDIT, Q46, Q47, Q48A-F, Q49A-B).

Table 4.1.16 – AUDIT Score, by Drinking at Work in the Past 30 Days and Service

Consumption at Work/AUDIT	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Drank at Work						
AUDIT Score of <8 (Low Risk)	†	55.3 (6.4)[d]	42.6 (6.0)[d]	84.2 (4.1)[b,c]	†	56.2 (3.6)
AUDIT Score of 8-15 (Hazardous Drinking)	22.9 (7.3)	32.1 (6.0)[d]	31.0 (5.6)[d]	6.5 (2.8)[b,c]	†	24.0 (3.1)
AUDIT Score of 16-19 (Harmful Drinking)	18.4 (6.8)[d]	6.7 (3.2)	5.2 (2.7)	2.8 (1.9)[a]	†	9.1 (2.1)
AUDIT Score of 20+ (Possible Dependence)	11.3 (5.5)	5.9 (3.0)	21.2 (4.9)	6.5 (2.8)	†	10.6 (2.2)
Did Not Drink at Work						
AUDIT Score of <8 (Low Risk)	86.7 (0.6)[c,d,e]	87.6 (0.5)[c,d]	76.7 (0.7)[a,b,d,e]	94.2 (0.3)[a,b,c,e]	89.4 (0.5)[a,c,d]	87.4 (0.3)
AUDIT Score of 8-15 (Hazardous Drinking)	10.4 (0.5)[c,d,e]	9.6 (0.5)[c,d]	18.3 (0.6)[a,b,d,e]	4.1 (0.2)[a,b,c,e]	8.4 (0.4)[a,c,d]	9.7 (0.2)
AUDIT Score of 16-19 (Harmful Drinking)	1.3 (0.2)[c,d]	0.8 (0.1)[c,d]	2.2 (0.2)[a,b,d,e]	0.3 (0.1)[a,b,c,e]	0.7 (0.1)[c,d]	1.0 (0.1)
AUDIT Score of 20+ (Possible Dependence)	1.7 (0.2)[c]	2.0 (0.2)	2.8 (0.3)[a,d,e]	1.4 (0.1)[c]	1.4 (0.2)[c]	1.9 (0.1)
Total						
AUDIT Score of <8 (Low Risk)	88.2 (0.5)[c,d,e]	88.5 (0.5)[c,d]	79.1 (0.6)[a,b,d,e]	95.0 (0.2)[a,b,c,e]	90.3 (0.4)[a,c,d]	88.7 (0.2)
AUDIT Score of 8-15 (Hazardous Drinking)	9.0 (0.5)[c,d]	8.8 (0.4)[c,d]	16.2 (0.6)[a,b,d,e]	3.5 (0.2)[a,b,c,e]	7.6 (0.4)[c,d]	8.6 (0.2)
AUDIT Score of 16-19 (Harmful Drinking)	1.2 (0.2)[d]	0.8 (0.1)[c,d]	1.9 (0.2)[b,d,e]	0.2 (0.1)[a,b,c,e]	0.7 (0.1)[c,d]	1.0 (0.1)
AUDIT Score of 20+ (Possible Dependence)	1.6 (0.2)[c]	1.9 (0.2)[d]	2.7 (0.2)[a,d,e]	1.3 (0.1)[b,c]	1.4 (0.2)[c]	1.7 (0.1)

Note: Table displays the percentage of military personnel who reported each range of AUDIT scores, by alcohol consumption at work and Service. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drank at Work, Q52; AUDIT, Q46, Q47, Q48A-F, Q49A-B).

Table 4.1.17 – Energy Drink Combined with Alcoholic Beverage Use in the Past 30 Days, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Gender						
Male	20.9 (0.8)[2]	23.6 (0.8)[2]	33.6 (0.8)[2]	17.0 (0.5)[2]	17.1 (0.7)[2]	22.4 (0.4)[2]
Female	14.8 (1.6)[1]	17.4 (1.5)[1]	22.0 (2.6)[1]	11.2 (0.8)[1]	12.1 (1.4)[1]	14.7 (0.7)[1]
Race/Ethnicity						
White, non-Hispanic	19.1 (0.8)	22.0 (0.9)[3]	32.6 (0.9)[4]	15.3 (0.5)	15.9 (0.7)	20.5 (0.4)[3]
African-American, non-Hispanic	20.5 (1.9)	21.9 (1.8)	30.6 (2.4)[4]	16.5 (1.3)	19.5 (2.8)	21.2 (1.0)[3]
Hispanic	24.3 (2.1)	27.7 (2.0)[1]	32.8 (1.8)	18.0 (1.4)	20.0 (1.9)	25.4 (1.0)[1,2]
Other	21.3 (3.0)	21.5 (2.4)	43.4 (3.8)[1,2]	17.5 (2.0)	14.7 (2.8)	23.0 (1.4)
Education						
High School or less	28.0 (1.9)[2,3]	30.5 (1.5)[2,3]	35.9 (1.2)[3]	22.0 (1.4)[2,3]	19.4 (1.4)[3]	29.7 (0.8)[2,3]
Some college	22.3 (1.0)[1,3]	24.0 (1.0)[1,3]	34.3 (1.2)[3]	17.7 (0.6)[1,3]	18.4 (0.8)[3]	22.8 (0.5)[1,3]
College graduate or higher	11.6 (1.0)[1,2]	12.8 (1.1)[1,2]	19.7 (1.7)[1,2]	10.0 (0.6)[1,2]	9.7 (1.0)[1,2]	11.9 (0.5)[1,2]
Age						
18-20	39.6 (6.7)[3,4,5]	42.4 (6.0)[3,4,5]	39.6 (2.8)[3,4,5]	26.8 (3.6)[3,4,5]	36.2 (7.7)[3,4,5]	37.8 (2.4)[2,3,4,5]
21-25	29.3 (1.8)[3,4,5]	31.2 (1.5)[3,4,5]	39.1 (1.3)[3,4,5]	20.8 (0.9)[3,4,5]	25.7 (1.5)[3,4,5]	29.7 (0.7)[1,3,4,5]
26-35	22.3 (1.2)[1,2,4,5]	21.7 (1.1)[1,2,4,5]	28.8 (1.4)[1,2,4,5]	15.9 (0.7)[1,2,4,5]	15.9 (0.9)[1,2,4,5]	21.1 (0.5)[1,2,4,5]
36-45	12.3 (1.1)[1,2,3]	13.6 (1.3)[1,2,3]	16.8 (1.9)[1,2,3]	8.3 (0.7)[1,2,3]	8.1 (1.0)[1,2,3]	11.8 (0.6)[1,2,3,5]
46-65	7.9 (2.0)[1,2,3]	7.5 (2.1)[1,2,3]	10.4 (4.4)[1,2,3]	3.9 (1.2)[1,2,3]	4.4 (1.6)[1,2,3]	7.0 (1.0)[1,2,3,4]
Family Status						
Not married	24.9 (1.4)[3]	29.0 (1.2)[3]	39.9 (1.2)[3]	21.2 (0.8)[3]	23.4 (1.2)[3]	27.5 (0.6)[3]
Married, spouse not present	22.8 (2.1)[3]	27.5 (2.4)[3]	36.0 (2.6)[3]	18.2 (1.7)[3]	17.7 (2.2)[3]	24.8 (1.1)[3]
Married, spouse present	16.8 (0.9)[1,2]	16.7 (0.9)[1,2]	25.9 (1.0)[1,2]	12.1 (0.5)[1,2]	12.1 (0.7)[1,2]	16.5 (0.4)[1,2]

Table 4.1.17 – Energy Drink Combined with Alcoholic Beverage Use in the Past 30 Days, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Pay Grade						
E1-E4	24.4 (1.1)[3,4,5,6]	29.7 (1.2)[2,3,5,6]	39.5 (1.1)[2,3,4,5,6]	22.2 (0.8)[2,3,5,6]	26.1 (1.3)[2,3,4,5,6]	28.0 (0.6)[2,3,4,5,6]
E5-E6	21.9 (1.4)[5,6]	23.1 (1.2)[1,3,5,6]	30.3 (1.5)[1,3,6]	15.9 (0.7)[1,3,5,6]	15.8 (0.9)[1,3,4,5,6]	21.3 (0.6)[1,3,4,5,6]
E7-E9	15.9 (1.9)[1,6]	13.3 (1.9)[1,2,6]	17.8 (2.2)[1,2]	9.9 (1.0)[1,2,6]	8.5 (1.4)[1,2]	13.8 (0.9)[1,2,6]
W1-W5	11.0 (3.1)[1]	†	15.3 (5.6)[1]	-----	5.8 (1.9)[1,2]	11.0 (2.1)[1,2]
O1-O3	12.6 (1.8)[1,2]	15.1 (1.8)[1,2,6]	21.5 (2.5)[1]	11.6 (1.0)[1,2,6]	9.4 (1.5)[1,2]	13.7 (0.9)[1,2,6]
O4-O10	5.5 (1.6)[1,2,3]	5.5 (1.4)[1,2,3,5]	9.9 (2.5)[1,2]	5.6 (0.9)[1,2,3,5]	3.4 (1.2)[1,2]	5.8 (0.7)[1,2,3,5]
Region						
CONUS[b]	19.6 (0.8)	21.1 (0.8)[2]	32.1 (0.9)	14.7 (0.5)[2]	16.3 (0.6)	20.3 (0.4)[2]
OCONUS[c]	21.4 (1.5)	26.6 (1.4)[1]	35.2 (1.6)	19.8 (0.9)[1]	17.4 (1.7)	24.2 (0.7)[1]
Total	20.0 (0.7)	22.6 (0.7)	32.8 (0.8)	15.8 (0.4)	16.4 (0.6)	21.3 (0.3)

Note: Table displays the percentage of military personnel, by sociodemographic characteristics and Service, who drank an energy drink (such as Red Bull) in combination with an alcoholic beverage at least once in the past 30 days. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

-----Not applicable.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Energy Drinks Combined with Alcohol, Q53).

Table 4.1.18 – Drinking Facilitators and Deterrents, by Drinking Level

	Drinking Level[1]					
			Current Drinkers			
	Abstainer	Former Drinker	Infrequent/ Light	Moderate	Heavy	Total
Drinking Facilitators						
Current Drinkers						
To celebrate			42.4 (0.5)[d,e]	66.4 (0.9)[c,e]	72.7 (1.2)[c,d]	50.2 (0.4)
To be sociable			29.1 (0.4)[d,e]	42.6 (0.9)[c]	45.9 (1.3)[c]	33.4 (0.4)
To fit in			4.1 (0.2)[d,e]	5.8 (0.4)[c,e]	8.8 (0.8)[c,d]	4.9 (0.2)
To forget about problems			5.9 (0.2)[d,e]	15.6 (0.7)[c,e]	35.9 (1.3)[c,d]	10.8 (0.3)
To cheer up when in a bad mood			8.0 (0.2)[d,e]	20.2 (0.7)[c,e]	42.1 (1.3)[c,d]	13.8 (0.3)
Because friends pressure			1.9 (0.1)[e]	1.9 (0.3)[e]	3.7 (0.5)[c,d]	2.1 (0.1)
So that others won't tease about not drinking			1.1 (0.1)[e]	1.2 (0.2)[e]	2.5 (0.4)[c,d]	1.3 (0.1)
I enjoy drinking			34.8 (0.4)[d,e]	68.8 (0.8)[c,e]	81.7 (1.0)[c,d]	46.2 (0.4)
All Personnel						
Drinking to the point of losing control is acceptable	4.7 (0.5)[e]	4.7 (0.7)[e]	4.3 (0.2)[d,e]	6.0 (0.4)[c,e]	10.3 (0.8)[a,b,c,d]	5.1 (0.2)
Drinking is part of being in my unit	9.4 (0.7)[c,e]	9.7 (0.9)[c,e]	6.9 (0.3)[a,b,d,e]	10.2 (0.6)[c,e]	19.0 (1.0)[a,b,c,d]	8.8 (0.2)
Drinking Deterrents						
Costs too much	23.8 (1.0)[b,d,e]	29.4 (1.4)[a,c,d,e]	24.1 (0.4)[b,d,e]	16.4 (0.7)[a,b,c]	17.7 (1.0)[a,b,c]	22.6 (0.3)
Difficult to get	10.4 (0.7)[b,c,d,e]	4.8 (0.7)[a,c,d,e]	1.6 (0.1)[a,b]	1.1 (0.2)[a,b]	1.9 (0.3)[a,b]	2.6 (0.1)
Family/friends get upset	26.8 (1.1)[c,d,e]	26.1 (1.4)[c,d,e]	4.7 (0.2)[a,b,d,e]	3.2 (0.3)[a,b,c,e]	6.5 (0.7)[a,b,c,d]	8.1 (0.2)
Might interfere with military career	23.8 (1.0)[c,d,e]	19.4 (1.2)[c,d,e]	4.4 (0.2)[a,b,d]	2.5 (0.3)[a,b,c]	3.8 (0.5)[a,b]	6.9 (0.2)
Makes me do things I'm sorry for later	25.5 (1.1)[b,c,d,e]	20.3 (1.3)[a,c,d,e]	4.1 (0.2)[a,b,d,e]	2.9 (0.3)[a,b,c,e]	6.6 (0.7)[a,b,c,d]	7.2 (0.2)
Drinking can get me in trouble with police	20.1 (0.9)[b,c,d,e]	14.7 (1.1)[a,c,d,e]	3.5 (0.2)[a,b,d]	1.8 (0.2)[a,b,c]	2.7 (0.4)[a,b]	5.5 (0.2)

Note: Table displays the percentage of military personnel who endorsed various alcohol facilitators and deterrents, by drinking level. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all relevant drinking levels. A superscripted letter adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Abstainer) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Former Drinker) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Infrequent/Light) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Heavy) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; Drinking Facilitators, Q54A-H, Q55B, Q55D; Drinking Deterrents, Q55A, Q55C, Q56A-D).

Table 4.1.19 – Likelihood of Treatment for Alcohol Use Among Current Drinkers, by Service

	Service[1]					
	Army	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Likelihood of Seeking Treatment, Next 6 Months						
Already in treatment	0.8 (0.2)[d]	0.6 (0.1)	0.5 (0.1)	0.3 (0.1)[a]	0.4 (0.1)	0.6 (0.1)
Likely	0.9 (0.2)[d]	1.3 (0.2)[d,e]	1.1 (0.2)[d,e]	0.4 (0.1)[a,b,c]	0.4 (0.1)[b,c]	0.9 (0.1)
Likely Form of Treatment or Assistance						
Alcoholics Anonymous (AA) meetings						
Likely	28.7 (0.8)[c,d,e]	29.3 (0.8)[c,d,e]	25.0 (0.7)[a,b,d]	21.1 (0.5)[a,b,c,e]	25.4 (0.7)[a,b,d]	26.4 (0.4)
Not familiar	6.6 (0.4)[b,c,d,e]	9.1 (0.5)[a]	8.6 (0.5)[a]	8.6 (0.3)[a]	8.6 (0.5)[a]	8.0 (0.2)
Family Services Centers						
Likely	22.6 (0.8)[b,d,e]	27.4 (0.8)[a,c,d,e]	20.5 (0.7)[b,d]	16.8 (0.4)[a,b,c]	18.1 (0.6)[a,b]	21.8 (0.3)
Not familiar	10.1 (0.5)[d,e]	10.6 (0.5)[e]	11.2 (0.5)[e]	12.2 (0.4)[a,e]	16.6 (0.6)[a,b,c,d]	11.1 (0.3)
Outpatient/ Behavioral (Mental) Health Counseling Services						
Likely	29.3 (0.8)[b,c,d,e]	22.4 (0.7)[a,c,d,e]	18.2 (0.7)[a,b]	19.4 (0.5)[a,b]	18.6 (0.6)[a,b]	23.5 (0.4)
Not familiar	8.3 (0.5)[b,c,d,e]	11.8 (0.6)[a,e]	12.2 (0.6)[a,d,e]	10.2 (0.4)[a,c,e]	14.6 (0.6)[a,b,c,d]	10.3 (0.3)
Military OneSource						
Likely	32.2 (0.8)[b,c,d,e]	23.5 (0.7)[a,e]	24.1 (0.7)[a,d,e]	21.3 (0.5)[a,c,e]	15.4 (0.6)[a,b,c,d]	25.9 (0.4)
Not familiar	8.4 (0.5)[b,c,d,e]	13.4 (0.6)[a,c,e]	10.8 (0.5)[a,b,e]	12.6 (0.4)[a,e]	27.9 (0.7)[a,b,c,d]	11.5 (0.3)

Table 4.1.19 – Likelihood of Treatment for Alcohol Use Among Current Drinkers, by Service

	Service[1]					
	Army	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Community Counseling Centers for Alcohol (YMCA, County Mental Health Counseling)						
Likely	21.4 (0.7)[c,d,e]	18.6 (0.7)[d,e]	16.6 (0.6)[a,d]	13.5 (0.4)[a,b,c]	15.5 (0.6)[a,b]	18.0 (0.3)
Not familiar	10.3 (0.5)[b,c,d,e]	13.2 (0.6)[a]	12.5 (0.6)[a]	13.5 (0.4)[a]	14.2 (0.6)[a]	12.2 (0.3)
Church						
Likely	30.7 (0.8)	31.5 (0.8)[c,d]	28.3 (0.8)[b]	28.8 (0.5)[b]	28.5 (0.8)	30.0 (0.4)
Not familiar	6.2 (0.4)[b,e]	8.0 (0.5)[a]	7.3 (0.4)	7.2 (0.3)	8.1 (0.5)[e]	7.1 (0.2)
Private Residential Treatment/ Residential Treatment Outside the Military						
Likely	24.0 (0.8)[c,d]	22.5 (0.7)[d]	20.6 (0.7)[a]	18.3 (0.5)[a,b,e]	21.6 (0.7)[d]	21.7 (0.3)
Not familiar	11.2 (0.6)[b,d,e]	13.6 (0.6)[a]	13.4 (0.6)	13.6 (0.4)[a]	14.0 (0.6)[a]	12.7 (0.3)
Military Residential Treatment Facility						
Likely	22.4 (0.7)[c,d,e]	21.9 (0.7)[c,d,e]	17.5 (0.7)[a,b,d]	14.5 (0.4)[a,b,c,e]	18.7 (0.6)[a,b,d]	19.6 (0.3)
Not familiar	11.5 (0.6)[d,e]	13.6 (0.6)	13.7 (0.6)	14.6 (0.4)[a]	15.9 (0.6)[a]	13.2 (0.3)
Substance Abuse Prevention Personnel in Unit						
Likely	28.0 (0.8)[b,c,d]	24.9 (0.7)[a,d]	23.4 (0.7)[a,d]	16.2 (0.4)[a,b,c,e]	25.4 (0.7)[d]	23.8 (0.4)
Not familiar	7.1 (0.5)[b,c,d,e]	11.1 (0.5)[a,d]	9.2 (0.5)[a,d]	13.0 (0.4)[a,b,c,e]	9.5 (0.5)[a,d]	9.8 (0.3)
Military Chaplain						
Likely	33.4 (0.8)[b,c,d,e]	29.2 (0.8)[a]	26.2 (0.8)[a]	27.2 (0.5)[a]	26.2 (0.7)[a]	29.7 (0.4)
Not familiar	5.1 (0.4)[b,c,d,e]	7.7 (0.5)[a]	7.1 (0.4)[a]	6.8 (0.3)[a]	7.8 (0.4)[a]	6.5 (0.2)

Note: Table displays the percentage of military personnel, by Service, who reported likelihood to seek treatment for alcohol abuse for each treatment option. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Likelihood of Seeking Treatment for Alcohol Use, Q58; Treatment for Alcohol Abuse, Q57A-J)

4.2 Illicit and Prescription Drug Use

This section presents the results of a detailed analysis of drug use in the military, including illicit drug use and prescription drug use and misuse. Current prevalence rates of illicit and prescription drug use among active duty service members are presented in the tables, including lifetime, past 12 month, and past 30 day use. Prescription drug use is further explored, including for whom the drug was prescribed, the amount used, the source of the drug or prescription, and the motivation for use. Prevalence estimates of prescription drug misuse are also presented. Finally, the frequency of drug testing by service is shown.

Overview of Key Measures of Illicit and Prescription Drug Use

The survey asked about use of a number of illicit and prescription drugs. Respondents who indicated that they had not used a given drug or were not prescribed a drug in the last 12 months were not asked the follow-up questions for that drug, as they were not applicable to them. Definitions for all of the measures reported in this section are explained in Appendix A: Key Definitions and Measures.

Survey questions on drug use began by asking about the use of a variety of illicit drugs such as marijuana, cocaine, and heroin. Two substances, synthetic cannabis and inhalants, which are prohibited to use in the military, but not universally illegal based on State or Federal laws, were excluded from the measure of any "illicit" drug use. Since survey administration in 2011, many of the compounds found in synthetic cannabis have been classified by the military as illegal and have been added to the drug testing list. The measure, "Overall Use of Prohibited Substances" includes the list of illicit drugs and these two prohibited substances. It does not include use or misuse of prescription drugs.

The survey asked respondents about use of four types of prescription drugs – stimulants, sedatives, pain relievers, and anabolic steroids. Reported estimates of prescription drug use included both proper use and misuse. The definition of misuse was based on the National Institute on Drug Abuse (NIDA)'s definition of prescription drug abuse. Respondents were considered to be misusing a drug if they indicated that they were using a drug:

- that was not prescribed for them,
- "to feel good" or "get high," or
- in larger dosages than prescribed for them.

Overview of Findings

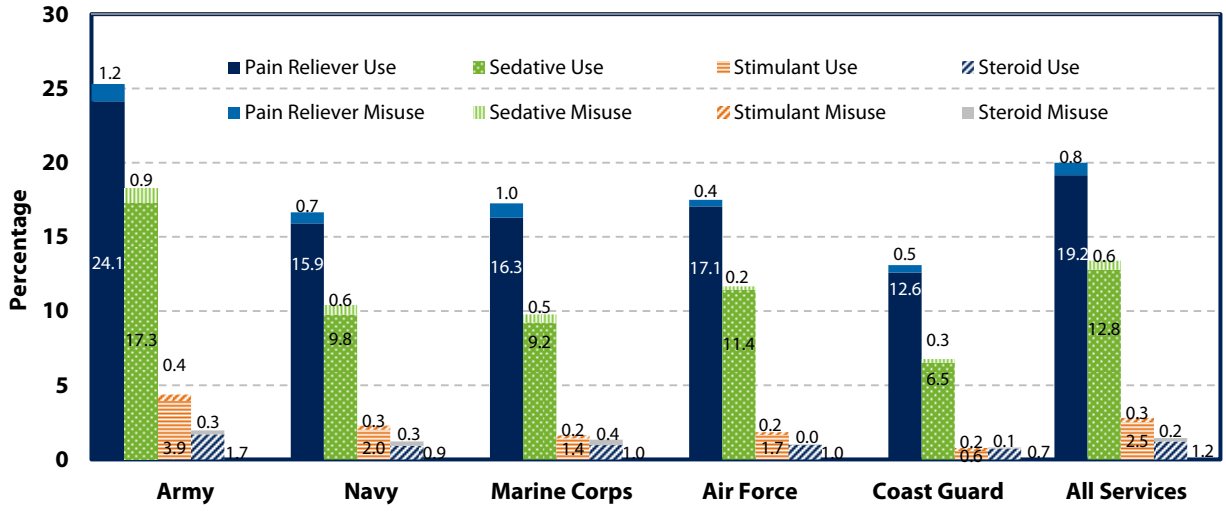
Prevalence of Illicit Drug and Prohibited Substance Use Among All Services

- Less than 1% of service members reported any illicit drug use in the past 30 days, 1.3% reported any illicit drug use in the past 12 months, and 27.5% reported any lifetime illicit drug use (see Table 4.2.1). The 1.3% prevalence of past year illicit drug use is comparable to the 0.7% positive rate reported in the 2011 Status of Drug Use in the DoD Personnel report, which was observed for the presence of marijuana (THC), cocaine, amphetamines, and heroin in active duty personnel. It is important to note that there are differences in the methodologies used to measure these two estimates. The Status of Drug Use report was based on biospecimen drug screenings, whereas the HRB was self-report. In addition, amphetamines were included in the report biospecimen numbers, whereas the HRB measure included LSD, PCP, MDMA, other hallucinogens, methamphetamine, and GHB/GBL (in addition to marijuana, cocaine, and heroin).
- Lifetime use of marijuana (27.1%), other hallucinogens (5.3%), cocaine (4.9%), and MDMA (4.4%) were reported most often. For past month use, marijuana and cocaine were most frequently reported (less than 1%). This finding is consistent with the 2011 Status of Drug Use in the DoD Personnel report, which found that marijuana and cocaine were the most frequent substances that received a positive screening outcome in laboratory drug tests (see Table 4.2.1).
- Less than 1% of active duty personnel reported use of the prohibited substances synthetic cannabis and inhalants in the past 30 days, approximately 1% reported use in the past year, and just under 5% reported any lifetime use of these substances (see Table 4.2.1).
- Overall, the results obtained for illicit and prohibited substance use should be interpreted with caution, as some of the data indicated a systematic pattern of response. In other words, close to half (48.1%) of the respondents who indicated any prohibited drug use in the past 12 months also reported use of all 11 substances in the past year. Although it is not outside the realm of possibility that one may have experimented with a myriad of drugs, it is somewhat suspect. One possible explanation for this pattern of results may be that military service members were not comfortable reporting illicit drug use through an online survey. Further research is needed to fully understand respondents' comfort level with answering such questions and the extent to which they believed the survey to be anonymous. It is clear that efforts to reduce illicit drug use among military personnel are succeeding based on the low positive drug test rate reported in the 2011 Status of Drug Use in the DoD Personnel report and the trend in drug use observed in previous HRB reports. A concern that emerged from the 2008 HRB report was the extent of prescription drug misuse, although more recent research using urinalysis screening found prescription drug misuse rates similar to those in the 2011 HRB report (e.g., Jeffery et al., 2012a). This chapter focuses on results of prescription drug use and misuse.

Prescription Drug Use Among Active Duty Personnel

- Among all active duty service members, 15.2% reported any prescription drug use in the past 30 days, 24.9% reported any use in the past 12 months, and 61.2% reported lifetime use of any of the four categories of prescription drugs – stimulants, sedatives, pain relievers, or anabolic steroids. Across all time frames, pain relievers were used the most; 10.4% of personnel indicated past month use, 20.0% indicated past year use, and 57.7% indicated use of pain relievers at some point in their lifetime (see Table 4.2.2).
- Figure 4.2.A presents the prevalence of prescription drug use and misuse in the last 12 months by service, with prevalence decomposed by type of drug. Across all services, pain relievers were the most common prescription drug type used (13.1%–25.3%) with sedatives being the second most commonly used (6.8%–18.2%). Stimulants and anabolic steroids both were used by less than 5% of any of the services. Percentages for reported misuse of any prescription drug type by any service occurred at rates of 1.2% or below. As for the services, Army members reported more overall use of every type of prescription drug than any other service. Coast Guard personnel reported the lowest overall usage of prescription drugs of any type; whereas the other three services, Navy, Marine Corps, and Air Force, all reported approximately the same usage levels.

Figure 4.2.A: Prescription Drug Use and Misuse, Past 12 Months, by Service



Note: Graph presents weighted data.

Prescription Drug Use, Q84, Q85; Prescription Drug Misuse, Q84, Q86, Q87, Q89.

Prescription Drug Target, Amount Used, Source, and Motivation for Use

- *Stimulants:* Across all services, 2.8% of personnel reported stimulant use in the past 12 months, with Army reporting the highest frequency of use at 4.4%. The majority of service members

reported using stimulants that were prescribed for them and as prescribed. Among stimulant users in the past year, 6.4% reported using drugs prescribed for someone else, and 5.4% used stimulants more than prescribed. The majority of users (81.7%) obtained the drug from a medical source, and "to reduce anxiety or depression" and "to help me stay awake" were the most common motivations for use (see Table 4.2.3).

- *Sedatives:* For all services, 13.4% reported any prescription sedative use in the past 12 months, with Army reporting the most use at 18.3%. Among prescription sedative users, 3.2% reported using sedatives prescribed for someone else, and 3.0% used the drug in a greater amount than prescribed. Most sedative users, 95.2%, obtained the sedatives from a medical source, and "to control pain" and "to help me sleep" were the most common motivations for use of sedatives (see Table 4.2.4).
- *Pain Relievers:* Across all services, 20.0% of personnel reported prescription pain reliever use in the past 12 months, with Army reporting the most use (25.3%). For all users, 3.7% reported using pain relievers prescribed for someone else, and 2.9% reported using the drug in greater amounts than prescribed. Most pain reliever users (96.9%) reported obtaining the drug from a medical source; "to control pain" was the most common motivation for use (see Table 4.2.5).
- *Anabolic Steroids:* Across all services, 1.4% reported prescription anabolic steroid use in the past 12 months. Of all users, 7.8% reported using drugs prescribed for someone else, and 6.8% indicated that they had used more than prescribed. A smaller percentage of anabolic steroid users than for the other drugs studied, 70.2%, reported obtaining the steroids from a medical source, and the most common motivation for use based on the options provided was "to control pain" (see Table 4.2.6).

Sociodemographic Correlates of Past Year Prescription Drug Use Among Active Duty Personnel

- As shown in Table 4.2.7, stimulant users were more often in the Army (4.4%), female (4.2%), and married with a spouse not present (4.1%).
- Sedative users were more often in the Army (18.3%), female (18.4%), had some college education (15.3%), were over age 35 (17.9%–18.1%), married with a spouse not present or present (14.4%–16.5%), and stationed in the continental United States (14.2%).
- Pain reliever users were more often in the Army (25.3%), female (26.9%), had some college education (22.3%), were married (20.7%–23.0%), and stationed in the continental United States (20.8%).
- There were few overall sociodemographic differences among anabolic steroid users, except they were more often stationed in the continental United States (1.6%; see Table 4.2.7).

Prescription Drug Use and Misuse Among All Active Duty Personnel and Among Drug Users

- As shown in Table 4.2.8, a larger share of Army personnel reported any prescription drug use in the past 12 months than all other services (31.4%).
- Across all service personnel, 24.9% reported any prescription drug use in the past 12 months and 1.3% were misusing prescription drugs – taking drugs prescribed for someone else, in greater amounts than prescribed, or to feel good or get high (see Table 4.2.8). These findings were similar to recent research examining past year prescription drug misuse rates (Jeffery et al., 2012b).
- Among only prescription drug users in the past 12 months (i.e., limited to the 24.9% who reported any prescription drug use in the past year), 5.7% reported misuse. When examining each of the four drug types, 16.6% of anabolic steroid users, 11.6% of stimulant users, 5.3% of sedative users, and 4.9% of pain reliever users indicated misusing the drugs (see Table 4.2.9).
- Army and Marine Corps members were more likely than Air Force and Coast Guard personnel to misuse prescription drugs in the past 12 months. In addition, service members with some college education or less and junior enlisted personnel (E1-E4) were more likely to misuse prescription drugs (see Table 4.2.10 and Table 4.2.11).
- The lower rates of prescription drug misuse among military personnel than civilians, presented in Table 4.2.12, may be due to the stringent, highly monitored nature of the military population and the messages received by service members from authority to deter misuse. It is also possible that some differences in question wording between the civilian (i.e., NSDUH) and military surveys contributed to lower prevalence rates, as civilian estimates account for a greater quantity and specificity of drug types and define prescription drug misuse somewhat differently than the 2011 HRB. There may also be easier access to prescriptions in the military, which may decrease the need for misuse as defined in the current report.

Drug Testing

- Among all active duty military personnel, 89.8% reported that they underwent drug testing in the past year, with 27.5% tested in the past month. As shown in Table 4.2.13, 8.4% were tested more than one year ago, and 1.8% reported that they were never tested for drugs.
- Drug testing in the past month was highest in the Marine Corps (38.3%) and Navy (38.1%), and lowest in the Coast Guard (7.4%). Air Force (67.0%) and Coast Guard (69.0%) more often were tested over a month ago, but within the past year. In addition, Coast Guard (21.9%) more often reported testing more than a year ago, and a small percentage (2.9%) of Air Force reported that they never received testing. The high testing rate for Marine Corps and Navy is consistent with findings from the 2011 Status of Drug Use in the DoD Personnel report.

Tables

The following tables present an in-depth analysis of illicit and prescription drug use and misuse in the military.

Table 4.2.1 – Illicit Drug and Prohibited Substance Use, All Services

	All Services		
Drug	**Lifetime**	**Past 12 Months**	**Past 30 Days**
Marijuana	27.1 (0.3)	0.9 (0.1)	0.1 (0.0)
Cocaine (including crack)	4.9 (0.2)	0.9 (0.1)	0.1 (0.0)
LSD	3.9 (0.2)	0.8 (0.1)	†
PCP	1.8 (0.1)	0.8 (0.1)	†
MDMA (such as "Ecstasy")	4.4 (0.2)	0.9 (0.1)	†
Other Hallucinogens	5.3 (0.2)	0.8 (0.1)	†
Methamphetamine	2.9 (0.1)	0.8 (0.1)	†
Heroin	1.4 (0.1)	0.8 (0.1)	†
GHB/GBL	1.3 (0.1)	0.8 (0.1)	†
Any Illicit Drug Use[1]	27.5 (0.3)	1.3 (0.1)	0.2 (0.0)
Use of Other Substances			
Synthetic cannabis	4.7 (0.2)	1.1 (0.1)	0.2 (0.0)
Inhalants	4.6 (0.2)	0.9 (0.1)	0.1 (0.0)
Overall Use of Prohibited Substances (excluding prescription drug misuse)[2]	28.2 (0.4)	1.4 (0.1)	0.3 (0.0)

Note: Table displays the percentage of military personnel, by usage timeframe, who reported use of the substance noted in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Any illicit drug use is defined as the use of substances that were illegal to possess or use (marijuana, cocaine (including crack), LSD, PCP, MDMA, other hallucinogens, methamphetamine, heroin, and GHB/GBL), but did not include all substances banned for use by the armed services (synthetic cannabis and inhalants).

[2]Overall use of prohibited substances is defined as any illicit drug use and/or the use of other substances (e.g., synthetic cannabis and inhalants) that are prohibited by the US Armed Forces, while excluding prescription drug misuse.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Illicit Drug Use, Q82, Q83; Use of Other Substances, Q82, Q83; Overall Use of Prohibited Substances, Excluding Prescription Drug Misuse, Q82, Q83).

Table 4.2.2 – Prescription Drug Use (Including Proper Use and Misuse), All Services

	All Services		
Drug	**Lifetime**	**Past 12 Months**	**Past 30 Days**
Stimulants	11.1 (0.2)	2.8 (0.1)	1.8 (0.1)
Sedatives	34.7 (0.4)	13.4 (0.3)	8.0 (0.2)
Pain Relievers	57.7 (0.4)	20.0 (0.3)	10.4 (0.2)
Anabolic Steroids	5.6 (0.2)	1.4 (0.1)	0.7 (0.1)
Any Prescription Drug Use	61.2 (0.4)	24.9 (0.3)	15.2 (0.3)

Note: Table displays the percentage of military personnel, by Service, who reported using the prescription drugs indicated in the rows of the table within their lifetimes, in the past 12 months, and in the past 30 days. The standard error of each estimate is presented in parentheses.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Prescription Drug Use, Q84, Q85).

Table 4.2.3 – Prescription Stimulant Use (Including Proper Use and Misuse), Past 12 Months, by Prescription Target, Amount Used, Source, and Motivation

	Service[1]					
Measure	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Prescription Stimulant Use	4.4 (0.3)[b,c,d,e]	2.3 (0.2)[a,e]	1.6 (0.2)[a,e]	1.8 (0.1)[a,e]	0.8 (0.1)[a,b,c,d]	2.8 (0.1)
Among Users:						
Prescription Target						
Prescribed for me	72.6 (7.7)	†	†	†	†	70.6 (4.7)
Prescribed for someone else	†	†	†	†	†	6.4 (2.5)
Other source	21.3 (7.1)	†	†	†	†	23.0 (4.4)
Amount used						
Less than prescribed	13.4 (2.9)	10.2 (3.5)	11.5 (4.3)	17.5 (3.0)	†	13.5 (1.7)
As prescribed	82.1 (3.3)	79.4 (4.7)	79.4 (5.4)	80.4 (3.1)	†	81.1 (2.0)
More than prescribed	4.4 (1.8)	10.4 (3.6)	9.1 (3.8)	2.1 (1.1)	†	5.4 (1.1)
Source						
Any Medical Source	84.5 (2.9)[c]	78.9 (4.4)	62.8 (5.9)[a,d]	85.9 (2.7)[c]	†	81.7 (1.8)
Health care provider at an MTF	72.1 (3.6)[c,e]	64.5 (5.2)	46.7 (6.1)[a,d]	70.6 (3.5)[c,e]	34.1 (8.2)[a,d]	68.1 (2.2)
Health care provider at a VA Medical Facility	1.8 (1.0)	2.9 (1.8)	7.6 (3.3)	2.4 (1.2)	†	2.6 (0.7)
Non-military doctor or health care worker	14.6 (2.8)	12.5 (3.6)	12.5 (4.1)	16.6 (2.9)	16.7 (6.4)	14.4 (1.6)
Emergency Room	1.1 (0.8)	2.6 (1.7)	4.2 (2.5)	†	†	1.5 (0.6)
Internet or Mail Order	1.0 (0.8)	†	†	2.3 (1.2)	†	1.1 (0.5)
Any Illicit Source	3.0 (1.4)	1.8 (1.5)	†	2.9 (1.3)	†	2.6 (0.7)
Family Member or Friend	1.5 (0.9)	1.3 (1.2)	†	0.7 (0.6)	†	1.2 (0.5)
Dealer/Street Pharmacist	1.6 (1.0)	†	†	2.2 (1.1)	†	1.4 (0.5)
Other	3.8 (1.5)[b,c]	13.6 (3.7)[a]	20.9 (5.0)[a,d]	4.7 (1.6)[c]	†	7.1 (1.2)

Table 4.2.3 – Prescription Stimulant Use (Including Proper Use and Misuse), Past 12 Months, by Prescription Target, Amount Used, Source, and Motivation

Measure	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Motivation						
To control pain	9.1 (2.3)	11.7 (3.5)	18.9 (4.8)	8.4 (2.2)	20.1 (6.9)	10.4 (1.4)
Get buzzed	5.5 (1.8)	†	2.3 (1.9)	3.0 (1.3)	†	3.8 (0.9)
To reduce anxiety or depression	39.9 (3.9)[d]	30.4 (5.0)	28.4 (5.5)	19.4 (3.1)[a]	25.7 (7.5)	33.8 (2.2)
To control stress	27.6 (3.5)	20.0 (4.3)	21.7 (5.1)	17.2 (2.9)	14.6 (6.1)	24.0 (2.0)
To help me sleep	7.2 (2.0)	7.8 (2.9)	7.6 (3.3)	5.4 (1.8)	†	7.0 (1.2)
To help me stay awake	23.5 (3.4)	32.0 (5.1)	23.3 (5.2)	34.6 (3.7)	16.4 (6.4)	26.7 (2.1)

Note: Table displays the percentage of military personnel, by Service, who reported the usage behaviors indicated in the rows of the table for prescription stimulants in the past 12 months. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Prescription Stimulant Use and Misuse: Past 12 Months, Q84A, Q86, Q87A, Q88A, Q89A).

Table 4.2.4 – Prescription Sedative Use (Including Proper Use and Misuse), Past 12 Months, by Prescription Target, Amount Used, Source, and Motivation

	Service[1]					
Measure	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Prescription Sedative Use	18.3 (0.6)[b,c,d,e]	10.4 (0.5)[a,e]	9.8 (0.5)[a,d,e]	11.7 (0.3)[a,c,e]	6.8 (0.4)[a,b,c,d]	13.4 (0.3)
Among Users:						
Prescription Target						
Prescribed for me	87.1 (3.2)	90.3 (3.5)	89.3 (3.9)	89.2 (2.8)	85.4 (5.6)	88.3 (1.7)
Prescribed for someone else	2.1 (1.4)	3.1 (2.0)	4.8 (2.7)	5.7 (2.1)	6.3 (3.9)	3.2 (0.9)
Other source	10.8 (3.0)	6.6 (3.0)	5.9 (3.1)	5.1 (2.0)	8.3 (4.6)	8.5 (1.5)
Amount used						
Less than prescribed	25.5 (1.7)	26.1 (2.2)	21.2 (2.1)	26.7 (1.3)	25.5 (2.5)	25.5 (0.9)
As prescribed	71.1 (1.8)	69.3 (2.3)	75.2 (2.2)	72.3 (1.3)	72.6 (2.6)	71.5 (1.0)
More than prescribed	3.3 (0.7)[d]	4.7 (1.1)[d]	3.6 (0.9)[d]	1.0 (0.3)[a,b,c]	1.9 (0.8)	3.0 (0.4)
Source						
Any Medical Source	95.4 (0.8)	93.2 (1.3)[d]	92.1 (1.4)[d]	97.5 (0.5)[b,c]	95.1 (1.3)	95.2 (0.5)
Health care provider at an MTF	88.3 (1.3)[b,c,e]	81.6 (2.0)[a,d,e]	76.3 (2.2)[a,d,e]	87.8 (1.0)[b,c,e]	61.6 (3.0)[a,b,c,d]	85.4 (0.8)
Health care provider at a VA Medical Facility	2.1 (0.5)[b,c]	5.8 (1.2)[a,d]	7.2 (1.3)[a,d]	2.3 (0.5)[b,c]	5.4 (1.4)	3.3 (0.4)
Non-military doctor or health care worker	7.1 (1.0)[d,e]	7.3 (1.3)[e]	11.2 (1.6)[e]	11.5 (0.9)[a,e]	28.2 (2.8)[a,b,c,d]	8.8 (0.6)
Emergency Room	8.4 (1.1)	10.8 (1.6)	10.2 (1.5)	8.3 (0.8)[e]	14.3 (2.1)[d]	9.1 (0.6)
Internet or Mail Order	†	†	†	†	†	†
Any Illicit Source	1.8 (0.5)	0.8 (0.5)	0.9 (0.5)	0.8 (0.3)	0.2 (0.2)	1.3 (0.2)
Family Member or Friend	1.3 (0.4)	0.8 (0.5)	0.8 (0.5)	0.7 (0.3)	0.2 (0.2)	1.0 (0.2)
Dealer/Street Pharmacist	0.6 (0.3)	†	†	0.2 (0.1)	†	0.3 (0.1)
Other	1.5 (0.5)	3.1 (0.9)[d]	4.2 (1.0)[d]	0.8 (0.3)[b-c]	0.9 (0.6)[c]	1.9 (0.3)

Table 4.2.4 – Prescription Sedative Use (Including Proper Use and Misuse), Past 12 Months, by Prescription Target, Amount Used, Source, and Motivation

Measure	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Motivation						
To control pain	57.0 (1.9)[e]	59.5 (2.5)[e]	62.3 (2.5)	56.8 (1.5)[e]	70.3 (2.8)[a,b,d]	58.1 (1.1)
Get buzzed	1.0 (0.4)	0.8 (0.5)	†	0.2 (0.1)	0.4 (0.4)	0.7 (0.2)
To reduce anxiety or depression	19.5 (1.5)[d]	16.5 (1.9)	18.5 (2.0)	12.9 (1.0)[a]	14.0 (2.1)	17.4 (0.8)
To control stress	10.2 (1.2)[d]	6.9 (1.3)	12.1 (1.7)[d]	5.7 (0.7)[a,c]	5.8 (1.4)	8.8 (0.6)
To help me sleep	49.7 (1.9)[e]	43.6 (2.5)[e]	46.9 (2.6)[e]	50.8 (1.6)[e]	30.8 (2.8)[a,b,c,d]	48.3 (1.1)
To help me stay awake	0.9 (0.4)	2.2 (0.7)[d]	1.8 (0.7)[d]	0.2 (0.1)[b,c]	0.7 (0.5)	1.1 (0.2)

Note: Table displays the percentage of military personnel, by Service, who reported the usage behaviors indicated in the rows of the table for prescription sedatives in the past 12 months. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Prescription Sedative Use and Misuse: Past 12 Months, Q84B, Q86, Q87B, Q88B, Q89B).

Table 4.2.5 – Prescription Pain Reliever Use (Including Proper Use and Misuse), Past 12 Months, by Prescription Target, Amount Used, Source, and Motivation

	Service[1]					
Measure	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Prescription Pain Reliever Use	25.3 (0.7)[b,c,d,e]	16.7 (0.6)[a,e]	17.3 (0.6)[a,e]	17.5 (0.4)[a,e]	13.1 (0.5)[a,b,c,d]	20.0 (0.3)
Among Users:						
Prescription Target						
Prescribed for me	87.8 (2.8)	92.3 (2.7)	88.9 (3.1)	91.9 (2.0)	87.6 (3.7)	89.6 (1.4)
Prescribed for someone else	4.0 (1.7)	1.0 (1.0)	7.1 (2.5)	3.1 (1.2)	4.9 (2.4)	3.7 (0.9)
Other source	8.2 (2.3)	6.6 (2.5)	4.0 (1.9)	5.0 (1.6)	7.5 (3.0)	6.8 (1.1)
Amount used						
Less than prescribed	29.8 (1.5)	27.6 (1.7)	28.4 (1.7)	29.6 (1.1)	33.1 (1.9)	29.3 (0.8)
As prescribed	67.0 (1.5)	68.9 (1.8)	67.3 (1.7)	69.1 (1.1)	64.7 (2.0)	67.8 (0.8)
More than prescribed	3.2 (0.6)[d]	3.5 (0.7)[d]	4.3 (0.8)[d]	1.3 (0.3)[a,b,c]	2.2 (0.6)	2.9 (0.3)
Source						
Any Medical Source	97.0 (0.6)	96.2 (0.8)[d]	94.7 (0.9)[d]	98.2 (0.3)[b,c]	96.5 (0.8)	96.9 (0.3)
Health care provider at an MTF	85.1 (1.2)[b,c,d,e]	79.0 (1.6)[a,e]	73.2 (1.7)[a,e]	77.9 (1.1)[a,e]	55.5 (2.2)[a,b,c,d]	80.4 (0.7)
Health care provider at a VA Medical Facility	4.0 (0.6)[b,c]	7.4 (1.0)[a,c]	8.0 (1.1)[a,d]	4.4 (0.5)	6.0 (1.0)	5.2 (0.4)
Non-military doctor or health care worker	10.4 (1.0)[d,e]	12.4 (1.3)[d,e]	14.2 (1.4)[d,e]	21.6 (1.0)[a,b,c,e]	37.2 (2.1)[a,b,c,d]	14.2 (0.6)
Emergency Room	15.0 (1.2)[e]	19.6 (1.6)	17.0 (1.5)	17.3 (1.0)	21.1 (1.8)[a]	16.7 (0.7)
Internet or Mail Order	0.1 (0.1)	0.3 (0.2)	†	0.1 (0.0)	†	0.1 (0.1)
Any Illicit Source	1.8 (0.4)	0.9 (0.4)	2.9 (0.6)[d]	0.7 (0.2)[c]	0.9 (0.4)	1.5 (0.2)
Family Member or Friend	1.4 (0.4)	0.7 (0.3)	2.4 (0.6)[d,e]	0.5 (0.2)[c]	0.4 (0.3)[c]	1.2 (0.2)
Dealer/Street Pharmacist	0.6 (0.3)	0.3 (0.2)	0.7 (0.3)	0.2 (0.1)	0.6 (0.3)	0.5 (0.1)
Other	1.4 (0.4)	2.5 (0.6)[d]	2.6 (0.6)[d]	0.6 (0.2)[b,c]	0.9 (0.4)	1.5 (0.2)
Motivation						
To control pain	97.1 (0.5)	95.4 (0.8)	95.1 (0.8)	96.7 (0.4)	95.0 (1.0)	96.4 (0.3)
Get buzzed	1.3 (0.4)	1.4 (0.5)	0.9 (0.4)	0.8 (0.2)	0.4 (0.3)	1.2 (0.2)
To reduce anxiety or depression	1.8 (0.4)[b]	0.2 (0.2)[a,c]	2.3 (0.6)[b,e]	0.9 (0.2)	0.2 (0.2)[c]	1.3 (0.2)

Table 4.2.5 – Prescription Pain Reliever Use (Including Proper Use and Misuse), Past 12 Months, by Prescription Target, Amount Used, Source, and Motivation

	Service[1]					
Measure	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
To control stress	1.8 (0.4)[d]	0.4 (0.3)	1.5 (0.5)	0.5 (0.2)[d]	0.4 (0.3)	1.2 (0.2)
To help me sleep	11.4 (1.1)	9.4 (1.2)	12.2 (1.3)	11.8 (0.8)	13.3 (1.5)	11.3 (0.6)
To help me stay awake	0.4 (0.2)	1.3 (0.5)	0.7 (0.3)	†	0.2 (0.2)	0.5 (0.1)

Note: Table displays the percentage of military personnel, by Service, who reported the usage behaviors indicated in the rows of the table for prescription pain relievers in the past 12 months. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Prescription Pain Reliever Use and Misuse: Past 12 Months, Q84C, Q86, Q87C, Q88C, Q89C).

Table 4.2.6 – Prescription Anabolic Steroid Use (Including Proper Use and Misuse), Past 12 Months, by Prescription Target, Amount Used, Source, and Motivation

	Service[1]					
Measure	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Prescription Anabolic Steroid Use	2.0 (0.2)[d,e]	1.2 (0.2)	1.3 (0.2)	1.0 (0.1)[a]	0.8 (0.1)[a]	1.4 (0.1)
Among Users:						
Prescription Target						
Prescribed for me	†	†	†	†	†	65.9 (6.2)
Prescribed for someone else	†	†	†	†	†	7.8 (3.5)
Other source	†	†	†	†	†	26.3 (5.7)
Amount used						
Less than prescribed	12.7 (4.6)	12.3 (4.6)	16.0 (5.5)	9.6 (2.9)	12.0 (5.5)	12.3 (2.3)
As prescribed	87.3 (4.6)	68.3 (6.6)	72.5 (6.7)	85.9 (3.5)	81.8 (6.5)	80.9 (2.7)
More than prescribed	†	19.3 (5.6)[d]	11.5 (4.8)	4.5 (2.1)[b]	†	6.8 (1.7)
Source						
Any Medical Source	70.5 (5.3)	64.8 (6.9)[d]	55.7 (6.7)[d]	85.3 (3.6)[b,c]	66.8 (7.8)	70.2 (2.9)
Health care provider at an MTF	62.7 (5.6)[c,e]	51.5 (7.3)	29.3 (6.2)[a,d]	58.4 (5.1)[c,e]	29.3 (7.5)[a,d]	55.1 (3.2)
Health care provider at a VA Medical Facility	†	†	8.3 (3.7)	1.6 (1.3)	13.2 (5.6)	2.2 (0.9)
Non-military doctor or health care worker	6.3 (2.8)[d]	10.9 (4.5)	19.2 (5.3)	28.2 (4.6)[a]	22.7 (6.9)	12.9 (2.1)
Emergency Room	5.6 (2.7)	6.5 (3.6)	7.7 (3.6)	6.9 (2.6)	†	6.3 (1.5)
Internet or Mail Order	2.2 (1.7)	†	†	†	†	1.4 (0.7)
Any Illicit Source	4.9 (2.5)	†	†	†	†	1.3 (0.2)
Family Member or Friend	2.7 (1.9)	†	†	†	†	1.5 (0.8)
Dealer/Street Pharmacist	2.2 (1.7)	†	†	†	†	1.1 (0.7)
Other	6.6 (2.9)	22.7 (6.1)[d]	27.9 (6.0)[a,d]	3.5 (1.9)[b,c]	†	11.6 (2.0)

Table 4.2.6 – Prescription Anabolic Steroid Use (Including Proper Use and Misuse), Past 12 Months, by Prescription Target, Amount Used, Source, and Motivation

Measure	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Motivation						
To control pain	57.9 (5.7)	48.7 (7.3)	42.7 (6.7)	62.1 (5.0)	36.4 (8.0)	54.7 (3.2)
Get buzzed	6.9 (2.9)	†	5.9 (3.2)	1.3 (1.2)	†	4.9 (1.4)
To reduce anxiety or depression	5.4 (2.6)	7.1 (3.8)	6.1 (3.2)	4.5 (2.1)	7.8 (4.4)	5.7 (1.5)
To control stress	4.7 (2.5)	†	2.9 (2.3)	1.0 (1.0)	7.8 (4.4)	3.8 (1.2)
To help me sleep	5.8 (2.7)	†	†	3.1 (1.8)	†	3.7 (1.2)
To help me stay awake	5.1 (2.6)	19.8 (5.8)	8.1 (3.7)	5.4 (2.3)	†	8.2 (1.7)

Note: Table displays the percentage of military personnel, by Service, who reported the usage behaviors indicated in the rows of the table for prescription anabolic steroids in the past 12 months. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Prescription Anabolic Steroid Use and Misuse: Past 12 Months, Q84D, Q86, Q87D, Q88D, Q89D).

Table 4.2.7 – Sociodemographic Correlates of Any Prescription Drug Use (Including Proper Use and Misuse), Past 12 Months

Sociodemographic Characteristic[a]	Stimulants	Sedatives	Pain Relievers	Anabolic Steroids
Service				
Army	4.4 (0.3)[2,3,4,5]	18.3 (0.6)[2,3,4,5]	25.3 (0.7)[2,3,4,5]	2.0 (0.2)[4,5]
Navy	2.3 (0.2)[1,5]	10.4 (0.5)[1,5]	16.7 (0.6)[1,5]	1.2 (0.2)
Marine Corps	1.6 (0.2)[1,5]	9.8 (0.5)[1,4,5]	17.3 (0.6)[1,5]	1.3 (0.2)
Air Force	1.8 (0.1)[1,5]	11.7 (0.3)[1,3,5]	17.5 (0.4)[1,5]	1.0 (0.1)[1]
Coast Guard	0.8 (0.1)[1,2,3,4]	6.8 (0.4)[1,2,3,4]	13.1 (0.5)[1,2,3,4]	0.8 (0.1)[1]
Gender				
Male	2.5 (0.1)[2]	12.5 (0.3)[2]	18.7 (0.3)[2]	1.4 (0.1)
Female	4.2 (0.4)[1]	18.4 (0.8)[1]	26.9 (0.9)[1]	1.8 (0.3)
Race/Ethnicity				
White, non-Hispanic	2.7 (0.2)	14.4 (0.3)[3,4]	20.5 (0.4)[4]	1.4 (0.1)
African-American, non-Hispanic	3.4 (0.4)	12.5 (0.7)[4]	19.7 (0.9)[4]	1.7 (0.3)
Hispanic	2.9 (0.4)	11.7 (0.7)[1,4]	20.1 (0.9)[4]	1.3 (0.3)
Other	2.4 (0.5)	8.1 (0.9)[1,2,3]	15.1 (1.1)[1,2,3]	1.3 (0.4)
Education				
High School or less	2.3 (0.3)	10.3 (0.5)[2,3]	19.1 (0.7)[2,3]	1.7 (0.2)
Some college	3.1 (0.2)	15.3 (0.4)[1,3]	22.3 (0.5)[1,3]	1.5 (0.1)
College graduate or higher	2.6 (0.2)	12.2 (0.5)[1,2]	16.3 (0.6)[1,2]	1.1 (0.2)
Age				
18-20	2.1 (0.5)	7.3 (0.9)[3,4,5]	19.6 (1.4)	0.9 (0.3)
21-25	2.5 (0.3)	10.3 (0.5)[3,4,5]	17.9 (0.6)[4,5]	1.2 (0.2)
26-35	3.1 (0.2)	13.6 (0.5)[1,2,4,5]	19.4 (0.5)[4,5]	1.2 (0.1)
36-45	3.1 (0.3)	18.1 (0.7)[1,2,3]	23.7 (0.7)[2,3]	2.0 (0.2)
46-65	2.0 (0.5)	17.9 (1.4)[1,2,3]	24.3 (1.6)[2,3]	2.4 (0.6)
Family Status				
Not married	2.5(0.2)[2]	11.0 (0.4)[2,3]	18.0 (0.5)[2,3]	1.4 (0.2)
Married, spouse not present	4.1 (0.5)[1,3]	16.5 (0.9)[1]	23.0 (1.1)[1]	1.7 (0.3)
Married, spouse present	2.8 (0.2)[2]	14.4 (0.4)[1]	20.7 (0.4)[1]	1.5 (0.1)

Table 4.2.7 – Sociodemographic Correlates of Any Prescription Drug Use (Including Proper Use and Misuse), Past 12 Months

Sociodemographic Characteristic[a]	Stimulants	Sedatives	Pain Relievers	Anabolic Steroids
Pay Grade				
E1-E4	2.8 (0.2)	11.1 (0.4)[2,3,6]	19.7 (0.5)[2,3,5]	1.3 (0.1)[3]
E5-E6	3.4 (0.3)	16.3 (0.5)[1,5]	22.0 (0.6)[1,5,6]	1.7 (0.2)
E7-E9	2.6 (0.4)	17.1 (0.9)[1,5]	24.5 (1.1)[1,5,6]	2.4 (0.4)[1,5]
W1-W5	1.3 (0.8)	15.3 (2.4)	23.4 (2.8)[5]	1.8 (0.9)
O1-O3	2.0 (0.4)	9.8 (0.7)[2,3,6]	12.0 (0.8)[1,2,3,4,6]	0.7 (0.2)[3]
O4-O10	1.9 (0.4)	14.4 (1.1)[1,5]	17.1 (1.1)[2,3,5]	1.1 (0.3)
Region				
CONUS[b]	2.8 (0.1)	14.2 (0.3)[2]	20.8 (0.4)[2]	1.6 (0.1)[2]
OCONUS[c]	2.7 (0.3)	10.8 (0.5)[1]	17.2 (0.6)[1]	1.1 (0.2)[1]
Total	2.8 (0.1)	13.4 (0.3)	20.0 (0.3)	1.4 (0.1)

Note: Table displays the percentage of military personnel, by prescription drug type and sociodemographic characteristic ,who reported any prescription drug use, including proper use and misuse, in the past 12 months. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel who were stationed within the 48 contiguous States in the continental United States (excluding Alaska and Hawaii).

[c]Refers to personnel who were stationed outside the continental United States.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Prescription Drug Use, Q84, Q85).

Table 4.2.8 – Any Prescription Drug Misuse, Past 12 Months, by Drug and Service

Prescription Drug Misuse[2]	Service[1] Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Stimulants	0.4 (0.1)	0.3 (0.1)	0.2 (0.1)	0.2 (0.0)	0.2 (0.1)	0.3 (0.0)
Sedatives	0.9 (0.2)[d,e]	0.6 (0.1)[d]	0.5 (0.1)	0.2 (0.1)[a,b]	0.3 (0.1)[a]	0.6 (0.1)
Pain Relievers	1.2 (0.2)[d,e]	0.7 (0.1)	1.0 (0.2)[d]	0.4 (0.1)[a,c]	0.5 (0.1)[a]	0.8 (0.1)
Anabolic Steroids	0.3 (0.1)[d]	0.3 (0.1)[d]	0.4 (0.1)[d]	†	0.1 (0.0)	0.2 (0.0)
Any Prescription Drug Misuse	1.8 (0.2)[d,e]	1.2 (0.2)[d]	1.5 (0.2)[d,e]	0.7 (0.1)[a,b,c]	0.7 (0.1)[a,c]	1.3 (0.1)
Any Prescription Drug Use[3]	31.4 (0.8)[b,c,d,e]	20.7 (0.7)[a,e]	20.4 (0.6)[a,d,e]	22.7 (0.4)[a,c,e]	15.3 (0.6)[a,b,c,d]	24.9 (0.3)

Note: Table displays the percentage of military personnel, by Service, who reported any prescription drug misuse within the past 12 months. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[2]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)."

[3]Any prescription drug use within this table is classified as use of prescription stimulants, sedatives, pain relievers and/or anabolic steroids within the past 12 months.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Any Prescription Drug Misuse, Q84, Q86, Q87, Q89).

Table 4.2.9 – Percent of Drug Users who are Misusing the Drugs, Past 12 Months, by Drug and Service

Prescription Drug Misuse Among All Drug Users[2]	Service[1]					
	Army	Navy	Navy	Air Force	Coast Guard	All Services
Stimulants	10.8 (2.5)	13.7 (3.7)	12.8 (4.2)	10.7 (2.4)	†	11.6 (1.5)
Sedatives	5.9 (0.9)[d]	7.0 (1.3)[d]	5.6 (1.2)[d]	2.4 (0.5)[a,b,c]	4.7 (1.3)	5.3 (0.5)
Pain Relievers	5.3 (0.7)[d]	5.3 (0.9)[d]	6.5 (1.0)[d]	2.8 (0.4)[a,b,c]	4.4 (0.9)	4.9 (0.4)
Anabolic Steroids	13.6 (4.1)	27.8 (6.5)[d]	26.8 (6.2)[d]	6.2 (2.5)[b,c]	†	16.6 (2.4)
Any Prescription Drug Misuse Among All Drug Users	6.3 (0.7)[d]	6.1 (0.8)[d]	6.1 (0.8)[d]	3.1 (0.4)[a,b,c]	5.3 (0.9)	5.7 (0.4)

Note: Table displays the percentage of military personnel, by Service, who reported misusing any prescription drug within the past 12 months, among those who indicated that they had used any prescription drug at least once in the past 12 months. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[2]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)".

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Any Prescription Drug Misuse, Q84, Q86, Q87, Q89).

Table 4.2.10 – Any Prescription Drug Misuse,[a] Past 12 Months, by Sociodemographic Characteristics and Service

Sociodemographic Characteristic[b]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Gender						
Male	1.8 (0.2)	1.1 (0.2)	1.5 (0.2)	0.6 (0.1)	0.6 (0.1)	1.3 (0.1)
Female	1.6 (0.5)	1.3 (0.4)	1.8 (0.8)	1.0 (0.2)	1.2 (0.5)	1.3 (0.2)
Race/Ethnicity						
White, non-Hispanic	1.9 (0.3)	1.3 (0.2)	1.4 (0.2)	0.5 (0.1)[2]	0.6 (0.1)	1.3 (0.1)
African-American, non-Hispanic	1.2 (0.5)	1.0 (0.4)	1.3 (0.6)	1.4 (0.4)[1]	†	1.2 (0.2)
Hispanic	1.8 (0.6)	0.8 (0.4)	2.2 (0.6)	1.0 (0.3)	1.3 (0.5)	1.5 (0.3)
Other	1.6 (0.8)	1.2 (0.6)	1.4 (0.9)	0.2 (0.2)	1.1 (0.8)	1.2 (0.3)
Education						
High School or less	2.2 (0.6)	2.0 (0.5)[3]	1.3 (0.3)	0.8 (0.3)	0.9 (0.3)	1.6 (0.2)[3]
Some college	2.1 (0.3)	1.1 (0.2)	2.0 (0.3)	0.7 (0.1)	0.5 (0.2)	1.4 (0.1)[3]
College graduate or higher	1.0 (0.3)	0.5 (0.2)[1]	0.7 (0.4)	0.4 (0.1)	0.9 (0.3)	0.7 (0.1)[1,2]
Age						
18-20	1.5 (1.1)	2.7 (1.4)	2.2 (0.7)	0.6 (0.3)	1.6 (1.4)	1.6 (0.4)[4]
21-25	3.2 (0.7)[4]	2.2 (0.5)[3]	2.0 (0.4)	0.9 (0.2)	0.4 (0.2)	2.1 (0.2)[3,4]
26-35	2.0 (0.4)[4]	0.8 (0.2)[2]	1.3 (0.3)	0.5 (0.1)	1.0 (0.2)	1.2 (0.1)[2,4]
36-45	0.4 (0.2)[2,3]	0.6 (0.3)	0.8 (0.4)	0.7 (0.2)	0.6 (0.3)	0.5 (0.1)[1,2,3]
46-65	0.9 (0.6)	†	†	0.6 (0.4)	†	0.7 (0.3)
Family Status						
Not married	1.5 (0.4)	1.2 (0.3)	1.8 (0.3)	0.9 (0.2)	1.2 (0.3)[3]	1.3 (0.1)
Married, spouse not present	1.9 (0.7)	1.4 (0.6)	1.6 (0.7)	0.2 (0.2)	2.3 (0.9)[3]	1.5 (0.3)
Married, spouse present	1.9 (0.3)	1.1 (0.2)	1.3 (0.3)	0.5 (0.1)	0.2 (0.1)[1,2]	1.2 (0.1)
Pay Grade						
E1-E4	2.8 (0.4)	1.9 (0.4)	1.9 (0.3)	0.8 (0.2)	1.0 (0.3)	2.0 (0.2)[2,3,5,6]
E5-E6	1.3 (0.4)	0.8 (0.2)	1.6 (0.4)	0.6 (0.1)	0.7 (0.2)	1.0 (0.1)[1]
E7-E9	0.9 (0.5)	0.9 (0.5)	1.0 (0.6)	0.6 (0.2)	0.2 (0.2)	0.8 (0.2)[1]
W1-W5	1.0 (1.0)	†	†	-----	†	0.9 (0.6)
O1-O3	0.4 (0.4)	0.7 (0.4)	†	0.4 (0.2)	0.9 (0.5)	0.5 (0.2)[1]
O4-O10	0.4 (0.4)	†	0.6 (0.6)	0.5 (0.3)	0.7 (0.5)	0.4 (0.2)[1]

Table 4.2.10 – Any Prescription Drug Misuse,[a] Past 12 Months, by Sociodemographic Characteristics and Service

Sociodemographic Characteristic[b]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Region						
CONUS[c]	1.7 (0.2)	1.1 (0.2)	1.4 (0.2)	0.6 (0.1)	0.8 (0.1)	1.2 (0.1)
OCONUS[d]	1.9 (0.5)	1.5 (0.4)	2.1 (0.5)	0.7 (0.2)	0.3 (0.3)	1.5 (0.2)
Total	1.8 (0.2)	1.2 (0.2)	1.5 (0.2)	0.7 (0.1)	0.7 (0.1)	1.3 (0.1)

Note: Table displays the percentage of military personnel, by Service and sociodemographic characteristic, who reported any prescription drug misuse in the past 12 months. The standard error of each estimate is presented in parentheses.

[a]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)."

[b]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[c]Refers to personnel who were stationed within the 48 contiguous States in the continental United States (excluding Alaska and Hawaii).

[d]Refers to personnel who were stationed outside the continental United States.

[†]Data not reported. Low precision.

----Not applicable.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Any Prescription Drug Misuse, Q84, Q86, Q87, Q89).

Table 4.2.11 – Sociodemographic Correlates of any Prescription Drug Misuse, Past 12 Months, All Services

	All Services	
Sociodemographic Characteristic[b]	**Prevalence**	**Odds Ratio[a] (95% CI)**
Service		
Army	1.8 (0.2)[4,5]	2.06 (1.35, 3.13)*
Navy	1.2 (0.2)[4]	1.46 (0.93, 2.26)
Marine Corps	1.5 (0.2)[4,5]	1.87 (1.24,2.80)*
Air Force	0.7 (0.1)[1,2,3]	0.94 (0.62, 1.44)
Coast Guard	0.7 (0.1)[1,3]	1.00
Gender		
Male	1.3 (0.1)	0.86 (0.68, 1.08)
Female	1.3 (0.2)	1.00
Race/Ethnicity		
White, non-Hispanic	1.3 (0.1)	1.00
African-American, non-Hispanic	1.2 (0.2)	1.00 (0.73, 1.37)
Hispanic	1.5 (0.3)	1.09 (0.81, 1.47)
Other	1.2 (0.3)	0.91 (0.56, 1.48)
Education		
High School or less	1.6 (0.2)[3]	1.13 (0.74, 1.72)
Some college	1.4 (0.1)[3]	1.27 (0.88, 1.83)
College graduate or higher	0.7 (0.1)[1,2]	1.00
Family Status		
Not married	1.3 (0.1)	1.18 (0.92, 1.50)
Married, spouse not present	1.5 (0.3)	1.42 (1.00, 2.01)
Married, spouse present	1.2 (0.1)	1.00
Pay Grade		
E1-E4	2.0 (0.2)[2,3,5,6]	2.80 (1.48, 5.28)*
E5-E6	1.0 (0.1)[1]	1.90 (1.01, 3.59)*
E7-E9	0.8 (0.2)[1]	1.36 (0.70, 2.63)
W1-W5	0.9 (0.6)	1.73 (0.81, 3.69)
O1-O3	0.5 (0.2)[1]	1.06 (0.53, 2.12)
O4-O10	0.4 (0.2)[1]	1.00
Region		
CONUS[c]	1.2 (0.1)	0.96 (0.74, 1.24)
OCONUS[d]	1.5 (0.2)	1.00
Total	1.3 (0.1)	

Note: Prevalence estimates are percentages among military personnel in each sociodemographic group who reported any prescription drug misuse in the past 12 months. Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)." Odds ratios are from logistic regression analyses predicting prescription drug misuse; the odds ratio of the reference group is equal to 1.00.

[a]95% CI = 95% confidence interval of the odds ratio. An asterisk "*" beside an estimate indicates the estimate is significantly different from the reference group.

[b]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[c]Refers to personnel who were stationed within the 48 contiguous States in the continental United States.

[d]Refers to personnel who were stationed outside the continental United States.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Any Prescription Drug Misuse, Q84, Q86, Q87, Q89).

Table 4.2.12 – Comparisons of Prescription Drug Misuse Among Military Personnel and Civilians, Past 12 Months

Gender/Age Group[1]	Comparison Population[2]						
	Civilian	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Males							
18-20	15.3 (0.8)[c,d,e,g]	†	3.7 (1.9)[a,e]	1.9 (0.7)[a]	0.6 (0.4)[a,c]	†	1.3 (0.4)[a]
21-25	15.2 (0.7)[b,c,d,e,f,g]	2.4 (0.7)[a,d,e,f]	1.3 (0.4)[a]	0.5 (0.2)[a,b]	0.6 (0.2)[a,b]	0.2 (0.2)[a,b]	1.2 (0.2)[a]
26-34	11.5 (0.8)[b,c,d,e,f,g]	1.4 (0.4)[a,e]	0.4 (0.2)[a]	0.6 (0.2)[a]	0.3 (0.1)[a,b]	0.4 (0.2)[a]	0.8 (0.1)[a]
35-49	6.0 (0.5)[b,c,d,e,f,g]	0.3 (0.2)[a]	0.2 (0.1)[a]	0.2 (0.2)[a]	0.3 (0.1)[a]	0.5 (0.2)[a]	0.3 (0.1)[a]
50-64	4.1 (0.7)	†	†	†	†	†	†
All Ages	8.2 (0.3)[b,c,d,e,f,g]	1.1 (0.2)[a,e,f]	0.6 (0.1)[a]	0.6 (0.1)[a]	0.4 (0.1)[a,b]	0.4 (0.1)[a,b]	0.8 (0.1)[a]
Females							
18-20	13.5 (0.7)[g]	†	†	†	†	†	0.7 (0.7)[a]
21-25	12.9 (0.6)[b,c,d,e,f,g]	1.5 (1.2)[a]	1.3 (0.8)[a]	1.4 (1.1)[a]	0.8 (0.4)[a]	1.0 (0.8)[a]	1.2 (0.4)[a]
26-34	7.3 (0.6)[b,c,e,f,g]	1.0 (0.7)[a]	0.6 (0.5)[a]	†	0.6 (0.3)[a]	1.3 (0.8)[a]	0.8 (0.3)[a]
35-49	5.1 (0.4)[e,g]	†	†	†	0.3 (0.3)[a]	†	0.4 (0.3)[a]
50-64	3.2 (0.5)	†	†	†	†	†	†
All Ages	6.3 (0.2)[b,c,d,e,f,g]	1.0 (0.4)[a]	0.7 (0.3)[a]	0.9 (0.6)[a]	0.6 (0.2)[a]	1.0 (0.4)[a]	0.8 (0.2)[a]
Total							
18-20	14.4 (0.5)[c,d,e,f,g]	†	2.7 (1.4)[a]	1.8 (0.6)[a]	0.5 (0.3)[a]	1.6 (1.4)[a]	1.2 (0.4)[a]
21-25	14.0 (0.4)[b,c,d,e,f,g]	2.3 (0.6)[a,d,e,f]	1.3 (0.4)[a]	0.6 (0.2)[a,b]	0.7 (0.2)[a,b]	0.3 (0.2)[a,b]	1.2 (0.2)[a]
26-34	9.4 (0.5)[b,c,d,e,f,g]	1.3 (0.3)[a,e]	0.4 (0.2)[a]	0.6 (0.2)[a]	0.3 (0.1)[a,b]	0.5 (0.2)[a]	0.8 (0.1)[a]
35-49	5.6 (0.3)[b,c,d,e,f,g]	0.4 (0.2)[a]	0.2 (0.2)[a]	0.2 (0.2)[a]	0.3 (0.1)[a]	0.4 (0.2)[a]	0.3 (0.1)[a]
50-64	3.6 (0.4)	†	†	†	†	†	†
All Ages	7.3 (0.2)[b,c,d,e,f,g]	1.1 (0.2)[a,e,f]	0.6 (0.1)[a]	0.6 (0.1)[a]	0.4 (0.1)[a,b]	0.5 (0.1)[a,b]	0.8 (0.1)[a]

Note: Table displays the percentage of military personnel, by Service, gender, and age group, who reported any prescription drug misuse in the past 12 months. The standard error of each estimate is presented in parentheses. For the purposes of comparison to the civilian population, prescription drug misuse among military personnel is defined (in the current table only) as reported use of stimulants, sedatives (including tranquilizers), and/or pain relievers within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q89 of "to feel good (get high or buzzed, etc.)." Prescription drug misuse among the civilian population is defined as nonmedical use of sedatives (including tranquilizers), stimulants (including methamphetamine core data only), or pain relievers within the past 12 months AND (1) was not prescribed to the user; OR (2) was taken only for the experience or feeling it caused. This does not include over-the-counter sedatives, tranquilizers, stimulants, or pain relievers. NSDUH estimates also account for a greater specificity of drug types.

[1]Age categories included in the NSDUH public use data file required that the analysis be limited to 18 to 64 year olds. Estimates from the 2011 HRB were therefore adjusted to exclude 65 year olds.

[2]Significance tests were conducted between Civilians and each of the Services as well as between Civilians and All Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-7. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Civilian) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Army) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Navy) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[f]Indicates estimate is significantly different from the estimate in column #6 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.
[g]Indicates estimate is significantly different from the estimate in column #7 (All Services) at the 95% confidence level after Bonferroni adjustment.

[†]Data not reported. Low precision.

Civilian data source: National Survey on Drug Use and Health (NSDUH), 2010.

Military data source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Any Prescription Drug Misuse, Q84, Q86, Q87, Q89).

Table 4.2.13 – Frequency of Drug Testing, by Service

	Service[1]					
Testing Period	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Tested in past month	28.4 (0.8)[b,c,d,e]	38.1 (0.8)[a,d,e]	38.3 (0.8)[a,d,e]	13.7 (0.4)[a,b,c,e]	7.4 (0.4)[a,b,c,d]	27.5 (0.4)
Tested in past year but more than one month ago	62.7 (0.8)[b,c,d,e]	58.3 (0.8)[a,d,e]	57.4 (0.8)[a,d,e]	67.0 (0.5)[a,b,c]	69.0 (0.7)[a,b,c]	62.3 (0.4)
Tested more than 1 year ago	7.1 (0.4)[b,c,d,e]	2.9 (0.3)[a,d,e]	2.8 (0.3)[a,d,e]	16.4 (0.4)[a,b,c,e]	21.9 (0.7)[a,b,c,d]	8.4 (0.2)
Never tested	1.8 (0.2)[b,d]	0.6 (0.1)[a,c,d,e]	1.5 (0.2)[b,d]	2.9 (0.2)[a,b,c,e]	1.7 (0.2)[b,d]	1.8 (0.1)

Note: Table displays the percentage of military personnel, by Service, who reported being tested for illicit drugs within the time frames noted in the rows of this table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drug Testing, Q90).

4.3 Tobacco Use

This section presents the results of a detailed analysis of tobacco use in the military. Analyses investigated the prevalence rates of tobacco use among active duty service members, including classifying service members by level of smoking, age of cigarette smoking initiation, smoking facilitators, and tobacco use deterrents. In addition, smokeless tobacco use, including the use of a number of new forms of tobacco such as electronic nicotine products and nicotine dissolvables, was explored. Finally, attempts at smoking cessation and reduction, as well as treatment for nicotine dependence, were analyzed.

Overview of Key Measures of Tobacco Use

The survey included a number of measures of tobacco use to provide a comprehensive assessment of the extent of tobacco use among active duty service members. Definitions for all of the measures reported in this section are explained in Appendix A: Key Definitions and Measures. Respondents who indicated that they had not smoked at least 100 cigarettes in their lifetime and/or reported no lifetime smokeless tobacco use were not asked many of the tobacco measures, as they were not applicable.

Similar to alcohol, respondents were classified into five smoking levels – abstainers, former smokers, current infrequent smokers, light/moderate smokers, and heavy smokers. This classification scheme was based on the definitions established by the 2010 National Health Interview Survey (NHIS) from the Centers for Disease Control and Prevention (CDC); the survey questions from the 2011 HRB that served as the basis for the classification were also from the NHIS survey, and therefore allowed for a direct comparison to civilian estimates. Many of the analyses were presented by these smoking levels, which were defined as follows:

- Abstainers smoked less than 100 cigarettes in their lifetime;
- Former smokers smoked at least 100 cigarettes in their lifetime, but did not smoke currently;
- Infrequent smokers reported currently smoking cigarettes some days;
- Light/Moderate smokers reported smoking cigarettes every day, but less than one pack (20 cigarettes) per day; and
- Heavy smokers reported daily smoking and smoked a pack or more (greater than 20 cigarettes) per day.

In addition, smokeless tobacco users were classified into smoking intensity levels, which were defined as follows:

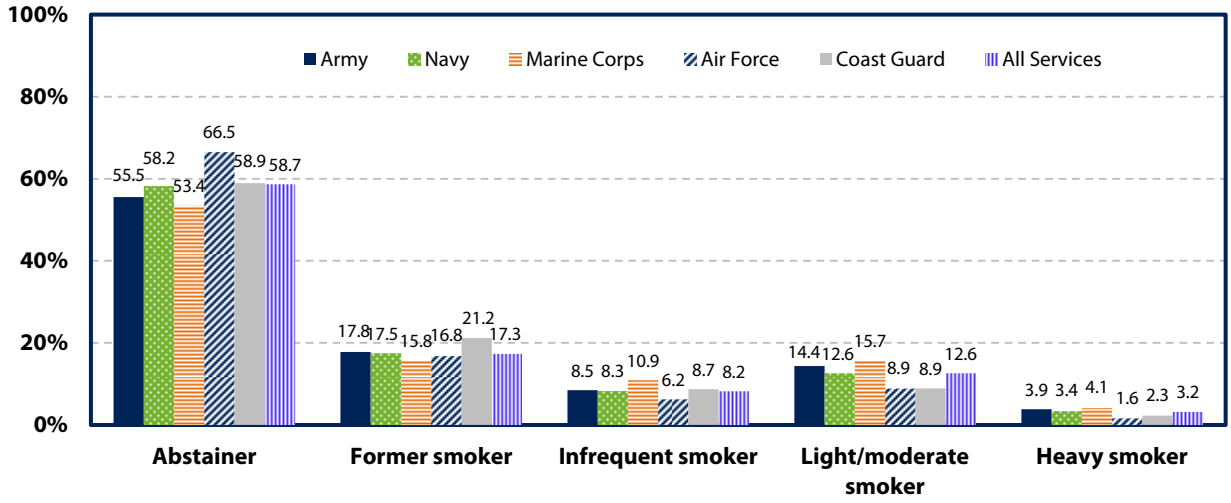
- Abstainers reported no use of chewing tobacco, snuff, or other forms of smokeless tobacco in their lifetime;
- Former users reported use in their lifetime, but no use in the past 12 months;
- Infrequent users reported use once per month or less in the past 12 months;
- Some Days users reported use more frequently than once per month but not daily in the past 12 months; and
- Every Day users reported daily use of smokeless tobacco products in the past 12 months.

Overview of Findings

Levels of Cigarette Smoking Among Active Duty Military Personnel

- Among all active duty military personnel, 58.7% were cigarette smoking abstainers, 17.3% were former smokers, and 24.0% were current smokers; 8.2% of active duty military personnel smoked cigarettes infrequently, 12.6% were light/moderate smokers, and 3.2% were heavy smokers (see Table 4.3.1). Males, White, non-Hispanics, and those with a high school education or less had higher percentages of heavy smokers compared to females, other racial/ethnic groups, and personnel with some college or more education.
- Figure 4.3.A illustrates the distribution of cigarette smoking levels by service (see also Table 4.3.2 to Table 4.3.6). Rates of heavy cigarette smoking ranged from 1.6% of the Air Force to 4.1% of the Marine Corps. On the other hand, 53.4% of the Marine Corps were cigarette smoking abstainers compared to 66.5% of the Air Force.

Figure 4.3.A: Levels of Cigarette Smoking, by Service



Note: Graph presents weighted data.
Cigarette Smoking Levels, Q61, Q64, Q66.

- Table 4.3.7 compares estimates of cigarette smoking rates among service members to the civilian population aged 18 to 65; 24.0% of active duty service members were current smokers across all services, compared to 21.2% among the civilian population. It is important to note the military population is younger overall than the civilian population. When examining cigarette smoking by age group, a higher percentage of younger services members were classified as current cigarette smokers compared to their civilian counterparts, while rates of cigarette smoking among older service members were comparable to or lower than their civilian counterparts.

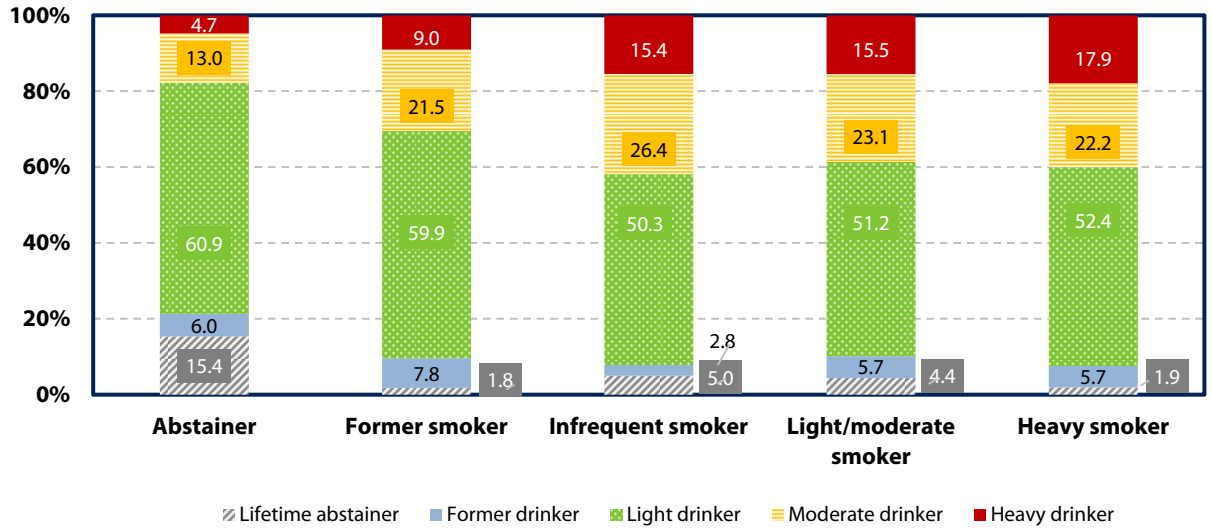
Age of Cigarette Smoking Initiation

- Age of cigarette smoking initiation was related to smoking intensity; among those who started smoking cigarettes at 14 years old or younger, 19.8% were heavy cigarette smokers compared to 7.8% of those who started smoking when they were 21 years old or older (see Table 4.3.8). Among male service members who started smoking cigarettes at 14 years old or younger, 20.6% were heavy smokers, compared to 13.7% of female smokers who started smoking at age 14 or younger.

Cigarette Smoking Facilitators and Deterrents

- Among heavy cigarette smokers, 83.6% indicated that they smoked to "help relax or calm down" and 81.5% to "help relieve stress." These two reasons were also the most commonly cited smoking facilitators among light/moderate (approximately 75% endorsed each reason) and infrequent cigarette smokers (approximately 60% endorsed each reason; see Table 4.3.10). The least endorsed reasons included to "fit in with military unit," to "fit in with friends," and to "irritate those in authority."
- Approximately 55% of current cigarette smokers indicated that they smoked "when drinking alcohol;" there was no significant difference between cigarette smoking levels and the endorsement of smoking when drinking, as shown in Table 4.3.10.
- Figure 4.3.B presents cigarette smoking status by alcohol drinking status; about 18% of heavy cigarette smokers were also heavy drinkers, whereas 9% of former cigarette smokers and approximately 5% of cigarette smoking abstainers were heavy drinkers. Smoking abstainers had the largest share of drinking abstainers, 15.4%, compared to 1.9% among heavy smokers and similarly small percentages among former, infrequent, and light/moderate cigarette smokers. About half of current cigarette smokers were light drinkers, whereas around 60% of former smokers and of smoking abstainers were light drinkers.

Figure 4.3.B: Cigarette Smoking Status, by Drinking Status



Note: Graph presents weighted data.

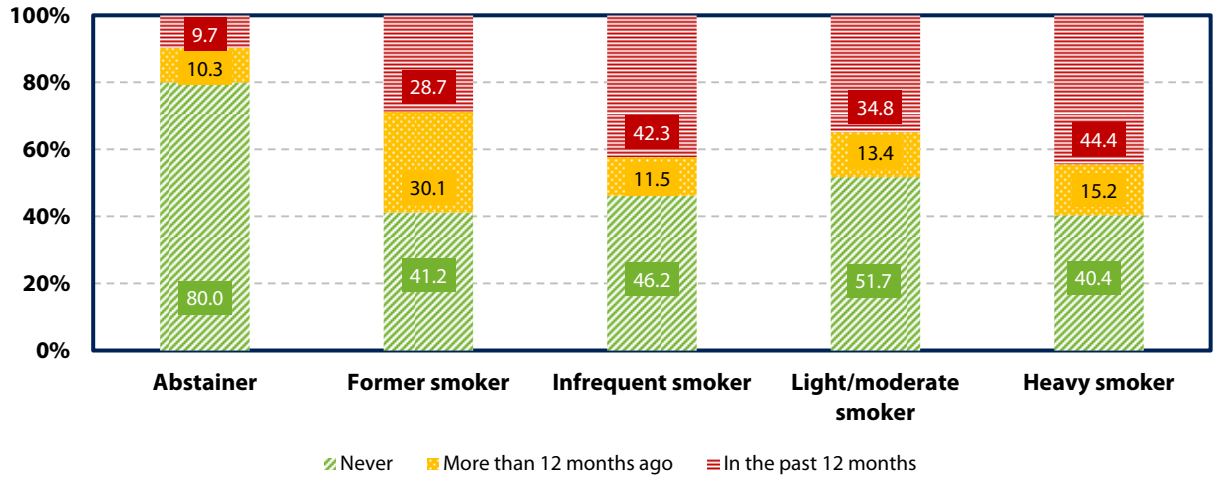
Cigarette Smoking Levels, Q61, Q64, Q66; Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47.

- Higher percentages of infrequent cigarette smokers indicated that the tobacco deterrents listed would decrease their use of tobacco than light/moderate and heavy smokers. Nearly one-third of infrequent cigarette smokers would reduce tobacco use with an increase in prices or a decrease in the number of places to smoke on base, whereas about 15% of heavy users would decrease use under those circumstances (see Table 4.3.10).

Levels of Smokeless Tobacco Use and New Forms of Smokeless Tobacco

- Approximately one-fifth of all personnel smoked cigars (22.6%) or used smokeless tobacco (19.5%) in the past 12 months; 10.2% had smoked a pipe (see Table 4.3.12).
- Figure 4.3.C presents cigarette smoking status by recency of smokeless tobacco use. Many current cigarette smokers were also using smokeless tobacco. Almost half of heavy cigarette smokers used smokeless tobacco in the past 12 months (44.4%); about 35% of light/moderate and 42% of infrequent cigarette smokers used smokeless tobacco in the past 12 months. Among former cigarette smokers, close to 29% used smokeless tobacco in the past 12 months, and about 10% of cigarette smoking abstainers used smokeless tobacco in the past 12 months.

Figure 4.3.C: Cigarette Smoking Status, by Recency of Smokeless Tobacco Use



Note: Graph presents weighted data.

Cigarette Smoking Levels, Q61, Q64, Q66; All Smokeless Tobacco Use, Q72, Q75, Q79.

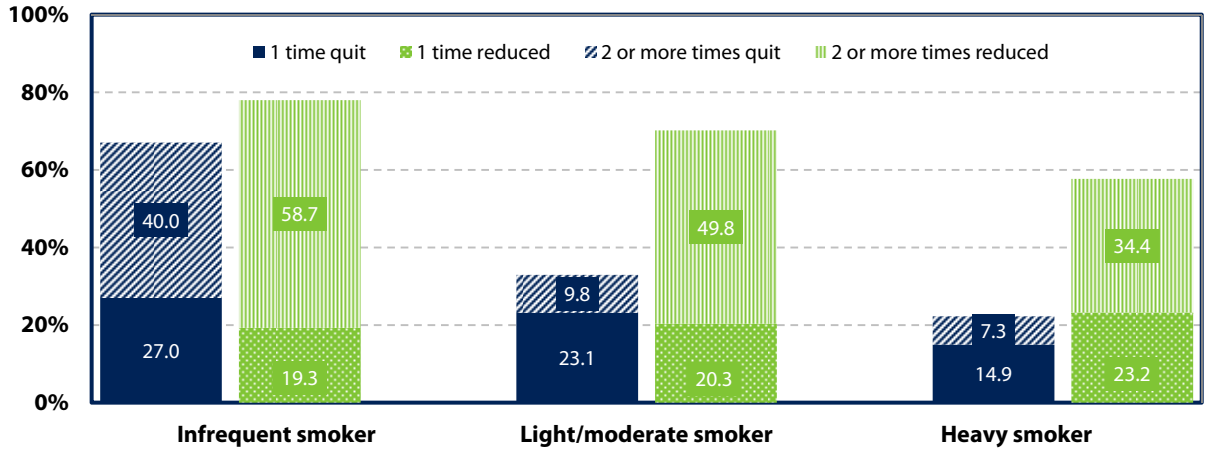
- Smokeless tobacco use was associated with age; higher percentages of younger personnel were current smokeless tobacco users than older personnel – approximately 25% of the younger age groups (18–20 and 21–25) compared to about 8% of those between 46 and 65 years old (see Table 4.3.13).
- Approximately one-fifth of all personnel (19.8%) indicated using a smokeless tobacco product, including chewing/other smokeless tobacco and the new forms of smokeless tobacco such as electronic nicotine delivery products, in the past 12 months. Among all service members, 4.6% indicated using an electronic or smoking nicotine delivery product, 1.6% used caffeinated smokeless tobacco, and less than 1% indicated using nicotine dissolvables or nicotine gel in the past 12 months (see Table 4.3.14).
- Table 4.3.15 presents any nicotine use by gender, age, and service. Among all personnel, 49.2% reported using any nicotine product in the past 12 months, with the highest percentage in the Marine Corps (60.8%) and the lowest percentage in the Air Force (40.4%). In addition, males across all services (52.6%) more often reported using nicotine than females (31.0%).

Cigarette and Smokeless Tobacco Cessation

- Table 4.3.11 shows that higher percentages of infrequent cigarette smokers attempted to quit smoking or to reduce their smoking in the past 12 months, and that they more often indicated that they were likely to quit smoking in the next 6 months than light/moderate and heavy cigarette smokers.

- Figure 4.3.D presents quit and reduction attempts by cigarette smoking levels for current smokers. Overall, infrequent cigarette smokers reported more quit and reduction attempts than light/moderate and heavy cigarette smokers.

Figure 4.3.D: Cessation and Reduction Attempts, by Cigarette Smoking Status



Note: Graph presents weighted data.

Cigarette Smoking Levels, Q61, Q64, Q66; Cessation and Reduction Attempts, Q68, Q69.

- A greater share of personnel who indicated that they used smokeless tobacco infrequently or some days attempted to quit in the past 12 months than of those who used smokeless tobacco every day (see Table 4.3.16). With increased intensity of smokeless tobacco use, the percentage of those indicating that they were likely to quit using smokeless tobacco products in the next 6 months decreased; 64.3% of infrequent users indicated a likelihood of quitting smokeless tobacco use in the next 6 months, whereas 47.7% of some days users and 25.1% of every day users indicated a likelihood of quitting use of smokeless tobacco in the next 6 months.

Treatment for Nicotine Dependence

- Table 4.3.17 indicates that heavy cigarette smokers most frequently endorsed prescription medication as the treatment they would be likely to use for nicotine dependence (45.2%). Light/moderate cigarette smokers most endorsed a gradual decrease in the number of cigarettes smoked (41.6%) and infrequent cigarette smokers most endorsed stopping all at once or cold turkey (52.9%). About 5% of heavy cigarette smokers indicated that they would be likely to use a TRICARE telephone quit counselor or UCANQUIT2 online quit support.
- Cigarette smoking level was associated with familiarity with many of the treatment methods. Just over 10% of heavy cigarette smokers indicated that they were not familiar with the UCANQUIT2 online quit support, whereas close to 20% of infrequent cigarette smokers indicated that they were not familiar with the UCANQUIT2 online quit support (see Table 4.3.17).

- Table 4.3.18 shows that current smokeless tobacco users most frequently endorsed stopping all at once or cold turkey as the treatment they would be likely to use if they were to seek treatment for nicotine dependence, regardless of smokeless tobacco use level.

Tables

The following tables present an in-depth analysis of tobacco use in the military.

Table 4.3.1 – Cigarette Smoking Levels for All Services, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Cigarette Smoking Level				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
Gender					
Male	57.0 (0.4)[2]	17.8 (0.3)[2]	8.7 (0.2)[2]	13.0 (0.3)[2]	3.5 (0.2)[2]
Female	67.6 (0.9)[1]	14.6 (0.7)[1]	5.8 (0.5)[1]	10.4 (0.6)[1]	1.5 (0.2)[1]
Race/Ethnicity					
White, non-Hispanic	54.4 (0.5)[2,3,4]	19.3 (0.4)[2,3]	8.3 (0.3)[2]	13.8 (0.3)[2,3]	4.2 (0.2)[2,3,4]
African-American, non-Hispanic	74.9 (0.9)[1,3,4]	8.4 (0.6)[1,3,4]	6.4 (0.5)[1,3,4]	9.4 (0.6)[1,4]	0.9 (0.2)[1]
Hispanic	63.9 (1.0)[1,2]	15.9 (0.8)[1,2]	9.3 (0.6)[2]	10.0 (0.6)[1]	1.0 (0.2)[1]
Other	59.4 (1.5)[1,2]	17.1 (1.2)[2]	9.3 (0.9)[2]	12.8 (1.0)[2]	1.5 (0.4)[1]
Education					
High School or less	48.4 (0.8)[2,3]	14.6 (0.6)[2]	11.3 (0.5)[2,3]	20.4 (0.7)[2,3]	5.3 (0.4)[2,3]
Some college	53.6 (0.5)[1,3]	19.5 (0.4)[1,3]	9.1 (0.3)[1,3]	14.0 (0.4)[1,3]	3.7 (0.2)[1,3]
College graduate or higher	76.2 (0.6)[1,2]	15.4 (0.5)[2]	4.0 (0.3)[1,2]	3.8 (0.3)[1,2]	0.6 (0.1)[1,2]
Age					
18-20	65.5 (1.6)[2,3]	8.2 (0.9)[3,4,5]	10.3 (1.0)[4,5]	13.7 (1.2)[4,5]	2.3 (0.5)
21-25	58.8 (0.8)[1,3,5]	11.5 (0.5)[3,4,5]	10.5 (0.5)[4,5]	16.0 (0.6)[3,4,5]	3.2 (0.3)
26-35	55.3 (0.6)[1,2,4,5]	19.9 (0.5)[1,2]	8.9 (0.4)[4,5]	12.3 (0.4)[2,4,5]	3.6 (0.2)
36-45	60.7 (0.8)[3,5]	21.7 (0.7)[1,2]	4.3 (0.3)[1,2]	9.8 (0.5)[1,2,3]	3.5 (0.3)
46-65	67.2 (1.8)[2,3,4]	21.6 (1.5)[1,2]	2.7 (0.6)[1,2]	6.6 (0.9)[1,2,3]	2.0 (0.5)
Family Status					
Not married	61.6 (0.6)[2,3]	12.2 (0.4)[3]	9.8 (0.4)[3]	13.5 (0.4)[3]	2.9 (0.2)
Married, spouse not present	57.5 (1.2)[1]	14.3 (0.9)[3]	8.3 (0.7)	15.8 (0.9)[3]	4.1 (0.5)
Married, spouse present	56.9 (0.5)[1]	21.3 (0.4)[1,2]	7.2 (0.3)[1]	11.5 (0.3)[1,2]	3.2 (0.2)

Table 4.3.1 – Cigarette Smoking Levels for All Services, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Cigarette Smoking Level				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
Pay Grade					
E1-E4	57.5 (0.6)[2,5,6]	12.3 (0.4)[2,3,4]	10.8 (0.4)[2,3,4,5,6]	16.0 (0.4)[3,4,5,6]	3.3 (0.2)[2,5,6]
E5-E6	49.2 (0.7)[1,3,5,6]	22.9 (0.6)[1,5,6]	8.8 (0.4)[1,3,5,6]	14.7 (0.5)[3,4,5,6]	4.4 (0.3)[1,5,6]
E7-E9	55.5 (1.2)[2,5,6]	24.8 (1.1)[1,5,6]	5.3 (0.6)[1,2,5,6]	10.7 (0.8)[1,2,5,6]	3.7 (0.5)[5,6]
W1-W5	58.5 (3.2)[5,6]	28.8 (2.9)[1,5,6]	3.9 (1.3)[1]	5.5 (1.5)[1,2,5,6]	3.3 (1.1)[5,6]
O1-O3	79.7 (1.0)[1,2,3,4]	15.0 (0.9)[2,3,4]	2.9 (0.4)[1,2,3]	2.2 (0.4)[1,2,3,4]	0.3 (0.1)[1,2,3,4]
O4-O10	82.1 (1.1)[1,2,3,4]	14.2 (1.0)[2,3,4]	2.0 (0.4)[1,2,3]	1.4 (0.3)[1,2,3,4]	0.3 (0.2)[1,2,3,4]
Region					
CONUS[b]	58.7 (0.4)	17.8 (0.3)[2]	8.0 (0.2)[2]	12.3 (0.3)[2]	3.3 (0.2)
OCONUS[c]	58.8 (0.8)	15.7 (0.6)[1]	9.0 (0.5)[1]	13.6 (0.6)[1]	2.9 (0.3)
Total	58.7 (0.4)	17.3 (0.3)	8.2 (0.2)	12.6 (0.3)	3.2 (0.1)

Note: Table displays the percentage of military personnel, by sociodemographic characteristics, who were classified in the cigarette smoking levels indicated in the columns of this table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African-American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Cigarette Smoking Levels, Q61, Q64, Q66).

Table 4.3.2 – Cigarette Smoking Levels for the Army, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Cigarette Smoking Level				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
Gender					
Male	53.5 (0.9)[2]	18.5 (0.7)[2]	9.0 (0.5)[2]	14.8 (0.6)[2]	4.2 (0.4)[2]
Female	67.1 (2.0)[1]	13.9 (1.5)[1]	5.4 (1.0)[1]	11.6 (1.4)[1]	2.0 (0.6)[1]
Race/Ethnicity					
White, non-Hispanic	49.9 (1.0)[2,4]	20.0 (0.8)[2]	8.7 (0.6)	16.1 (0.7)[2]	5.3 (0.5)[2,3]
African-American, non-Hispanic	74.4 (1.8)[1,3,4]	9.1 (1.2)[1,3,4]	5.7 (1.0)[3]	9.6 (1.2)[1]	1.1 (0.4)[1]
Hispanic	59.5 (2.2)[1,2]	16.2 (1.7)[2]	10.3 (1.4)[2]	12.7 (1.5)	1.3 (0.5)[1]
Other	59.6 (3.3)[1,2]	18.3 (2.6)[2]	8.6 (1.9)	11.9 (2.2)	1.6 (0.8)
Education					
High School or less	38.5 (1.9)[2,3]	16.6 (1.4)	12.4 (1.3)[3]	25.1 (1.7)[2,3]	7.4 (1.0)[2,3]
Some college	49.8 (1.1)[1,3]	19.9 (0.9)[3]	9.3 (0.7)[3]	16.4 (0.8)[1,3]	4.6 (0.5)[1,3]
College graduate or higher	74.7 (1.3)[1,2]	15.1 (1.1)[2]	4.8 (0.6)[1,2]	4.7 (0.6)[1,2]	0.6 (0.2)[1,2]
Age					
18-20	57.4 (4.3)	11.9 (2.8)	10.7 (2.7)[4]	20.0 (3.5)[5]	†
21-25	55.3 (1.9)	10.9 (1.2)[3,4,5]	12.2 (1.3)[4,5]	17.6 (1.5)[5]	4.1 (0.8)
26-35	52.7 (1.4)	19.2 (1.1)[2]	9.6 (0.8)[4,5]	14.0 (0.9)	4.5 (0.6)
36-45	57.2 (1.6)	21.5 (1.3)[2]	4.2 (0.7)[1,2,3]	12.9 (1.1)	4.2 (0.7)
46-65	62.7 (3.3)	21.9 (2.8)[2]	3.4 (1.2)[2,3]	9.1 (2.0)[1,2]	2.9 (1.1)
Family Status					
Not married	60.5 (1.4)[3]	13.2 (1.0)[3]	10.3 (0.9)[3]	12.9 (1.0)[2]	3.1 (0.5)
Married, spouse not present	56.1 (2.3)	14.0 (1.6)[3]	6.9 (1.2)	17.8 (1.8)[1]	5.2 (1.0)
Married, spouse present	52.7 (1.1)[1]	21.1 (0.9)[1,2]	7.8 (0.6)[1]	14.4 (0.8)	4.0 (0.4)

Table 4.3.2 – Cigarette Smoking Levels for the Army, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Cigarette Smoking Level				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
Pay Grade					
E1-E4	53.6 (1.2)[2,5,6]	13.9 (0.8)[2,3,4]	11.4 (0.8)[3,5,6]	16.9 (0.9)[4,5,6]	4.1 (0.5)
E5-E6	44.1 (1.6)[1,3,4,5,6]	23.2 (1.4)[1]	8.7 (0.9)[5,6]	18.4 (1.2)[4,5,6]	5.6 (0.7)
E7-E9	56.2 (2.5)[2,5,6]	20.9 (2.0)[1]	5.5 (1.1)[1]	13.2 (1.7)[5,6]	4.1 (1.0)
W1-W5	59.9 (4.8)[2,5,6]	27.6 (4.3)[1]	4.1 (1.9)	5.1 (2.1)[1,2]	3.3 (1.7)
O1-O3	77.8 (2.2)[1,2,3,4]	16.7 (2.0)	2.2 (0.8)[1,2]	3.3 (1.0)[1,2,3]	†
O4-O10	79.4 (2.6)[1,2,3,4]	15.7 (2.4)	2.3 (1.0)[1,2]	2.3 (1.0)[1,2,3]	†
Region					
CONUS[b]	55.3 (0.9)	17.9 (0.7)	8.3 (0.5)	14.6 (0.7)	3.9 (0.4)
OCONUS[c]	56.4 (1.7)	17.3 (1.3)	9.1 (1.0)	13.7 (1.2)	3.4 (0.6)
Total	55.5 (0.8)	17.8 (0.6)	8.5 (0.5)	14.4 (0.6)	3.9 (0.3)

Note: Table displays the percentage of military personnel in the Army, by sociodemographic characteristics, who were classified in the cigarette smoking levels indicated in the columns of this table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African-American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Cigarette Smoking Levels, Q61, Q64, Q66).

Table 4.3.3 – Cigarette Smoking Levels for the Navy, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Cigarette Smoking Level				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
Gender					
Male	56.4 (0.9)[2]	18.1 (0.7)[2]	8.6 (0.5)	13.2 (0.6)[2]	3.7 (0.3)[2]
Female	67.3 (1.8)[1]	14.4 (1.3)[1]	6.7 (1.0)	10.0 (1.1)[1]	1.7 (0.5)[1]
Race/Ethnicity					
White, non-Hispanic	53.6 (1.0)[2,3]	20.1 (0.8)[2]	8.0 (0.5)	13.5 (0.7)	4.7 (0.4)[2,3,4]
African-American, non-Hispanic	74.2 (1.8)[1,3,4]	6.8 (1.0)[1,3,4]	7.6 (1.1)	10.2 (1.2)	1.2 (0.4)[1]
Hispanic	63.6 (2.1)[1,2]	16.2 (1.6)[2]	9.2 (1.3)	10.1 (1.3)	0.9 (0.4)[1]
Other	55.4 (2.6)[2]	19.2 (2.1)[2]	10.0 (1.6)	13.8 (1.8)	1.5 (0.7)[1]
Education					
High School or less	50.8 (1.6)[3]	14.1 (1.1)[2]	10.5 (1.0)[3]	20.4 (1.3)[2,3]	4.3 (0.6)[3]
Some college	53.7 (1.1)[3]	19.4 (0.9)[1]	9.4 (0.7)[3]	13.2 (0.8)[1,3]	4.3 (0.5)[3]
College graduate or higher	73.6 (1.4)[1,2]	17.2 (1.2)	4.3 (0.6)[1,2]	4.1 (0.6)[1,2]	0.9 (0.3)[1,2]
Age					
18-20	69.8 (3.9)[3]	4.8 (1.8)[3,4,5]	11.4 (2.7)[5]	11.3 (2.7)	2.8 (1.4)
21-25	58.2 (1.6)	12.4 (1.0)[3,4,5]	9.6 (0.9)[4,5]	16.8 (1.2)[3,4,5]	2.9 (0.5)
26-35	55.6 (1.3)[1,5]	18.9 (1.0)[1,2]	9.2 (0.7)[4,5]	12.5 (0.8)[2]	3.9 (0.5)
36-45	59.7 (1.7)	22.0 (1.5)[1,2]	5.6 (0.8)[2,3]	8.8 (1.0)[2]	3.9 (0.7)
46-65	67.2 (3.5)[3]	24.6 (3.2)[1,2]	1.2 (0.8)[1,2,3]	5.5 (1.7)[2]	1.5 (0.9)
Family Status					
Not married	60.2 (1.2)	12.4 (0.8)[3]	9.1 (0.7)	15.1 (0.9)[3]	3.3 (0.5)
Married, spouse not present	60.1 (2.5)	14.3 (1.8)[3]	9.4 (1.5)	13.3 (1.7)	2.9 (0.8)
Married, spouse present	56.3 (1.1)	22.0 (0.9)[1,2]	7.5 (0.6)	10.6 (0.7)[1]	3.6 (0.4)

Table 4.3.3 – Cigarette Smoking Levels for the Navy, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Cigarette Smoking Level				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
Pay Grade					
E1-E4	58.1 (1.2)[2,5,6]	12.5 (0.8)[2,3]	10.2 (0.8)[5,6]	16.3 (0.9)[3,5,6]	2.9 (0.4)
E5-E6	50.6 (1.4)[1,5,6]	20.8 (1.1)[1,3]	9.1 (0.8)[5,6]	14.6 (1.0)[5,6]	5.0 (0.6)[5,6]
E7-E9	50.1 (2.7)[5,6]	28.4 (2.4)[1,2,5,6]	7.0 (1.4)	9.7 (1.6)[1,5,6]	4.8 (1.1)[5,6]
W1-W5	†	†	†	†	†
O1-O3	76.6 (2.1)[1,2,3]	16.4 (1.8)[3]	3.5 (0.9)[1,2]	2.7 (0.8)[1,2,3]	0.8 (0.5)[2,3]
O4-O10	79.6 (2.4)[1,2,3]	16.1 (2.2)[3]	2.6 (0.9)[1,2]	1.3 (0.7)[1,2,3]	0.4 (0.4)[2,3]
Region					
CONUS[b]	58.4 (0.9)	18.5 (0.7)[2]	7.7 (0.5)[2]	11.9 (0.6)[2]	3.5 (0.3)
OCONUS[c]	58.1 (1.5)	14.6 (1.1)[1]	9.8 (0.9)[1]	14.6 (1.1)[1]	3.0 (0.5)
Total	58.2 (0.8)	17.5 (0.6)	8.3 (0.4)	12.6 (0.5)	3.4 (0.3)

Note: Table displays the percentage of military personnel in the Navy, by sociodemographic characteristics, who were classified in the cigarette smoking levels indicated in the columns of this table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African-American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Cigarette Smoking Levels, Q61, Q64, Q66).

Table 4.3.4 – Cigarette Smoking Levels for the Marine Corps, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Cigarette Smoking Level				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
Gender					
Male	52.7 (0.8)[2]	16.0 (0.6)	11.3 (0.5)[2]	15.8 (0.6)	4.3 (0.3)
Female	63.1 (2.8)[1]	14.2 (2.0)	6.6 (1.4)[1]	13.7 (2.0)	2.4 (0.9)
Race/Ethnicity					
White, non-Hispanic	47.4 (1.0)[2,3]	17.9 (0.7)[2]	11.6 (0.6)[2]	17.3 (0.7)[3]	5.8 (0.5)[2,3]
African-American, non-Hispanic	72.4 (2.2)[1,3,4]	7.1 (1.3)[1,3]	7.2 (1.3)[1]	12.9 (1.7)	0.5 (0.4)[1]
Hispanic	64.2 (1.8)[1,2]	14.1 (1.3)[2]	10.4 (1.1)	10.5 (1.2)[1,4]	0.8 (0.3)[1]
Other	56.5 (3.5)[2]	11.4 (2.3)	11.2 (2.3)	19.0 (2.8)[3]	1.9 (1.0)
Education					
High School or less	49.0 (1.2)[3]	13.2 (0.8)[2,3]	12.2 (0.8)[3]	19.9 (1.0)[2,3]	5.7 (0.6)[2,3]
Some college	51.3 (1.2)[3]	17.8 (0.9)[1]	11.5 (0.8)[3]	15.5 (0.9)[1,3]	3.9 (0.5)[1,3]
College graduate or higher	73.1 (1.9)[1,2]	17.3 (1.6)[1]	5.2 (0.9)[1,2]	3.9 (0.8)[1,2]	0.5 (0.3)[1,2]
Age					
18-20	60.5 (2.3)[2,3]	7.9 (1.3)[3,4,5]	11.9 (1.5)[4]	14.2 (1.6)[4]	5.5 (1.1)
21-25	51.7 (1.3)[1,4]	12.1 (0.8)[3,4]	11.6 (0.8)[4]	19.7 (1.0)[3,4,5]	4.8 (0.5)
26-35	49.5 (1.5)[1,4]	21.3 (1.2)[1,2]	11.7 (1.0)[4]	14.1 (1.0)[2,4]	3.4 (0.5)
36-45	62.9 (2.3)[2,3]	22.4 (2.0)[1,2]	5.2 (1.1)[1,2,3]	7.0 (1.2)[1,2,3]	2.4 (0.8)
46-65	68.7 (6.4)	22.3 (5.8)[1]	3.2 (2.4)	3.8 (2.6)[2]	†
Family Status					
Not married	55.4 (1.2)[2]	10.7 (0.7)[2,3]	11.8 (0.8)	17.7 (0.9)[3]	4.4 (0.5)
Married, spouse not present	46.9 (2.6)[1]	15.8 (1.9)[1]	12.9 (1.8)	19.8 (2.1)[3]	4.6 (1.1)
Married, spouse present	53.0 (1.2)	20.7 (0.9)[1]	9.7 (0.7)	12.9 (0.8)[1,2]	3.7 (0.4)

Table 4.3.4 – Cigarette Smoking Levels for the Marine Corps, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Cigarette Smoking Level				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
Pay Grade					
E1-E4	52.4 (1.0)[2,5,6]	10.7 (0.6)[2,3,4,5,6]	12.5 (0.7)[3,5,6]	19.5 (0.8)[2,3,5,6]	4.9 (0.5)[5]
E5-E6	45.3 (1.6)[1,3,5,6]	23.7 (1.4)[1]	12.0 (1.1)[3,5,6]	14.5 (1.1)[1,5,6]	4.4 (0.7)[5]
E7-E9	56.4 (2.8)[2,5,6]	23.7 (2.4)[1]	5.8 (1.3)[1,2]	11.4 (1.8)[1,5,6]	2.6 (0.9)
W1-W5	53.7 (7.5)[6]	31.4 (7.0)[1]	5.5 (3.4)	5.5 (3.4)	†
O1-O3	73.9 (2.6)[1,2,3]	17.7 (2.3)[1]	5.8 (1.4)[1,2]	2.1 (0.9)[1,2,3]	0.5 (0.4)[1,2]
O4-O10	77.7 (3.5)[1,2,3,4]	18.8 (3.3)[1]	2.4 (1.3)[1,2]	0.9 (0.8)[1,2,3]	†
Region					
CONUS[b]	52.5 (0.9)[2]	17.1 (0.7)[2]	10.8 (0.6)	15.4 (0.7)	4.3 (0.4)
OCONUS[c]	56.5 (1.6)[1]	11.7 (1.1)[1]	11.4 (1.0)	16.6 (1.2)	3.8 (0.6)
Total	53.4 (0.8)	15.8 (0.6)	10.9 (0.5)	15.7 (0.6)	4.1 (0.3)

Note: Table displays the percentage of military personnel in the Marine Corps, by sociodemographic characteristics, who were classified in the cigarette smoking levels indicated in the columns of this table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African-American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Cigarette Smoking Levels, Q61, Q64, Q66).

Table 4.3.5 – Cigarette Smoking Levels for the Air Force, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Cigarette Smoking Level				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
Gender					
Male	65.8 (0.6)[2]	17.1 (0.4)	6.5 (0.3)[2]	8.8 (0.3)	1.8 (0.2)[2]
Female	69.4 (1.1)[1]	15.6 (0.9)	5.2 (0.5)[1]	9.0 (0.7)	0.8 (0.2)[1]
Race/Ethnicity					
White, non-Hispanic	63.9 (0.6)[2,3]	18.2 (0.5)[2]	6.2 (0.3)	9.7 (0.4)[2,3]	1.9 (0.2)[2,3]
African-American, non-Hispanic	78.5 (1.3)[1,3,4]	9.0 (0.9)[1,3,4]	5.8 (0.8)	6.4 (0.8)[1]	0.3 (0.2)[1]
Hispanic	72.1 (1.5)[1,2]	15.9 (1.2)[2]	6.7 (0.8)	4.8 (0.7)[1,4]	0.5 (0.2)[1]
Other	67.1 (2.3)[2]	14.7 (1.7)[2]	7.6 (1.3)	9.6 (1.4)[3]	1.0 (0.5)
Education					
High School or less	62.3 (1.4)[3]	12.9 (1.0)[2]	9.0 (0.8)[3]	13.5 (1.0)[3]	2.4 (0.4)[3]
Some college	59.7 (0.7)[3]	19.3 (0.6)[1,3]	7.6 (0.4)[3]	11.3 (0.4)[3]	2.0 (0.2)[3]
College graduate or higher	81.5 (0.8)[1,2]	13.7 (0.7)[2]	2.3 (0.3)[1,2]	2.1 (0.3)[1,2]	0.4 (0.1)[1,2]
Age					
18-20	75.3 (1.9)[3,4]	7.4 (1.1)[3,4,5]	7.9 (1.2)[4,5]	8.7 (1.2)[5]	0.7 (0.4)
21-25	69.1 (1.0)[3,5]	10.7 (0.7)[3,4,5]	8.4 (0.6)[4,5]	10.8 (0.7)[4,5]	1.1 (0.2)[3,4]
26-35	61.6 (0.9)[1,2,4,5]	20.3 (0.7)[1,2]	6.5 (0.4)[4]	9.4 (0.5)[4,5]	2.1 (0.3)[2]
36-45	68.0 (1.1)[1,3,5]	21.2 (1.0)[1,2]	2.8 (0.4)[1,2,3]	5.8 (0.6)[2,3,5]	2.2 (0.4)[2]
46-65	78.7 (2.4)[2,3,4]	16.5 (2.2)[1,2]	2.6 (0.9)[1,2]	1.7 (0.8)[1,2,3,4]	0.5 (0.4)
Family Status					
Not married	68.6 (0.8)[3]	11.5 (0.5)[3]	8.2 (0.5)[3]	10.3 (0.5)[3]	1.5 (0.2)
Married, spouse not present	66.5 (2.0)	13.6 (1.5)[3]	6.8 (1.1)	10.8 (1.3)[3]	2.3 (0.6)
Married, spouse present	65.1 (0.7)[1]	20.6 (0.6)[1,2]	4.9 (0.3)[1]	7.7 (0.4)[1,2]	1.6 (0.2)

Table 4.3.5 – Cigarette Smoking Levels for the Air Force, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Cigarette Smoking Level				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
Pay Grade					
E1-E4	68.4 (0.8)[2,3,5,6]	10.5 (0.5)[2,3]	8.6 (0.5)[3,5,6]	11.5 (0.6)[3,5,6]	1.0 (0.2)[2,3]
E5-E6	54.6 (0.9)[1,5,6]	23.8 (0.8)[1,5,6]	7.4 (0.5)[3,5,6]	11.5 (0.6)[3,5,6]	2.8 (0.3)[1,6]
E7-E9	59.2 (1.6)[1,5,6]	27.6 (1.5)[1,5,6]	3.2 (0.6)[1,2,6]	7.4 (0.9)[1,2.5,6]	2.6 (0.5)[1,6]
W1-W5	-----	-----	-----	-----	-----
O1-O3	86.7 (1.1)[1,2,3]	10.6 (1.0)[2,3]	2.2 (0.5)[1,2]	0.5 (0.2)[1,2,3]	†
O4-O10	87.5 (1.2)[1,2,3]	10.4 (1.1)[2,3]	1.2 (0.4)[1,3]	0.7 (0.3)[1,2,3]	0.2 (0.2)[2,3]
Region					
CONUS[d]	67.2 (0.6)[2]	16.9 (0.4)	6.1 (0.3)	8.2 (0.3)[2]	1.6 (0.1)
OCONUS[c]	64.1 (1.1)[1]	16.4 (0.8)	6.8 (0.6)	11.1 (0.7)[1]	1.6 (0.3)
Total	66.5 (0.5)	16.8 (0.4)	6.2 (0.3)	8.9 (0.3)	1.6 (0.1)

Note: Table displays the percentage of military personnel in the Air Force, by sociodemographic characteristics, who were classified in the cigarette smoking levels indicated in the columns of this table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African-American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

-----Not applicable.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Cigarette Smoking Levels, Q61, Q64, Q66).

Table 4.3.6 – Cigarette Smoking Levels for the Coast Guard, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Cigarette Smoking Level				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
Gender					
Male	57.7 (0.8)[2]	21.9 (0.7)[2]	8.9 (0.5)	8.9 (0.5)	2.5 (0.3)[2]
Female	66.4 (2.0)[1]	16.7 (1.6)[1]	7.2 (1.1)	9.0 (1.2)	0.7 (0.4)[1]
Race/Ethnicity					
White, non-Hispanic	57.1 (0.9)[3]	22.1 (0.7)	8.9 (0.5)	9.3 (0.5)	2.7 (0.3)
African-American, non-Hispanic	64.8 (3.3)	15.2 (2.5)	8.9 (2.0)	10.7 (2.2)	0.4 (0.4)
Hispanic	65.3 (2.2)[1]	21.1 (1.9)	6.3 (1.1)[4]	6.5 (1.1)	0.7 (0.4)
Other	63.4 (3.6)	14.3 (2.6)	13.4 (2.6)[3]	7.5 (2.0)	1.4 (0.9)
Education					
High School or less	52.3 (1.7)[3]	20.6 (1.4)[3]	11.1 (1.1)[3]	12.6 (1.1)[3]	3.4 (0.6)[3]
Some college	53.1 (1.1)[3]	23.9 (0.9)[3]	10.1 (0.6)[3]	10.3 (0.7)[3]	2.6 (0.3)[3]
College graduate or higher	77.7 (1.3)[1,2]	15.6 (1.2)[1,2]	3.4 (0.6)[1,2]	2.6 (0.5)[1,2]	0.6 (0.3)[1,2]
Age					
18-20	80.3 (4.3)[2,3,4]	1.5 (1.3)[2,3,4,5]	6.5 (2.7)	10.9 (3.4)	†
21-25	61.2 (1.7)[1]	11.9 (1.1)[1,3,4,5]	12.6 (1.2)[3,4,5]	12.7 (1.2)[3,4]	1.7 (0.4)
26-35	55.6 (1.2)[1,5]	25.2 (1.1)[1,2]	8.9 (0.7)[2]	7.9 (0.7)[2]	2.4 (0.4)
36-45	60.1 (1.7)[1]	24.2 (1.5)[1,2]	5.8 (0.8)[2]	7.0 (0.9)[2]	2.9 (0.6)
46-65	66.8 (3.5)[3]	21.8 (3.1)[1,2]	3.2 (1.3)[2]	6.6 (1.8)	1.6 (0.9)
Family Status					
Not married	60.5 (1.3)	15.4 (1.0)[3]	11.2 (0.8)[3]	10.1 (0.8)	2.8 (0.4)
Married, spouse not present	59.9 (2.8)	17.2 (2.2)[3]	9.3 (1.7)	10.9 (1.8)	2.8 (1.0)
Married, spouse present	57.9 (1.0)	25.1 (0.9)[1,2]	7.2 (0.5)[1]	7.9 (0.6)	1.9 (0.3)

Table 4.3.6 – Cigarette Smoking Levels for the Coast Guard, by Sociodemographic Characteristics

Sociodemographic Characteristic[a]	Cigarette Smoking Level				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
Pay Grade					
E1-E4	59.4 (1.4)[2,3,5,6]	13.9 (1.0)[2,3,4]	12.8 (0.9)[3,4,5,6]	12.3 (0.9)[5]	1.8 (0.4)
E5-E6	52.1 (1.3)[1,5,6]	25.7 (1.1)[1,5,6]	9.5 (0.8)[4,5,6]	9.5 (0.8)[5]	3.3 (0.5)
E7-E9	50.1 (2.4)[1,5,6]	31.2 (2.2)[1,5,6]	6.2 (1.1)[1]	9.2 (1.4)[5]	3.3 (0.8)
W1-W5	54.9 (4.1)[5,6]	31.5 (3.8)[1,5,6]	2.0 (1.1)[1,2]	8.9 (2.3)[5]	2.7 (1.3)
O1-O3	78.7 (2.1)[1,2,3,4]	18.0 (2.0)[2,3,4]	2.6 (0.8)[1,2]	0.7 (0.4)[1,2,3,4]	†
O4-O10	85.7 (2.2)[1,2,3,4]	12.1 (2.0)[2,3,4]	1.6 (0.8)[1,2]	†	†
Region					
CONUS[b]	58.6 (0.8)	21.4 (0.7)	8.9 (0.5)	8.9 (0.5)	2.3 (0.3)
OCONUS[c]	61.3 (2.2)	20.0 (1.8)	7.6 (1.2)	9.1 (1.3)	2.0 (0.6)
Total	58.9 (0.8)	21.2 (0.6)	8.7 (0.4)	8.9 (0.4)	2.3 (0.2)

Note: Table displays the percentage of military personnel in the Coast Guard, by sociodemographic characteristics, who were classified in the cigarette smoking levels indicated in the columns of this table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African-American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Cigarette Smoking Levels, Q61, Q64, Q66).

Table 4.3.7 – Comparisons of Current Cigarette Smokers Among Military Personnel and Civilians, by Gender and Age Group

Gender/Age Group	Comparison Population[2]						
	Civilian[1]	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Gender							
Male	23.8 (0.5)[b,d,e,f]	28.1 (0.8)[a,d,e,f]	25.6 (0.8)[d,e,f]	31.4 (0.8)[a,b,c,e,f]	17.2 (0.4)[a,b,c,d,f]	20.4 (0.7)[a,b,c,d,e]	25.2 (0.4)
Female	18.6 (0.4)[e]	19.0 (1.7)	18.4 (1.5)	22.9 (2.4)[e]	15.0 (0.8)[a,d]	17.1 (1.6)	17.8 (0.7)
Age							
18-20	14.7 (1.2)[b,d,g]	30.8 (4.0)[a,e]	25.5 (3.7)	31.6 (2.2)[a,e]	17.5 (1.7)[b,d]	18.2 (4.2)	26.4 (1.5)[a]
21-25	21.9 (1.0)[b,c,d,g]	33.9 (1.8)[a,e,f]	29.5 (1.4)[a,d,e]	36.2 (1.2)[a,c,e,f]	20.2 (0.9)[b,c,d,f]	26.9 (1.5)[b,d,e]	29.7 (0.7)[a]
26-35	23.2 (0.7)[d,e]	28.1 (1.2)[e,f]	25.7 (1.1)[e,f]	29.4 (1.3)[a,e,f]	18.1 (0.7)[a,b,c,d]	19.3 (1.0)[b,c,d]	24.9 (0.6)
36-45	21.0 (0.7)[d,e,f]	21.3 (1.3)[d,e,f]	18.3 (1.4)[e]	14.7 (1.7)[a,b]	10.9 (0.7)[a,b,c,f]	15.7 (1.3)[a,b,e]	17.6 (0.7)
46-65	21.0 (0.5)[c,d,e,f,g]	15.4 (2.5)[e]	8.2 (2.0)[a]	9.1 (4.0)[a]	4.8 (1.3)[a,b]	11.4 (2.4)[a]	11.3 (1.2)[a]
Total	21.2 (0.3)[b,c,d,e,g]	26.7 (0.7)[a,d,e,f]	24.4 (0.7)[a,d,e,f]	30.8 (0.7)[a,b,c,e,f]	16.7 (0.4)[a,b,c,d,f]	19.9 (0.6)[b,c,d,e]	24.0 (0.3)[a]

Note: Table displays the percentage of military personnel, by gender, age group, and Service, who were classified as having smoked at least 100 cigarettes in their lifetime and now smoke either some days or every day. The standard error of each estimate is presented in parentheses. Data were not adjusted for sociodemographic differences between the civilian and military populations, though the civilian data were limited to 18 to 65 year olds.

[1]Civilian data source: National Health Interview Survey (NHIS), 2011.

[2]Significance tests were conducted between Civilians and all pairs of Services as well as between Civilians and All Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-7. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Civilian) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Army) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Navy) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[f]Indicates estimate is significantly different from the estimate in column #6 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.
[g]Indicates estimate is significantly different from the estimate in column #7 (All Services) at the 95% confidence level after Bonferroni adjustment.

Military data source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Current Cigarette Smokers, Q61, Q64).

Table 4.3.8 – Age of Cigarette Smoking Initiation, by Gender and Smoking Level

Gender/Age of Initiation[a]	Cigarette Smoking Level		
	Infrequent	Light/Moderate	Heavy
Males			
14 years old or younger	24.4 (1.7)[2,3,4]	55.0 (1.9)	20.6 (1.6)[2,3,4]
15 to 17 years old	31.4 (1.3)[1,3,4]	53.5 (1.4)	15.1 (1.0)[1,3,4]
18 to 20 years old	38.6 (1.4)[1,2]	50.0 (1.4)	11.4 (0.9)[1,2]
21 years old or older	43.9 (2.2)[1,2]	47.9 (2.2)	8.1 (1.2)[1,2]
Females			
14 years old or younger	26.0 (4.7)	60.3 (5.3)	13.7 (3.7)
15 to 17 years old	28.8 (3.6)	61.7 (3.9)	9.4 (2.3)
18 to 20 years old	37.5 (3.9)	55.9 (4.0)	6.7 (2.0)
21 years old or older	38.2 (6.2)	57.0 (6.3)	4.8 (2.7)
Total			
14 years old or younger	24.5 (1.6)[2,3,4]	55.6 (1.8)	19.8 (1.5)[2,3,4]
15 to 17 years old	31.1 (1.3)[1,3,4]	54.5 (1.4)	14.4 (1.0)[1,3,4]
18 to 20 years old	38.5 (1.3)[1,2]	50.6 (1.4)	10.9 (0.8)[1,2]
21 years old or older	43.3 (2.0)[1,2]	48.9 (2.1)	7.8 (1.1)[1,2]

Note: Table displays the age of cigarette smoking initiation among military personnel, by gender and cigarette smoking levels for current smokers. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between age of smoking initiation groups. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in row #1-4 of the corresponding age of smoking initiation group. In other words:

[1]Indicates estimate is significantly different from the estimate in row #1 (14 years old or younger) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (15 to 17 years old) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (18 to 20 years old) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (21 years old or older) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Cigarette Smoking Initiation, Q62; Cigarette Smoking Levels, Q61, Q64, Q66).

Table 4.3.9 – Sociodemographic Correlates of Current Cigarette Smoking, All Services

Sociodemographic Characteristic[a]	Current Cigarette Smokers	
	Prevalence	Odds Ratio (95% CI)[b]
Service		
Army	26.7 (0.7)[3,4,5]	1.67 (1.51, 1.85)*
Navy	24.4 (0.7)[3,4,5]	1.39 (1.26, 1.54)*
Marine Corps	30.8 (0.7)[1,2,4,5]	1.47 (1.34, 1.62)*
Air Force	16.7 (0.4)[1,2,3,5]	0.90 (0.82, 0.99)*
Coast Guard	19.9 (0.6)[1,2,3,4]	1.00
Gender		
Male	25.2 (0.4)[2]	1.31 (1.23, 1.40)*
Female	17.8 (0.7)[1]	1.00
Race/Ethnicity		
White, non-Hispanic	26.3 (0.4)[2,3]	1.00
African-American, non-Hispanic	16.9 (0.8)[1,3,4]	0.47 (0.42, 0.51)*
Hispanic	20.2 (0.9)[1,2]	0.52 (0.48, 0.57)*
Other	23.5 (1.3)[2]	0.83 (0.74, 0.93)*
Education		
High School or less	37.1 (0.8)[2,3]	2.65 (2.37, 2.97)*
Some college	26.9 (0.5)[1,3]	2.01 (1.82, 2.23)*
College graduate or higher	8.4 (0.4)[1,2]	1.00
Family Status		
Not married	26.2 (0.6)[3]	1.28 (1.20, 1.36)*
Married, spouse not present	28.2 (1.1)[3]	1.44 (1.31, 1.59)*
Married, spouse present	21.9 (0.4)[1,2]	1.00
Pay Grade		
E1-E4	30.3 (0.5)[3,4,5,6]	5.38 (4.35, 6.66)*
E5-E6	28.0 (0.6)[3,4,5,6]	5.50 (4.46, 6.79)*
E7-E9	19.7 (1.0)[1,2,5,6]	3.99 (3.23, 4.94)*
W1-W5	12.7 (2.2)[1,2,5,6]	2.40 (1.87, 3.09)*
O1-O3	5.3 (0.6)[1,2,3,4]	1.49 (1.18, 1.88)*
O4-O10	3.7 (0.6)[1,2,3,4]	1.00
Region		
CONUS[c]	23.6 (0.4)[2]	1.03 (0.96, 1.10)
OCONUS[d]	25.6 (0.7)[1]	1.00
Total	24.1 (0.3)	

Note: Prevalence estimates are percentages among military personnel in each sociodemographic group who used cigarettes at least once in the past 30 days. The standard error of each estimate is presented in parentheses. Odds ratios are from logistic regression analyses predicting current cigarette smoking; the odds ratio of the reference group is equal to 1.00.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African-American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]95% CI = 95% confidence interval of the odds ratio. An asterisk (*) beside an estimate indicates the estimate is significantly different from the reference group.

[c]CONUS refers to personnel who were stationed within the 48 contiguous States in the continental United States.

[d]OCONUS refers to personnel who were stationed outside the continental United States.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Current Cigarette Smoker, Q61, Q64).

Table 4.3.10 – Smoking Facilitators and Tobacco Deterrents, by Cigarette Smoking Levels

	Cigarette Smoking Level[1]		
Smoking Facilitators[2]	**Infrequent**	**Light/Moderate**	**Heavy**
Fit in with my friends	4.5 (0.6)	4.2 (0.4)	3.1 (0.8)
Fit in with my military unit	4.3 (0.6)	4.1 (0.4)	4.5 (0.9)
Irritate those in authority	4.3 (0.6)[c]	6.2 (0.5)[c]	9.5 (1.3)[a,b]
Help relieve stress	59.9 (1.4)[b,c]	74.4 (1.0)[a,c]	81.5 (1.7)[a,b]
Help me relax or calm down	58.7 (1.4)[b,c]	75.3 (0.9)[a,c]	83.6 (1.6)[a,b]
Help relieve boredom	40.9 (1.4)[b,c]	55.5 (1.1)[a,c]	64.3 (2.1)[a,b]
Reduce the amount I eat	11.1 (0.9)[b,c]	15.0 (0.8)[a]	18.9 (1.7)[a]
Avoid gaining weight	10.0 (0.8)[b,c]	16.0 (0.8)[a,c]	20.4 (1.8)[a,b]
Help keep me awake or alert	26.4 (1.2)[b,c]	39.0 (1.1)[a,c]	52.5 (2.2)[a,b]
Because I can't quit	14.0 (1.0)[b,c]	31.6 (1.0)[a,c]	41.5 (2.1)[a,b]
When drinking alcohol	55.5 (1.4)	53.7 (1.1)	52.9 (2.2)
Tobacco Deterrents[3]			
If there were a significant decrease in the number of places at the installation where smoking or using tobacco is permitted	32.4 (1.3)[b,c]	27.7 (1.0)[a,c]	14.8 (1.6)[a,b]
If prices on the installation were increased to match prices outside the installation	34.8 (1.4)[b,c]	24.5 (1.0)[a,c]	15.5 (1.6)[a,b]

Note: Table displays the percentage of military personnel, by cigarette smoking levels, who reported the smoking facilitators indicated in the table rows to be "important" and responded "Yes, would decrease use" for the tobacco deterrents. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between cigarette smoking levels. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-3. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Infrequent) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Light/Moderate) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Heavy) at the 95% confidence level after Bonferroni adjustment.

[2]Table entries are percentages of respondents indicating the reason for cigarette smoking listed was very important or somewhat important.

[3]Table entries are percentages of respondents indicating the deterrent reasons would cause them to smoke or use tobacco much less or somewhat less.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Smoking Facilitators, Q71; Tobacco Deterrents, Q80; Smoking Levels, Q61, Q64, Q66).

Table 4.3.11 – Smoking Cessation and Reduction, Past 12 Months, and Likelihood to Quit, Next 6 Months, by Cigarette Smoking Levels

Measure	Cigarette Smoking Level[1]		
	Infrequent	Light/Moderate	Heavy
Number of Cessation Attempts			
Never	33.0 (1.3)[b,c]	67.1 (1.0)[a,c]	77.8 (1.8)[a,b]
1 time	27.0 (1.2)[b,c]	23.1 (0.9)[a,c]	14.9 (1.5)[a,b]
2 or more times	40.0 (1.3)[b,c]	9.8 (0.6)[a]	7.3 (1.1)[a]
Number of Smoking Reduction Attempts			
Never	22.0 (1.1)[b,c]	29.8 (1.0)[a,c]	42.3 (2.1)[a,b]
1 time	19.3 (1.1)	20.3 (0.9)	23.2 (1.8)
2 or more times	58.7 (1.3)[b,c]	49.8 (1.1)[a,c]	34.4 (2.1)[a,b]
Likely to Quit Smoking in Next 6 Months	57.8 (1.4)[b,c]	33.0 (1.0)[a,c]	22.8 (1.8)[a,b]

Note: Table displays the percentage of military personnel, by cigarette smoking levels, who reported cigarette smoking cessation and reduction attempts indicated in the rows of this table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between cigarette smoking levels. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-3. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Infrequent) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Light/Moderate) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Heavy) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Cigarette Smoking Levels, Q61, Q64, Q66; Cigarette Smoking Cessation and Reduction Attempts, Q68, Q69; Likelihood to Quit Cigarette Smoking, Next 6 Months, Q70).

Table 4.3.12 – Frequency of Cigar, Pipe, and Smokeless Tobacco Use, Past 12 Months, by Service

Tobacco/Frequency	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Cigars						
Didn't smoke	77.5 (0.7)[c,d,e]	78.3 (0.7)[c,d,e]	67.5 (0.7)[a,b,d,e]	82.0 (0.4)[a,b,c,e]	74.7 (0.7)[a,b,c,d]	77.4 (0.3)
Less than once/week	19.8 (0.7)[c,d,e]	19.8 (0.6)[c,d,e]	29.8 (0.7)[a,b,d,e]	16.6 (0.4)[a,b,c,e]	23.1 (0.7)[a,b,c,d]	20.4 (0.3)
1 or more days/week	2.6 (0.3)[d]	2.0 (0.2)	2.6 (0.3)[d]	1.5 (0.1)[a,c,e]	2.2 (0.2)[d]	2.2 (0.1)
Any cigar use	22.5 (0.7)[c,d]	21.7 (0.7)[c,d,e]	32.5 (0.7)[a,b,d,e]	18.0 (0.4)[a,b,c,e]	25.3 (0.7)[b,c,d]	22.6 (0.3)
Pipes						
Didn't smoke	91.8 (0.5)[b,c,d]	88.1 (0.5)[a,c,d,e]	85.8 (0.6)[a,b,d,e]	90.1 (0.3)[a,b,c]	91.1 (0.5)[b,c]	89.8 (0.2)
Less than once/week	7.0 (0.4)[b,c,d]	11.0 (0.5)[a,d,e]	12.9 (0.5)[a,d,e]	8.9 (0.3)[a,b,c]	7.7 (0.4)[b,c]	9.1 (0.2)
1 or more days/week	1.2 (0.2)	0.9 (0.2)	1.3 (0.2)	0.9 (0.1)	1.2 (0.2)	1.1 (0.1)
Any pipe use	8.2 (0.5)[b,c,d]	11.9 (0.5)[a,c,d,e]	14.2 (0.6)[a,b,d,e]	9.9 (0.3)[a,b,c]	8.9 (0.5)[b,c]	10.2 (0.2)
Smokeless Tobacco						
Didn't use	79.2 (0.7)[b,c,d]	83.1 (0.6)[a,c,d,e]	68.1 (0.7)[a,b,d,e]	86.7 (0.4)[a,b,c,e]	80.4 (0.6)[b,c,d]	80.5 (0.3)
Less than once/week	8.5 (0.5)[c,d]	7.6 (0.4)[c,d]	12.9 (0.5)[a,b,d,e]	5.4 (0.2)[a,b,c,e]	7.5 (0.4)[c,d]	8.1 (0.2)
1 or more days/week	12.3 (0.5)[b,c,d]	9.3 (0.5)[a,c,e]	19.0 (0.6)[a,b,d,e]	7.9 (0.3)[a,c,e]	12.1 (0.2)[b,c,d]	11.4 (0.2)
Any smokeless tobacco use	20.8 (0.7)[b,c,d]	16.9 (0.6)[a,c,d,e]	31.9 (0.7)[a,b,d,e]	13.3 (0.4)[a,b,c,e]	19.6 (0.6)[b,c,d]	19.5 (0.3)

Note: Table displays the percentage of military personnel, by Service, who reported cigar smoking, pipe smoking, and smokeless tobacco use as indicated in the rows of this table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Cigar Use, Q78A; Pipe Use, Q78B; Smokeless Tobacco Use, Q72, Q73).

Table 4.3.13 – Current[a] Smokeless Tobacco Use, by Gender, Age, and Service

	Service					
Smokeless Tobacco Use/Age[b]	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Males						
18-20	34.4 (4.6)[4,5]	25.9 (4.4)[4,5]	37.6 (2.4)[4]	18.7 (1.9)[4,5]	28.8 (6.0)[5]	30.0 (1.8)[3,4,5]
21-25	35.7 (2.0)[3,4,5]	31.1 (1.7)[3,4,5]	38.0 (1.3)[3,4]	20.8 (1.0)[3,4,5]	32.8 (1.8)[3,4,5]	31.7 (0.8)[3,4,5]
26-35	22.7 (1.2)[2,5]	18.1 (1.1)[2,4,5]	32.1 (1.4)[2,4]	14.9 (0.7)[2,5]	21.3 (1.1)[2,4,5]	20.8 (0.6)[1,2,4,5]
36-45	18.7 (1.4)[1,2,5]	12.0 (1.2)[1,2,3]	22.6 (2.1)[1,2,3]	12.9 (0.9)[1,2,5]	15.4 (1.3)[2,3]	16.1 (0.7)[1,2,3,5]
46-65	9.7 (2.2)[1,2,3,4]	6.2 (1.9)[1,2,3]	22.3 (5.8)	5.7 (1.5)[1,2,3,4]	10.8 (2.4)[1,2,3]	8.7 (1.1)[1,2,3,4]
All Ages	23.8 (0.8)	19.6 (0.7)	33.8 (0.8)	16.1 (0.5)	22.0 (0.7)	22.4 (0.4)
Females						
18-20	†	9.0 (4.5)	11.5 (4.4)	4.7 (2.0)[3]	†	8.0 (2.1)[3,4]
21-25	5.8 (2.2)	5.6 (1.5)	11.6 (2.9)	2.7 (0.7)	7.1 (2.1)	5.3 (0.8)[4]
26-35	4.0 (1.4)	2.3 (1.0)	6.3 (2.8)	1.0 (0.4)[1]	3.2 (1.1)	2.7 (0.5)[1]
36-45	1.2 (1.0)	†	†	0.4 (0.4)	3.2 (2.3)	0.8 (0.4)[1,2]
46-65	†	†	†	†	†	†
All Ages	3.6 (0.9)	3.6 (0.8)	9.0 (1.8)	1.8 (0.3)	4.3 (0.9)	3.5 (0.4)
All Personnel						
18-20	29.1 (4.0)[4,5]	20.8 (3.4)[4,5]	34.6 (2.2)[4]	15.7 (1.6)[4,5]	22.2 (4.6)	25.6 (1.5)[3,4,5]
21-25	30.9 (1.8)[3,4,5]	25.1 (1.4)[3,4,5]	35.9 (1.2)[3,4]	16.6 (0.8)[3,4,5]	28.2 (1.6)[3,4,5]	26.9 (0.7)[3,4,5]
26-35	19.8 (1.1)[2,5]	15.6 (0.9)[2,4,5]	30.4 (1.4)[2,4]	12.2 (0.6)[2,5]	18.7 (1.0)[2,5]	18.0 (0.5)[1,2,4,5]
36-45	16.5 (1.2)[1,2,5]	10.7 (1.1)[1,2,3]	21.6 (2.0)[1,2,3]	10.8 (0.7)[1,2,5]	14.5 (1.3)[2]	14.2 (0.6)[1,2,3,5]
46-65	8.6 (1.9)[1,2,3,4]	5.5 (1.7)[1,2,3]	21.7 (5.7)	4.8 (1.2)[1,2,3,4]	10.0 (2.2)[2,3]	7.7 (1.0)[1,2,3,4]
All Ages	20.8 (0.7)	16.9 (0.6)	31.9 (0.8)	13.3 (0.4)	19.6 (0.7)	19.5 (0.3)

Note: Table displays the percentage of military personnel, by age group, gender, and Service, who were current smokeless tobacco users. The standard error of each estimate is presented in parentheses.

[a]Current users were defined as those who have used chewing tobacco, snuff, or other smokeless tobacco in the past 12 months.

[b]Significance tests were conducted between all age groups. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[1]Indicates estimate is significantly different from the estimate in column #1 (18-20) at the 95% confidence level after Bonferroni adjustment.

[2]Indicates estimate is significantly different from the estimate in column #2 (21-25) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in column #3 (26-35) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in column #4 (36-45) at the 95% confidence level after Bonferroni adjustment.
[5]Indicates estimate is significantly different from the estimate in column #5 (46-65) at the 95% confidence level after Bonferroni adjustment.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Current Smokeless Tobacco User, Q72, Q73).

Table 4.3.14 – Recency of Smokeless Tobacco Use, including New Forms of Smokeless Tobacco, by Service

	Service[1]					
Smokeless Tobacco/Recency of Use	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
All Smokeless Tobacco Products						
In the past 12 months	21.2 (0.7)[b,c,d]	17.2 (0.6)[a,c,d,e]	32.5 (0.7)[a,b,d,e]	13.3 (0.4)[a,b,c,e]	20.6 (0.6)[b,c,d]	19.8 (0.3)
More than 12 months ago	14.9 (0.6)[d]	13.8 (0.5)[e]	16.0 (0.6)[d]	12.9 (0.4)[a,c,e]	17.0 (0.6)[b,d]	14.4 (0.3)
Never	63.9 (0.8)[b,c,d]	68.9 (0.7)[a,c,d,e]	51.5 (0.8)[a,b,d,e]	73.8 (0.5)[a,b,c,e]	62.4 (0.8)[b,c,d]	65.8 (0.4)
Chewing/Other Smokeless Tobacco						
In the past 12 months	20.5 (0.7)[b,c,d]	16.1 (0.6)[a,c,d,e]	31.0 (0.7)[a,b,d,e]	12.7 (0.4)[a,b,c,e]	19.0 (0.6)[b,c,d]	18.9 (0.3)
More than 12 months ago	15.6 (0.6)[d,e]	14.9 (0.6)[c,e]	17.4 (0.6)[b,d]	13.5 (0.4)[a,c,e]	18.6 (0.6)[a,b,d]	15.3 (0.3)
Never	64.0 (0.8)[b,c,d]	69.0 (0.7)[a,c,d,e]	51.6 (0.8)[a,b,d,e]	73.8 (0.5)[a,b,c,e]	62.4 (0.8)[b,c,d]	65.8 (0.4)
Electronic or Smoking Nicotine Delivery Products						
In the past 12 months	4.7 (0.3)[c,d]	5.0 (0.3)[c,d]	7.2 (0.4)[a,b,d,e]	2.8 (0.2)[a,b,c,e]	4.1 (0.3)[c,d]	4.6 (0.2)
More than 12 months ago	2.2 (0.2)	3.3 (0.3)[d]	3.1 (0.3)[d]	2.2 (0.2)[b,c]	2.9 (0.3)	2.6 (0.1)
Never	93.1 (0.4)[c,d]	91.7 (0.4)[c,d]	89.7 (0.5)[a,b,d,e]	95.0 (0.2)[a,b,c,e]	93.0 (0.4)[c,d]	92.8 (0.2)
Nicotine Dissolvables						
In the past 12 months	0.7 (0.1)	0.6 (0.1)[e]	0.9 (0.1)	0.5 (0.1)[e]	1.2 (0.2)[b,d]	0.7 (0.1)
More than 12 months ago	1.5 (0.2)[d]	1.5 (0.2)[d]	1.2 (0.2)	0.9 (0.1)[a,b,e]	1.8 (0.2)[d]	1.3 (0.1)
Never	97.7 (0.2)[d]	97.9 (0.2)	97.9 (0.2)	98.5 (0.1)[a,e]	97.0 (0.3)[d]	98.0 (0.1)
Caffeinated Smokeless Tobacco						
In the past 12 months	1.9 (0.2)[b,c,d]	1.0 (0.2)[a,c]	2.9 (0.3)[a,b,d,e]	0.9 (0.1)[a,c]	1.5 (0.2)[c,d]	1.6 (0.1)
More than 12 months ago	1.3 (0.2)[c]	2.1 (0.2)[d]	2.7 (0.3)[a,d]	1.3 (0.1)[b,c]	1.8 (0.2)	1.7 (0.1)
Never	96.8(0.3)[c,d]	96.9 (0.3)[c,d]	94.4 (0.4)[a,b,d,e]	97.8 (0.2)[a,b,c,e]	96.7 (0.3)[c,d]	96.7 (0.1)
Nicotine Gel						
In the past 12 months	0.2 (0.1)	0.1 (0.0)	0.3 (0.1)	0.1 (0.0)	0.1 (0.1)	0.2 (0.0)
More than 12 months ago	0.5 (0.1)	0.6 (0.1)	0.6 (0.1)	0.3 (0.1)[e]	0.8 (0.1)[d]	0.5 (0.1)
Never	99.3 (0.1)	99.3 (0.1)	99.1 (0.1)[d]	99.6 (0.1)[c,e]	99.1 (0.2)[d]	99.3 (0.1)

Note: Table displays the percentage of military personnel, by Service, who reported the smokeless tobacco product use status indicated in the rows of this table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (All Smokeless Tobacco Use, Q72, Q75, Q79; Recency of Chewing/Other Smokeless Tobacco Use, Q72, Q75; Recency of New Forms of Smokeless Tobacco Use, Q79).

Table 4.3.15 – Any Nicotine Use[1] by Gender, Age, and Service

	Service[2]					
Gender/Age	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Males						
18-20	59.4 (4.8)[d]	50.0 (5.1)	60.0 (2.4)[d]	43.1 (2.5)[a,c]	61.8 (6.4)	53.9 (1.9)
21-25	64.6 (2.0)[d]	60.3 (1.8)[d]	66.2 (1.3)[d]	52.2 (1.2)[a,b,c,e]	65.2 (1.8)[d]	61.1 (0.8)
26-35	58.7 (1.5)[d]	53.8 (1.4)[c,d]	63.5 (1.5)[b,d,e]	44.3 (1.0)[a,b,c,e]	54.1 (1.3)[c,d]	54.6 (0.7)
36-45	47.1 (1.7)[d]	42.0 (1.9)[d]	50.1 (2.5)[d]	34.8 (1.3)[a,b,c,e]	41.9 (1.8)[d]	43.3 (0.9)
46-65	35.3 (3.5)	33.4 (3.7)	48.1 (7.0)[d]	24.1 (2.8)[c,e]	37.1 (3.7)[d]	33.5 (1.9)
All Ages	54.5 (0.9)[c,d]	51.4 (0.9)[c,d]	62.4 (0.8)[a,b,d,e]	43.6 (0.6)[a,b,c,e]	52.6 (0.9)[c,d]	52.6 (0.4)
Females						
18-20	†	46.2 (7.7)	44.4 (6.9)	36.6 (4.6)	†	42.9 (3.8)
21-25	40.7 (4.7)	33.1 (3.1)	45.1 (4.5)	33.8 (2.1)	38.5 (4.0)	36.5 (1.8)
26-35	33.0 (3.3)	30.2 (3.0)	36.3 (5.6)	26.8 (1.8)	31.0 (3.0)	30.5 (1.5)
36-45	24.7 (4.0)	20.3 (4.4)	†	18.6 (2.3)	19.0 (5.2)	21.8 (2.0)
46-65	†	†	†	9.9 (4.4)	†	14.3 (3.7)
All Ages	31.6 (2.1)	31.4 (1.8)	40.3 (3.0)[d]	27.7 (1.1)[c]	31.8 (2.1)	31.0 (1.0)
All Personnel						
18-20	56.8 (4.3)[d]	48.9 (4.2)	58.2 (2.3)[d]	41.7 (2.2)[a,c]	50.6 (5.5)	51.7 (1.7)
21-25	60.8 (1.9)[d]	53.9 (1.6)[c,d]	64.5 (1.2)[b,d]	47.9 (1.1)[a,b,c,e]	60.4 (1.7)[d]	56.7 (0.8)
26-35	54.8 (1.4)[c,d]	50.1 (1.3)[c,d]	61.7 (1.4)[a,b,d,e]	40.9 (0.9)[a,b,c,e]	50.8 (1.2)[c,d]	50.8 (0.7)
36-45	44.2 (1.6)[d]	39.6 (1.7)[c,d]	48.7 (2.4)[b,d,e]	32.1 (1.1)[a,b,c,e]	40.2 (1.7)[c,d]	40.6 (0.8)
46-65	32.8 (3.2)	31.3 (3.4)	46.7 (6.9)[d]	21.8 (2.4)[c,e]	35.5 (3.6)[d]	31.0 (1.7)
All Ages	51.2 (0.9)[b,c,d]	47.9 (0.8)[a,c,d]	60.8 (0.8)[a,b,d,e]	40.4 (0.6)[a,b,c,e]	49.8 (0.8)[c,d]	49.2 (0.4)

Note: Table displays the percentage of military personnel, age group, gender, and Service, who reported any nicotine use in the past 12 months. The standard error of each estimate is presented in parentheses.

[1]Any nicotine use is defined as those who reported smoking cigarettes, using chewing tobacco, snuff, or other smokeless tobacco including new forms of smokeless tobacco, smoking cigars, or smoking pipes at least once during the past 12 months.

[2]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.

[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Cigarette Use, Q61, Q63; Smokeless Tobacco Use, Q72, Q75; New Forms of Smokeless Tobacco Use, Q79; Cigar Use, Q78A; Pipe Use, Q78B).

Table 4.3.16 – Smokeless Tobacco Cessation, Past 12 Months, and Likelihood to Quit, Next 6 Months, by Smokeless Tobacco Use Levels

	Smokeless Tobacco Level[1]		
Measure	**Infrequent**	**Some Days**	**Every Day**
Number of Smokeless Tobacco Cessation Attempts			
Never	30.0 (1.4)[c]	34.9 (1.5)[c]	65.0 (1.4)[a,b]
1 time	33.3 (1.4)[b,c]	26.5 (1.4)[a,c]	19.2 (1.1)[a,b]
2 or more times	36.7 (1.4)[c]	38.6 (1.6)[c]	15.8 (1.1)[a,b]
Likely to Quit Smokeless Tobacco in Next 6 Months	64.3 (2.2)[b,c]	47.7 (1.8)[a,c]	25.1 (1.3)[a,b]

Note: Table displays the percentage of military personnel, by smokeless tobacco use levels, who reported the smokeless tobacco cessation measure indicated in the rows of this table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between smokeless tobacco use levels. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-3. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Infrequent) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Some Days) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Every Day) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Smokeless Tobacco Levels, Q72, Q73; Smokeless Tobacco Cessation Attempts, Q76; Likelihood to Quit Smokeless Tobacco Use, Next 6 Months, Q77).

Table 4.3.17 – Likely Form of Treatment for Nicotine Dependence, by Cigarette Smoking Levels

Likely Form of Treatment or Assistance	Cigarette Smoking Level[1,2]		
	Infrequent	Light/Moderate	Heavy
Stop all at once (cold turkey)			
Likely	52.9 (1.4)[b,c]	38.1 (1.1)[a,c]	25.9 (1.9)[b,c]
Not Familiar	4.1 (0.6)	3.3 (0.4)	2.4 (0.7)
Gradual decrease in number of cigarettes			
Likely	42.1 (1.4)[c]	41.6 (1.1)[c]	32.2 (2.1)[a,b]
Not Familiar	5.6 (0.6)[b,c]	3.6 (0.4)[a]	2.1 (0.6)[a]
Tobacco cessation classes			
Likely	15.8 (1.0)[b,c]	22.4 (0.9)[a]	21.3 (1.8)[a]
Not Familiar	7.3 (0.7)[b,c]	4.3 (0.4)[a]	2.5 (0.7)[a]
Prescription medication			
Likely	21.2 (1.1)[b,c]	32.9 (1.0)[a,c]	45.2 (2.2)[a,b]
Not Familiar	6.2 (0.7)[c]	5.2 (0.5)	3.2 (0.8)[a]
Nicotine replacement gum			
Likely	14.8 (1.0)[b,c]	18.5 (0.9)[a]	19.7 (1.8)[a]
Not Familiar	6.6 (0.7)[b,c]	4.4 (0.5)[a]	2.8 (0.7)[a]
Nicotine replacement patch			
Likely	14.6 (1.0)[b,c]	23.8 (0.9)[a]	25.7 (1.9)[a]
Not Familiar	7.1 (0.7)[b,c]	4.2 (0.4)[a]	2.7 (0.7)[a]
Health care provider counseling			
Likely	9.4 (0.8)[b]	12.5 (0.7)[a]	10.7 (1.4)
Not Familiar	6.9 (0.7)	5.3 (0.5)	4.3 (0.9)
TRICARE telephone quit counselor			
Likely	4.8 (0.6)	6.2 (0.5)	4.7 (0.9)
Not Familiar	12.5 (0.9)[b]	9.7 (0.7)[a]	9.0 (1.3)
UCANQUIT2 online quit support			
Likely	4.5 (0.6)[b]	7.0 (0.6)[a]	4.8 (0.9)
Not Familiar	19.4 (1.1)[b,c]	14.5 (0.8)[a]	10.8 (1.4)[a]
Herbal supplements			
Likely	9.6 (0.8)	10.8 (0.7)	10.5 (1.4)
Not Familiar	11.9 (0.9)[b,c]	8.8 (0.6)[a]	7.2 (1.1)[a]
Hypnosis			
Likely	10.9 (0.9)[b,c]	15.9 (0.8)[a,c]	23.7 (1.9)[a,b]
Not Familiar	11.3 (0.9)[b,c]	7.4 (0.6)[a]	6.9 (1.1)[a]

Note: Table displays the percentage of military personnel, by cigarette smoking levels, who reported being likely to use or not familiar with the nicotine dependence treatment options indicated in the rows of this table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all current cigarette smoking levels. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-3. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Infrequent) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Light/Moderate) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Heavy) at the 95% confidence level after Bonferroni adjustment.

[2]Current cigarette smokers were defined as those who have smoked at least 100 cigarettes in their lifetime and now smoke either some days or every day.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Treatment for Cigarette and Smokeless Tobacco Use, Q81; Cigarette Smoking Levels, Q61, Q64, Q66).

Table 4.3.18 – Likely Form of Treatment for Nicotine Dependence, by Smokeless Tobacco Use Levels

Likely Form of Treatment or Assistance	Smokeless Tobacco Use Level[1,2]		
	Infrequent	Some Days	Every Day
Stop all at once (cold turkey)			
Likely	44.5 (1.5)[b]	51.5 (1.6)[a,c]	44.3 (1.5)[b]
Not Familiar	7.3 (0.8)[b,c]	4.2 (0.7)[a]	3.9 (0.6)[a]
Tobacco cessation classes			
Likely	17.8 (1.2)	14.5 (1.2)	16.3 (1.1)
Not Familiar	10.0 (0.9)[c]	7.9 (0.9)	5.5 (0.7)[a]
Prescription medication			
Likely	25.5 (1.3)	22.6 (1.4)	21.7 (1.2)
Not Familiar	10.8 (0.9)[c]	9.0 (0.9)	6.4 (0.7)[a]
Nicotine replacement gum			
Likely	16.0 (1.1)	16.2 (1.2)	18.5 (1.1)
Not Familiar	8.6 (0.9)[c]	7.3 (0.9)	5.3 (0.7)[a]
Nicotine replacement patch			
Likely	16.9 (1.1)	16.3 (1.2)	18.6 (1.1)
Not Familiar	9.5 (0.9)[c]	7.2 (0.9)	5.1 (0.6)[a]
Health care provider counseling			
Likely	11.8 (1.0)	9.6 (1.0)	10.3 (0.9)
Not Familiar	10.9 (0.9)[c]	8.3 (0.9)	6.1 (0.7)[a]
TRICARE telephone quit counselor			
Likely	5.7 (0.7)	5.0 (0.7)	5.1 (0.6)
Not Familiar	16.8 (1.1)[b,c]	12.2 (1.1)[a]	11.0 (0.9)[a]
UCANQUIT2 online quit support			
Likely	6.0 (0.7)	4.2 (0.7)	5.9 (0.7)
Not Familiar	22.3 (1.3)[c]	18.5 (1.3)	15.7 (1.1)[a]
Herbal supplements			
Likely	9.7 (0.9)	8.9 (0.9)	8.9 (0.8)
Not Familiar	14.9 (1.1)[c]	11.5 (1.0)	10.9 (0.9)[a]
Hypnosis			
Likely	11.9 (1.0)	12.4 (1.1)	10.9 (0.9)
Not Familiar	13.9 (1.1)[b,c]	10.2 (1.0)[a]	8.8 (0.8)[a]

Note: Table displays the percentage of military personnel, by smokeless tobacco use levels, who reported being likely to use or not familiar with the nicotine dependence treatment options indicated in the rows of this table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all current smokeless tobacco use levels. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-3. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Infrequent) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Some Days) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Every Day) at the 95% confidence level after Bonferroni adjustment.

[2]Current smokeless tobacco users are defined as those who have used chewing tobacco, snuff, or other smokeless tobacco in the past 12 months.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Treatment for Cigarette and Smokeless Tobacco Use, Q81; Smokeless Tobacco Use Levels, Q72, Q73).

4.4 Culture of Substance Use

This section summarizes measures of the culture of substance use in the military. It presents an analysis of the extent of social network facilitation and leadership deterrence on the use of cigarettes, chewing or smokeless tobacco, alcohol, and marijuana, as well as the misuse of prescription drugs.

Overview of Key Measures of the Culture of Substance Use

The survey asked three questions on military culture of substance use for each of the five substances – one question focused on the extent that respondents' friends use the substances when around them (social network facilitation) and two questions focused on leadership discouragement of the use of substances – one concerning perceived discouragement at the current duty installation, the other focused on perceived discouragement from their supervisor (both combined to form leadership deterrence). As with other scales in this report, the analyses present an average top two box endorsement to show a high level of social network facilitation and high leadership deterrence to the use of these substances.

Overview of Findings

Social Network Facilitation of Substance Use

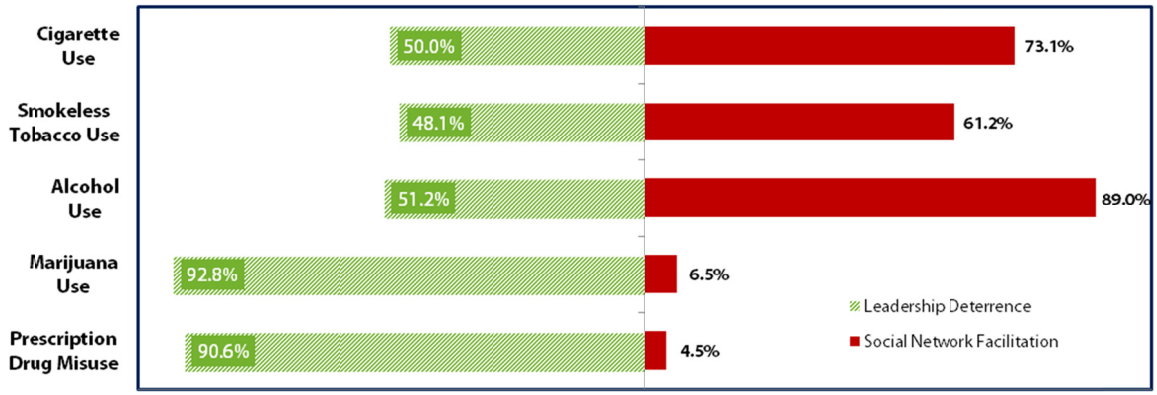
- As presented in Table 4.4.1, Marine Corps personnel reported the greatest percentage of social network facilitation for tobacco use, including cigarette (81.9%) and chewing/smokeless tobacco (77.7%), and Coast Guard personnel reported the greatest amount of social facilitation for marijuana use (10.6%).
- Across all services, personnel most often reported social network facilitation of alcohol use (89.0%), with Marine Corps (92.3%) and Coast Guard (92.9%) reporting social facilitation at higher frequencies than other services (see Table 4.4.1).
- Prescription drug misuse was least often reported as being facilitated by peers (4.5%), with Marine Corps (6.3%) and Army (5.8%) more often reporting social network facilitation than Navy and Air Force members (see Table 4.4.1).

Leadership Deterrence to Substance Use

- About 93% of service personnel overall, and within each of the services, reported high leadership deterrence of marijuana use (see Table 4.4.2). No significant differences emerged between service groups for leadership deterrence to marijuana use.

- As shown in Table 4.4.2, leadership deterrence against use of illegal substances, marijuana and prescription drug misuse, was perceived by personnel to be much stronger than deterrence against the use of the legal substances, alcohol, cigarettes, and smokeless tobacco.
- Figure 4.4.A presents the leadership deterrence and social network facilitation of substance use. Overall, personnel across all services reported more social network facilitation of alcohol and tobacco use (cigarettes and smokeless) by their peers than leadership discouraged the use of these substances. Alternatively, almost all personnel reported discouragement by their leadership of marijuana and misuse of prescription drugs, with very few endorsing social network facilitation by their peers for these substances.

Figure 4.4.A: Leadership Deterrence and Social Network Facilitation of Substance Use



Note: Graph presents weighted data.

Leadership Deterrence Q101, Q102; Social Network Facilitation, Q100.

Social Network Facilitation and Leadership Deterrence of Substance Use by Drinking Level

- Heavy drinkers more often reported social network facilitation for the use of cigarettes, marijuana, and prescription drug misuse than personnel in each of the other drinking levels (see Table 4.4.3).
- Moderate and heavy drinkers reported the most social facilitation for alcohol and smokeless tobacco use among the drinking levels (see Table 4.4.3).
- As shown in Table 4.4.3, heavy drinkers least often reported leadership deterrence of alcohol use than all other drinking levels.

Social Network Facilitation and Leadership Deterrence of Substance Use by Cigarette Smoking Levels

- Smokers generally reported higher levels of social network facilitation of substance use than former smokers and lifetime smoking abstainers (see Table 4.4.4).
- Smoking abstainers reported the lowest percentages of social facilitation for all substances except prescription drug misuse, which was lower than former, light/moderate, and heavy smokers (see Table 4.4.4).
- Smoking abstainers also reported the lowest percentages of leadership deterrence for marijuana and prescription drug misuse, as shown in Table 4.4.4.

Tables

The following tables present an analysis of the culture of substance use in the military.

Table 4.4.1 – Social Network Facilitation of Substance Use

	Service[1]					
Substance	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Cigarettes	75.0 (0.7)[c,d,e]	72.1 (0.7)[c,d]	81.9 (0.6)[a,b,d,e]	66.7 (0.5)[a,b,c,e]	71.9 (0.7)[a,c,d]	73.1 (0.4)
Chewing/smokeless tobacco	64.8 (0.8)[b,c,d]	55.9 (0.8)[a,c,d,e]	77.7 (0.7)[a,b,d,e]	51.6 (0.5)[a,b,c,e]	62.7 (0.8)[b,c,d]	61.2 (0.4)
Alcohol	88.4 (0.5)[c,d,e]	88.4 (0.5)[c,d,e]	92.3 (0.4)[a,b,d]	88.1 (0.3)[c,d,e]	92.9 (0.4)[a,b,d]	89.0 (0.2)
Marijuana	7.0 (0.4)[d,e]	7.6 (0.4)[d,e]	8.2 (0.4)[d,e]	3.4 (0.2)[a,b,c,e]	10.6 (0.5)[a,b,c,d]	6.5 (0.2)
Prescription drug misuse	5.8 (0.4)[b,d]	4.1 (0.3)[a,c,d]	6.3 (0.4)[b,d,e]	1.8 (0.1)[a,b,c,e]	4.5 (0.3)[c,d]	4.5 (0.2)

Note: Table displays the percentage of military personnel, by Service, who reported "some" or "most" friends use the substances listed in the rows of the table in their presence. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5 In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Social Network Facilitation, Q100).

Table 4.4.2 – Leadership Deterrence to Substance Use

	Service[1]					
Substance	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Cigarettes	43.5 (0.8)[b,d,e]	55.2 (0.8)[a,c]	45.0 (0.8)[b,d,e]	56.5 (0.5)[a,c]	57.8 (0.8)[a,c]	50.0 (0.4)
Chewing/smokeless tobacco	40.8 (0.8)[b,d,e]	55.0 (0.8)[a,c]	42.8 (0.8)[b,d,e]	54.8 (0.5)[a,c]	55.3 (0.8)[a,c]	48.1 (0.4)
Alcohol	48.2 (0.8)[b]	61.2 (0.8)[a,c,d,e]	48.6 (0.8)[b]	48.1 (0.5)[b]	50.2 (0.8)[b]	51.2 (0.4)
Marijuana	92.7 (0.4)	91.9 (0.4)	93.5 (0.4)	93.3 (0.3)	92.9 (0.4)	92.8 (0.2)
Prescription drug misuse	90.7 (0.5)[b]	88.5 (0.5)[a,c,d,e]	92.0 (0.4)[b]	91.6 (0.3)[b]	91.6 (0.5)[b]	90.6 (0.2)

Note: Table displays the percentage of military personnel, by Service, who reported leadership deterrence (installation/supervisor "somewhat" or "strongly" discourages) the use of the substances listed in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Leadership Deterrence, Q101, Q102).

Table 4.4.3 – Social Network Facilitation and Leadership Deterrence of Substance Use, by Drinking Levels

	Drinking Levels[1]				
			Current Drinkers		
Cultural Factor/Substance	**Abstainer**	**Former Drinker**	**Infrequent/Light**	**Moderate**	**Heavy**
Social Network Facilitation					
Cigarettes	61.4 (1.2)[c,d,e]	61.3 (1.6)[c,d,e]	71.5 (0.5)[a,b,d,e]	82.5 (0.7)[a,b,c,e]	88.2 (0.9)[a,b,c,d]
Chewing/smokeless tobacco	49.8 (1.2)[c,d,e]	53.7 (1.6)[c,d,e]	59.2 (0.5)[a,b,d,e]	71.3 (0.9)[a,b,c]	73.9 (1.2)[a,b,c]
Alcohol	69.0 (1.1)[c,d,e]	72.3 (1.5)[c,d,e]	90.7 (0.3)[a,b,d,e]	97.0 (0.3)[a,b,c]	97.0 (0.5)[a,b,c]
Marijuana	3.6 (0.5)[d,e]	5.0 (0.7)[d,e]	4.7 (0.2)[d,e]	10.6 (0.6)[a,b,c,e]	15.2 (1.0)[a,b,c,d]
Prescription drug misuse	3.3 (0.4)[d,e]	3.7 (0.6)[d,e]	3.4 (0.2)[d,e]	6.3 (0.5)[a,b,c,e]	10.4 (0.9)[a,b,c,d]
Leadership Deterrence					
Cigarettes	44.4 (1.2)[c,d]	46.4 (1.6)[c]	52.4 (0.5)[a,b,e]	49.5 (1.0)[a,e]	43.4 (1.4)[c,d]
Chewing/smokeless tobacco	44.5 (1.2)[c]	45.5 (1.6)[c]	50.3 (0.5)[a,b,d,e]	47.2 (1.0)[c,e]	40.8 (1.4)[c,d]
Alcohol	51.5 (1.3)[e]	51.6 (1.6)[e]	53.3 (0.5)[d,e]	47.7 (1.0)[c,e]	42.5 (1.4)[a,b,c,d]
Marijuana	87.1 (0.8)[c,d,e]	90.5 (1.0)[c,d]	93.5 (0.3)[a,b]	94.7 (0.4)[a,b]	92.7 (0.7)[a]
Prescription drug misuse	84.6 (0.9)[c,d,e]	88.1 (1.1)[c,d]	91.5 (0.3)[a,b]	92.4 (0.5)[a,b]	89.8 (0.9)[a]

Note: Table displays the percentage of military personnel, by drinking level, who reported social network facilitation and leadership deterrence for use of the substances listed in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all drinking levels. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Abstainer) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Former) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Infrequent/Light) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Heavy) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Social Network Facilitation, Q100; Leadership Deterrence, Q101, Q102; Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47).

Table 4.4.4 – Social Network Facilitation and Leadership Deterrence of Substance Use, by Cigarette Smoking Level

Cultural Factor/Substance	Cigarette Smoking Levels[1]				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
Social Network Facilitation					
Cigarettes	63.2 (0.5)[b,c,d,e]	77.8 (0.8)[a,c,d,e]	92.2 (0.8)[a,b,d,e]	95.5 (0.5)[a,b,c]	97.3 (0.7)[a,b,c]
Chewing/smokeless tobacco	54.5 (0.5)[b,c,d,e]	67.5 (0.9)[a,c,d,e]	74.0 (1.2)[a,b]	71.6 (1.0)[a,b,e]	78.1 (1.9)[a,b,d]
Alcohol	85.5 (0.4)[b,c,d,e]	92.4 (0.5)[a,c,d,e]	95.4 (0.6)[a,b]	95.1 (0.5)[a,b]	96.0 (0.9)[a,b]
Marijuana	5.3 (0.2)[b,c,d,e]	7.4 (0.5)[a]	8.3 (0.8)[a]	8.5 (0.6)[a]	10.9 (1.4)[a]
Prescription drug misuse	3.7 (0.2)[b,d,e]	5.2 (0.4)[a,e]	4.4 (0.6)[e]	6.0 (0.5)[a]	9.2 (1.3)[a,b,c]
Leadership Deterrence					
Cigarettes	48.2 (0.5)[b,c]	53.9 (1.0)[a]	53.4 (1.4)[a]	50.6 (1.1)	49.9 (2.3)
Chewing/smokeless tobacco	46.9 (0.5)[b]	50.7 (1.0)[a]	50.8 (1.4)	49.3 (1.1)	45.3 (2.3)
Alcohol	50.5 (0.5)	51.2 (1.0)	54.2 (1.4)	52.9 (1.1)	48.2 (2.3)
Marijuana	90.6 (0.3)[b,c,d,e]	95.2 (0.4)[a]	96.1 (0.5)[a]	96.6 (0.4)[a]	96.6 (0.8)[a]
Prescription drug misuse	88.0 (0.3)[b,c,d,e]	93.2 (0.5)[a,d]	95.1 (0.6)[a]	95.4 (0.5)[a,b]	95.2 (1.0)[a]

Note: Table displays the percentage of military personnel, by cigarette smoking levels, who reported social network facilitation and leadership deterrence for use of the substances listed in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all smoking levels. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Abstainer) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Former Smoker) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Infrequent) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Light/Moderate) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Heavy) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Social Network Facilitation, Q100; Leadership Deterrence, Q101, Q102; Cigarette Smoking Levels, Q61, Q64, Q66).

Chapter 5: Stress and Mental Health

This chapter presents the results of a detailed analysis of the stress level and the mental health of active duty service members. It presents an analysis of the amount of stress, including gender-related stress, the causes of stress, from both military and personal life, and coping behaviors that service members use to deal with stress. Mental health measures include posttraumatic stress (PTS) level, suicidal ideation and suicide attempts, self-inflicted injury, anxiety, and depression levels. Traits associated with adverse health behaviors are also analyzed, including risk-taking propensity, anger propensity, and resilience level. The chapter also presents an analysis of physical and sexual abuse, including a history of abuse prior to and since joining the military, as well as the military status (i.e., military member or civilian) of the perpetrator of the abuse. Finally, the chapter presents an analysis of the receipt of mental health services and the stigma associated with seeking and receiving mental health treatment. When interpreting the findings of this chapter, it is important to note that the mental health measures, such as posttraumatic stress disorder, anxiety, or major depression, reflect self-reported symptoms and are not a clinical diagnosis of psychological conditions or an indication of a need for treatment.

5.1 Overview of Key Measures of Stress and Mental Health

Many of the mental health measures presented in this chapter are scales that combine a number of individual questionnaire items into one summary measure. For most scales, scores were dichotomized using an average top two box score cutoff. For two measures, Resilience Level and Positive Affect, those individuals scoring low on the measure were considered the at-risk group; due to few respondents being classified in the low resilience and low positive affect categories, the responses were divided into three categories – low, moderate, and high. The low and moderate categories are presented to adequately assess the impact of resilience and positive affect on a number of risk behaviors and measures of mental health. The measures that compose each scale and the calculations used to compute each scale are presented in Appendix A: Key Definitions and Measures.

5.2 Overview of Findings

Military-Related Stress

- Across all services, the most frequently endorsed sources of military-related stress in the past 12 months were being away from family and friends (42.3%) and changes in workload (41.5%), as shown in Table 5.1. Higher percentages of Army, Navy, and Marine Corps personnel cited being

away from family and friends as a source of stress than Air Force and Coast Guard personnel, although it was still among the highest sources of stress for Air Force and Coast Guard personnel.

- For all military-related sources of stress except being deployed, higher percentages of female service members endorsed the sources of stress than male service members. Nearly equal percentages of male and female service members cited deployment as a source of stress (see Table 5.2).
- For most sources of military-related stress, higher percentages of heavy drinkers endorsed each stressor compared to abstainers, former drinkers, infrequent/light, and moderate drinkers, as shown in Table 5.3.

Personal Stress

- Across all services, the most frequently endorsed sources of personal stress in the past 12 months were problems with money (30.2%) and health problems of family members (28.9%), as shown in Table 5.4. Higher percentages of Army, Navy, Marine Corps, and Coast Guard personnel cited problems with money and family health problems as sources of stress than Air Force personnel.
- Females more often than males endorsed all personal stressors, with the largest discrepancies observed for finding childcare/daycare (26.8% for females vs. 9.4% for males), personal health problems (35.8% for females vs. 23.7% for males), and divorce or breakup (27.4% for females vs. 15.8% for males), as shown in Table 5.5.
- Service members who endorsed the personal stressors of a divorce or breakup, infidelity or unfaithfulness in a committed relationship, or problems with money in the past 12 months were more often heavy drinkers compared to all other drinking levels, as shown in Table 5.6.

Stress Coping Behaviors

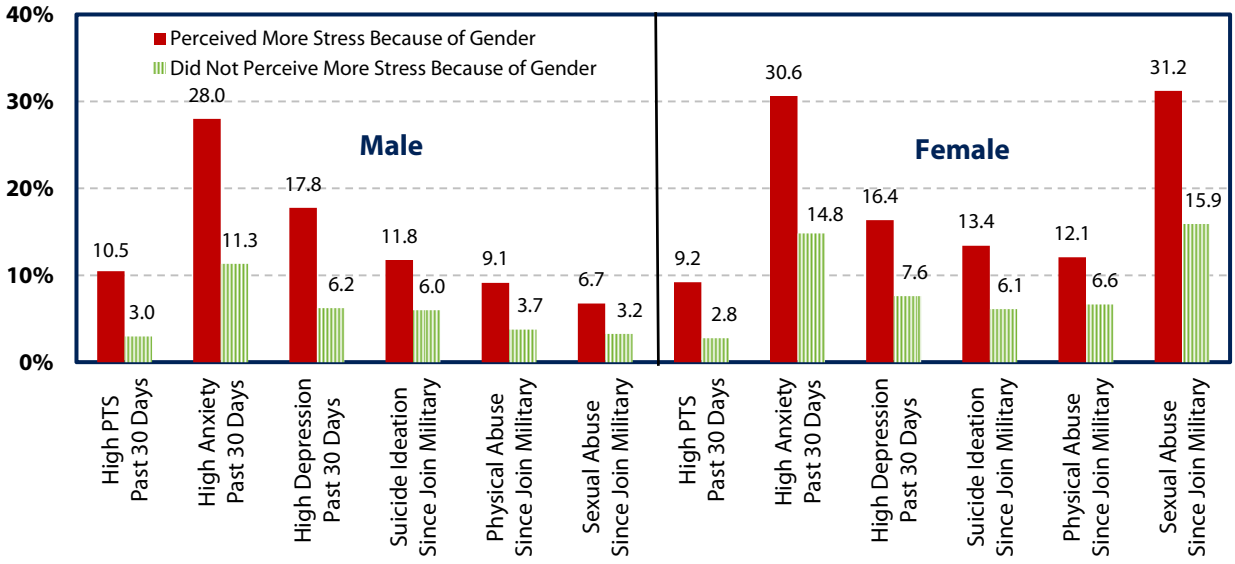
- Across all services, the most frequently endorsed methods of coping with stress were thinking of a plan to solve the problem (86.2%), talking to a friend or family member (72.2%), spending time alone (70.5%), engaging in a hobby (66.1%), and exercising or playing sports (65.7%), as shown in Table 5.7. Higher percentages of Army, Navy, Air Force, and Coast Guard personnel cited talking to a friend/family member than Marine Corps personnel.
- The least endorsed coping behaviors across all services were smoking marijuana or using other illegal drugs (0.5%), consistent with the low rates of drug use observed in Chapter 4, and thinking about hurting or killing oneself (3.0%). Marine Corps had the highest endorsement across all services for thinking about harming oneself (see Table 5.7).
- The most frequently employed behaviors for coping with stress (i.e., thinking of a plan to solve the problem, talking to a friend/family member, spending time alone) were endorsed at higher

rates for females than males. However, males more often endorsed lighting up a cigarette and having a drink of alcohol compared to females (see Table 5.8).

Gender-Related Military Stress

- Approximately half of females in the military (50.7%) reported experiencing gender-related stress, with females in the Air Force least often endorsing gender-related stress compared to all other services, as shown in Table 5.9.
- About one-quarter (25.5%) of males in the military reported experiencing gender-related stress, with males in the Marine Corps indicating gender-related stress more often than males in the Navy, Air Force, and Coast Guard, but at comparable rates to males in the Army, as shown in Table 5.10.
- Figure 5.A compares service members who experienced more stress due to their gender and those who did not experience gender-related stress, presented by mental health indicators and by gender. Overall, personnel who perceived more stress in the military because of their gender reported a higher prevalence of mental health indicators compared to personnel who did not perceive increased stress as a result of their gender. For both genders, the prevalence of high anxiety and high depression levels (in the past 30 days) was more than twice as high for those who perceived more stress because of their gender. Almost one in every three females (31.2%) who indicated they experienced more stress because of their gender reported being the victim of sexual abuse since joining the military.

Figure 5.A: Selected Mental Health Measures, by the Perception of Higher Stress Due to Gender



Note: Graph presents weighted data.

Gender-Related Stress in the Military, Q123; Posttraumatic Stress Level, Q128B, Q128D, Q128E, Q128F; Anxiety Level, Q126; Depression Level, Q125C, Q125E; Suicidal Ideation, Q137, Q137A; Physical and Sexual Abuse History, Q127.

High Posttraumatic Stress Level

- Across all services, 5.0% of personnel were classified as having a high posttraumatic stress (PTS) level based on symptoms they were experiencing, with Army and Marine Corps members reporting higher rates than Navy, Air Force, and Coast Guard members (see Table 5.11).
- Across all services, personnel classified as having a high PTS level more often reported high stress, mental health symptoms, and traits associated with adverse health behaviors than personnel classified as having a low PTS level. In particular, service members with a high PTS level more often reported that they had high levels of overall stress, depression, anxiety, risk taking, anger, low resilience, and low positive affect compared to those classified as having a low PTS level. In addition, active duty personnel who were classified as having a high PTS level were also more likely to report suicidal ideation in the past year, attempting suicide in the past year, and self-inflicted injury (see Table 5.11).

Suicidal Ideation, Suicide Attempts, and Self-Inflicted Injury

- Approximately 4.0% of military personnel reported suicidal ideation in the past year or since joining the military, and 4.9% reported ideation before joining the service, with Air Force reporting lower rates than Army, Navy, and Marine Corps (see Table 5.12).
- Less than 1% of military personnel reported any suicide attempts in the past year or since joining the military, and 1.8% reported any attempts before joining the military, as shown in Table 5.12.
- Across all services, 5.2% of personnel reported self-inflicted injury since joining the military and 10.8% reported any lifetime occurrence of self-inflicted injury, with Marine Corps reporting the highest percentage compared to all other services (see Table 5.13).

Mental Health and Substance Use

- Of service members classified as having a high PTS level, 16.2% were heavy smokers, 13.2% were heavy drinkers, and 22.9% misused prescription drugs, as presented in Table 5.14.
- Service members classified as heavy drinkers reported the largest percentage of stress and mental health indicators compared to other drinking levels, including high overall stress levels(63.4%), anxiety levels (32.9%), depression levels (20.8%), PTS levels (13.2%), and suicidal ideation in the past year (10.6%). Heavy drinkers also reported higher rates of physical or sexual abuse (33.2%), as shown in Table 5.15.
- Personnel who were heavy cigarette smokers reported the largest percentage of high overall stress levels (61.1%), anxiety levels (35.4%), depression levels (21.2%), and PTS levels (16.2%) compared to other smoking levels (see Table 5.16).

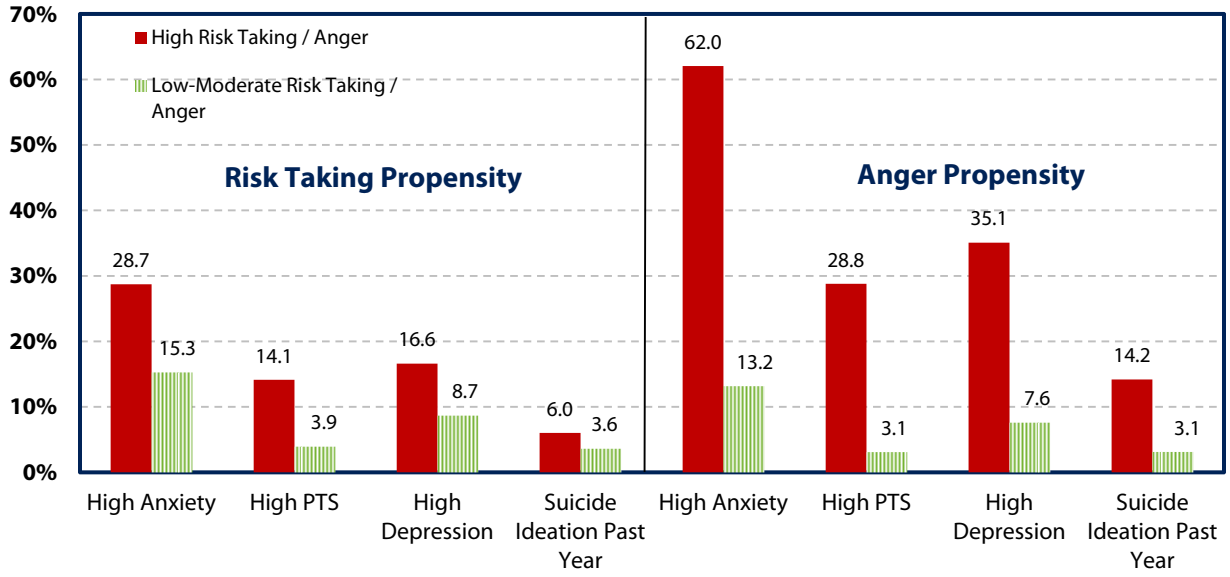
Characteristics of Personnel with High Anxiety and Depression Levels

- Across all services, 16.7% of personnel reported a high anxiety level, with Army and Marine Corps members reporting higher rates than Navy, Air Force, and Coast Guard members (see Table 5.17).
- Across all services, 9.6% of personnel reported a high depression level, as shown in Table 5.18. Active duty personnel who reported a high depression level were more often female (12.0%), had a high school education or less (13.3%), were younger (18-20 years old, 11.3%; and 21-25 years old, 11.8%), were married with their spouse not present (16.5%), and were in the E1-E4 pay grade (12.5%), as shown in Table 5.18.

Personality Traits Associated with Adverse Health Behaviors

- Across all services, 10.3% of personnel reported high risk-taking propensity, 7.2% reported high anger propensity, 4.3% reported low resilience, and 9.6% reported low positive affect, as shown in Table 5.19.
- Marine Corps had the largest percentage of personnel with high risk-taking propensity (15.1%) compared to other services, and Army (9.4%) and Marine Corps (10.4%) had the largest percentage of personnel with high anger propensity compared to Navy, Air Force, and Coast Guard members (see Table 5.19).
- The largest percentage of personnel with high risk-taking propensity (23.3%) and high anger propensity (18.0%) were among the heavy drinkers compared to other drinking levels. In addition, larger percentages of heavy drinkers, former drinkers, and abstainers were classified in the low resilience level compared to infrequent/light and moderate drinkers. In addition, larger percentages of heavy drinkers had low positive affect compared to abstainers, infrequent/light, and moderate drinkers (see Table 5.20).
- Figure 5.B compares service members with high risk-taking and anger propensity to those with low to moderate risk-taking and anger propensity on a number of mental health indicators. In general, high risk-takers and those who reported high anger also had a higher prevalence of mental health symptoms and suicidal ideation. About 62.0% of service members with high anger propensity reported a high anxiety level compared to 13.2% of those with low to moderate anger propensity; 35.1% of those with high anger had a high depression level compared to 7.6% of those with low to moderate anger propensity. Among those with high risk-taking propensity, 28.7% had a high anxiety level and 16.6% had a high depression level; whereas among those with low to moderate risk-taking propensity, 15.3% had a high anxiety level and 8.7% had a high depression level.

Figure 5.B: Select Mental Health Measures, by Risk-Taking and Anger Propensity Levels



Note: Graph presents weighted data.

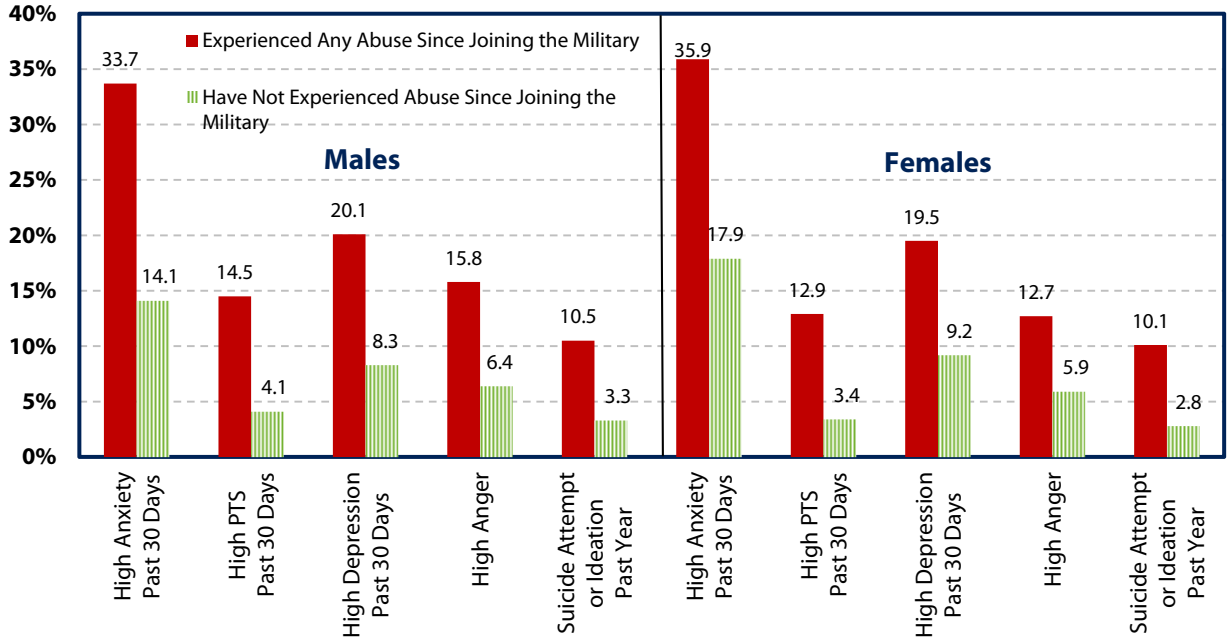
Anger Propensity, Q134, Q139C, Q139I, Q168B; Risk-Taking Propensity, Q139G, Q139HI, Q168G; Anxiety Level, Q126; Posttraumatic Stress Level, Q128B, Q128D, Q128E, Q128F; Depression Level, Q125C, Q125E; Suicidal Ideation, Q137, Q137A.

Physical and Sexual Abuse History

- Across all services, 24.5% of personnel reported any abuse history, including physical or sexual abuse; 17.1% of personnel reported a history of physical abuse, and 14.3% reported a history of unwanted sexual contact. Almost one-fifth of personnel (19.5%) indicated that they had been abused prior to joining the military. 8.8% of personnel were abused since joining the service by someone in the military and 4.5% of personnel were abused since joining the service by a civilian (see Table 5.21).
- Personnel in the Army, Navy, and Marine Corps most often reported a history of abuse compared to Air Force and Coast Guard members, with Army and Marine Corps members having experienced a greater percentage of physical abuse, and Army and Navy personnel having experienced a higher percentage of sexual abuse compared to other services, as shown in Table 5.21.
- When examining abuse history by gender, 48.3% of females and 20.1% of males reported a lifetime history of any abuse, with a larger percentage of service members having experienced the abuse before joining the military compared to experiences of abuse since joining the military (see Table 5.22 and Table 5.23).
- Females reported lifetime sexual abuse approximately five times more often than males (42.0% vs. 9.2%), as shown in Table 5.22 and Table 5.23.

- Figure 5.C compares service members who experienced any physical or sexual abuse since joining the military and those who did not experience abuse since joining the military across selected mental health indicators by gender. The prevalence of high levels of anxiety and depression for those who experienced any type of abuse after joining the military was more than double the prevalence of those who did not experience abuse after joining the military for both genders. In addition, service members who experienced abuse since joining the military reported over three times the prevalence of high levels of posttraumatic stress (males: 14.5% vs. 4.1%; females: 12.9% vs. 3.4%) and suicide attempts or ideation in the past year (males: 10.5% vs. 3.3%; females: 10.1% vs. 2.8%) compared to service members who had not experienced abuse since joining the military.

Figure 5.C: Selected Mental Health Measures, by Abuse Experience Since Joining the Military and Gender



Note: Graph presents weighted data.

Any Abuse Since Joining the Military, Q127B, Q127C, Q127E, Q127F; Anxiety Level, Q126; Posttraumatic Stress Level, Q128B, Q128D, Q128E, Q128F; Depression Level, Q125C, Q125E; High Anger Propensity, Q134, Q139C, Q139I, Q168B; Suicide Ideation or Attempt, Q137, Q137A, Q138, Q138A.

Mental Health Treatment, Reasons for Seeking Treatment, and Stigma for Help-Seeking

- In the past 12 months, 25.6% of military personnel perceived the need for mental health counseling, with close to one-third (31.5%) of Army personnel reporting a need for help, more often than other services (see Table 5.24).

- Among personnel who sought help in the past year, 24.9% reported having received counseling or treatment, including from military or civilian counseling professionals, medical doctors, chaplains, or from self-help groups. Help was most often received from a mental health professional at a military facility (13.9%), as shown in Table 5.24.

- The most common reasons for seeking counseling in the past year were depression (11.6%), anxiety (10.4%), stress management (10.3%), and family problems (10.2%). About three-quarters (76.5%) of personnel did not seek any mental health counseling in the past 12 months (see Table 5.24).
- Over one-third of service members (37.7%) indicated seeking help would damage a person's military career, with Navy personnel most often perceiving stigma for help-seeking (42.1%) compared to other services (see Table 5.24).
- For those personnel who received mental health treatment through the military, 21.3% believed it negatively affected their career, with members of the Navy and Marine Corps reporting higher perceived stigma than Air Force and Coast Guard personnel (see Table 5.24).
- Across a number of the mental health measures (except for high anger propensity and moderate levels of resilience and positive affect), lower percentages of those who received mental health treatment believed that treatment would damage their career compared to those who did not receive treatment, as shown in Table 5.25. It appears that those who did not perceive a stigma associated with the receipt of counseling were more likely to seek treatment.

5.3 Tables

The following tables present an analysis of stress and mental health in the military.

Table 5.1 – Stress and Military-Related Events, Past 12 Months, by Service

Stressor	Service[1] Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Being Deployed	32.7 (1.0)[b,c,d]	37.1 (1.0)[a,c,d,e]	28.7 (0.9)[a,b,d]	22.0 (0.6)[a,b,c,e]	30.3 (0.9)[b,d]	30.5 (0.5)
Having to Undergo a Permanent Change of Station (PCS)	36.2 (1.0)[b,c,d]	32.3 (1.0)[a,c,e]	27.8 (0.9)[a,b,e]	29.8 (0.6)[a,e]	38.1 (0.9)[b,c,d]	32.8 (0.5)
Problems With My Coworkers	27.3 (0.8)[c,d,e]	28.1 (0.8)[c,d,e]	32.0 (0.8)[a,b,d,e]	18.8 (0.4)[a,c,e]	23.7 (0.7)[a,b,c,d]	25.9 (0.4)
Problems With My Immediate Supervisor(s)	27.1 (0.8)[d,e]	28.1 (0.8)[d,e]	29.7 (0.8)[d,e]	14.5 (0.4)[a,b,c,e]	22.8 (0.7)[a,b,c,d]	24.4 (0.4)
Concern About My Performance Rating	26.6 (0.8)[b,c,d]	32.3 (0.8)[a,d,e]	33.2 (0.8)[a,d,e]	18.5 (0.4)[a,b,c,e]	26.0 (0.7)[b,c,d]	26.7 (0.4)
Change in My Work Load	42.5 (0.9)[d]	43.0 (0.9)[d]	43.0 (0.8)[d]	38.0 (0.5)[a,b,c]	40.2 (0.8)	41.5 (0.4)
Conflicts Between My Military Responsibilities and My Family/Personal Responsibilities	38.6 (0.9)[d,e]	38.2 (0.8)[d,e]	39.2 (0.8)[d,e]	28.6 (0.5)[a,b,c,e]	34.2 (0.8)[a,b,c,d]	36.0 (0.4)
Insufficient Training	27.8 (0.8)[c,d,e]	25.7 (0.8)[c,d]	22.1 (0.7)[a,b]	20.6 (0.5)[a,b,e]	23.7 (0.7)[a,d]	24.7 (0.4)
Being Away From My Family and Friends	44.5 (0.9)[d,e]	45.4 (0.9)[d,e]	44.4 (0.9)[d,e]	35.5 (0.5)[a,b,c,e]	41.0 (0.8)[a,b,c,d]	42.3 (0.4)

Note: Table displays the percentage of military personnel, by Service, who reported experiencing "a lot" or "some" stress from the indicated source in the past 12 months. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Stress and Military-Related Events, Q121A-I).

Table 5.2 – Stress and Military-Related Events, Past 12 Months, by Gender

	Gender[1]		
Stressor	**Males**	**Females**	**Total**
Being Deployed	30.5 (0.5)	30.3 (1.3)	30.5 (0.5)
Having to Undergo a Permanent Change of Station (PCS)	32.1 (0.5)[b]	37.1 (1.3)[a]	32.8 (0.5)
Problems With My Coworkers	24.7 (0.4)[b]	32.4 (1.0)[a]	25.9 (0.4)
Problems With My Immediate Supervisor(s)	23.6 (0.4)[b]	28.7 (1.0)[a]	24.4 (0.4)
Concern About My Performance Rating	26.3 (0.4)[b]	29.0 (1.0)[a]	26.7 (0.4)
Change in My Work Load	40.8 (0.4)[b]	45.5 (1.1)[a]	41.5 (0.4)
Conflicts Between My Military Responsibilities and My Family/Personal Responsibilities	35.6 (0.4)[b]	38.0 (1.0)[a]	36.0 (0.4)
Insufficient Training	24.0 (0.4)[b]	28.5 (1.0)[a]	24.7 (0.4)
Being Away From My Family and Friends	41.6 (0.5)[b]	46.6 (1.1)[a]	42.3 (0.4)

Note: Table displays the percentage of military personnel, by gender, who reported experiencing "a lot" or "some" stress from the indicated source in the past 12 months. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between males and females. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-2. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Males) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Females) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Stress and Military-Related Events, Q121A-I).

Table 5.3 – Stress and Military-Related Events, Past 12 Months, by Drinking Level

	Drinking Level[1]				
			Current Drinkers		
Stressor	**Abstainer**	**Former Drinker**	**Infrequent/Light**	**Moderate**	**Heavy**
Being Deployed	26.9 (1.5)[d,e]	29.3 (2.0)[e]	28.9 (0.6)[d,e]	33.4 (1.1)[a,c,e]	39.4 (1.7)[a,b,c,d]
Having to Undergo a Permanent Change of Station (PCS)	26.4 (1.4)[b,c,d,e]	35.3 (2.0)[a]	32.2 (0.6)[a,e]	35.1 (1.1)[a]	38.2 (1.7)[a,c]
Problems With My Coworkers	25.0 (1.2)[e]	27.8 (1.6)[e]	23.5 (0.5)[d,e]	27.7 (0.9)[c,e]	38.3 (1.4)[a,b,c,d]
Problems With My Immediate Supervisor(s)	21.6 (1.1)[d,e]	23.7 (1.5)[e]	22.5 (0.5)[d,e]	26.2 (0.9)[a,c,e]	37.6 (1.4)[a,b,c,d]
Concern About My Performance Rating	29.2 (1.2)[c]	29.7 (1.6)[c]	25.1 (0.5)[a,b,e]	27.2 (0.9)[e]	32.0 (1.4)[c,d]
Change in My Work Load	35.0 (1.3)[b,c,d,e]	42.5 (1.7)[a,e]	40.3 (0.5)[a,d,e]	44.2 (1.0)[a,c,e]	51.5 (1.5)[a,b,c,d]
Conflicts Between My Military Responsibilities and My Family/Personal Responsibilities	30.6 (1.3)[b,c,d,e]	38.9 (1.7)[a,e]	34.6 (0.5)[a,d,e]	38.1 (1.0)[a,c,e]	45.6 (1.5)[a,b,c,d]
Insufficient Training	25.4 (1.2)[e]	25.8 (1.6)[e]	23.7 (0.5)[e]	23.8 (0.9)[e]	31.8 (1.4)[a,b,c,d]
Being Away From My Family and Friends	41.0 (1.3)[e]	42.8 (1.8)[e]	40.5 (0.5)[d,e]	44.4 (1.0)[c,e]	52.5 (1.5)[a,b,c,d]

Note: Table displays the percentage of military personnel, by drinking level, who reported experiencing "a lot" or "some" stress from the indicated source in the past 12 months. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all drinking levels. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Abstainer) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Former) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Infrequent/Light) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Heavy) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Stress and Military-Related Events, Q121A-I; Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47).

Table 5.4 – Stress and Personal Events, Past 12 Months, by Service

	Service[1]					
Stressor	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Having a Baby	20.1 (1.0)[b,e]	26.2 (1.1)[a,d]	23.7 (1.0)[d]	18.2 (0.6)[b,c,e]	24.5 (1.0)[a,d]	21.5 (0.5)
Finding Childcare/Daycare	12.0 (0.8)	13.2 (0.8)[d]	11.2 (0.7)	10.2 (0.5)[b,e]	13.6 (0.8)[d]	11.8 (0.4)
Death in the Family	18.9 (0.8)	20.4 (0.9)[d]	21.5 (0.9)[d]	16.4 (0.5)[b,c,e]	19.6 (0.8)[d]	19.0 (0.4)
Divorce or Breakup	19.0 (0.9)[d]	17.9 (0.9)[d]	19.2 (0.9)[d]	14.6 (0.5)[a,b,c,e]	17.6 (0.8)[d]	17.7 (0.4)
Infidelity or Unfaithfulness in a Committed Relationship	13.4 (0.7)[d,e]	13.1 (0.7)[d,e]	15.1 (0.7)[d,e]	9.2 (0.4)[a,b,c]	10.2 (0.6)[a,b,c]	12.4 (0.3)
Problems With Money	32.5 (0.8)[d]	32.0 (0.8)[d]	34.8 (0.8)[d,e]	22.5 (0.5)[a,b,c,e]	30.9 (0.8)[c,d]	30.2 (0.4)
Problems With Housing	21.4 (0.8)[d]	20.6 (0.8)[d]	22.0 (0.8)[d]	16.8 (0.5)[a,b,c,e]	21.3 (0.7)[d]	20.2 (0.4)
Health Problems That I Had	31.7 (0.9)[b,c,d,e]	22.1 (0.8)[a,e]	24.1 (0.8)[a,d,e]	21.4 (0.5)[a,c,e]	16.6 (0.7)[a,b,c,d]	25.6 (0.4)
Health Problems That My Family Members Had	29.9 (0.9)[d]	31.4 (0.9)[d]	30.9 (0.9)[d]	24.1 (0.5)[a,b,c,e]	29.9 (0.8)[d]	28.9 (0.4)
Behavior Problems With One or More of My Children	18.4 (0.8)[c,d]	16.3 (0.8)[c,d]	13.0 (0.8)[a,b]	13.3 (0.5)[a,b]	15.4 (0.8)	15.9 (0.4)
Unexpected Events or Other Major Problems (Such as Hurricane, Flood, Home Robbery)	12.1 (0.7)[b,c,e]	19.3 (0.8)[a,c,d]	16.2 (0.7)[a,b,d]	10.4 (0.4)[b,c,e]	17.5 (0.7)[a,d]	14.1 (0.3)

Note: Table displays the percentage of military personnel, by Service, who reported experiencing "a lot" or "some" stress from the indicated source in the past 12 months. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Stress and Personal Events, Q121J; Q124).

Table 5.5 – Stress and Personal Events, Past 12 Months, by Gender

	Gender[1]		
Stressor	**Males**	**Females**	**Total**
Having a Baby	20.2 (0.5)[b]	30.1 (1.5)[a]	21.5 (0.5)
Finding Childcare/Daycare	9.4 (0.3)[b]	26.8 (1.3)[a]	11.8 (0.4)
Death in the Family	17.8 (0.4)[b]	25.5 (1.2)[a]	19.0 (0.4)
Divorce or Breakup	15.8 (0.4)[b]	27.4 (1.2)[a]	17.7 (0.4)
Infidelity or Unfaithfulness in a Committed Relationship	11.0 (0.3)[b]	20.0 (1.0)[a]	12.4 (0.3)
Problems With Money	29.8 (0.4)[b]	32.4 (1.0)[a]	30.2 (0.4)
Problems With Housing	19.7 (0.4)[b]	22.7 (1.0)[a]	20.2 (0.4)
Health Problems That I Had	23.7 (0.4)[b]	35.8 (1.1)[a]	25.6 (0.4)
Health Problems That My Family Members Had	28.0 (0.4)[b]	34.3 (1.1)[a]	28.9 (0.4)
Behavior Problems With One or More of My Children	15.4 (0.4)[b]	19.5 (1.2)[a]	15.9 (0.4)
Unexpected Events or Other Major Problems (Such as Hurricane, Flood, Home Robbery)	13.4 (0.4)[b]	18.4 (1.0)[a]	14.1 (0.3)

Note: Table displays the percent of military personnel, by gender, who reported experiencing "a lot" or "some" stress from the indicated source in the past 12 months. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between males and females. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-2. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Males) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Females) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Stress and Personal Events, Q121J; Q124).

Table 5.6 – Stress and Personal Events, Past 12 Months, by Drinking Level

	Drinking Level[1]				
			Current Drinkers		
Stressor	**Abstainer**	**Former Drinker**	**Infrequent/Light**	**Moderate**	**Heavy**
Having a Baby	22.4 (1.6)	25.7 (2.2)	21.6 (0.6)	20.2 (1.1)	19.6 (1.7)
Finding Childcare/Daycare	10.4 (1.2)	13.9 (1.6)	12.1 (0.5)	10.6 (0.8)	11.7 (1.3)
Death in the Family	18.9 (1.3)	19.8 (1.8)	18.1 (0.5)[e]	19.5 (1.0)	23.1 (1.5)[c]
Divorce or Breakup	15.2 (1.3)[d,e]	12.7 (1.6)[d,e]	16.2 (0.5)[d,e]	20.1 (1.0)[a,b,c,e]	27.0 (1.6)[a,b,c,d]
Infidelity or Unfaithfulness in a Committed Relationship	10.5 (1.1)[e]	10.7 (1.4)[e]	11.3 (0.4)[d,e]	14.3 (0.8)[c,e]	19.2 (1.4)[a,b,c,d]
Problems With Money	25.2 (1.2)[b,d,e]	31.6 (1.7)[a,e]	28.0 (0.5)[d,e]	34.0 (1.0)[a,c,e]	42.8 (1.5)[a,b,c,d]
Problems With Housing	19.3 (1.2)[e]	21.5 (1.6)	18.9 (0.5)[e]	21.1 (0.9)[e]	27.3 (1.4)[a,c,d]
Health Problems That I Had	22.9 (1.3)[b,e]	32.4 (1.8)[a,c,d]	24.9 (0.5)[b,e]	24.5 (0.9)[b,e]	31.5 (1.5)[a,c,d]
Health Problems That My Family Members Had	27.7 (1.3)	30.8 (1.7)	28.6 (0.5)	28.9 (1.0)	31.4 (1.5)
Behavior Problems With One or More of My Children	13.7 (1.3)	18.6 (1.6)	15.6 (0.5)	16.8 (1.0)	16.8 (1.5)
Unexpected Events or Other Major Problems (Such as Hurricane, Flood, Home Robbery)	14.0 (1.1)	15.9 (1.5)	13.9 (0.4)	13.3 (0.8)	17.0 (1.3)

Note: Table displays the percentage of military personnel, by drinking level, who reported experiencing "a lot" or "some" stress from the indicated source in the past 12 months. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all drinking levels. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Abstainer) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Former) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Infrequent/Light) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Heavy) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Stress and Personal Events, Q121J; Q124; Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47).

Table 5.7 – Stress Coping Behaviors, by Service

Coping Behavior	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Talk to a Friend/Family Member	71.8 (0.8)[c,e]	74.2 (0.7)[c]	66.3 (0.8)[a,b,d,e]	73.7 (0.5)[c]	75.2 (0.7)[a,c]	72.2 (0.4)
Light up a Cigarette	23.2 (0.7)[c,d,e]	20.8 (0.7)[c,d,e]	28.3 (0.7)[a,b,d,e]	14.3 (0.4)[a,b,c,e]	17.0 (0.6)[a,b,c,d]	20.9 (0.3)
Have a Drink of Alcohol	24.1 (0.7)[c,d]	25.1 (0.7)[c,d]	32.8 (0.8)[a,b,d,e]	15.6 (0.4)[a,b,c,e]	25.0 (0.7)[c,d]	23.4 (0.3)
Say a Prayer	46.1 (0.9)[c,e]	44.3 (0.8)[c]	38.2 (0.8)[a,b,d]	45.3 (0.5)[c,e]	41.3 (0.8)[a,d]	44.3 (0.4)
Exercise or Play Sports	61.7 (0.8)[b,c,d,e]	67.3 (0.8)[a]	66.6 (0.8)[a,e]	69.2 (0.5)[a]	70.2 (0.7)[a,c]	65.7 (0.4)
Engage in a Hobby	65.9 (0.8)[d]	64.8 (0.8)[d,e]	63.4 (0.8)[d,e]	68.6 (0.5)[a,b,c]	68.1 (0.8)[b,c]	66.1 (0.4)
Get Something to Eat	46.2 (0.9)[d]	46.9 (0.8)[d,e]	44.3 (0.8)[d]	39.4 (0.5)[a,b,c,e]	43.6 (0.8)[b,d]	44.3 (0.4)
Smoke Marijuana/Use Other Illegal Drugs	0.4 (0.1)[c]	0.6 (0.1)[d]	1.2 (0.2)[a,d,e]	0.2 (0.1)[b,c]	0.5 (0.1)[c]	0.5 (0.1)
Think of a Plan To Solve Problem	87.3 (0.6)[c]	86.1 (0.6)[e]	83.8 (0.6)[a,e]	85.7 (0.4)[e]	88.7 (0.5)[b,c,d]	86.2 (0.3)
Think About Hurting or Killing Myself	3.4 (0.3)[c,d,e]	3.2 (0.3)[c,d]	5.0 (0.4)[a,b,d,e]	1.5 (0.1)[a,b,c]	2.2 (0.2)[a,c]	3.0 (0.1)
Sleep	51.2 (0.9)	53.5 (0.8)[d,e]	52.0 (0.8)[d]	48.4 (0.5)[b,c]	48.8 (0.8)[b]	51.0 (0.4)
Get Angry	51.5 (0.9)[b,c,d,e]	48.1 (0.8)[a,c,d,e]	55.6 (0.8)[a,b,d,e]	34.7 (0.5)[a,b,c,e]	44.1 (0.8)[a,b,c,d]	46.9 (0.4)
Spend Time by Myself	73.6 (0.8)[b,c,d,e]	70.2 (0.8)[a,d]	69.7 (0.8)[a,d]	66.7 (0.5)[a,b,c]	68.2 (0.8)[a]	70.5 (0.4)

Note: Table displays the percentage of military personnel, by Service, who reported using the indicated stress coping behaviors "frequently" or "sometimes." The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Stress Coping Behaviors, Q122).

Table 5.8 – Stress Coping Behaviors, by Gender

	Gender[1]		
Coping Behavior	**Males**	**Females**	**Total**
Talk to a Friend/Family Member	69.8 (0.4)[b]	85.0 (0.7)[a]	72.2 (0.4)
Light up a Cigarette	21.5 (0.4)[b]	17.7 (0.8)[a]	20.9 (0.3)
Have a Drink of Alcohol	23.8 (0.4)[b]	21.0 (0.8)[a]	23.4 (0.3)
Say a Prayer	41.5 (0.4)[b]	59.6 (1.0)[a]	44.3 (0.4)
Exercise or Play Sports	65.8 (0.4)	65.4 (1.0)	65.7 (0.4)
Engage in a Hobby	66.8 (0.4)[b]	61.8 (1.0)[a]	66.1 (0.4)
Get Something to Eat	42.8 (0.4)[b]	52.8 (1.0)[a]	44.3 (0.4)
Smoke Marijuana/Use Other Illegal Drugs	0.5 (0.1)	0.3 (0.1)	0.5 (0.1)
Think of a Plan To Solve Problem	85.8 (0.3)[b]	88.2 (0.7)[a]	86.2 (0.3)
Think About Hurting or Killing Myself	3.0 (0.1)	3.5 (0.4)	3.0 (0.1)
Sleep	48.6 (0.4)[b]	64.5 (1.0)[a]	51.0 (0.4)
Get Angry	45.5 (0.4)[b]	54.1 (1.0)[a]	46.9 (0.4)
Spend Time by Myself	68.8 (0.4)[b]	79.2 (0.8)[a]	70.5 (0.4)

Note: Table displays the percentage of military personnel, by gender, who reported using the indicated stress coping behaviors "frequently" or "sometimes." The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between males and females. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-2. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Males) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Females) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Stress Coping Behaviors, Q122).

Table 5.9 – Gender-Related Stress in the Military Among Females, by Sociodemographic Characteristics and Service

Sociodemographic Characteristic	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Race/Ethnicity						
White, non-Hispanic	56.4 (3.0)[d]	56.3 (2.7)[d]	67.4 (3.8)[d,e]	41.1 (1.5)[a,b,c,e]	52.6 (2.5)[c,d]	51.6 (1.3)
African-American, non-Hispanic	55.1 (4.3)[d]	50.0 (4.4)	†	36.2 (2.9)[a]	†	49.0 (2.3)
Hispanic	54.5 (6.3)	56.9 (5.3)[d]	64.0 (6.2)[d]	37.0 (3.4)[b,c]	41.2 (6.9)	50.9 (2.8)
Other	†	51.0 (7.6)	†	38.5 (5.1)	†	47.3 (4.0)
Education						
High school or less	54.0 (7.0)[d]	50.6 (4.6)[d]	61.9 (5.3)[d,e]	30.1 (3.6)[a,b,c]	39.7 (5.6)[c]	48.1 (2.7)
Some college	54.9 (3.1)[d]	56.0 (2.8)[d]	67.7 (4.0)[d,e]	39.6 (1.6)[a,b,c,e]	51.8 (3.2)[c,d]	50.6 (1.4)
College graduate or higher	56.3 (3.5)[d]	55.0 (3.9)	62.8 (7.3)	43.0 (2.2)[a,e]	55.1 (3.7)[d]	52.1 (1.8)
Age						
18-20	†	†	64.7 (7.3)[d]	30.6 (4.6)[c]	†	51.9 (4.1)
21-25	55.3 (5.0)[d]	52.3 (3.5)[d]	63.7 (4.6)[d]	35.8 (2.2)[a,b,c]	46.9 (4.3)	48.5 (1.9)
26-35	55.0 (3.6)[d]	56.6 (3.4)[d]	65.3 (5.7)[d]	39.3 (2.0)[a,b,c,e]	55.7 (3.4)[d]	50.9 (1.7)
36-45	55.0 (4.8)	58.9 (5.6)	†	49.9 (3.0)	51.5 (7.0)	54.6 (2.5)
46-65	†	†	†	38.9 (7.2)	†	46.0 (5.4)
Family Status						
Not married	54.5 (3.2)[d]	53.4 (2.7)[d]	65.0 (4.0)[d,e]	38.4 (1.8)[a,b,c,e]	49.2 (3.0)[c,d]	50.1 (1.5)
Married, spouse not present	53.3 (6.3)	56.1 (6.0)	†	40.6 (4.4)	61.2 (7.3)	51.8 (3.2)
Married, spouse present	57.2 (3.6)[d]	56.1 (3.5)[d]	66.5 (4.7)[d]	40.9 (1.8)[a,b,c]	51.6 (3.6)	51.3 (1.6)
Pay Grade						
E1-E4	55.4 (3.2)[d]	53.7 (2.9)[d]	65.5 (3.8)[d,e]	34.8 (2.0)[a,b,c,e]	49.8 (3.4)[c,d]	50.3 (1.5)
E5-E6	53.5 (4.6)	58.1 (3.6)[d]	65.8 (6.0)[d]	40.7 (2.0)[b,c]	48.4 (4.1)	50.2 (1.9)
E7-E9	54.6 (7.7)	†	†	44.8 (4.2)	†	52.4 (3.8)
W1-W5	†	†	†	------	†	†
O1-O3	56.3 (6.2)	48.9 (6.0)	†	39.4 (3.3)	55.8 (5.6)	48.7 (2.9)
O4-O10	†	†	†	53.6 (4.6)	†	56.3 (4.1)

Table 5.9 – Gender-Related Stress in the Military Among Females, by Sociodemographic Characteristics and Service

Sociodemographic Characteristic	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Region						
CONUS[2]	54.8 (2.5)[d]	54.3 (2.3)[d]	64.9 (3.3)[d,e]	39.7 (1.3)[a,b,c,e]	49.5 (2.4)[c,d]	50.2 (1.2)
OCONUS[3]	57.2 (4.6)[d]	55.8 (4.0)[d]	65.5 (6.5)[d]	39.7 (2.7)[a,b,c,e]	64.2 (6.4)[d]	52.4 (2.2)
Total	55.4 (2.2)[d]	54.7 (2.0)[c,d]	65.1 (2.9)[b,d,e]	39.7 (1.2)[a,b,c,e]	51.2 (2.2)[c,d]	50.7 (1.0)

Note: Table displays the percentage of female military personnel, by sociodemographic characteristics and Service, who reported experiencing gender-related stress in the military. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[2]Refers to personnel who were stationed within the 48 contiguous States in the continental United States (excluding Alaska and Hawaii).

[3]Refers to personnel who were stationed outside the continental United States.

---Not applicable.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Gender-Related Stress in the Military, Q123).

Table 5.10 – Gender-Related Stress in the Military Among Males, by Sociodemographic Characteristics and Service

Sociodemographic Characteristic	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Race/Ethnicity						
White, non-Hispanic	29.3 (1.0)[d,e]	27.2 (1.0)[d,e]	30.6 (1.0)[d,e]	19.5 (0.6)[a,b,c]	20.0 (0.8)[a,b,c]	26.2 (0.5)
African-American, non-Hispanic	24.1 (2.2)[d]	23.0 (2.1)[d]	23.1 (2.3)[d]	15.7 (1.5)[a,b,c]	15.8 (3.0)	22.0 (1.1)
Hispanic	27.8 (2.3)[d,e]	23.4 (2.2)[e]	28.4 (1.9)[d,e]	18.8 (1.5)[a,c]	14.5 (1.8)[a,b,c]	24.9 (1.1)
Other	26.5 (3.4)	26.6 (2.7)	28.4 (3.6)	19.2 (2.3)	17.9 (3.2)	25.3 (1.6)
Education						
High School or less	31.2 (2.0)[d,e]	28.9 (1.7)[d,e]	30.2 (1.2)[d,e]	18.7 (1.3)[a,b,c]	19.9 (1.5)[a,b,c]	28.2 (0.8)
Some college	32.0 (1.2)[d,e]	28.8 (1.2)[d,e]	31.8 (1.2)[d,e]	20.7 (0.7)[a,b,c]	19.9 (0.9)[a,b,c]	27.9 (0.6)
College graduate or higher	20.3 (1.4)	19.0 (1.4)	19.7 (1.8)	16.4 (0.8)	17.1 (1.4)	18.8 (0.7)
Age						
18-20	37.9 (5.0)[d]	29.4 (5.1)	31.1 (2.5)[d]	19.4 (2.1)[a,c]	26.7 (6.0)	29.4 (1.9)
21-25	31.0 (2.0)[d,e]	34.9 (1.8)[d,e]	35.2 (1.3)[d,e]	21.8 (1.0)[a,b,c]	22.0 (1.7)[a,b,c]	30.4 (0.8)
26-35	30.9 (1.4)[b,d,e]	25.5 (1.3)[a,d,e]	26.2 (1.4)[d,e]	18.2 (0.8)[a,b,c]	19.3 (1.1)[a,b,c]	25.7 (0.6)
36-45	24.3 (1.6)[d,e]	19.9 (1.5)	19.0 (2.0)	18.1 (1.0)[a]	17.3 (1.4)[a]	21.3 (0.8)
46-65	18.9 (3.0)	15.7 (3.0)	16.3 (5.3)	17.1 (2.5)	14.4 (2.8)	17.5 (1.6)
Family Status						
Not married	27.1 (1.6)[d,e]	31.3 (1.5)[d,e]	32.0 (1.2)[d,e]	21.0 (0.8)[a,b,c]	20.6 (1.3)[a,b,c]	27.2 (0.7)
Married, spouse not present	28.4 (2.4)[e]	24.8 (2.5)	31.5 (2.7)[d,e]	21.2 (2.1)[c]	18.2 (2.5)[a,c]	26.8 (1.3)
Married, spouse present	28.8 (1.1)[b,d,e]	23.1 (1.0)[a,d,e]	26.6 (1.1)[d,e]	17.8 (0.6)[a,b,c]	18.7 (0.9)[a,b,c]	24.3 (0.5)
Pay Grade						
E1-E4	31.0 (1.3)[d,e]	31.1 (1.4)[d,e]	34.9 (1.1)[d,e]	20.8 (0.8)[a,b,c]	20.5 (1.3)[a,b,c]	29.5 (0.6)
E5-E6	34.0 (1.7)[c,d,e]	28.2 (1.4)[d,e]	27.1 (1.6)[a,d,e]	20.9 (0.8)[a,b,c]	21.5 (1.2)[a,b,c]	27.7 (0.7)
E7-E9	22.8 (2.3)[d]	19.8 (2.3)	17.3 (2.3)	15.6 (1.3)[a]	17.6 (1.9)	19.6 (1.1)
W1-W5	17.4 (4.0)	†	20.1 (6.3)	------	13.5 (3.0)	17.3 (2.6)
O1-O3	16.8 (2.3)	16.7 (2.1)	17.9 (2.5)	13.5 (1.2)	13.3 (2.0)	15.9 (1.0)
O4-O10	18.1 (2.8)	15.6 (2.4)	14.3 (3.0)	17.3 (1.5)	14.4 (2.4)	16.8 (1.2)

Table 5.10 – Gender-Related Stress in the Military Among Males, by Sociodemographic Characteristics and Service

Sociodemographic Characteristic	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Region						
CONUS[2]	27.2 (0.9)[d,e]	24.5 (0.9)[c,d,e]	29.1 (0.9)[b,d,e]	18.7 (0.5)[a,b,c]	19.1 (0.7)[a,b,c]	24.6 (0.4)
OCONUS[3]	31.9 (1.8)[d,e]	30.2 (1.6)[d,e]	30.1 (1.6)[d,e]	20.6 (1.0)[a,b,c]	20.1 (2.0)[a,b,c]	28.4 (0.8)
Total	28.3 (0.8)[d,e]	26.1 (0.8)[c,d,e]	29.4 (0.8)[b,d,e]	19.1 (0.5)[a,b,c]	19.2 (0.7)[a,b,c]	25.5 (0.4)

Note: Table displays the percentage of male military personnel, by sociodemographic characteristics and Service, who reported experiencing gender-related stress in the military. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[2]Refers to personnel who were stationed within the 48 contiguous States in the continental United States (excluding Alaska and Hawaii).

[3]Refers to personnel who were stationed outside the continental United States.

---Not applicable.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Gender-Related Stress in the Military, Q123).

Table 5.11 – Stress and Mental Health Measures, by Posttraumatic Stress (PTS) Level and Service

Mental Health Indicator/PTS Level[a]	Service[a]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
High PTS Level	7.2 (0.4)[c,e,f]	3.9 (0.3)[b,d,e,f]	7.3 (0.4)[c,e,f]	2.0 (0.2)[b,c,d]	2.0 (0.2)[b,c,d]	5.0 (0.2)
High Overall Stress						
High PTS	88.3 (2.1)[2]	91.9 (2.4)[2]	93.7 (1.5)[2]	93.9 (1.9)[2]	84.8 (4.2)[2]	90.4 (1.1)[2]
Low PTS	41.7 (0.9)[1]	42.9 (0.9)[1]	46.1 (0.9)[1]	29.9 (0.5)[1]	35.8 (0.8)[1]	39.3 (0.4)[1]
High Depression Level						
High PTS	63.4 (3.1)[2]	65.3 (4.1)[2]	68.6 (2.9)[2]	57.2 (3.9)[2]	64.8 (5.6)[2]	64.1 (1.8)[2]
Low PTS	7.8 (0.5)[1]	7.5 (0.5)[1]	8.4 (0.5)[1]	3.9 (0.2)[1]	4.4 (0.3)[1]	6.7 (0.2)[1]
High Anxiety Level						
High PTS	81.5 (2.5)[2]	76.5 (3.7)[2]	79.1 (2.5)[2]	75.6 (3.4)[2]	82.4 (4.5)[2]	79.6 (1.5)[2]
Low PTS	15.1 (0.6)[1]	14.1 (0.6)[1]	17.5 (0.7)[1]	8.3 (0.3)[1]	10.2 (0.5)[1]	13.3 (0.3)[1]
Suicidal Ideation, Past Year						
High PTS	23.1 (2.7)[2]	25.9 (3.8)[2]	29.8 (2.9)[2]	20.6 (3.2)[2]	15.9 (4.3)[2]	24.5 (1.6)[2]
Low PTS	3.3 (0.3)[1]	2.7 (0.3)[1]	4.3 (0.4)[1]	1.8 (0.1)[1]	2.1 (0.2)[1]	2.8 (0.1)[1]
Attempted Suicide, Past Year						
High PTS	6.0 (1.5)[2]	4.1 (1.7)[2]	7.3 (1.6)[2]	2.0 (1.1)[2]	†	5.5 (0.8)[2]
Low PTS	0.3 (0.1)[1]	0.3 (0.1)[1]	0.4 (0.1)[1]	0.1 (0.0)[1]	0.1 (0.1)	0.3 (0.0)[1]
Self-Inflicted Injury						
High PTS	18.8 (2.5)[2]	28.4 (3.9)[2]	27.0 (2.8)[2]	19.0 (3.1)[2]	22.4 (5.0)[2]	22.1 (1.5)[2]
Low PTS	4.8 (0.4)[1]	4.2 (0.3)[1]	6.5 (0.4)[1]	2.9 (0.2)[1]	2.9 (0.3)[1]	4.3 (0.2)[1]

Table 5.11 – Stress and Mental Health Measures, by Posttraumatic Stress (PTS) Level and Service

Mental Health Indicator/PTS Level[a]	Service[a]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
High Risk-Taking						
High PTS	27.5 (2.9)[2]	35.4 (4.2)[2]	33.0 (3.0)[2]	21.0 (3.3)[2]	30.1 (5.4)[2]	29.2 (1.7)[2]
Low PTS	9.7 (0.5)[1]	9.0 (0.5)[1]	13.7 (0.6)[1]	7.1 (0.3)[1]	8.3 (0.5)[1]	9.3 (0.2)[1]
High Anger						
High PTS	46.0 (3.3)[2]	35.9 (4.2)[2]	40.3 (3.2)[2]	34.2 (3.8)[2]	38.6 (5.8)[2]	41.9 (1.8)[2]
Low PTS	6.6 (0.5)[1]	5.7 (0.4)[1]	8.1 (0.5)[1]	2.5 (0.2)[1]	2.7 (0.3)[1]	5.4 (0.2)[1]
Low Resilience						
High PTS	14.1 (2.3)[2]	15.1 (3.2)[2]	12.4 (2.1)[2]	18.7 (3.1)[2]	10.0 (3.5)[2]	14.4 (1.3)[2]
Low PTS	3.1 (0.3)[1]	4.5 (0.4)[1]	4.9 (0.4)[1]	3.4 (0.2)[1]	3.8 (0.3)[1]	3.8 (0.2)[1]
Low Positive Affect						
High PTS	35.1 (3.1)[2]	30.1 (4.0)[2]	27.5 (2.8)[2]	34.4 (3.7)[2]	26.9 (5.2)[2]	32.6 (1.7)[2]
Low PTS	8.5 (0.5)[1]	8.2 (0.5)[1]	10.6 (0.5)[1]	7.2 (0.3)[1]	6.9 (0.4)[1]	8.3 (0.2)[1]

Note: Table displays the percentage of military personnel, by posttraumatic stress (PTS) level and Service, who exhibited the mental health indicators specified in the rows of the table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all pairs of Services for High PTS Level. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[b]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[f]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Significance tests were conducted between rows within the same Service group for the remaining mental health indicators. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in row #1-2 within the same Service group. For example, consider the High Overall Stress rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (High PTS) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (Low PTS) at the 95% confidence level after Bonferroni adjustment.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Posttraumatic Stress Level, Q128B, Q128D, Q128E, Q128F; Overall Stress Level, Q119, Q120; Depression Level, Q125C, Q125E; Anxiety Level Q126; Suicidal Ideation, Q137, Q137A; Suicide Attempts, Q138, Q138A; Self-Inflicted Injury, Q135, Q136; Risk-Taking Propensity, Q139G-H, Q168G; Anger Propensity, Q134, Q139C, Q139I, Q168B; Resilience Level, Q139A-B, Q139J, Q168A, Q168C, Q168I; Positive Affect, Q125A, Q125D).

Table 5.12 – Suicidal Ideation and Suicide Attempts, by Service

	Service[1]					
Suicide Ideation/Attempts	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Suicidal Ideation						
Past year	4.7 (0.4)[d,e]	3.7 (0.3)[c,d,e]	6.1 (0.4)[b,d,e]	2.1 (0.2)[a,b,c]	2.4 (0.3)[a,b,c]	3.9 (0.2)
Not within past year but since joining service	5.2 (0.4)[b,d,e]	3.7 (0.3)[a,d]	3.9 (0.3)[d]	2.7 (0.2)[a,b,c]	3.0 (0.3)[a]	4.0 (0.2)
Not within past year but before joining service	5.7 (0.4)[d,e]	5.7 (0.4)[d,e]	5.4 (0.4)[d,e]	2.7 (0.2)[a,b,c]	3.7 (0.3)[a,b,c]	4.9 (0.2)
Suicide Attempts						
Past year	0.7 (0.1)[d,e]	0.4 (0.1)	0.9 (0.2)[d,e]	0.2 (0.0)[a,c]	0.2 (0.1)[a,c]	0.5 (0.1)
Not within past year but since joining service	1.0 (0.2)[e]	0.8 (0.2)	0.9 (0.2)	0.6 (0.1)	0.4 (0.1)[a]	0.8 (0.1)
Not within past year but before joining service	2.4 (0.3)[d,e]	1.9 (0.2)[d,e]	1.9 (0.2)[d,e]	0.9 (0.1)[a,b,c]	0.8 (0.2)[a,b,c]	1.8 (0.1)

Note: Table displays the percentage of military personnel, by Service, who reported the behaviors indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Suicidal Ideation, Q137, Q137A; Suicide Attempts, Q138, Q138A).

Table 5.13 – Self-Inflicted Injury, by Service

	Service[1]					
Self-Inflicted Injury	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Lifetime	12.0 (0.6)[c,d,e]	11.2 (0.5)[c,d,e]	15.3 (0.6)[a,b,d,e]	6.9 (0.3)[a,b,c]	8.2 (0.5)[a,b,c]	10.8 (0.3)
Since joining the military	5.9 (0.4)[c,d,e]	5.1 (0.4)[c,d,e]	8.1 (0.5)[a,b,d,e]	3.2 (0.2)[a,b,c]	3.2 (0.3)[a,b,c]	5.2 (0.2)

Note: Table displays the percentage of military personnel, by Service, who reported self-inflicted injury within the timeframes indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Self-Inflicted Injury, Q135, Q136).

Table 5.14 – High Posttraumatic Stress (PTS) Level, by Substance Use Measures and Service

Substance Use Measure	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Smoking Level						
Abstainer	4.5 (0.5)[d,e]	3.2 (0.4)[c,d,e]	5.4 (0.5)[b,d,e]	1.4 (0.2)[a,b,c]	1.6 (0.3)[a,b,c]	3.4 (0.2)
Former Smoker	7.9 (1.1)[b,d,e]	3.5 (0.7)[a,c]	7.8 (1.1)[b,d,e]	1.8 (0.4)[a,c]	2.2 (0.5)[a,c]	5.2 (0.4)
Infrequent	11.4 (1.9)[d,e]	5.7 (1.4)	5.5 (1.2)	4.9 (1.0)[a]	2.2 (0.8)[a]	7.6 (0.8)
Light/Moderate	10.4 (1.4)[b,d,e]	4.7 (1.0)[a,c]	12.5 (1.4)[b,d,e]	4.0 (0.7)[a,c]	4.4 (1.2)[a,c]	8.3 (0.6)
Heavy	23.2 (3.8)[d,e]	11.2 (2.9)	14.2 (3.0)[e]	6.5 (2.1)[a]	1.5 (1.4)[a,c]	16.2 (1.7)
Drinking Level						
Abstainer	5.0 (1.2)[d]	3.9 (1.1)	7.7 (1.5)[d]	1.9 (0.4)[a,c]	3.3 (1.4)	4.2 (0.5)
Former Drinker	9.5 (2.0)[d]	6.6 (1.7)	14.5 (2.7)[d,e]	2.5 (0.8)[a,c]	3.3 (1.3)[c]	7.7 (0.9)
Infrequent/Light	5.5 (0.5)[b,d,e]	3.3 (0.4)[a,c,d,e]	6.1 (0.6)[b,d,e]	1.6 (0.2)[a,b,c]	1.5 (0.3)[a,b,c]	3.8 (0.2)
Moderate	7.7 (1.1)[b,d,e]	2.5 (0.6)[a,c]	5.8 (0.8)[b,d,e]	2.7 (0.5)[a,c]	1.8 (0.5)[a,c]	5.0 (0.4)
Heavy	19.3 (2.4)[b,c,d,e]	9.7 (1.7)[a]	10.7 (1.4)[a]	6.9 (1.5)[a]	5.5 (1.4)[a]	13.2 (1.0)
Any Prescription Drug Misuse[2]	29.6 (6.1)	16.1 (5.8)	21.6 (5.7)	10.2 (4.3)	†	22.9 (3.1)

Note: Table displays the percentage of military personnel, by substance use measure and Service, who reported a high posttraumatic stress level. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[2]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)."

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Posttraumatic Stress Level, Q128B, Q128D, Q128E, Q128F; Smoking Levels, Q61, Q64, Q66; Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; Prescription Drug Misuse, Q84, Q86, Q87, Q89).

Table 5.15 – Stress and Mental Health Measures, All Services, by Drinking Level

Measure	Drinking Level[1]				
			Current Drinkers		
	Abstainer	Former Drinker	Infrequent/ Light	Moderate	Heavy
High Overall Stress Level	34.4 (1.2)[b,c,d,e]	44.2 (1.7)[a,c,e]	38.6 (0.5)[a,b,d,e]	46.2 (1.0)[a,c,e]	63.4 (1.4)[a,b,c,d]
High Anxiety Level	11.7 (0.8)[b,d,e]	18.4 (1.3)[a,c,e]	14.3 (0.4)[b,d,e]	19.4 (0.8)[a,c,e]	32.9 (1.3)[a,b,c,d]
High Depression Level	7.7 (0.7)[e]	9.0 (1.0)[e]	8.3 (0.3)[e]	10.1 (0.6)[e]	20.8 (1.2)[a,b,c,d]
High Posttraumatic Stress Level	4.2 (0.5)[b,e]	7.7 (0.9)[a,c,d,e]	3.8 (0.2)[b,e]	5.0 (0.4)[b,e]	13.2 (1.0)[a,b,c,d]
Suicidal Ideation[2]	3.1 (0.4)[e]	4.4 (0.7)[e]	3.0 (0.2)[d,e]	4.2 (0.4)[c,e]	10.6 (0.9)[a,b,c,d]
Physical or Sexual Abuse History	19.1 (1.0)[b,c,d,e]	27.4 (1.5)[a,e]	23.7 (0.5)[a,e]	25.2 (0.9)[a,e]	33.2 (1.4)[a,b,c,d]

Note: Table displays the percentage of military personnel, by drinking level, who reported the stress and mental health symptoms, suicidal ideation, and abuse history indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all drinking levels. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Abstainer) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Former) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Infrequent/Light) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Heavy) at the 95% confidence level after Bonferroni adjustment.

[2]Row displays the percentage of military personnel who indicated any suicidal ideation in the past year.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; Overall Stress Level, Q119, Q120; Anxiety Level Q126; Depression Level, Q125C, Q125E; Posttraumatic Stress Level, Q128B, Q128D, Q128E, Q128F; Suicidal Ideation, Q137, Q137A; Physical or Sexual Abuse History, Q127).

Table 5.16 – Stress and Mental Health Measures, All Services, by Smoking Level

	Smoking Level[1]				
			Current Smokers		
Measure	Abstainer	Former Smoker	Infrequent	Light/Moderate	Heavy
High Overall Stress Level	37.3 (0.5)[b,c,d,e]	43.4 (1.0)[a,c,d,e]	48.4 (1.4)[a,b,e]	52.2 (1.1)[a,b,e]	61.1 (2.2)[a,b,c,d]
High Anxiety Level	12.9 (0.4)[b,c,d,e]	17.8 (0.7)[a,c,d,e]	22.1 (1.2)[a,b,e]	24.7 (1.0)[a,b,e]	35.4 (2.2)[a,b,c,d]
High Depression Level	8.1 (0.3)[c,d,e]	8.9 (0.6)[d,e]	11.1 (0.9)[a,e]	14.0 (0.8)[a,b,e]	21.2 (1.9)[a,b,c,d]
High Posttraumatic Stress Level	3.4 (0.2)[b,c,d,e]	5.2 (0.4)[a,d,e]	7.6 (0.8)[a,e]	8.3 (0.6)[a,b,e]	16.2 (1.7)[a,b,c,d]
Suicidal Ideation[2]	3.3 (0.2)[c,d,e]	4.3 (0.4)	4.9 (0.6)[a]	5.2 (0.5)[a]	6.7 (1.2)[a]
Physical or Sexual Abuse History	21.3 (0.4)[b,c,d,e]	28.5 (0.9)[a]	26.1 (1.3)[a,d]	30.9 (1.1)[a,c]	32.9 (2.2)[a]

Note: Table displays the percent of military personnel, by smoking level, who reported the stress and mental health symptoms, suicidal ideation, and abuse history indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all smoking levels. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Abstainer) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Former) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Infrequent) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Light/Moderate) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Heavy) at the 95% confidence level after Bonferroni adjustment.

[2]Row displays the percentage of military personnel who indicated any suicidal ideation in the past year.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Smoking Levels, Q61, Q64, Q66; Overall Stress Level, Q119, Q120; Anxiety Level, Q126; Depression Level, Q125C, Q125E; Posttraumatic Stress Level, Q128B, Q128D, Q128E, Q128F; Suicidal Ideation, Q137, Q137A; Physical or Sexual Abuse History, Q127).

Table 5.17 – High Anxiety Level, by Sociodemographic Characteristics and Service

Sociodemographic Characteristic	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Gender						
Male	18.7 (0.7)[b,d,e]	14.9 (0.7)[a,c,d,e]	21.2 (0.7)[b,d,e]	8.5 (0.3)[a,b,c,e]	10.7 (0.5)[a,b,c,d]	15.5 (0.3)
Female	27.2 (2.0)[d,e]	25.6 (1.8)[d,e]	31.8 (2.9)[d,e]	14.6 (0.9)[a,b,c]	17.6 (1.7)[a,b,c]	22.8 (0.9)
Race/Ethnicity						
White, non-Hispanic	21.6 (0.9)[b,d,e]	17.6 (0.8)[a,c,d,e]	24.1 (0.9)[b,d,e]	10.2 (0.4)[a,b,c,e]	12.2 (0.6)[a,b,c,d]	17.7 (0.4)
African-American, non-Hispanic	14.5 (1.6)[d]	12.9 (1.5)	16.4 (2.0)[d]	9.1 (1.0)[a,c]	10.5 (2.3)	13.1 (0.8)
Hispanic	18.2 (1.9)[d,e]	17.0 (1.8)[d,e]	17.3 (1.5)[d,e]	7.2 (0.9)[a,b,c]	8.1 (1.3)[a,b,c]	15.3 (0.8)
Other	19.2 (2.8)[d]	16.7 (2.2)[d]	19.2 (3.0)[d]	7.6 (1.4)[a,b,c]	11.4 (2.5)	16.0 (1.2)
Education						
High School or less	25.5 (1.8)[d,e]	20.2 (1.4)[d,e]	22.2 (1.1)[d,e]	9.8 (0.9)[a,b,c]	9.8 (1.1)[a,b,c]	20.3 (0.7)
Some college	22.3 (1.0)[b,d,e]	18.0 (0.9)[a,c,d,e]	24.4 (1.1)[b,d,e]	10.5 (0.4)[a,b,c,e]	13.2 (0.8)[a,b,c,d]	18.0 (0.4)
College graduate or higher	13.3 (1.0)[d]	11.5 (1.0)[d]	14.1 (1.5)[d]	8.1 (0.6)[a,b,c]	10.0 (1.0)	11.5 (0.5)
Age						
18-20	24.2 (4.0)[d]	19.7 (3.8)	22.1 (2.1)[d]	11.7 (1.5)[a,c]	19.5 (4.6)	19.4 (1.5)
21-25	21.0 (1.7)[d,e]	23.4 (1.4)[d,e]	25.1 (1.2)[d,e]	10.0 (0.7)[a,b,c,e]	14.2 (1.3)[a,b,c,d]	19.4 (0.7)
26-35	22.3 (1.2)[b,d,e]	14.4 (1.0)[a,c,d]	20.6 (1.3)[b,d,e]	8.8 (0.5)[a,b,c]	11.2 (0.8)[a,c]	16.5 (0.5)
36-45	16.6 (1.3)[d,e]	13.2 (1.2)	17.8 (1.9)[d,e]	10.8 (0.8)[a,c]	10.3 (1.1)[a,c]	14.4 (0.6)
46-65	13.6 (2.4)	11.1 (2.4)	11.6 (4.6)	9.6 (1.8)	8.4 (2.1)	12.0 (1.3)
Family Status						
Not married	19.1 (1.2)[d,e]	19.1 (1.1)[d,e]	22.1 (1.1)[d,e]	10.5 (0.6)[a,b,c]	12.9 (0.9)[a,b,c]	17.1 (0.5)
Married, spouse not present	23.2 (2.1)[d,e]	19.0 (2.1)[c]	30.8 (2.6)[b,d,e]	15.2 (1.6)[a,c]	13.9 (2.1)[a,c]	21.7 (1.1)
Married, spouse present	19.8 (0.9)[b,d,e]	14.5 (0.8)[a,c,d,e]	20.2 (1.0)[b,d,e]	8.6 (0.4)[a,b,c]	10.6 (0.7)[a,b,c]	15.5 (0.4)

Table 5.17 – High Anxiety Level, by Sociodemographic Characteristics and Service

Sociodemographic Characteristic	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Pay Grade						
E1-E4	20.9 (1.1)[d,e]	21.3 (1.1)[d,e]	24.9 (1.0)[d,e]	10.2 (0.6)[a,b,c,e]	13.4 (1.0)[a,b,c,d]	19.3 (0.5)
E5-E6	26.2 (1.5)[b,d,e]	17.0 (1.1)[a,c,d,e]	22.3 (1.4)[b,d,e]	10.4 (0.6)[a,b,c]	11.9 (0.9)[a,b,c]	18.4 (0.6)
E7-E9	15.9 (1.9)[e]	11.9 (1.8)	16.0 (2.2)[e]	10.6 (1.0)	8.7 (1.4)[a,c]	13.4 (0.9)
W1-W5	13.9 (3.5)	†	18.0 (5.9)	------	12.3 (2.8)	14.2 (2.3)
O1-O3	11.5 (1.8)[d]	9.6 (1.5)	11.0 (2.0)	6.5 (0.8)[a]	11.0 (1.7)	9.5 (0.8)
O4-O10	11.0 (2.1)	8.7 (1.7)	11.6 (2.7)	8.1 (1.0)	7.9 (1.8)	9.5 (0.9)
Region						
CONUS[2]	19.8 (0.8)[b,d,e]	16.6 (0.7)[a,c,d,e]	22.6 (0.8)[b,d,e]	9.8 (0.3)[a,b,c]	11.6 (0.6)[a,b,c]	16.7 (0.3)
OCONUS[3]	20.4 (1.5)[d,e]	16.9 (1.2)[d]	20.1 (1.4)[d,e]	9.2 (0.7)[a,b,c]	12.0 (1.5)[a,c]	16.7 (0.6)
Total	20.0 (0.7)[b,d,e]	16.7 (0.6)[a,c,d,e]	22.0 (0.7)[b,d,e]	9.7 (0.3)[a,b,c,e]	11.7 (0.5)[a,b,c,d]	16.7 (0.3)

Note: Table displays the percentage of military personnel, by sociodemographic characteristic and Service, who reported high anxiety levels. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[2]Refers to personnel who were stationed within the 48 contiguous States in the continental United States (excluding Alaska and Hawaii).

[3]Refers to personnel who were stationed outside the continental United States.

------Not applicable.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Anxiety Level, Q126).

Table 5.18 – High Depression Level, by Sociodemographic Characteristics and Service

Sociodemographic Characteristic[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Gender						
Male	11.2 (0.6)[2]	9.1 (0.5)[2]	12.5 (0.6)[2]	4.5 (0.3)[2]	5.4 (0.4)	9.2 (0.3)[2]
Female	15.0 (1.6)[1]	13.4 (1.4)[1]	18.6 (2.4)[1]	6.8 (0.6)[1]	7.4 (1.2)	12.0 (0.7)[1]
Race/Ethnicity						
White, non-Hispanic	11.9 (0.7)	9.4 (0.6)	13.0 (0.7)	5.2 (0.3)	5.4 (0.4)	9.5 (0.3)
African-American, non-Hispanic	10.1 (1.3)	10.1 (1.3)	10.7 (1.6)	5.3 (0.8)	9.1 (2.1)	9.2 (0.7)
Hispanic	12.8 (1.6)	12.4 (1.6)	13.5 (1.4)	3.2 (0.6)	5.0 (1.1)	10.8 (0.7)
Other	11.7 (2.3)	8.7 (1.6)	15.4 (2.8)	5.7 (1.2)	7.1 (2.0)	9.9 (1.0)
Education						
High School or less	17.2 (1.6)[2,3]	13.2 (1.2)[2,3]	14.6 (0.9)[3]	5.1 (0.7)	5.8 (0.8)	13.3 (0.6)[2,3]
Some college	12.7 (0.8)[1,3]	9.6 (0.7)[1]	13.3 (0.9)[3]	5.4 (0.3)[3]	6.5 (0.6)[3]	9.9 (0.3)[1,3]
College graduate or higher	7.3 (0.8)[1,2]	7.2 (0.8)[1]	7.7 (1.2)[1,2]	4.1 (0.4)[2]	3.7 (0.6)[2]	6.3 (0.4)[1,2]
Age						
18-20	11.9 (3.0)	9.3 (2.8)	16.2 (1.9)[4]	6.3 (1.2)	14.2 (4.1)[2,3,4,5]	11.3 (1.2)[4,5]
21-25	14.0 (1.4)[4]	13.8 (1.2)[3,4,5]	15.3 (1.0)[4]	5.2 (0.5)	5.3 (0.8)[1]	11.8 (0.5)[3,4,5]
26-35	13.6 (1.0)[4]	8.7 (0.8)[2]	11.4 (1.0)	4.3 (0.4)	5.8 (0.6)[1]	9.6 (0.4)[2,5]
36-45	9.1 (1.0)[2,3]	8.5 (1.0)[2]	7.3 (1.3)[1,2]	5.8 (0.6)	5.6 (0.9)[1]	8.0 (0.5)[1,2]
46-65	6.9 (1.8)	5.2 (1.7)[2]	5.7 (3.3)	4.4 (1.3)	1.9 (1.0)[1]	5.8 (0.9)[1,2,3]
Family Status						
Not married	14.1 (1.1)[3]	12.6 (0.9)[3]	15.2 (0.9)[2,3]	5.9 (0.4)[3]	6.9 (0.7)[3]	11.6 (0.4)[2,3]
Married, spouse not present	18.2 (1.9)[3]	13.2 (1.8)[3]	22.9 (2.3)[1,3]	11.9 (1.5)[1,3]	10.5 (1.9)[3]	16.5 (1.0)[1,3]
Married, spouse present	9.2 (0.7)[1,2]	7.1 (0.6)[1,2]	9.0 (0.7)[1,2]	3.6 (0.3)[1,2]	4.3 (0.4)[1,2]	7.1 (0.3)[1,2]

Table 5.18 – High Depression Level, by Sociodemographic Characteristics and Service

Sociodemographic Characteristic[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Pay Grade						
E1-E4	14.5 (0.9)[3,5,6]	12.4 (0.9)[3,5,6]	16.6 (0.8)[2,3,5,6]	5.6 (0.4)[5]	7.0 (0.8)	12.5 (0.4)[2,3,5,6]
E5-E6	13.5 (1.2)[3,5,6]	10.7 (0.9)[5,6]	11.1 (1.1)[1,5]	5.6 (0.4)[5]	6.3 (0.7)	10.0 (0.4)[1,3,5,6]
E7-E9	7.5 (1.4)[1,2]	6.2 (1.3)[1]	6.8 (1.5)[1]	4.4 (0.7)[5]	3.3 (0.9)	6.2 (0.6)[1,2]
W1-W5	6.5 (2.5)	†	6.0 (3.7)	------	6.3 (2.1)	6.4 (1.6)
O1-O3	4.9 (1.2)[1,2]	4.7 (1.1)[1,2]	4.5 (1.3)[1,2]	1.9 (0.4)[1,2,3,6]	3.8 (1.0)	3.9 (0.5)[1,2]
O4-O10	5.6 (1.5)[1,2]	4.6 (1.3)[1,2]	3.7 (1.6)[1]	5.0 (0.8)[5]	2.0 (0.9)	4.9 (0.7)[1,2]
Region						
CONUS[b]	11.9 (0.6)	9.7 (0.6)	13.0 (0.6)	5.0 (0.3)	5.7 (0.4)	9.6 (0.3)
OCONUS[c]	11.2 (1.2)	10.2 (1.0)	13.0 (1.2)	5.0 (0.5)	5.7 (1.1)	9.6 (0.5)
Total	11.8 (0.6)	9.8 (0.5)	13.0 (0.6)	5.0 (0.2)	5.7 (0.4)	9.6 (0.2)

Note: Table displays the percentage of military personnel, by sociodemographic characteristic and Service, who reported high depression symptoms. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel who were stationed within the 48 contiguous States in the continental United States (excluding Alaska and Hawaii).

[c]Refers to personnel who were stationed outside the continental United States.

------Not applicable.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Depression Level, Q125C, Q125E).

Table 5.19 – Personality Traits Associated with Adverse Health Behaviors, by Service

Trait	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
High Risk-Taking	10.9 (0.5)[c,d,e]	10.1 (0.5)[c,d]	15.1 (0.6)[a,b,d,e]	7.4 (0.3)[a,b,c]	8.6 (0.4)[a,c]	10.3 (0.3)
High Anger	9.4 (0.5)[b,d,e]	6.8 (0.4)[a,c,d,e]	10.4 (0.5)[b,d,e]	3.2 (0.2)[a,b,c]	3.4 (0.3)[a,b,c]	7.2 (0.2)
Resilience						
Low	4.0 (0.3)	4.9 (0.4)[d]	5.4 (0.4)[d,e]	3.7 (0.2)[b,c]	4.0 (0.3)[c]	4.3 (0.2)
Moderate	60.2 (0.9)	61.2 (0.8)	61.2 (0.8)	63.1 (0.5)	60.9 (0.8)	61.3 (0.4)
Positive Affect						
Low	10.4 (0.5)[d,e]	9.2 (0.5)[c,e]	11.9 (0.5)[b,d,e]	7.8 (0.3)[a,c]	7.3 (0.4)[a,b,c]	9.6 (0.2)
Moderate	61.7 (0.8)[d]	61.2 (0.8)[d]	63.8 (0.8)[d,e]	56.4 (0.5)[a,b,c]	58.7 (0.8)[c]	60.4 (0.4)

Note: Table displays the percentage of military personnel, by Service, who reported the personality traits indicated in the rows of this table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Risk-Taking Propensity, Q139G-H, Q168G; Anger Propensity, Q134, Q139C, Q139I, Q168B; Resilience Level, Q139A-B, Q139J, Q168A, Q168C, Q168I; Positive Affect, Q125A, Q125D).

Table 5.20 – Personality Traits Associated with Adverse Health Behaviors, All Services, by Drinking Level

	Drinking Level[1]				
			Current Drinkers		
Trait	Abstainer	Former Drinker	Infrequent/ Light	Moderate	Heavy
High Risk-Taking	9.1 (0.8)[d,e]	6.9 (0.9)[d,e]	7.8 (0.3)[d,e]	14.7 (0.7)[a,b,c,e]	23.3 (1.2)[a,b,c,d]
High Anger	4.3 (0.5)[b,d,e]	8.7 (1.0)[a,c,e]	5.7 (0.3)[b,d,e]	8.7 (0.6)[a,c,e]	18.0 (1.1)[a,b,c,d]
Resilience					
Low	6.7 (0.7)[c,d]	7.2 (0.9)[c,d]	3.7 (0.2)[a,b,e]	3.2 (0.4)[a,b,e]	6.2 (0.7)[c,d]
Moderate	59.5 (1.3)[e]	59.5 (1.7)[e]	61.1 (0.5)[e]	61.6 (1.0)	65.8 (1.4)[a,b,c]
Positive Affect					
Low	10.0 (0.8)[e]	12.1 (1.1)[c]	8.5 (0.3)[b,e]	9.0 (0.6)[e]	16.2 (1.1)[a,c,d]
Moderate	56.2 (1.3)[d,e]	55.5 (1.7)[d,e]	59.0 (0.5)[d,e]	66.7 (0.9)[a,b,c]	65.7 (1.4)[a,b,c]

Note: Table displays the percentage of military personnel, by drinking level, who reported the personality traits indicated in the rows of this table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all drinking levels. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Abstainer) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Former Drinker) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Infrequent/Light) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Heavy) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Risk-Taking Propensity, Q139G-H, Q168G; Anger Propensity, Q134, Q139C, Q139I, Q168B; Resilience Level, Q139A-B, Q139J, Q168A, Q168C, Q168I; Positive Affect, Q125A, Q125D; Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47).

Table 5.21 – Physical and Sexual Abuse History, by Service

	Service[1]					
Abuse History	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Physical Abuse						
Before joining the military, by a person in authority	16.8 (0.6)[b,d,e]	13.0 (0.6)[a,c,d,e]	16.3 (0.6)[b,d,e]	10.1 (0.3)[a,b,c]	9.7 (0.5)[a,b,c]	14.0 (0.3)
Since joining the military, by someone in the military	4.8 (0.4)[c,d,e]	4.4 (0.3)[c,d,e]	8.1 (0.5)[a,b,d,e]	2.3 (0.2)[a,b,c]	3.0 (0.3)[a,b,c]	4.5 (0.2)
Since joining the military, by a civilian	3.0 (0.3)[d]	3.1 (0.3)[d]	3.3 (0.3)[d]	2.0 (0.2)[a,b,c,e]	3.0 (0.3)[d]	2.8 (0.1)
Total ever physically abused	20.0 (0.7)[b,d,e]	16.2 (0.6)[a,c,d,e]	21.6 (0.7)[b,d,e]	11.9 (0.4)[a,b,c]	11.9 (0.5)[a,b,c]	17.1 (0.3)
Unwanted Sexual Contact						
Before joining the military	12.3 (0.6)[c,d,e]	10.9 (0.5)[c,d,e]	8.7 (0.5)[a,b]	8.9 (0.3)[a,b]	8.4 (0.5)[a,b]	10.5 (0.2)
Since joining the military, by someone in the military	6.6 (0.4)[d]	7.7 (0.4)[c,d,e]	5.7 (0.4)[b,d]	4.4 (0.2)[a,b,c]	5.2 (0.4)[b]	6.1 (0.2)
Since joining the military, by a civilian	2.9 (0.3)	3.4 (0.3)[d]	3.7 (0.3)[d]	2.2 (0.2)[b,c,e]	3.1 (0.3)[d]	2.9 (0.1)
Total ever sexually abused	16.0 (0.6)[c,d,e]	15.8 (0.6)[c,d,e]	12.7 (0.6)[a,b]	11.6 (0.4)[a,b]	12.2 (0.5)[a,b]	14.3 (0.3)
Any Abuse Experience						
Before joining the military	22.6 (0.7)[b,d,e]	19.0 (0.7)[a,d,e]	20.9 (0.7)[d,e]	15.4 (0.4)[a,b,c]	14.7 (0.6)[a,b,c]	19.5 (0.3)
Since joining the military, by someone in the military	9.6 (0.5)[d,e]	10.1 (0.5)[d,e]	11.3 (0.5)[d,e]	5.5 (0.3)[a,b,c]	6.6 (0.4)[a,b,c]	8.8 (0.2)
Since joining the military, by a civilian	4.7 (0.4)[d]	5.0 (0.4)[d]	5.5 (0.4)[d]	3.3 (0.2)[a,b,c,e]	4.7 (0.3)[d]	4.5 (0.2)
Total any abuse	27.6 (0.8)[d,e]	24.8 (0.7)[d,e]	27.3 (0.7)[d,e]	18.8 (0.4)[a,b,c]	19.3 (0.7)[a,b,c]	24.5 (0.4)

Note: Table displays the percentage of military personnel, by Service, who reported the type and timing of abuse as indicated by the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Physical and Sexual Abuse History, Q127).

Table 5.22 – Physical and Sexual Abuse History Among Females, by Service

Abuse History	Service[1] Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Physical Abuse						
Before joining the military, by a person in authority	23.9 (1.9)[d,e]	17.7 (1.6)	24.9 (2.7)[d,e]	14.2 (0.9)[a,c]	13.5 (1.5)[a,c]	19.1 (0.8)
Since joining the military, by someone in the military	7.3 (1.2)	7.2 (1.1)	9.4 (1.8)[e]	5.1 (0.5)	3.8 (0.8)[c]	6.6 (0.5)
Since joining the military, by a civilian	5.1 (1.0)	5.2 (0.9)	4.0 (1.2)	3.4 (0.4)	4.9 (1.0)	4.5 (0.4)
Total ever physically abused	29.1 (2.0)[d,e]	23.8 (1.7)[e]	30.7 (2.8)[d,e]	18.5 (1.0)[a,c]	16.9 (1.7)[a,b,c]	24.2 (0.9)
Unwanted Sexual Contact						
Before joining the military	34.5 (2.1)[d,e]	30.0 (1.9)	35.7 (2.9)[d,e]	25.1 (1.1)[a,c]	23.7 (1.9)[a,c]	30.2 (0.9)
Since joining the military, by someone in the military	24.1 (1.9)[d]	24.4 (1.8)[d]	29.7 (2.8)[d,e]	15.7 (0.9)[a,b,c]	18.6 (1.7)[c]	21.7 (0.9)
Since joining the military, by a civilian	6.8 (1.1)	6.3 (1.0)	5.1 (1.3)	4.6 (0.5)	5.3 (1.0)	5.8 (0.5)
Total ever sexually abused	47.2 (2.2)[d,e]	42.8 (2.0)[d]	49.9 (3.1)[d,e]	34.4 (1.2)[a,b,c]	36.7 (2.1)[a,c]	42.0 (1.0)
Any Abuse Experience						
Before joining the military	42.2 (2.2)[d,e]	36.6 (2.0)[d]	44.5 (3.1)[d,e]	30.2 (1.1)[a,b,c]	29.3 (2.0)[a,c]	36.8 (1.0)
Since joining the military, by someone in the military	27.0 (2.0)[d,e]	27.2 (1.8)[d,e]	32.8 (2.9)[d,e]	17.8 (0.9)[a,b,c]	19.5 (1.8)[a,b,c]	24.3 (0.9)
Since joining the military, by a civilian	10.3 (1.4)[d]	8.8 (1.2)	7.7 (1.6)	6.4 (0.6)[a]	8.4 (1.2)	8.5 (0.6)
Total any abuse	54.1 (2.2)[d,e]	49.6 (2.0)[d]	57.7 (3.0)[d,e]	39.7 (1.2)[a,b,c]	41.5 (2.2)[a,c]	48.3 (1.0)

Note: Table displays the percentage of female military personnel, by Service, who reported the type and timing of abuse as indicated by the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.

[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Physical and Sexual Abuse History, Q127).

Table 5.23 – Physical and Sexual Abuse History Among Males, by Service

Abuse History	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Physical Abuse						
Before joining the military, by a person in authority	15.6 (0.7)[b,d,e]	12.1 (0.6)[a,c,d,e]	15.6 (0.6)[b,d,e]	9.1 (0.4)[a,b,c]	9.1 (0.5)[a,b,c]	13.1 (0.3)
Since joining the military, by someone in the military	4.3 (0.4)[c,d,e]	3.8 (0.4)[c,d]	8.0 (0.5)[a,b,d,e]	1.6 (0.2)[a,b,c,e]	2.9 (0.3)[a,c,d]	4.1 (0.2)
Since joining the military, by a civilian	2.7 (0.3)[d]	2.7 (0.3)[d]	3.3 (0.3)[d]	1.7 (0.2)[a,b,c,e]	2.7 (0.3)[d]	2.5 (0.1)
Total ever physically abused	18.4 (0.7)[b,d,e]	14.7 (0.7)[a,c,d,e]	20.9 (0.7)[b,d,e]	10.3 (0.4)[a,b,c]	11.1 (0.6)[a,b,c]	15.8 (0.3)
Unwanted Sexual Contact						
Before joining the military	8.4 (0.5)[c,d,e]	7.0 (0.5)[d]	6.5 (0.4)[a,d]	4.9 (0.3)[a,b,c]	6.0 (0.4)[a]	6.9 (0.2)
Since joining the military, by someone in the military	3.5 (0.3)[d]	4.3 (0.4)[d]	3.8 (0.3)[d]	1.7 (0.2)[a,b,c,e]	3.1 (0.3)[d]	3.3 (0.2)
Since joining the military, by a civilian	2.2 (0.3)[c]	2.8 (0.3)[d]	3.6 (0.3)[a,d]	1.6 (0.2)[b,c,e]	2.7 (0.3)[d]	2.4 (0.1)
Total ever sexually abused	10.6 (0.6)[d,e]	10.2 (0.6)[d]	9.7 (0.5)[d]	6.0 (0.3)[a,b,c,e]	8.3 (0.5)[a,d]	9.2 (0.3)
Any Abuse Experience						
Before joining the military	19.1 (0.7)[b,d,e]	15.4 (0.7)[a,c,d,e]	19.0 (0.7)[b,d,e]	11.7 (0.4)[a,b,c]	12.4 (0.6)[a,b,c]	16.3 (0.3)
Since joining the military, by someone in the military	6.5 (0.5)[c,d,e]	6.5 (0.5)[c,d,e]	9.6 (0.5)[a,b,d,e]	2.5 (0.2)[a,b,c,e]	4.6 (0.4)[a,b,c,d]	6.0 (0.2)
Since joining the military, by a civilian	3.8 (0.4)[c,d]	4.2 (0.4)[d]	5.4 (0.4)[a,d]	2.5 (0.2)[a,b,c,e]	4.1 (0.4)[d]	3.8 (0.2)
Total any abuse	23.0 (0.8)[b,d,e]	19.7 (0.7)[a,c,d,e]	24.9 (0.8)[b,d,e]	13.6 (0.4)[a,b,c,e]	15.8 (0.6)[a,b,c,d]	20.1 (0.4)

Note: Table displays the percentage of male military personnel, by Service, who reported the type and timing of abuse as indicated by the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Physical and Sexual Abuse History, Q127).

Table 5.24 – Receipt of Mental Health Treatment and Related Concerns, Past 12 Months, by Service

	Service[1]					
Mental Health Measure	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Counseling Need	31.5 (0.8)[b,c,d,e]	25.3 (0.7)[a,d,e]	26.0 (0.7)[a,d,e]	17.9 (0.4)[a,b,c]	19.8 (0.7)[a,b,c]	25.6 (0.4)
Source of Help						
Any source of counseling	32.1 (0.8)[b,c,d,e]	21.7 (0.7)[a,e]	22.1 (0.7)[a,d,e]	19.7 (0.4)[a,c]	17.6 (0.6)[a,b,c]	24.9 (0.4)
From a military mental health professional	19.8 (0.7)[b,c,d,e]	11.4 (0.5)[a,e]	10.6 (0.5)[a,e]	10.1 (0.3)[a,e]	5.5 (0.4)[a,b,c,d]	13.9 (0.3)
From a general physician at a military facility	11.3 (0.5)[b,c,d,e]	8.3 (0.5)[a,d,e]	8.0 (0.5)[a,e]	6.7 (0.3)[a,b]	5.9 (0.4)[a,b,c]	8.9 (0.2)
From a military chaplain	9.4 (0.5)[b,c,d,e]	6.2 (0.4)[a,d,e]	7.4 (0.4)[a,d,e]	4.0 (0.2)[a,b,c]	4.4 (0.3)[a,b,c]	6.9 (0.2)
From a civilian mental health professional	10.5 (0.5)[b,d]	6.7 (0.4)[a,c,e]	8.9 (0.5)[b,d]	5.6 (0.3)[a,c,e]	9.1 (0.5)[b,d]	8.2 (0.2)
From a general physician at a civilian facility	4.2 (0.3)[b,d]	2.5 (0.3)[a,e]	3.2 (0.3)[d]	2.2 (0.2)[a,c,e]	3.7 (0.3)[b,d]	3.2 (0.1)
From a civilian pastoral counselor	5.3 (0.4)[d]	4.6 (0.4)[d]	4.5 (0.3)[d]	3.2 (0.2)[a,b,c,e]	4.3 (0.3)[d]	4.5 (0.2)
From a self-help group (AA, NA)	2.7 (0.3)[d]	2.6 (0.3)[d]	3.0 (0.3)[d]	1.3 (0.1)[a,b,c,e]	2.4 (0.3)[d]	2.4 (0.1)
Reasons for Help-Seeking						
Depression	16.1 (0.6)[b,c,d,e]	10.1 (0.5)[a,d,e]	10.9 (0.5)[a,d,e]	7.2 (0.3)[a,b,c]	6.5 (0.4)[a,b,c]	11.6 (0.3)
Anxiety	14.6 (0.6)[b,c,d,e]	9.2 (0.5)[a,d,e]	9.5 (0.5)[a,d,e]	6.5 (0.3)[a,b,c]	5.9 (0.4)[a,b,c]	10.4 (0.2)
Family problems	12.1 (0.6)[d,e]	10.0 (0.5)[d]	10.2 (0.5)[d]	7.7 (0.3)[a,b,c]	9.0 (0.5)[a]	10.2 (0.2)
Substance use problems	1.4 (0.2)[c,d]	1.2 (0.2)[c]	2.5 (0.3)[a,b,d,e]	0.8 (0.1)[a,c]	0.9 (0.2)[c]	1.3 (0.1)
Anger management	9.4 (0.5)[b,c,d,e]	5.0 (0.4)[a,c,d,e]	6.8 (0.4)[a,b,d,e]	2.9 (0.2)[a,b,c]	2.1 (0.2)[a,b,c]	6.2 (0.2)
Stress management	13.6 (0.6)[b,c,d,e]	9.4 (0.5)[a,d,e]	10.4 (0.5)[a,d,e]	6.7 (0.3)[a,b,c]	6.6 (0.4)[a,b,c]	10.3 (0.2)
Other	9.6 (0.5)[b,c,d,e]	6.4 (0.4)[a,e]	6.1 (0.4)[a,e]	5.1 (0.2)[a]	4.1 (0.3)[a,b,c]	7.2 (0.2)
Did not seek help, past 12 months	70.7 (0.8)[b,c,d,e]	78.9 (0.7)[a,d,e]	77.0 (0.7)[a,d,e]	82.0 (0.4)[a,b,c]	82.3 (0.6)[a,b,c]	76.5 (0.3)

Table 5.24 – Receipt of Mental Health Treatment and Related Concerns, Past 12 Months, by Service

	Service[1]					
Mental Health Measure	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Perceived Stigma for Help-Seeking						
Would damage career	37.3 (0.8)[b,d]	42.1 (0.8)[a,c,d,e]	38.3 (0.8)[b,d]	34.2 (0.5)[a,b,c]	36.1 (0.8)[b]	37.7 (0.4)
Stigma of Military-Provided Mental Health Services						
Negatively affected career	20.7 (1.2)	24.3 (1.5)[d,e]	26.2 (1.5)[d,e]	17.9 (0.9)[b,c]	15.5 (1.4)[b,c]	21.3 (0.7)

Note: Table displays the percentage of military personnel, by Service, who reported the mental health treatment history and perceptions of mental health treatment indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Counseling Need, Q129; Source of Help, Q130; Reasons for Help-Seeking, Q132; Perceived Stigma for Help-Seeking, Q131; Stigma of Military-Provided Mental Health Services, Q133).

Table 5.25 – Perceived Stigma for Help-Seeking, All Services, by Receipt of Services and Selected Mental Health Measures

Mental Health Indicator	Received Mental Health Services[1]: Yes – Would Damage Career	Yes – Would Not Damage Career	No – Would Damage Career	No – Would Not Damage Career
Counseling Need	40.5 (1.0)[c]	59.5 (1.0)[d]	53.0 (1.4)[a]	47.0 (1.4)[b]
Suicide Ideation/Attempts	53.7 (2.6)[c]	46.3 (2.6)[d]	65.8 (3.2)[a]	34.2 (3.2)[b]
High Overall Stress Level	45.6 (1.0)[c]	54.4 (1.0)[d]	48.7 (0.8)[a]	51.3 (0.8)[b]
High Anxiety Level	48.4 (1.4)[c]	51.6 (1.4)[d]	56.6 (1.4)[a]	43.4 (1.4)[b]
High Depression Level	52.8 (1.8)[c]	47.2 (1.8)[d]	58.2 (2.0)[a]	41.8 (2.0)[b]
High Posttraumatic Stress Level	57.2 (2.2)[c]	42.8 (2.2)[d]	68.7 (3.0)[a]	31.3 (3.0)[b]
High Anger Propensity	51.0 (2.2)	49.0 (2.2)	56.5 (2.2)	43.5 (2.2)
Resilience				
Low	54.5 (3.6)[c]	45.5 (3.6)[d]	36.8 (2.4)[a]	63.2 (2.4)[b]
Moderate	40.3 (1.0)	59.7 (1.0)	39.2 (0.6)	60.8 (0.6)
Positive Affect				
Low	55.2 (2.3)[c]	44.8 (2.3)[d]	45.2 (1.6)[a]	54.8 (1.6)[b]
Moderate	40.1 (1.0)	59.9 (1.0)	39.5 (0.6)	60.5 (0.6)

Note: Table displays the percentage of military personnel, by the mental health measures indicated in the rows of this table, according to their past receipt of mental health services and perceived stigma for help-seeking. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between military personnel who did and did not receive mental health services within the past year. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-4. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Received Mental Health Services – Would Damage Career) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Received Mental Health Service – Would Not Damage Career) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Did Not Receive Mental Health Services – Would Damage Career) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Did Not Receive Mental Health Services – Would Not Damage Career) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Source of Help, Q130; Counseling Need, Q129; Suicidal Ideation, Q137, Q137A; Suicide Attempts, Q138, Q138A; Overall Stress Level, Q119, Q120; Anxiety Level, Q126; Depression Level, Q125C, Q125E; Posttraumatic Stress Level, Q128B, Q128D, Q128E, 128F; Anger Propensity, Q134, Q139C, Q139I, Q168B; Resilience Level, Q139A-B, Q139J, Q168A, Q168C, Q168I; Positive Affect, Q125A, Q125D; Perceived Stigma for Help-Seeking, Q131).

Chapter 6: Deployment and Combat Exposure

This chapter presents the results of a detailed analysis of active duty members' deployment-related experiences and exposure to combat across all services and within each service component. The tables illustrate deployment characteristics, such as frequency and length of deployments in the past 5 years and since September 11, 2001, for personnel who were combat and non-combat deployed. In addition, levels of combat exposure (i.e., high, moderate, and low exposure) were examined by service, sociodemographic characteristics, levels of stress, and substance use (i.e., smoking levels, drinking levels, and prescription drug use). Similarly, several tables explore relationships among total length of combat deployments since 9/11, theater of operations served, and substance use, stress and mental health measures, and personality traits associated with adverse health behaviors. We also examined possible traumatic brain injury (TBI) by service and levels of combat exposure, as well as sociodemographic characteristics, stress, mental health measures, and substance use. The analyses also present change in substance use due to deployment and receipt of prescription medications, including anti-depressants, by levels of combat exposure. Finally, the analyses examine changes in interpersonal relationship conflict and relationship status by service and reasons for non-deployment and returning early from deployment. Overall, the analyses in this chapter provide insight into how deployment characteristics and exposure to combat impacted propensity for risk behaviors and mental health outcomes of active duty service members.

6.1 Overview of Key Measures of Deployment and Combat Exposure

The 'Combat Exposure' scale is a composite index formed from 17 items that ask about the number of times exposed to various combat situations during combat zone deployments since September 11, 2001. It has 3 levels – High, Moderate, and Low. Individuals who were classified as high reported being exposed to combat experiences 10 times or more; those classified as moderate reported exposure to combat experiences less than 10 times, and personnel classified as low had been combat deployed since September 11, 2001, but reported no exposure to combat experiences.

The 'Possible Traumatic Brain Injury (TBI)' measure is composed of three sets of items based on the Brief Traumatic Brain Injury Screen, which was developed by the Defense and Veterans Brain Injury Center (Schwab et al., 2006). It is important to note that this screen is used to detect the need for further evaluation of mild TBI, and for the purposes of this report, is a reflection of self-reported symptoms that should not be interpreted as a clinical diagnosis of TBI. The items ask about injuries received during the most recent deployment, symptoms experienced during or after

the most recent deployment as a result of injury, and whether an injury resulted in loss of consciousness, confusion, or loss of memory. A detailed explanation of the measures that compose these scales and the calculations used to compute the categories are presented in Appendix A: Key Definitions and Measures, along with explanations of the other measures included in this chapter.

6.2 Overview of Findings

Frequency and Length of Combat and Non-Combat Deployments Since September 11, 2001

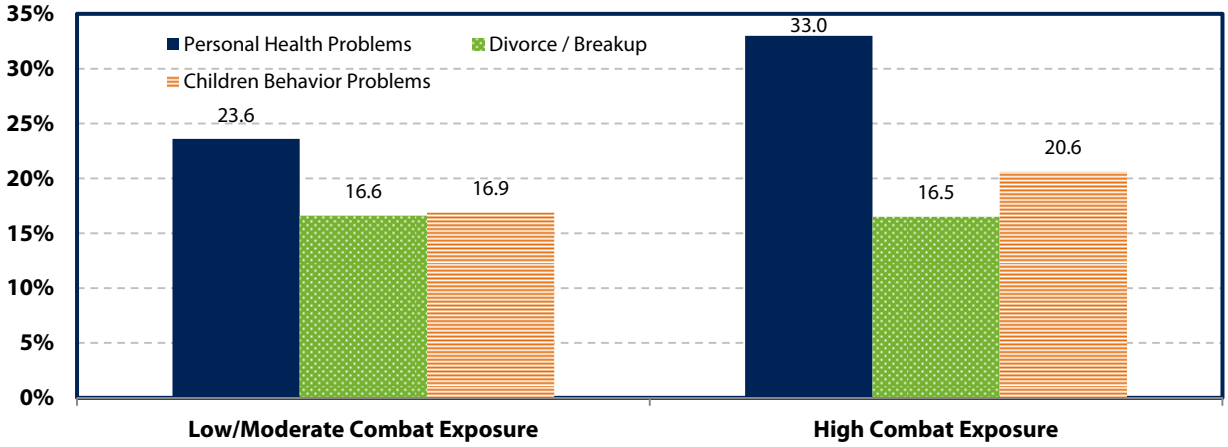
- Among all active duty personnel, 20.6% reported combat deployments and 13.1% reported non-combat deployments in the past 12 months, with Army most often reporting combat deployments (25.7%) and Coast Guard most often reporting non-combat deployments (25.4%) in the past year compared to all other services (see Table 6.1 and Table 6.2).
- Across all services, 43.6% of personnel reported zero combat zone deployments since 9/11, and 71.8% reported zero non-combat deployments since 9/11. Army personnel had the highest number of combat deployments, with close to one-fifth (19.2%) reporting 3 or more combat deployments since 9/11, as shown in Table 6.1. Coast Guard members reported the highest number of non-combat deployments, with 28.0% reporting 3 or more non-combat deployments since 9/11 (see Table 6.2).
- Army personnel reported the most time spent combat deployed since 9/11, with close to one-third (32.1%) being combat deployed for more than 18 months, as shown in Table 6.1. Similarly, Coast Guard reported the most time spent non-combat deployed since 9/11, with 11.8% reporting total length of non-combat deployments as more than 18 months (see Table 6.2).
- Most active duty personnel (61.2%) across all services who were combat deployed reported the longest single combat deployment since 9/11 was 6 to 12 months (see Table 6.1), whereas the majority (55.9%) of non-combat deployed personnel reported the longest single non-combat deployment was less than 6 months (see Table 6.2). Army had the longest single combat and non-combat deployments since 9/11, with over 40% reporting combat deployments of 13 to 18 months, and 7.9% reporting non-combat deployments over 18 months, as shown in Table 6.1 and Table 6.2.

Levels of Combat Exposure by Service, Sociodemographic Characteristics, and High Stress

- Across all services, 43.8% of active duty personnel reported no combat zone deployments since 9/11, with Coast Guard most often reporting no combat exposure. For all personnel, 22.5% reported high combat exposure, with 41.9% of Army reporting high exposure, more often than all other services. Air Force personnel most often reported moderate exposure (23.7%), and Navy personnel most often reported low combat exposure (26.0%) compared to all other services, as shown in Table 6.3.

- Active duty personnel who reported high combat exposure were more often male (24.8%), White, non-Hispanic (24.1%), had a college degree or higher (25.2%), were 36-45 (32.9%) or 46-65 (34.0%) years of age, were married with a spouse not present (25.7%) or spouse present (27.6%), and were stationed CONUS (23.6%), as shown in Table 6.4.
- Personnel who experienced high combat exposure more often reported high overall stress, with over half (51.2%) of service members exposed to high combat reporting high overall stress. In particular, Army (52.0%) and Air Force (44.6%) personnel exposed to high combat more often reported high overall stress compared to those who experienced lower levels of exposure (see Table 6.5).
- Across all services, personnel who reported high levels of combat exposure more often reported high stress upon returning from deployment, with over one-third (35.3%) of those exposed to high combat reporting high stress upon returning home. This was demonstrated in all services except Coast Guard, where there were fewer consistent differences across levels of combat exposure, as shown in Table 6.5.
- Figure 6.A compares service members with low/moderate and high combat exposure on levels of stress pertaining to personal issues in the past year. About 33.0% of individuals with a high degree of combat exposure reported higher stress related to personal health issues compared to approximately 23.6% of those who experienced low/moderate combat exposure. In addition, 20.6% of those who experienced high combat exposure reported stress due to children's behavior problems compared to 16.9% of those who experienced low or moderate combat exposure. Alternatively, combat exposure did not seem to have an impact on the stress of relationship dissolution (i.e., divorce or breakup).

Figure 6.A: Stress Concerning Selected Personal Issues in Past Year, by Level of Combat Exposure



Note: Graph presents weighted data.

Level of Combat Exposure, Q148, Q159, Q163; Personal Health Problems, Q124G; Divorce/Breakup, Q124C; Children Behavior Problems, Q124I.

Levels of Combat Exposure, Smoking and Drinking Levels, and Prescription Drug Use

- Across all services, personnel exposed to high combat were more often heavy cigarette smokers than personnel exposed to low or no combat, with Army personnel exposed to moderate or high combat more often heavy smokers than those not combat deployed. On the other hand, personnel who did not experience combat were more often smoking abstainers than personnel exposed to combat; in particular, Navy and Air Force personnel with no combat exposure were more often smoking abstainers than personnel exposed to combat (see Table 6.6).
- Active duty personnel exposed to high combat were more often heavy drinkers than personnel exposed to lower levels of combat, with Army personnel exposed to moderate or high combat more often heavy drinkers than personnel with no combat exposure. Conversely, Navy, Marine Corps, and Air Force personnel who did not combat deploy were more often drinking abstainers than personnel exposed to combat (see Table 6.7).
- Across all services, personnel who experienced high combat exposure more often reported prescription drug use, including proper use and misuse, than those with lower levels of combat exposure, with over one-third (34.2%) of service members who experienced high combat reporting prescription drug use. In particular, Navy and Air Force members with high combat exposure more often reported prescription drug use than those exposed to lower levels of combat, as shown in Table 6.8.

Length of Combat Deployments, Theater of Operations, and Substance Use

- Across all services, personnel combat deployed over 6 months were more often current smokers than those deployed 6 months or less. Similarly, those deployed more than 12 months were more often prescription drug users than those deployed 12 months or less. There were no differences in alcohol dependence or prescription drug misuse based on length of combat deployments since 9/11 (see Table 6.9).
- Across all services, active duty members who were combat deployed since 9/11 and served on a mission other than Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF), or Operation New Dawn (OND) more often reported binge drinking compared to personnel who served in OIF, OEF, or OND and those not combat deployed since 9/11, as shown in Table 6.10.
- Personnel who served in OIF, OEF, or OND more often reported prescription drug use and smokeless tobacco use compared to those deployed on other missions and personnel not combat deployed since 9/11, and those who were combat deployed since 9/11 more often reported current or heavy smoking than personnel not combat deployed, as shown in Table 6.10.
- When examining increases in substance use when deployed, Navy and Coast Guard personnel more often reported an increase in alcohol use when deployed than other services. In addition,

Army and Marine Corps reported an increase in cigarette and cigar use, and Marine Corps reported an increase in smokeless tobacco use when deployed compared to all other services (see Table 6.11).

Levels of Combat Exposure, Deployment and Timing of Prescription Medications

- Air Force personnel who reported high combat exposure more often received a prescription for stimulants during a deployment than Army and Marine Corps, whereas Navy more often received a prescription for stimulants after deployment compared to Marine Corps and Air Force, as shown in Table 6.12.
- Active duty members who experienced high combat exposure more often received prescription sedatives during a deployment, with Army and Air Force personnel more often reporting the receipt of sedatives 3 months before or during a deployment compared to Marine Corps, as shown in Table 6.13.
- Pain relievers were prescribed most often during a deployment or 3 months after deployment, with Army personnel exposed to high combat more often receiving pain relievers during deployment than Marine Corps and Air Force (see Table 6.14). There were few differences across services for anabolic steroid use; Navy personnel exposed to high combat more often reported receipt of prescription steroids during deployment than Marine Corps and Air Force members (see Table 6.15).
- Across all services, those exposed to high combat more often received prescription anti-depressants within 3 months after a deployment; Army personnel exposed to high combat were more often prescribed anti-depressants during or following a deployment than Marine Corps and Air Force personnel, as shown in Table 6.16.

Deployment and Change in Interpersonal Relationships

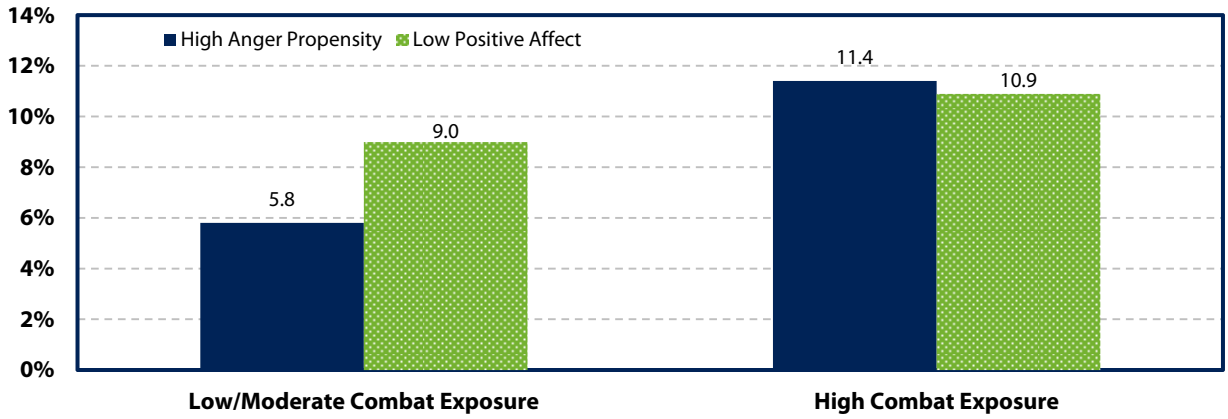
- The largest percentage (44.3%) of service members reported getting along about the same with their partner since most recent deployment, with Air Force and Coast Guard members more often reporting no change in relationship conflict than other services. Army personnel reported more relationship conflict since deployment compared to all other services (see Table 6.17).
- The majority (65.0%) of service members reported no change in relationship status since most recent deployment. Of those who did experience a change, Army, Marine Corps, and Air Force personnel more often reported divorce since last deployment compared to Coast Guard. In addition, Army, Navy, and Marine Corps personnel more often reported separation since last deployment compared to Air Force personnel, as shown in Table 6.17.

- Across all services, approximately one-quarter (23.4%) of service members did not have a spouse or significant other, with Navy, Marine Corps, and Air Force reporting no significant other more often than Army personnel (see Table 6.17).

Length of Combat Deployments, Theater of Operations, Stress and Mental Health

- Across all services, personnel combat deployed greater than 18 months since 9/11 more often reported high posttraumatic stress (PTS) levels and high anger propensity than personnel who served 18 months or less in a combat deployment zone. In addition, those who were combat deployed greater than 12 months more often reported possible TBI since most recent deployment compared to lesser timeframes. Finally, service members who spent less than 30 days combat deployed showed lower resilience than those who spent more than 6 months combat deployed since 9/11 (see Table 6.18).
- Personnel who were combat deployed since 9/11 and served in Operations Iraqi Freedom (OIF), Enduring Freedom (OEF), or New Dawn (OND) more often reported high PTS levels and high anger propensity, and less often reported low resilience than those who served on another mission or were not combat deployed (see Table 6.19).
- Figure 6.B compares service members with low/moderate and high combat exposure on high anger propensity and low positive affect. Personnel who reported experiencing low or moderate levels of combat exposure reported almost half the level of high anger propensity compared to those reporting high levels of combat exposure (5.8% versus 11.4%). Reported levels of combat exposure appear to have a smaller effect on low positive affect, with 9.0% of personnel who experienced low/moderate combat exposure reporting low positive affect versus 10.9% of personnel who experienced high combat exposure reporting low positive affect.

Figure 6.B: High Anger Propensity and Low Positive Affect, by Level of Combat Exposure



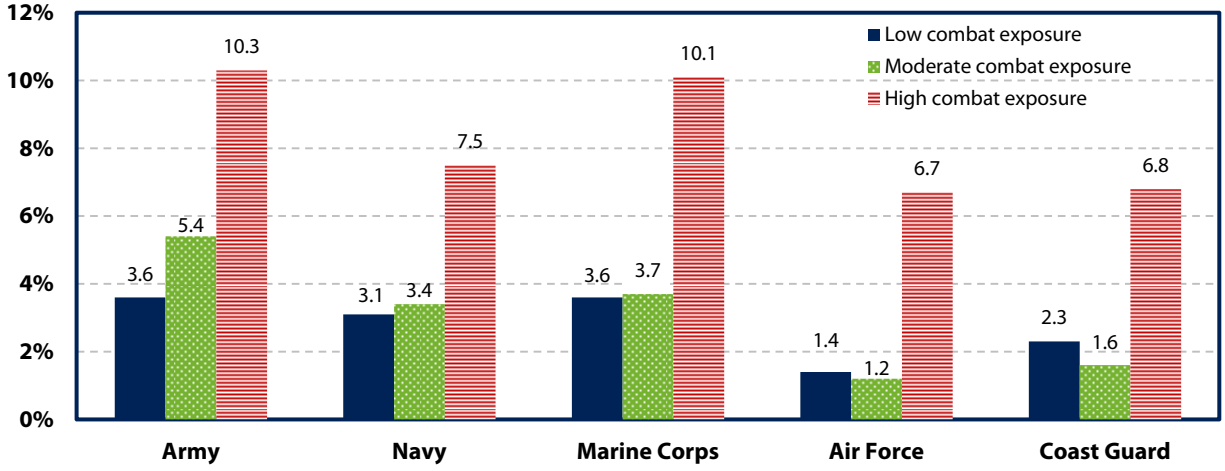
Note: Graph presents weighted data.

Level of Combat Exposure, Q148, Q159, Q163; High Anger Propensity, Q134, Q139C, Q139I, Q168B; Low Positive Affect, Q125A, Q125D.

- Active duty members in all services except the Marine Corps more often reported high overall stress than those not combat deployed since 9/11, and Marine Corps who were combat deployed to OIF, OEF, or OND less often reported high depression levels than those deployed to other missions or not combat deployed, as shown in Table 6.19.

- Figure 6.C compares service members with low, moderate, or high levels of combat exposure by high PTS level across service. In general, about 5% or fewer of personnel with low or moderate levels of combat exposure were classified as having a high PTS level. However, personnel with high exposure to combat situations were classified as having a high PTS level at least twice as often (e.g., Army: 10.3% among those with high exposure compared to 5.4% among those with moderate exposure). Personnel in the Air Force and Coast Guard had the greatest difference in percentage of personnel classified as having a high PTS level between low/moderate combat exposure and high combat exposure (Air Force: 1.4% among those with low combat exposure vs. 6.7% among those with high combat exposure; Coast Guard: 2.3% among those with low combat exposure vs. 6.8% among those with high combat exposure).

Figure 6.C: Level of Combat Exposure, by High Posttraumatic Stress Level and Service



Note: Graph presents weighted data.

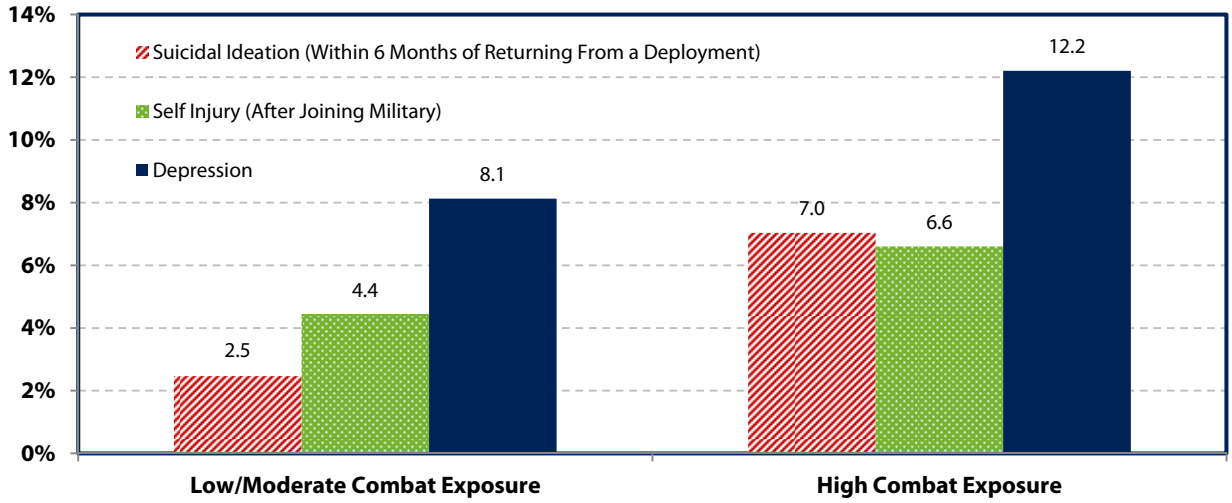
Level of Combat Exposure, Q148, Q159, Q163; High Posttraumatic Stress Level, Q128B, Q128D, Q128E, Q128F.

- There were few differences across services for suicidal ideation, suicide attempts, and low positive affect based on theater of operations (see Table 6.19).

- Figure 6.D compares service members with low/moderate and high combat exposure by prevalence of suicidal ideation (within 6 months of returning from a deployment), self-injury (after joining the military), and high depression levels. In general, personnel reporting high exposure to combat also reported higher levels of suicidal ideation, self-injury, and depressive symptoms. Individuals who reported high levels of combat exposure were almost three times more likely to report suicidal ideation within 6 months of returning from a deployment (7.1% vs.

2.5%). Although somewhat less of a difference, personnel exposed to high combat reported 1.5 times the prevalence of self-injury since joining the military (6.6% vs. 4.4%) and high depression levels (12.2% vs. 8.1%) compared to the low/moderate combat-exposed group.

Figure 6.D: Suicidal Ideation, Self-Injury, and High Depression Symptoms, by Level of Combat Exposure



Note: Graph presents weighted data.

Level of Combat Exposure, Q148, Q159, Q163; Suicidal Ideation, Q137, Q137A; Self-Injury, Q136; Depression Level, Q125C, Q125E.

Possible Traumatic Brain Injury (TBI), Levels of Combat Exposure, and Sociodemographic Characteristics of TBI

- Across all services, 12.5% of personnel who indicated their most recent deployment was a combat deployment reported possible TBI, with those in the Army (17.9%) and Marine Corps (14.5%) more often reporting possible TBI than other services. Close to one-quarter (24.2%) of personnel who experienced high combat exposure indicated possible TBI, whereas 4.5% of personnel exposed to moderate combat and 1.8% of personnel exposed to low combat indicated possible TBI (see Table 6.20).
- Among service members whose most recent deployment was a combat deployment, Army, Navy, and Marine Corps personnel who experienced high or moderate combat exposure more often indicated possible TBI than Air Force members, and Army and Navy personnel who experienced low combat exposure more often indicated possible TBI than Air Force members, as shown in Table 6.20.
- Across all services, personnel with possible TBI more often were male, had some college education or less, were married, were E1-E4 pay grade, and were stationed CONUS, as shown in Table 6.21.

Stress and Mental Health, Substance Use, and Possible Traumatic Brain Injury (TBI)

- Across all services, personnel who were either combat or non-combat deployed since 9/11 and indicated having a possible TBI more often reported high overall stress, mental health indicators and self-harm behaviors, and personality traits associated with adverse health behaviors than personnel with unlikely TBI. In particular, service members with possible TBI more often reported high overall stress, high depression level, high anxiety level, high PTS level, suicidal ideation, attempted suicide, self-inflicted injury, high risk-taking propensity, high anger propensity, and low positive affect than personnel with unlikely TBI (see Table 6.22).
- For all services, personnel who were either combat or non-combat deployed since 9/11 and indicated having a possible TBI more often reported alcohol, prescription drug, and tobacco use than those with unlikely TBI. Specifically, active duty personnel with possible TBI more often reported binge drinking, possible alcohol dependence, prescription drug use and misuse, current and heavy cigarette smoking, and smokeless tobacco use compared to service members with unlikely TBI (see Table 6.23).

Length of Deployments, Suicide Ideation and Attempts

- Across all services, 2.7% of service members reported suicidal ideation within 6 months after returning from a deployment, 2.1% reported ideation during a deployment, and 0.9% reported suicidal ideation within 6 months before leaving for a deployment. Suicide attempts were lower than ideation, with less than 1% of personnel reporting a suicide attempt 6 months before, during, or 6 months after a deployment (see Table 6.24).
- Army, Navy, and Marine Corps more often reported suicidal ideation 6 months before or during deployment than Air Force and Coast Guard, and Army more often reported ideation 6 months after returning from a deployment than all other services. In addition, Army personnel more often reported suicide attempts during or after deployments than Air Force and Coast Guard personnel (see Table 6.24).
- Active duty personnel who were combat deployed greater than 18 months since 9/11 more often reported suicidal ideation 6 months before, during, or 6 months after a deployment than personnel deployed for less than 30 days. In addition, suicide attempts during or 6 months after returning from deployment were more often reported for personnel combat deployed greater than 18 months compared to those who were combat deployed for less than 30 days since 9/11 (see Table 6.25).

Reasons for Non-Deployment and Returning Early from Deployment

- Across all services, 16.6% of personnel reported being unable to deploy, with Marine Corps most often unable to deploy (22.5%) compared to all other services, as shown in Table 6.26.

- The most common reasons for being unable to deploy across services were 1) having an injury (31.5%), most often for Army and Coast Guard; 2) unspecified reasons (29.9%), most often reported for Marine Corps; and 3) having an illness or medical problem (23.4%), which was least often reported for Marine Corps. Aside from the most common reasons, the next most frequently cited reasons for being unable to deploy were being in training or needing additional training (12.1%), most often for Air Force; pregnancy (9.6%), most often for Navy; and having mental health problems (8.1%), as shown in Table 6.26.
- For all services, 2.2% of active duty personnel reported returning early from deployment, with Air Force reporting early return less often (1.2%) than all other services, as shown in Table 6.26.
- The most common reasons for returning early from a mission were 1) unspecified reasons (44.3%), 2) having a family situation (22.1%), and 3) having an injury (12.1%). There were few differences across services in reasons for returning early from deployment, as shown in Table 6.26.

6.3 Tables

The following tables present an in-depth analysis of deployment characteristics and combat exposure in the military.

Table 6.1 – Combat Deployment Frequency and Duration Since 9/11, by Service

Deployment Characteristic	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Combat Deployed, Past 12 Months	25.7 (0.8)[b,c,d,e]	19.3 (0.7)[a,e]	17.8 (0.6)[a,e]	17.8 (0.4)[a,e]	3.9 (0.3)[a,b,c,d]	20.6 (0.3)
Total Number of Combat Deployments Since September 11, 2001						
0 combat deployments	32.5 (0.8)[b,c,d,e]	44.9 (0.8)[a,c,d,e]	50.2 (0.8)[a,b,e]	49.8 (0.6)[a,b,e]	86.4 (0.6)[a,b,c,d]	43.6 (0.4)
1 combat deployment	27.6 (0.8)[b,c,d,e]	20.9 (0.7)[a,e]	20.2 (0.7)[a,e]	20.7 (0.5)[a,e]	8.9 (0.5)[a,b,c,d]	22.8 (0.3)
2 combat deployments	20.7 (0.7)[b,c,d,e]	16.8 (0.6)[a,d,e]	15.4 (0.6)[a,d,e]	12.7 (0.4)[a,b,c,e]	2.6 (0.3)[a,b,c,d]	16.6 (0.3)
3 or more combat deployments	19.2 (0.7)[c,d,e]	17.3 (0.6)[c,e]	14.2 (0.6)[a,b,d,e]	16.9 (0.4)[a,c,e]	2.0 (0.2)[a,b,c,d]	17.0 (0.3)
Total Length of Combat Deployments, Past 5 Years						
Less than 30 days[2]	38.3 (0.9)[b,c,d,e]	53.5 (0.9)[a,d,e]	56.2 (0.8)[a,e]	56.8 (0.6)[a,b,e]	92.6 (0.4)[a,b,c,d]	50.4 (0.4)
30 days to 6 months	4.3 (0.4)[b,d,e]	10.2 (0.5)[a,c,d,e]	5.4 (0.4)[b,d,e]	16.4 (0.4)[a,b,c,e]	2.7 (0.3)[a,b,c,d]	8.7 (0.2)
7 to 12 months	21.5 (0.7)[b,d,e]	18.4 (0.7)[a,d,e]	19.9 (0.7)[d,e]	15.2 (0.4)[a,b,c,e]	2.5 (0.3)[a,b,c,d]	18.4 (0.3)
13 to 18 months	13.9 (0.6)[b,c,d,e]	9.1 (0.5)[a,d,e]	10.8 (0.5)[a,d,e]	6.3 (0.3)[a,b,c,e]	1.3 (0.2)[a,b,c,d]	10.1 (0.3)
More than 18 months	22.0 (0.7)[b,c,d,e]	8.8 (0.5)[a,d,e]	7.7 (0.5)[a,d,e]	5.3 (0.3)[a,b,c,e]	0.8 (0.1)[a,b,c,d]	12.3 (0.3)
Total Length of Combat Deployments Since September 11, 2001						
Less than 30 days[2]	34.3 (0.8)[b,c,d,e]	48.0 (0.9)[a,c,d,e]	51.8 (0.8)[a,b,e]	51.2 (0.6)[a,b,e]	88.9 (0.5)[a,b,c,d]	45.7 (0.4)
30 days to 6 months	3.9 (0.3)[b,d]	10.1 (0.5)[a,c,d,e]	5.0 (0.4)[b,d]	16.4 (0.4)[a,b,c,e]	3.9 (0.3)[b,d]	8.6 (0.2)
7 to 12 months	18.9 (0.7)[d,e]	16.8 (0.6)[d,e]	17.7 (0.6)[d,e]	14.3 (0.4)[a,b,c,e]	3.6 (0.3)[a,b,c,d]	16.6 (0.3)
13 to 18 months	10.7 (0.5)[d,e]	10.5 (0.5)[d,e]	11.4 (0.5)[d,e]	7.4 (0.3)[a,b,c,e]	2.1 (0.2)[a,b,c,d]	9.6 (0.2)
More than 18 months	32.1 (0.8)[b,c,d,e]	14.6 (0.6)[a,d,e]	14.1 (0.6)[a,d,e]	10.7 (0.3)[a,b,c,e]	1.4 (0.2)[a,b,c,d]	19.5 (0.3)

Table 6.1 – Combat Deployment Frequency and Duration Since 9/11, by Service

	Service[1]					
Deployment Characteristic	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Among Deployed, Length of Longest Combat Deployment Since September 11, 2001						
Less than 6 months	4.9 (0.5)[b,d,e]	20.3 (0.9)[a,c,d,e]	6.6 (0.6)[b,d,e]	47.2 (0.8)[a,b,c]	43.6 (2.2)[a,b,c]	18.1 (0.4)
6 to 12 months	53.4 (1.1)[b,c,e]	75.4 (1.0)[a,c,d,e]	87.2 (0.8)[a,b,d,e]	50.2 (0.8)[b,c,e]	41.3 (2.2)[a,b,c,d]	61.2 (0.5)
13 to 18 months	40.9 (1.0)[b,c,d,e]	3.3 (0.4)[a,c,e]	5.9 (0.6)[a,b,d,e]	2.1 (0.2)[a,c,e]	14.2 (1.6)[a,b,c,d]	20.0 (0.4)
More than 18 months	0.9 (0.2)	1.0 (0.2)	0.3 (0.1)	0.5 (0.1)	0.9 (0.4)	0.7 (0.1)

Note: Table displays the percentage of military personnel, by Service, who reported the indicated levels of combat deployment experience after September 11, 2001. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

[2]Includes military personnel who were not combat deployed during the relevant time period.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Combat Deployed, Past 12 Months, Q161; Total Number of Combat Deployments Since 9/11, Q159; Total Length of Combat Deployments, Past 5 Years, Q162B; Total Length of Combat Deployments Since 9/11, Q162A; Length of Longest Combat Deployment Since 9/11, Q160).

Table 6.2 – Non-Combat Deployment Frequency and Duration Since 9/11, by Service

Deployment Characteristic	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Non-Combat Deployed, Past 12 Months	8.3 (0.5)[b,c,d,e]	19.8 (0.7)[a,c,d,e]	15.8 (0.6)[a,b,d,e]	11.1 (0.3)[a,b,c,e]	25.4 (0.7)[a,b,c,d]	13.1 (0.3)
Total Number of Non-Combat Deployments Since September 11, 2001						
0 non-combat deployments	79.7 (0.7)[b,c,d,e]	57.3 (0.8)[a,c,d]	71.6 (0.8)[a,b,d,e]	74.7 (0.5)[a,b,c,e]	59.6 (0.8)[a,c,d]	71.8 (0.4)
1 non-combat deployment	12.3 (0.6)[b,e]	17.8 (0.7)[a,c,d,e]	14.1 (0.6)[b,e]	13.6 (0.4)[b,e]	7.8 (0.4)[a,b,c,d]	13.9 (0.3)
2 non-combat deployments	3.9 (0.3)[b,c]	10.1 (0.5)[a,c,d,e]	6.4 (0.4)[a,b,d,e]	4.3 (0.2)[b,c]	4.6 (0.3)[b,c]	5.7 (0.2)
3 or more non-combat deployments	4.1 (0.3)[b,c,d,e]	14.9 (0.6)[a,c,d,e]	7.8 (0.5)[b,e]	7.3 (0.3)[a,b,e]	28.0 (0.7)[a,b,c,d]	8.5 (0.2)
Total Length of Non-Combat Deployments, Past 5 years						
Less than 30 days	87.0 (0.6)[b,c,d,e]	65.1 (0.8)[a,c,d]	78.3 (0.7)[a,b,d,e]	82.1 (0.4)[a,b,c,e]	67.7 (0.8)[a,c,d]	79.2 (0.3)
30 days to 6 months	5.3 (0.4)[b,c,d,e]	14.4 (0.6)[a,c,d]	10.3 (0.5)[a,b,e]	11.6 (0.4)[a,b]	13.1 (0.6)[a,c]	9.8 (0.2)
7 to 12 months	4.1 (0.3)[b,c,e]	10.4 (0.5)[a,c,d,e]	6.2 (0.4)[a,b,d]	4.0 (0.2)[b,c,e]	6.7 (0.4)[a,b,d]	5.8 (0.2)
13 to 18 months	1.2 (0.2)[b,c,e]	3.9 (0.3)[a,c,d]	2.2 (0.2)[a,b,d,e]	1.2 (0.1)[b,c,e]	4.8 (0.4)[a,c,d]	2.0 (0.1)
More than 18 months	2.3 (0.3)[b,d,e]	6.3 (0.4)[a,c,d]	3.0 (0.3)[b,d,e]	1.1 (0.1)[a,b,c,e]	7.8 (0.4)[a,c,d]	3.1 (0.1)
Total Length of Non-Combat Deployments Since September 11, 2001						
Less than 30 days	82.7 (0.7)[b,c,d,e]	60.5 (0.8)[a,c,d]	74.6 (0.7)[a,b,d,e]	78.0 (0.5)[a,b,c,e]	63.7 (0.8)[a,c,d]	75.0 (0.4)
30 days to 6 months	6.4 (0.4)[b,c,d,e]	14.5 (0.6)[a,c]	10.9 (0.5)[a,b,d]	13.1 (0.4)[a,c]	12.7 (0.6)[a]	10.7 (0.3)
7 to 12 months	5.7 (0.4)[b,c]	10.8 (0.5)[a,c,d,e]	7.5 (0.4)[a,b,d]	5.2 (0.2)[b,c,e]	6.5 (0.4)[b,d]	7.0 (0.2)
13 to 18 months	2.1 (0.2)[b,e]	5.2 (0.4)[a,c,d]	2.9 (0.3)[b,d,e]	1.6 (0.1)[b,c,e]	5.4 (0.4)[a,c,d]	2.8 (0.1)
More than 18 months	3.1 (0.3)[b,d,e]	8.9 (0.5)[a,c,d,e]	4.1 (0.3)[b,d,e]	2.1 (0.2)[a,b,c,e]	11.8 (0.5)[a,b,c,d]	4.5 (0.2)
Length of Longest Non-Combat Deployment Since September 11, 2001						
Less than 6 months	49.3 (1.9)[d,e]	45.2 (1.3)[d,e]	49.2 (1.6)[d,e]	77.2 (0.9)[a,b,c,e]	85.9 (0.9)[a,b,c,d]	55.9 (0.8)
6 to 12 months	36.2 (1.9)[b,d,e]	51.1 (1.3)[a,c,d,e]	41.5 (1.6)[b,d,e]	21.4 (0.9)[a,b,c,e]	11.9 (0.8)[a,b,c,d]	37.4 (0.8)
13 to 18 months	6.6 (1.0)[b,d,e]	1.9 (0.4)[a]	3.7 (0.6)[d,e]	0.9 (0.2)[a,c]	1.0 (0.3)[a,c]	3.1 (0.3)
More than 18 months	7.9 (1.0)[b,d,e]	1.8 (0.3)[a,c,d]	5.7 (0.7)[b,d,e]	0.5 (0.2)[a,b,c]	1.3 (0.3)[a,c]	3.6 (0.3)

Note: Table displays the percentage of military personnel, by Service, who reported the indicated levels of non-combat deployment experience after September 11, 2001. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Non-Combat Deployed, Past 12 Months, Q167; Total Number of Non-Combat Deployments Since 9/11, Q164; Total Length of Non-Combat Deployments, Past 5 Years, Q165B; Total Length of Non-Combat Deployments, Since 9/11, Q165A; Length of Longest Non-Combat Deployment Since 9/11, Q166).

Table 6.3 – Level of Combat Exposure, by Service

	Service[1]					
Combat Exposure	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
High	41.9 (0.9)[b,c,d,e]	7.9 (0.5)[a,c,e]	23.8 (0.7)[a,b,d,e]	9.0 (0.3)[a,c,e]	1.2 (0.2)[a,b,c,d]	22.5 (0.3)
Moderate	21.2 (0.7)[d,e]	20.9 (0.7)[d,e]	19.3 (0.7)[d,e]	23.7 (0.5)[a,b,c,e]	5.1 (0.4)[a,b,c,d]	21.0 (0.3)
Low	4.3 (0.4)[b,c,d,e]	26.0 (0.7)[a,c,d,e]	6.5 (0.4)[a,b,d]	17.4 (0.4)[a,b,c,e]	7.2 (0.4)[a,b,d]	12.7 (0.3)
No Combat Deployments	32.6 (0.8)[b,c,d,e]	45.1 (0.8)[a,c,d,e]	50.4 (0.8)[a,b,e]	50.0 (0.6)[a,b,e]	86.5 (0.6)[a,b,c,d]	43.8 (0.4)

Note: Table displays the percentage of military personnel, by Service, who reported the indicated level of combat exposure. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Level of Combat Exposure, Q148, Q159, Q163).

Table 6.4 – Sociodemographic Characteristics of Personnel with High Combat Exposure (10 Times or More), by Service

Sociodemographic Characteristic[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Gender						
Male	45.6 (0.9)[2]	8.9 (0.5)[2]	25.0 (0.8)[2]	9.9 (0.4)[2]	1.4 (0.2)[2]	24.8 (0.4)[2]
Female	20.5 (1.8)[1]	3.3 (0.7)[1]	7.6 (1.7)[1]	5.2 (0.6)[1]	0.1 (0.1)[1]	10.1 (0.6)[1]
Race/Ethnicity						
White, non-Hispanic	45.6 (1.1)[2,3,4]	8.9 (0.6)[2]	25.4 (0.9)[3]	9.9 (0.4)[2]	1.1 (0.2)	24.1 (0.4)[2,3,4]
African-American, non-Hispanic	32.8 (2.1)[1]	4.9 (1.0)[1]	22.1 (2.2)	4.5 (0.7)[1]	2.3 (1.1)	18.5 (0.9)[1]
Hispanic	37.5 (2.4)[1]	5.2 (1.1)	20.2 (1.6)[1]	7.6 (0.9)	1.2 (0.5)	20.2 (0.9)[1]
Other	30.3 (3.3)[1]	9.5 (1.7)	16.3 (2.9)	6.8 (1.3)	2.3 (1.2)	17.3 (1.3)[1]
Education						
High School or less	43.0 (2.1)	4.8 (0.7)[2,3]	20.0 (1.1)[3]	2.9 (0.5)[2,3]	0.6 (0.3)	20.0 (0.7)[3]
Some college	42.3 (1.2)	8.4 (0.7)[1]	22.8 (1.1)[3]	8.0 (0.4)[1,3]	1.1 (0.2)	22.1 (0.5)[3]
College graduate or higher	40.6 (1.5)	9.9 (1.0)[1]	36.1 (2.1)[1,2]	13.4 (0.7)[1,2]	1.9 (0.5)	25.2 (0.7)[1,2]
Age						
18-20	4.8 (2.0)[2,3,4,5]	†	2.0 (0.7)[2,3,4,5]	†	†	1.9 (0.5)[2,3,4,5]
21-25	24.5 (1.8)[1,3,4,5]	3.6 (0.6)[3,4,5]	11.4 (0.9)[1,3,4,5]	2.1 (0.3)[3,4,5]	0.4 (0.2)[3]	10.6 (0.5)[1,3,4,5]
26-35	47.9 (1.5)[1,2]	7.8 (0.7)[2,4]	37.4 (1.5)[1,2,4]	10.6 (0.6)[2,4,5]	1.8 (0.3)[2]	26.4 (0.6)[1,2,4,5]
36-45	51.3 (1.7)[1,2]	12.6 (1.2)[2,3]	51.4 (2.5)[1,2,3]	15.8 (0.9)[2,3]	1.3 (0.4)	32.9 (0.8)[1,2,3]
46-65	49.8 (3.6)[1,2]	13.5 (2.6)[2]	51.1 (7.2)[1,2]	21.7 (2.5)[2,3]	†	34.0 (1.9)[1,2,3]
Family Status						
Not married	28.8 (1.4)[2,3]	5.7 (0.6)[3]	12.1 (0.8)[2,3]	5.6 (0.4)[2,3]	0.9 (0.3)	13.8 (0.5)[2,3]
Married, spouse not present	39.6 (2.4)[1,3]	7.8 (1.5)	28.1 (2.5)[1]	12.2 (1.5)[1]	1.2 (0.7)	25.7 (1.2)[1]
Married, spouse present	49.2 (1.1)[1,2]	9.6 (0.7)[1]	33.8 (1.2)[1]	10.7 (0.5)[1]	1.4 (0.3)	27.6 (0.5)[1]

Table 6.4 – Sociodemographic Characteristics of Personnel with High Combat Exposure (10 Times or More), by Service

Sociodemographic Characteristic[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Pay Grade						
E1-E4	21.6 (1.1)[2,3,4,5,6]	3.4 (0.5)[2,3,6]	8.8 (0.6)[2,3,4,5,6]	1.3 (0.2)[2,3,5,6]	1.5 (0.4)	11.0 (0.4)[2,3,4,5,6]
E5-E6	60.7 (1.7)[1,5]	10.4 (0.9)[1]	40.8 (1.7)[1,6]	11.5 (0.6)[1,6]	1.2 (0.3)	29.3 (0.7)[1,3,4,5,6]
E7-E9	62.1 (2.6)[1,5]	12.3 (1.8)[1]	50.5 (3.0)[1,5]	13.5 (1.2)[1,6]	0.5 (0.3)	35.9 (1.2)[1,2,5]
W1-W5	55.0 (5.0)[1]	†	40.9 (7.6)[1]	-----	†	45.8 (3.3)[1,2,5,6]
O1-O3	47.9 (2.8)[1,2,3]	6.5 (1.3)[6]	33.3 (2.9)[1,3,6]	9.6 (1.0)[1,6]	2.3 (0.8)	24.4 (1.1)[1,2,3,4,6]
O4-O10	56.7 (3.3)[1]	14.6 (2.2)[1,5]	54.7 (4.3)[1,2,5]	22.1 (1.5)[1,2,3,5]	†	33.9 (1.5)[1,2,4,5]
Region						
CONUS[b]	43.2 (1.0)[2]	8.9 (0.6)[2]	25.8 (0.8)[2]	9.1 (0.4)	1.1 (0.2)	23.6 (0.4)[2]
OCONUS[c]	37.3 (1.8)[1]	5.1 (0.7)[1]	17.0 (1.3)[1]	8.4 (0.7)	1.8 (0.6)	18.9 (0.7)[1]
Total	41.9 (0.9)	7.9 (0.5)	23.8 (0.7)	9.0 (0.3)	1.2 (0.2)	22.5 (0.3)

Note: Table displays the percentage of military personnel, by sociodemographic characteristic, who reported high combat exposure, defined as exposure to combat experiences 10 times or more. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel who were stationed within the 48 contiguous States in the continental United States (excluding Alaska and Hawaii).

[c]Refers to personnel who were stationed outside the continental United States.

†Data not reported. Low precision.

-----Not applicable.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Level of Combat Exposure, Q148, Q159, Q163).

Table 6.5 – High Stress Level, by Service and Combat Exposure

	Combat Exposure Level[1]				
Stress/Service	**Non-Combat Deployed**	**Low**	**Moderate**	**High**	**Total**
High Overall Stress					
Army	39.7 (1.5)[d]	35.1 (4.0)[d]	42.0 (1.9)[d]	52.0 (1.3)[a,b,c]	45.1 (0.9)
Navy	42.7 (1.3)	12.3 (1.7)	48.1 (1.9)	50.3 (3.0)	44.3 (0.8)
Marine Corps	50.2 (1.2)[c]	45.1 (3.3)	42.8 (1.9)[a,d]	52.8 (1.7)[c]	49.1 (0.8)
Air Force	29.3 (0.7)[d]	29.2 (1.2)[d]	32.0 (1.1)[d]	44.6 (1.9)[a,b,c]	31.3 (0.5)
Coast Guard	35.7 (0.9)[c]	37.6 (3.0)	46.2 (0.4)[a]	43.3 (7.6)	36.5 (0.8)
All Services	38.8 (0.6)[d]	37.0 (1.1)[d]	40.6 (0.9)[d]	51.2 (0.9)[a,b,c]	41.7 (0.4)
High Stress Upon Returning from Deployment[2]					
Army	1.2 (0.3)[b,c,d]	14.7 (3.0)[a,d]	23.9 (1.6)[a,d]	37.1 (1.3)[a,b,c]	21.6 (0.7)
Navy	5.8 (0.6)[b,c,d]	16.6 (1.2)[a,c,d]	24.3 (1.6)[a,b,d]	36.6 (2.9)[a,b,c]	14.9 (0.6)
Marine Corps	1.7 (0.3)[b,c,d]	17.8 (2.5)[a,d]	18.7 (1.5)[a,d]	32.0 (1.6)[a,b,c]	13.2 (0.6)
Air Force	1.1 (0.2)[b,c,d]	9.0 (0.8)[a,c,d]	14.7 (0.8)[a,b,d]	26.3 (1.6)[a,b,c]	8.0 (0.3)
Coast Guard	3.8 (0.3)[b,c,d]	12.6 (2.1)[c,a]	24.5 (3.2)[a,b]	24.4 (6.5)[a]	5.8 (0.4)
All Services	2.5 (0.2)[b,c,d]	13.8 (0.8)[a,c,d]	20.7 (0.7)[a,b,d]	35.3 (0.8)[a,b,c]	15.1 (0.3)

Note: Table displays the percentage of military personnel, by Service and combat exposure level, who reported the specified stress levels. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all combat exposure levels. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-4. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Non-Combat Deployed) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Low) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (High) at the 95% confidence level after Bonferroni adjustment.

[2]Refers to personnel who reported either "a great deal" or "a fairly large amount" of stress upon returning home from a deployment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Overall Stress Level, Q119, Q120; Stress Returning Home from Deployment, Q152; Level of Combat Exposure, Q148, Q159, Q163).

Table 6.6 – Smoking Levels, by Service and Combat Exposure

Service/Combat Exposure[a]	Smoking Level				
			Current Smokers		
	Abstainer	Former Smoker	Infrequent	Light/ Moderate	Heavy
Army					
High	46.4 (1.3)[4]	22.6 (1.1)[4]	9.1 (0.8)	16.9 (1.0)[4]	4.9 (0.6)[4]
Moderate	55.7 (1.9)[1,4]	18.3 (1.5)[4]	6.8 (1.0)	14.8 (1.3)[4]	4.4 (0.8)[4]
Low	65.0 (4.0)[1]	13.3 (2.9)	4.2 (1.7)	14.9 (3.0)	2.6 (1.3)
No Combat Deployments	66.0 (1.4)[1,2]	13.4 (1.0)[1,2]	8.2 (0.8)	10.4 (0.9)[1,2]	1.9 (0.4)[1,2]
Navy					
High	50.1 (3.0)[4]	25.2 (2.6)[4]	7.9 (1.6)	11.5 (1.9)	5.4 (1.4)
Moderate	51.7 (1.9)[4]	20.7 (1.5)[4]	9.2 (1.1)	13.9 (1.3)	4.6 (0.8)
Low	55.8 (1.7)[4]	20.2 (1.3)[4]	7.3 (0.9)	14.1 (1.2)	2.6 (0.5)
No Combat Deployments	65.3 (1.2)[1,2,3]	13.3 (0.9)[1,2,3]	6.7 (0.6)	11.7 (0.8)	3.0 (0.4)
Marine Corps					
High	45.9 (1.7)[2,3,4]	23.8 (1.5)[3,4]	11.3 (1.1)	15.0 (1.2)	4.1 (0.7)
Moderate	53.6 (1.9)[1]	19.7 (1.5)[4]	9.7 (1.1)	13.2 (1.3)	3.9 (0.7)
Low	55.8 (3.3)[1]	14.7 (2.3)[1]	9.3 (1.9)	16.7 (2.5)	3.6 (1.2)
No Combat Deployments	57.4 (1.2)[1]	11.8 (0.8)[1,2]	10.9 (0.7)	16.4 (0.9)	3.6 (0.4)
Air Force					
High	61.1 (1.8)[4]	20.4 (1.5)[4]	7.1 (1.0)	9.6 (1.1)	1.8 (0.5)
Moderate	62.0 (1.1)[4]	21.3 (0.9)[4]	5.3 (0.5)[3]	9.0 (0.7)	2.4 (0.4)[4]
Low	61.9 (1.3)[4]	20.1 (1.1)[4]	7.6 (0.7)[2,4]	8.2 (0.7)	2.2 (0.4)[4]
No Combat Deployments	72.0 (0.7)[1,2,3]	13.1 (0.5)[1,2,3]	5.6 (0.4)[3]	8.3 (0.4)	1.1 (0.2)[2,3]
Coast Guard					
High	43.1 (7.6)	30.8 (7.0)	10.9 (4.8)	15.2 (5.5)	†
Moderate	48.9 (3.7)[4]	29.3 (3.3)[4]	7.7 (2.0)	10.3 (2.2)	3.7 (1.4)
Low	56.9 (3.1)	19.0 (2.4)	11.1 (1.9)	10.7 (1.9)	2.3 (0.9)
No Combat Deployments	60.4 (0.9)[2]	21.1 (0.7)[2]	8.1 (0.5)	8.2 (0.5)	2.1 (0.3)
All Services					
High	48.0 (0.9)[2,3,4]	22.8 (0.7)[2,3,4]	9.1 (0.5)[2,4]	15.5 (0.6)[2,3,4]	4.5 (0.4)[3,4]
Moderate	56.3 (0.9)[1,4]	19.9 (0.7)[1,4]	7.3 (0.5)[1]	12.7 (0.6)[1,4]	3.8 (0.3)[4]
Low	59.0 (1.1)[1,4]	18.9 (0.9)[1,4]	7.2 (0.6)	12.3 (0.8)[1]	2.5 (0.4)[1]
No Combat Deployments	65.9 (0.6)[1,2,3]	13.5 (0.4)[1,2,3]	7.5 (0.3)[1]	10.9 (0.4)[1,2]	2.2 (0.2)[1,2]

Note: Table displays the percentage of military personnel, by Service and combat exposure level, who reported the smoking level measure as indicated in the columns of the table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all combat exposure levels within the same Service group. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same Service group. In other words:

[1]Indicates estimate is significantly different from the estimate in column #1 (High) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in column #2 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in column #3 (Low) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in column #4 (No Combat Deployments) at the 95% confidence level after Bonferroni adjustment.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Smoking Levels, Q61, Q64, Q66; Level of Combat Exposure, Q148, Q159, Q163).

Table 6.7 – Drinking Levels, by Service and Combat Exposure

Service/Combat Exposure[a]	Drinking Level				
			Current Drinkers		
	Abstainer	Former Drinker	Infrequent/ Light	Moderate	Heavy
Army					
High	5.2 (0.6)[2,4]	6.0 (0.6)	57.1 (1.3)	21.4 (1.1)[2,4]	10.3 (0.8)[4]
Moderate	8.3 (1.0)[1,4]	5.8 (0.9)	60.8 (1.8)	16.1 (1.4)[1]	9.1 (1.1)[4]
Low	9.8 (2.5)	9.6 (2.5)	58.4 (4.2)	12.6 (2.8)	9.6 (2.5)
No Combat Deployments	18.3 (1.2)[1,2]	6.9 (0.8)	56.3 (1.5)	12.8 (1.0)[1]	5.7 (0.7)[1,2]
Navy					
High	3.7 (1.1)[4]	5.6 (1.4)	59.8 (3.0)	23.2 (2.6)	7.7 (1.6)
Moderate	6.2 (0.9)[4]	4.8 (0.8)	58.9 (1.8)	22.1 (1.5)	7.9 (1.0)
Low	7.0 (0.9)[4]	5.0 (0.7)	60.2 (1.6)[4]	17.8 (1.3)	10.0 (1.0)
No Combat Deployments	12.1 (0.8)[1,2,3]	7.5 (0.7)	54.6 (1.3)[3]	17.6 (1.0)	8.3 (0.7)
Marine Corps					
High	3.6 (0.6)[4]	5.3 (0.5)	50.9 (1.7)[4]	25.1 (1.5)	15.1 (1.2)
Moderate	3.9 (0.7)[4]	4.6 (1.1)	55.2 (1.9)[4]	24.8 (1.7)	11.5 (1.2)
Low	5.1 (1.5)[4]	2.7 (0.8)	55.5 (3.3)[4]	22.2 (2.8)	14.6 (2.3)
No Combat Deployments	13.1 (0.8)[1,2,3]	5.0 (0.8)	44.2 (1.2)[1,2,3]	22.9 (1.0)	14.8 (0.8)
Air Force					
High	5.8 (0.9)[4]	5.0 (0.8)	68.2 (1.7)	15.1 (1.3)[4]	5.8 (0.9)[2,4]
Moderate	6.5 (0.6)[4]	5.5 (0.5)	70.9 (1.0)[4]	13.8 (0.8)[4]	3.3 (0.4)[1]
Low	7.9 (0.7)[4]	5.9 (0.6)	71.3 (1.2)[4]	11.2 (0.8)	3.7 (0.5)
No Combat Deployments	17.7 (0.6)[1,2,3]	5.1 (0.3)	63.2 (0.8)[2,3]	10.3 (0.5)[1,2]	3.6 (0.3)[1]
Coast Guard					
High	†	7.4 (4.0)	54.5 (7.6)	26.9 (6.8)	11.2 (4.8)
Moderate	1.4 (0.9)	6.3 (1.8)	63.1 (3.5)	24.1 (3.1)	5.0 (1.6)
Low	2.5 (1.0)	4.0 (1.2)	65.1 (3.0)	21.0 (2.5)	7.3 (1.6)
No Combat Deployments	5.3 (0.4)	5.0 (0.4)	61.5 (0.9)	20.7 (0.7)	7.6 (0.5)
All Services					
High	4.9 (0.4)[2,3,4]	5.8 (0.4)	57.5 (0.9)[2,3]	21.4 (0.7)[2,3,4]	10.3 (0.5)[2,3,4]
Moderate	6.7 (0.5)[1,4]	5.3 (0.4)	62.6 (0.9)[1,4]	17.9 (0.7)[1,4]	7.5 (0.5)[1]
Low	7.5 (0.6)[1,4]	5.7 (0.5)	63.5 (1.1)[1,4]	15.3 (0.8)[1]	8.1 (0.6)[1]
No Combat Deployments	15.1 (0.4)[1,2,3]	6.1 (0.3)	56.3 (0.6)[2,3]	15.2 (0.4)[1,2]	7.2 (0.3)[1]

Note: Table displays the percentage of military personnel, by Service and combat exposure level, who reported the drinking level measure as indicated in the columns of the table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all combat exposure levels within the same Service group. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same Service group. For example, consider the Army rows in this table:

[1]Indicates estimate is significantly different from the estimate in column #1 (High) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in column #2 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in column #3 (Low) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in column #4 (No Combat Deployments) at the 95% confidence level after Bonferroni adjustment.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; Level of Combat Exposure, Q148, Q159, Q163).

Table 6.8 – Prescription Drug Use, including Proper Use and Misuse, by Service and Combat Exposure

Service/Combat Exposure[a]	Prescription Drug Use: Stimulants	Sedatives	Pain Relievers	Anabolic Steroids	Any Prescription Drug Use[b]
Army					
High	5.2 (0.6)	22.5 (1.1)[4]	29.8 (1.2)[3,4]	1.9 (0.4)	36.8 (1.3)[3,4]
Moderate	4.7 (0.8)	18.6 (1.5)[4]	25.7 (1.7)	1.9 (0.5)	32.5 (1.8)[4]
Low	3.7 (1.6)	14.3 (2.9)	18.6 (3.3)[1]	3.0 (1.4)	24.8 (3.6)[1]
No Combat Deployments	3.4 (0.6)	13.4 (1.0)[1,2]	21.1 (1.2)[1]	1.4 (0.4)	25.7 (1.3)[1,2]
Navy					
High	3.9 (1.5)	20.1 (2.4)[2,3,4]	23.4 (2.6)[3,4]	2.8 (1.0)	31.7 (2.8)[2,3,4]
Moderate	2.0 (0.5)	12.3 (1.2)[1,4]	17.5 (1.4)	1.0 (0.4)	22.0 (1.5)[1]
Low	2.0 (0.5)	9.1 (1.0)[1]	15.5 (1.2)[1]	1.1 (0.3)	19.3 (1.3)[1]
No Combat Deployments	2.2 (0.4)	8.4 (0.7)[1,2]	15.6 (0.9)[1]	1.3 (0.3)	18.9 (1.0)[1]
Marine Corps					
High	1.9 (0.5)	13.9 (1.2)[3,4]	19.9 (1.4)	2.1 (0.5)	24.4 (1.5)[4]
Moderate	0.9 (0.4)	10.6 (1.2)	17.0 (1.4)	0.9 (0.4)	20.4 (1.6)
Low	2.6 (1.1)	7.3 (1.7)[1]	15.3 (2.4)	1.4 (0.8)	18.7 (2.6)
No Combat Deployments	1.5 (0.3)	8.0 (0.6)[1]	16.3 (0.9)	1.0 (0.2)	18.8 (0.9)[1]
Air Force					
High	4.5 (0.8)[2,3,4]	21.3 (1.5)[2,3,4]	22.2 (1.5)[3,4]	1.6 (0.5)	32.4 (1.7)[2,3,4]
Moderate	1.8 (0.3)[1]	16.3 (0.8)[1,3,4]	18.3 (0.9)	1.3 (0.3)	26.5 (1.0)[1,3,4]
Low	1.1 (0.3)[1]	10.5 (0.8)[1,2]	17.1 (1.0)[1]	0.8 (0.2)	21.9 (1.1)[1,2]
No Combat Deployments	1.4 (0.2)[1]	8.2 (0.4)[1,2]	16.6 (0.6)[1]	0.9 (0.2)	19.7 (0.6)[1,2]
Coast Guard					
High	2.3 (0.3)	10.5 (4.7)	9.0 (4.4)	†	13.2 (5.2)
Moderate	0.6 (0.2)	10.6 (2.3)	21.8 (3.0)[4]	1.4 (0.9)	24.5 (3.2)[4]
Low	0.2 (0.2)	7.3 (1.6)	13.4 (2.1)	0.7 (0.5)	16.4 (2.3)
No Combat Deployments	0.8 (0.1)	6.7 (0.4)	12.8 (0.6)[2]	0.7 (0.1)	14.8 (0.6)[2]
All Services					
High	4.6 (0.4)[2,3,4]	21.0 (0.7)[2,3,4]	27.1 (0.8)[2,3,4]	2.0 (0.2)[4]	34.2 (0.8)[2,3,4]
Moderate	2.8 (0.3)[1]	15.5 (0.7)[1,3,4]	20.7 (0.7)[1,3,4]	1.4 (0.2)	27.0 (0.8)[1,3,4]
Low	1.9 (0.3)[1]	10.0 (0.7)[1,2]	16.4 (0.9)[1,2]	1.3 (0.3)	20.8 (0.9)[1,2]
No Combat Deployments	2.1 (0.2)[1]	9.6 (0.4)[1,2]	17.3 (0.5)[1,2]	1.1 (0.1)[1]	20.7 (0.5)[1,2]

Note: Table displays the percentage of military personnel, by Service and combat exposure level, who reported using the prescription drugs as indicated in the columns of the table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same Service group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same Service group. For example, consider the Army rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (High) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Low) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (No Combat Deployments) at the 95% confidence level after Bonferroni adjustment.

[b]Any prescription drug use within this table is classified as use of prescription stimulants, sedatives, pain relievers and/or anabolic steroids within the past 12 months.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Prescription Drug Use, Q84, Q85; Level of Combat Exposure, Q148, Q159, Q163).

Table 6.9 – Substance Use, by Service and Total Length of Combat Deployments Since 9/11

	Total Length of Combat Deployments Since 9/11[1]					
Substance/Service	**Less than 30 Days**	**30 Days to 6 Months**	**7 to 12 Months**	**13 to 18 Months**	**More than 18 Months**	**Total**
Alcohol Binge Episode, Past 30 Days						
Army	29.6 (1.4)[c]	21.9 (3.7)[c]	36.7 (2.0)[a,b]	30.7 (2.5)	33.2 (1.5)	31.9 (0.8)
Navy	34.0 (1.2)	38.4 (2.6)	35.7 (2.0)	38.1 (2.6)	35.2 (2.1)	35.3 (0.8)
Marine Corps	49.2 (1.2)	45.3 (3.8)	50.2 (2.0)	45.3 (2.5)	46.6 (2.3)	48.3 (0.8)
Air Force	23.6 (0.7)	21.4 (1.1)	21.5 (1.2)	21.2 (1.7)	23.9 (1.5)	22.8 (0.5)
Coast Guard	39.3 (0.9)	40.3 (4.1)	46.0 (4.3)	38.0 (5.6)	54.0 (7.0)	39.8 (0.8)
All Services	32.5 (0.6)[b]	28.0 (1.3)[a,c,e]	35.2 (1.0)[b]	33.0 (1.3)	33.6 (0.9)[b]	32.8 (0.4)
Possible Alcohol Dependence (AUDIT 20+)						
Army	1.2 (0.3)	2.9 (1.5)	2.8 (0.7)	2.1 (0.8)	1.3 (0.3)	1.7 (0.2)
Navy	1.5 (0.3)	2.5 (0.9)	1.1 (0.4)	3.1 (0.9)	1.6 (0.6)	1.7 (0.2)
Marine Corps	2.4 (0.4)	1.8 (1.0)	1.9 (0.6)	2.6 (0.8)	2.8 (0.7)	2.4 (0.3)
Air Force	1.0 (0.2)	0.9 (0.3)	1.7 (0.4)	0.3 (0.2)	1.3 (0.4)	1.1 (0.1)
Coast Guard	1.4 (0.2)	1.7 (1.1)	0.8 (0.8)	†	†	1.3 (0.2)
All Services	1.4 (0.1)	1.8 (0.4)	2.0 (0.3)	2.1 (0.4)	1.5 (0.2)	1.6 (0.1)
Prescription Drug Use, Past 12 Months[2]						
Army	25.5 (1.3)[d,e]	36.9 (4.3)	30.4 (1.9)	38.1 (2.6)[a]	35.8 (1.5)[a]	31.5 (0.8)
Navy	18.9 (1.0)	21.7 (2.2)	21.5 (1.7)	24.0 (2.3)	22.8 (1.9)	20.7 (0.7)
Marine Corps	18.6 (0.9)[e]	21.7 (3.1)	20.1 (1.6)	22.5 (2.1)	24.8 (2.0)[a]	20.4 (0.7)
Air Force	19.7 (0.6)[b,c,d,e]	23.5 (1.2)[a,e]	25.0 (1.3)[a]	29.4 (1.9)[a]	29.4 (1.6)[a,b]	22.8 (0.5)
Coast Guard	14.9 (0.6)	20.9 (3.4)	13.6 (3.0)	26.2 (5.1)	24.7 (6.1)	15.4 (0.6)
All Services	20.6 (0.5)[b,c,d,e]	25.1 (1.2)[a,d,e]	25.7 (0.9)[a,d,e]	30.5 (1.2)[a,b,c]	31.7 (0.9)[a,b,c]	25.0 (0.4)

Table 6.9 – Substance Use, by Service and Total Length of Combat Deployments Since 9/11

Substance/Service	Total Length of Combat Deployments Since 9/11[1]					
	Less than 30 Days	30 Days to 6 Months	7 to 12 Months	13 to 18 Months	More than 18 Months	Total
Prescription Drug Misuse, Past 12 Months[3]						
Army	1.9 (0.4)	2.6 (1.4)	2.2 (0.6)	1.3 (0.6)	1.2 (0.3)	1.7 (0.2)
Navy	1.2 (0.3)	1.5 (0.7)	1.3 (0.5)	1.1 (0.5)	0.8 (0.4)	1.2 (0.2)
Marine Corps	1.4 (0.3)	1.7 (1.0)	1.0 (0.4)	1.0 (0.5)	1.8 (0.6)	1.4 (0.2)
Air Force	0.7 (0.1)	0.4 (0.2)	0.7 (0.2)	0.2 (0.2)	0.8 (0.3)	0.6 (0.1)
Coast Guard	0.7 (0.1)	1.0 (0.8)	1.0 (0.9)	†	†	0.7 (0.1)
All Services	1.3 (0.1)	1.2 (0.3)	1.5 (0.2)	1.0 (0.3)	1.1 (0.2)	1.2 (0.1)
Current Smoker						
Army	20.3 (1.2)[c,d,e]	25.8 (3.9)	29.4 (1.8)[a]	29.9 (2.5)[a]	28.4 (1.4)[a]	25.9 (0.8)
Navy	21.6 (1.0)[e]	24.5 (2.3)	24.2 (1.8)	25.6 (2.3)	28.4 (2.0)[a]	23.7 (0.7)
Marine Corps	30.7 (1.1)	30.2 (3.5)	30.8 (1.9)	25.6 (2.2)	28.9 (2.1)	29.9 (0.8)
Air Force	15.0 (0.6)[e]	15.1 (1.0)	17.1 (1.1)	19.4 (1.6)	19.7 (1.4)[a]	16.2 (0.4)
Coast Guard	18.6 (0.7)	25.2 (3.6)	21.3 (3.6)	19.4 (4.6)	25.9 (6.2)	19.1 (0.7)
All Services	20.6 (0.5)[c,d,e]	20.7 (1.1)[c,d,e]	25.7 (0.9)[a,b]	26.1 (1.2)[a,b]	27.2 (0.8)[a,b]	23.3 (0.4)
Heavy Smoker						
Army	1.9 (0.4)[d,e]	4.5 (1.8)	3.4 (0.7)	5.8 (1.3)[a]	5.0 (0.7)[a]	3.7 (0.3)
Navy	2.9 (0.4)	3.6 (1.0)	3.5 (0.8)	4.7 (1.1)	4.4 (0.9)	3.5 (0.3)
Marine Corps	3.5 (0.4)	3.1 (1.3)	4.6 (0.8)	3.4 (0.9)	4.3 (0.9)	3.8 (0.3)
Air Force	1.1 (0.2)[c,d,e]	1.4 (0.3)[d]	2.2 (0.4)[a]	3.3 (0.7)[a,b]	2.8 (0.6)[a]	1.6 (0.1)
Coast Guard	2.2 (0.3)	1.3 (0.9)	3.0 (1.5)	2.6 (1.8)	4.2 (2.8)	2.2 (0.2)
All Services	2.2 (0.2)[c,d,e]	2.6 (0.5)[d,e]	3.3 (0.4)[a]	4.7 (0.6)[a,b]	4.5 (0.4)[a,b]	3.1 (0.1)
Smokeless Tobacco User						
Army	16.1 (1.1)[c,e]	20.3 (3.6)	25.1 (1.8)[a]	20.8 (2.2)	22.5 (1.3)[a]	20.5 (0.7)
Navy	16.8 (0.9)	19.1 (2.1)	16.7 (1.6)	14.8 (1.9)	16.1 (1.7)	16.7 (0.6)
Marine Corps	32.3 (1.1)	32.4 (3.6)	30.1 (1.8)	29.5 (2.3)	30.4 (2.1)	31.3 (0.8)
Air Force	12.6 (0.5)[e]	11.9 (0.9)[e]	14.0 (1.0)	11.8 (1.3)[e]	17.8 (1.3)[a,b,d]	13.2 (0.4)
Coast Guard	19.5 (0.7)	20.7 (3.4)	17.1 (3.3)	8.8 (3.3)	19.1 (5.5)	19.2 (0.7)
All Services	18.0 (0.5)[c,e]	16.9 (1.1)[c,e]	21.5 (0.8)[a,b]	18.9 (1.0)	21.5 (0.8)[a,b]	19.2 (0.3)

Note: Table displays the percentage of military personnel, by Service and total cumulative length of deployments since September 11, 2001, who reported the substance use behaviors as indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all deployment length groups. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Less than 30 days) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (30 days to 6 months) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (7 to 12 months) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (13 to 18 months) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (More than 18 months) at the 95% confidence level after Bonferroni adjustment.

[2]Any prescription drug use within this table is classified as use of prescription stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months.

[3]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)."

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Total Length of Combat Deployments Since 9/11, Q162A; Alcohol Binge Episode, Q51; AUDIT Categories, Q46-Q49; Prescription Drug Use, Past 12 Months, Q84, Q85; Prescription Drug Misuse, Past 12 Months, Q84, Q86, Q87, Q89; Current Smoker, Q61, Q64; Smoking Levels, Q61, Q64, Q66; Smokeless Tobacco User, Q72, Q73).

Table 6.10 – Substance Use, by Service and Theater of Deployment[1]

Substance/ Service	Combat Deployed Since Sept 11, 2001 and Served in Operations Iraqi Freedom, Enduring Freedom, or New Dawn	Combat Deployed Since Sept 11, 2001 and Did Not Serve in Operations Iraqi Freedom, Enduring Freedom, or New Dawn	Not Combat Deployed Since Sept 11, 2001	Total
Alcohol Binge Episode, Past 30 Days				
Army	32.7 (1.0)	38.0 (5.1)	29.1 (1.4)	31.7 (0.8)
Navy	35.4 (1.2)	38.0 (1.7)	33.1 (1.5)	35.4 (0.8)
Marine Corps	47.8 (1.2)	49.1 (2.6)	49.0 (1.3)	48.4 (0.8)
Air Force	22.2 (0.7)	21.6 (1.6)	24.0 (0.7)	22.9 (0.5)
Coast Guard	43.0 (2.7)	42.0 (1.2)[c]	37.3 (1.2)[b]	39.9 (0.8)
All Services	32.6 (0.5)[b]	37.0 (1.2)[a,c]	31.8 (0.6)[b]	32.8 (0.4)
Possible Alcohol Dependence (AUDIT 20+)				
Army	1.9 (0.3)	†	1.2 (0.3)	1.6 (0.2)
Navy	1.8 (0.3)	1.7 (0.5)	1.6 (0.4)	1.7 (0.2)
Marine Corps	2.3 (0.4)	3.1 (0.9)	2.2 (0.4)	2.4 (0.3)
Air Force	1.2 (0.2)	0.7 (0.3)	1.0 (0.2)	1.1 (0.1)
Coast Guard	1.1 (0.6)	1.3 (0.3)	1.4 (0.3)	1.3 (0.2)
All Services	1.7 (0.1)	1.5 (0.3)	1.4 (0.2)	1.6 (0.1)
Any Prescription Drug Use, Past 12 Months[2]				
Army	34.7 (1.0)[c]	31.4 (4.9)	25.3 (1.4)[a]	31.7 (0.8)
Navy	23.1 (1.1)[b,c]	17.6 (1.3)[a]	19.1 (1.2)[a]	20.6 (0.7)
Marine Corps	22.1 (1.0)[c]	23.1 (2.2)[c]	17.7 (1.0)[a,b]	20.4 (0.7)
Air Force	25.6 (0.7)[c]	24.9 (1.7)[c]	19.2 (0.7)[a,b]	22.9 (0.5)
Coast Guard	19.8 (2.1)[b]	14.6 (0.9)[a]	15.2 (0.9)	15.4 (0.6)
All Services	28.8 (0.5)[b,c]	20.5 (1.0)[a]	20.7 (0.6)[a]	25.1 (0.4)
Any Prescription Drug Misuse, Past 12 Months[3]				
Army	1.6 (0.3)	†	2.0 (0.4)	1.7 (0.2)
Navy	0.8 (0.2)	1.7 (0.4)	1.2 (0.3)	1.1 (0.2)
Marine Corps	1.2 (0.3)[b]	3.8 (1.0)[a,c]	1.0 (0.3)[b]	1.4 (0.2)
Air Force	0.5 (0.1)	0.5 (0.3)	0.8 (0.2)	0.6 (0.1)
Coast Guard	0.6 (0.4)	0.7 (0.2)	0.8 (0.2)	0.7 (0.1)
All Services	1.2 (0.1)	1.5 (0.3)	1.3 (0.2)	1.2 (0.1)

Table 6.10 – Substance Use, by Service and Theater of Deployment[1]

Substance/ Service	Combat Deployed Since Sept 11, 2001 and Served in Operations Iraqi Freedom, Enduring Freedom, or New Dawn	Combat Deployed Since Sept 11, 2001 and Did Not Serve in Operations Iraqi Freedom, Enduring Freedom, or New Dawn	Not Combat Deployed Since Sept 11, 2001	Total
Current Smoker				
Army	28.8 (1.0)[c]	33.6 (4.9)[c]	20.0 (1.3)[a,b]	26.2 (0.8)
Navy	25.2 (1.1)[c]	25.9 (1.5)[c]	19.7 (1.2)[a,b]	23.8 (0.7)
Marine Corps	28.4 (1.1)	34.5 (2.4)	30.3 (1.2)	29.9 (0.8)
Air Force	17.4 (0.6)[c]	15.8 (1.4)	15.1 (0.6)[a]	16.3 (0.4)
Coast Guard	21.8 (2.2)	20.6 (1.0)	17.4 (0.9)	19.2 (0.7)
All Services	25.4 (0.5)[c]	25.2 (1.1)[c]	20.0 (0.6)[a,b]	23.5 (0.3)
Heavy Smoker				
Army	4.6 (0.4)[c]	5.8 (2.5)[c]	1.8 (0.4)[a,b]	3.8 (0.3)
Navy	3.9 (0.5)[c]	4.3 (0.7)[c]	2.0 (0.4)[a,b]	3.4 (0.3)
Marine Corps	4.3 (0.5)	4.3 (1.0)	3.2 (0.5)	3.8 (0.3)
Air Force	2.1 (0.2)[c]	2.6 (0.6)[c]	0.9 (0.2)[a,b]	1.7 (0.1)
Coast Guard	2.1 (0.8)	2.5 (0.4)	2.0 (0.3)	2.2 (0.2)
All Services	3.8 (0.2)[c]	3.9 (0.5)[c]	1.8 (0.2)[a,b]	3.1 (0.1)
Smokeless Tobacco User				
Army	22.5 (0.9)[c]	18.2 (4.1)	16.8 (1.2)[a]	20.7 (0.7)
Navy	16.9 (0.9)	14.9 (1.2)	17.5 (1.2)	16.6 (0.6)
Marine Corps	30.4 (1.1)	30.1 (2.3)	33.1 (1.2)	31.5 (0.8)
Air Force	13.6 (0.5)	12.8 (1.3)	12.7 (0.6)	13.2 (0.4)
Coast Guard	17.8 (2.1)	20.5 (1.0)	18.5 (0.9)	19.3 (0.7)
All Services	20.3 (0.4)[b,c]	17.5 (0.9)[a]	18.4 (0.5)[a]	19.3 (0.3)

Note: Table displays the percentage of military personnel, by Service and theater of deployment since September 11, 2001, who reported the substance use indicated in the rows of this table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between theater of deployment groups. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-3. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Combat Deployed Since Sept 11, 2001 and Served in Operations Iraqi Freedom, Enduring Freedom, or New Dawn) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Combat Deployed Since Sept 11, 2001 and Did Not Serve in Operations Iraqi Freedom, Enduring Freedom, or New Dawn) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Not Combat Deployed Since Sept 11, 2001) at the 95% confidence level after Bonferroni adjustment.

[2]Any prescription drug use within this table is classified as use of prescription stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months.

[3]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)."

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Theater of Operations, Q147; Alcohol Binge Episode, Q51; AUDIT Categories, Q46-Q49; Prescription Drug Use, Past 12 Months, Q84, Q85; Prescription Drug Misuse, Past 12 Months, Q84, Q86, Q87, Q89; Current Smoker, Q61, Q64; Smoking Levels, Q61, Q64, Q66; Smokeless Tobacco User, Q72, Q73).

Table 6.11 – Deployment-Related Change in Substance Use During Most Recent Deployment, by Service

Substance/Use During Deployment	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Alcohol						
Used more when deployed	2.4 (0.3)[b,c,d,e]	12.7 (0.7)[a,c,d]	6.6 (0.6)[a,b,d,e]	3.7 (0.3)[a,b,c,e]	15.2 (0.8)[a,c,d]	6.0 (0.2)
Used about the same when deployed	8.3 (0.6)[b,c,d,e]	26.2 (0.9)[a,c,d,e]	14.4 (0.8)[a,b,e]	15.6 (0.5)[a,b,e]	31.9 (1.1)[a,b,c,d]	15.5 (0.4)
Used less when deployed	51.9 (1.0)[b,e]	38.0 (1.0)[a,c,d]	48.3 (1.1)[b,e]	51.2 (0.7)[b,e]	34.9 (1.1)[a,c,d]	47.6 (0.5)
Never used	37.4 (1.0)[b,c,d,e]	23.1 (0.9)[a,c,d,e]	30.7 (1.0)[a,b,e]	29.5 (0.7)[a,b,e]	18.0 (0.9)[a,b,c,d]	31.0 (0.5)
Cigarettes						
Used more when deployed	20.7 (0.8)[b,d,e]	15.1 (0.7)[a,c,d]	23.5 (0.9)[b,d,e]	11.2 (0.5)[a,b,c]	12.8 (0.8)[a,c]	17.4 (0.4)
Used about the same when deployed	15.4 (0.8)	16.5 (0.8)[d]	15.2 (0.8)	13.5 (0.5)[b]	13.7 (0.8)	15.2 (0.4)
Used less when deployed	14.1 (0.7)	13.6 (0.7)	14.5 (0.8)	14.9 (0.5)	14.1 (0.8)	14.2 (0.4)
Never used	49.8 (1.0)[b,d,e]	54.8 (1.0)[a,c,d,e]	46.8 (1.1)[b,d,e]	60.4 (0.7)[a,b,c]	59.5 (1.1)[a,b,c]	53.2 (0.5)
Chewing/Smokeless Tobacco						
Used more when deployed	11.2 (0.7)[b,c,d,e]	7.8 (0.5)[a,c,d]	15.9 (0.8)[a,b,d,e]	4.3 (0.3)[a,b,c,e]	7.3 (0.6)[a,c,d]	9.3 (0.3)
Used about the same when deployed	10.7 (0.6)[b,d]	7.9 (0.5)[a,c,e]	12.8 (0.7)[b,d]	8.3 (0.4)[a,c]	10.5 (0.7)[b]	9.8 (0.3)
Used less when deployed	13.8 (0.7)[b]	10.1 (0.6)[a,c,d]	15.3 (0.8)[b,e]	12.8 (0.5)[b]	12.1 (0.7)[c]	12.9 (0.3)
Never used	64.3 (1.0)[b,c,d,e]	74.1 (0.9)[a,c,e]	55.9 (1.1)[a,b,d,e]	74.6 (0.6)[a,c,e]	70.2 (1.0)[a,b,c,d]	68.1 (0.5)
Cigars						
Used more when deployed	12.4 (0.7)[b,d,e]	6.8 (0.5)[a,c]	10.7 (0.7)[b,d,e]	6.3 (0.4)[a,c]	7.0 (0.6)[a,c]	9.4 (0.3)
Used about the same when deployed	9.6 (0.6)[d]	10.1 (0.6)[d]	11.0 (0.7)[d]	6.8 (0.4)[a,b,c,e]	10.4 (0.7)[d]	9.3 (0.3)
Used less when deployed	19.4 (0.8)[c]	18.7 (0.8)[c]	23.8 (0.9)[a,b,d]	19.0 (0.6)[c]	20.7 (0.9)	19.7 (0.4)
Never used	58.6 (1.0)[b,d]	64.5 (1.0)[a,c,d]	54.6 (1.1)[b,d,e]	67.9 (0.7)[a,b,c,e]	61.8 (1.1)[c,d]	61.6 (0.5)
Prescription medications						
Used more when deployed	4.5 (0.4)[b,d,e]	1.9 (0.3)[a,e]	3.0 (0.4)[e]	2.8 (0.2)[a,e]	0.8 (0.2)[a,b,c,d]	3.2 (0.2)
Used about the same when deployed	20.0 (0.8)[b,c,d,e]	14.8 (0.7)[a,c,e]	9.6 (0.7)[a,b,d]	16.5 (0.5)[a,c,e]	10.5 (0.7)[a,b,d]	16.5 (0.4)
Used less when deployed	29.6 (1.0)[b,d,e]	22.9 (0.9)[a,c,e]	27.2 (1.0)[b,e]	24.9 (0.6)[a,e]	18.2 (0.9)[a,b,c,d]	26.4 (0.5)
Never used	45.9 (1.0)[b,c,d,e]	60.4 (1.0)[a,d,e]	60.2 (1.1)[a,d,e]	55.9 (0.7)[a,b,c,e]	70.5 (1.0)[a,b,c,d]	53.9 (0.5)

Table 6.11 – Deployment-Related Change in Substance Use During Most Recent Deployment, by Service

	Service[1]					
Substance/Use During Deployment	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Opium, heroin, morphine, etc.						
Used more when deployed	0.1 (0.1)	0.2 (0.1)	0.4 (0.1)	0.1 (0.0)	0.2 (0.1)	0.2 (0.0)
Used about the same when deployed	0.2 (0.1)	0.3 (0.1)	0.2 (0.1)	0.1 (0.1)	0.2 (0.1)	0.2 (0.0)
Used less when deployed	7.1 (0.5)[b,d,e]	3.0 (0.3)[a,c]	5.5 (0.5)[b,d]	2.8 (0.2)[a,c]	3.6 (0.4)[a]	4.9 (0.2)
Never used	92.6 (0.5)[b,d,e]	96.4 (0.4)[a,c]	94.0 (0.5)[b,d,e]	97.0 (0.3)[a,c]	96.0 (0.4) [a,c]	94.7 (0.2)

Note: Table displays the percentage of military personnel, by Service, who reported a substance use change due to deployment as indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Deployment-Related Change in Substance Use, Q156).

Table 6.12 – Deployment and Prescribed Stimulants, by Service and Combat Exposure

Combat Exposure/ Prescription Timing	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Non-Combat Deployed						
Within 3 months before a deployment	†	0.5 (0.3)	1.0 (0.6)	0.2 (0.2)	†	0.4 (0.2)
During a deployment	2.4 (1.8)[e]	†	0.1 (0.1)	0.8 (0.4)	0.1 (0.1)[a]	0.4 (0.2)
Within 3 months following return from a deployment	2.4 (1.8)[d,e]	0.5 (0.3)	0.7 (0.5)	0.1 (0.1)[a]	0.1 (0.1)[a]	0.5 (0.2)
Not prescribed this within 3 months before, during, or after a deployment	94.9 (2.6)[e]	99.0 (0.4)	98.2 (0.8)[e]	98.8 (0.4)[e]	99.8 (0.1)[a,c,d]	98.6 (0.3)
Low Combat Exposure						
Within 3 months before a deployment	†	0.5 (0.2)	0.7 (0.6)	0.1 (0.1)	0.4 (0.4)	0.3 (0.1)
During a deployment	1.3 (1.0)	0.5 (0.2)	0.8 (0.6)	0.3 (0.2)	†	0.6 (0.2)
Within 3 months following return from a deployment	0.8 (0.7)	0.1 (0.1)	†	0.1 (0.1)	†	0.2 (0.1)
Not prescribed this within 3 months before, during, or after a deployment	97.7 (1.3)	98.8 (0.4)	98.4 (0.8)	99.5 (0.2)	99.6 (0.4)	98.9 (0.2)
Moderate Combat Exposure						
Within 3 months before a deployment	0.7 (0.3)	0.2 (0.2)	0.2 (0.2)	0.5 (0.2)	†	0.5 (0.1)
During a deployment	0.6 (0.3)	0.6 (0.3)	0.4 (0.2)	1.0 (0.2)	†	0.7 (0.1)
Within 3 months following return from a deployment	0.9 (0.4)	0.1 (0.1)	0.4 (0.3)	0.4 (0.2)	0.6 (0.6)	0.5 (0.1)
Not prescribed this within 3 months before, during, or after a deployment	97.8 (0.6)	99.1 (0.3)	98.9 (0.4)	98.1 (0.3)	99.2 (0.7)	98.3 (0.2)

Table 6.12 – Deployment and Prescribed Stimulants, by Service and Combat Exposure

Combat Exposure/ Prescription Timing	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
High Combat Exposure						
Within 3 months before a deployment	0.9 (0.3)	1.6 (0.8)	0.6 (0.3)	1.7 (0.5)	†	1.0 (0.2)
During a deployment	0.9 (0.3)[d]	2.3 (0.9)	0.9 (0.3)[d]	4.1 (0.7)[a,c]	†	1.3 (0.2)
Within 3 months following return from a deployment	1.9 (0.4)	3.8 (1.2)[c,d]	1.1 (0.4)[b]	0.6 (0.3)[b]	†	1.8 (0.2)
Not prescribed this within 3 months before, during, or after a deployment	96.3 (0.5)[b,d]	92.2 (1.6)[a,c]	97.4 (0.5)[b,d]	93.6 (0.9)[a,c]	†	95.9 (0.3)

Note: Table displays the percentage of military personnel, by Service and combat exposure level, who reported being first prescribed stimulants around the time of a deployment as indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Level of Combat Exposure, Q148, Q159, Q163; Deployment-Related Prescription Stimulants, Q158A).

Table 6.13 – Deployment and Prescribed Sedatives, by Service and Combat Exposure

Combat Exposure/ Prescription Timing	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Non-Combat Deployed						
Within 3 months before a deployment	†	1.4 (0.5)	1.3 (0.7)	1.2 (0.4)	0.9 (0.2)	1.2 (0.3)
During a deployment	7.1 (3.1)[b,c,e]	1.6 (0.5)[a]	0.8 (0.5)[a]	3.1 (0.7)[e]	0.7 (0.2)[a,d]	2.2 (0.4)
Within 3 months following return from a deployment	3.8 (2.3)	2.7 (0.7)	2.2 (0.9)	2.2 (0.6)	2.2 (0.4)	2.5 (0.4)
Not prescribed this within 3 months before, during, or after a deployment	88.5 (3.8)[e]	94.4 (1.0)	95.7 (1.2)	93.5 (1.0)	96.2 (0.5)[a]	94.1 (0.7)
Low Combat Exposure						
Within 3 months before a deployment	1.9 (1.2)	1.1 (0.4)	1.3 (0.8)	1.5 (0.3)	1.2 (0.7)	1.4 (0.3)
During a deployment	7.0 (2.1)[e]	3.5 (0.6)	2.6 (1.1)	6.1 (0.6)[e]	1.5 (0.7)[a,d]	4.8 (0.5)
Within 3 months following return from a deployment	2.0 (1.2)	2.2 (0.5)	0.6 (0.5)	1.6 (0.3)	2.6 (1.0)	1.9 (0.3)
Not prescribed this within 3 months before, during, or after a deployment	89.1 (2.6)	93.1 (0.9)	95.4 (1.4)	90.7 (0.8)	94.7 (1.4)	92.0 (0.6)
Moderate Combat Exposure						
Within 3 months before a deployment	2.5 (0.6)	2.0 (0.5)	1.0 (0.4)	2.9 (0.4)	1.7 (1.0)	2.3 (0.3)
During a deployment	7.6 (1.0)[e]	6.8 (0.9)[e]	5.1 (0.9)[d]	10.0 (0.7)[c,e]	0.9 (0.7)[a,b,d]	7.8 (0.5)
Within 3 months following return from a deployment	7.6 (1.0)[b,c,d]	2.5 (0.6)[a]	2.7 (0.6)[a]	4.0 (0.4)[a]	4.4 (1.5)	4.8 (0.4)
Not prescribed this within 3 months before, during, or after a deployment	82.3 (1.4)[b,c,e]	88.8 (1.2)[a,d]	91.2 (1.1)[a,d]	83.1 (0.9)[b,c,e]	93.0 (1.9)[a,d]	85.1 (0.6)

Table 6.13 – Deployment and Prescribed Sedatives, by Service and Combat Exposure

Combat Exposure/ Prescription Timing	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
High Combat Exposure						
Within 3 months before a deployment	3.7 (0.5)[c]	3.7 (1.2)	1.5 (0.4)[a,d]	5.8 (0.9)[c]	†	3.6 (0.3)
During a deployment	13.0 (0.9)[c]	12.4 (2.0)	8.7 (1.0)[a,d]	15.5 (1.4)[c]	6.7 (3.9)	12.6 (0.6)
Within 3 months following return from a deployment	9.7 (0.8)	10.0 (1.8)	8.1 (0.9)	8.3 (1.0)	†	9.4 (0.5)
Not prescribed this within 3 months before, during, or after a deployment	73.6 (1.2)[c]	73.9 (2.7)	81.6 (1.3)[a,d]	70.3 (1.7)[c]	89.6 (4.8)	74.5 (0.8)

Note: Table displays the percentage of military personnel, by Service and combat exposure level, who reported being first prescribed sedatives around the time of a deployment as indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Level of Combat Exposure, Q148, Q159, Q163; Deployment-Related Prescription Sedatives, Q158B).

Table 6.14 – Deployment and Prescribed Pain Relievers, by Service and Combat Exposure

Combat Exposure/ Prescription Timing	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Non-Combat Deployed						
Within 3 months before a deployment	6.0 (2.8)[d]	1.3 (0.5)	3.5 (1.1)	1.1 (0.4)[a]	2.8 (0.4)	2.2 (0.4)
During a deployment	9.0 (3.4)[d,e]	4.5 (0.9)[e]	3.9 (1.1)[e]	2.5 (0.6)[a]	1.3 (0.3)[a,b,c]	3.9 (0.6)
Within 3 months following return from a deployment	7.0 (3.1)	4.7 (0.9)	5.0 (1.3)	2.1 (0.6)	3.0 (0.5)	4.1 (0.6)
Not prescribed this within 3 months before, during, or after a deployment	78.0 (5.0)[d,e]	89.5 (1.3)[d]	87.6 (1.9)[d,e]	94.4 (0.9)[a,b,c]	92.8 (0.7)[a,c]	89.7 (0.9)
Low Combat Exposure						
Within 3 months before a deployment	3.5 (1.6)[d]	2.3 (0.5)	0.8 (0.6)	1.1 (0.3)[e]	3.9 (1.2)[d]	2.0 (0.3)
During a deployment	5.4 (1.9)	5.7 (0.8)[d]	4.9 (1.4)	2.8 (0.4)[b]	4.2 (1.2)	4.6 (0.5)
Within 3 months following return from a deployment	7.8 (2.3)[c]	4.3 (0.7)	0.9 (0.6)[a]	3.4 (0.5)	4.0 (1.2)	4.2 (0.5)
Not prescribed this within 3 months before, during, or after a deployment	83.3 (3.1)[c,d]	87.7 (1.1)[d]	93.3 (1.7)[a]	92.7 (0.7)[a,b]	87.9 (2.0)	89.2 (0.7)
Moderate Combat Exposure						
Within 3 months before a deployment	3.2 (0.7)	2.7 (0.6)	1.7 (0.5)	2.1 (0.3)	2.9 (1.2)	2.6 (0.3)
During a deployment	8.8 (1.1)[d]	6.3 (0.9)	6.0 (0.9)	4.8 (0.5)[a]	2.7 (1.2)	6.7 (0.5)
Within 3 months following return from a deployment	6.2 (0.9)	4.2 (0.8)	4.9 (0.8)	5.5 (0.5)	6.7 (1.8)	5.4 (0.4)
Not prescribed this within 3 months before, during, or after a deployment	81.8 (1.5)[c,d]	86.7 (1.3)	87.4 (1.3)[a]	87.6 (0.8)[a]	87.7 (2.4)	85.2 (0.6)

Table 6.14 – Deployment and Prescribed Pain Relievers, by Service and Combat Exposure

Combat Exposure/ Prescription Timing	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
High Combat Exposure						
Within 3 months before a deployment	3.8 (0.5)	3.1 (1.1)	2.1 (0.5)	3.4 (0.7)	†	3.5 (0.3)
During a deployment	13.5 (0.9)[c,d]	9.9 (1.8)	7.8 (0.9)[a]	8.2 (1.0)[a]	7.5 (4.0)	11.9 (0.6)
Within 3 months following return from a deployment	11.6 (0.9)	7.1 (1.6)	9.7 (1.0)	9.2 (1.1)	†	10.8 (0.5)
Not prescribed this within 3 months before, during, or after a deployment	71.0 (1.2)[b,c,d]	79.9 (2.4)[a]	80.3 (1.4)[a]	79.2 (1.5)[a]	88.6 (4.8)	73.8 (0.8)

Note: Table displays the percentage of military personnel, by Service and combat exposure level, who reported being first prescribed pain relievers around the time of a deployment as indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Level of Combat Exposure, Q148, Q159, Q163; Deployment-Related Prescription Pain Relievers, Q158C).

Table 6.15 – Deployment and Prescribed Anabolic Steroids, by Service and Combat Exposure

Combat Exposure/ Prescription Timing	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Non-Combat Deployed						
Within 3 months before a deployment	†	0.2 (0.2)	0.5 (0.4)	†	0.2 (0.1)	0.2 (0.1)
During a deployment	2.6 (1.9)[b,e]	0.2 (0.2)[a]	†	0.4 (0.3)	0.3 (0.1)[a]	0.4 (0.2)
Within 3 months following return from a deployment	†	0.1 (0.1)	0.7 (0.5)	0.1 (0.1)	0.2 (0.1)	0.2 (0.1)
Not prescribed this within 3 months before, during, or after a deployment	97.0 (2.0)	99.5 (0.3)	98.8 (0.6)	99.5 (0.3)	99.3 (0.2)	99.2 (0.3)
Low Combat Exposure						
Within 3 months before a deployment	†	0.1 (0.1)	†	†	0.4 (0.4)	0.1 (0.1)
During a deployment	†	0.2 (0.2)	0.6 (0.5)	†	†	0.2 (0.1)
Within 3 months following return from a deployment	1.0 (0.8)[d]	0.2 (0.1)	†	0.1 (0.1)[a]	†	0.2 (0.1)
Not prescribed this within 3 months before, during, or after a deployment	98.9 (0.9)[d]	99.4 (0.3)	99.4 (0.5)	99.9 (0.1)[a]	99.6 (0.4)	99.5 (0.2)
Moderate Combat Exposure						
Within 3 months before a deployment	†	0.2 (0.2)	†	0.3 (0.1)	†	0.1 (0.1)
During a deployment	0.3 (0.2)	0.2 (0.2)	0.3 (0.2)	0.1 (0.1)	†	0.2 (0.1)
Within 3 months following return from a deployment	0.6 (0.3)	0.3 (0.2)	0.5 (0.3)	0.3 (0.1)	0.8 (0.7)	0.4 (0.1)
Not prescribed this within 3 months before, during, or after a deployment	99.1 (0.4)	99.3 (0.3)	99.2 (0.3)	99.3 (0.2)	99.2 (0.7)	99.2 (0.2)

Table 6.15 – Deployment and Prescribed Anabolic Steroids, by Service and Combat Exposure

Combat Exposure/ Prescription Timing	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
High Combat Exposure						
Within 3 months before a deployment	0.7 (0.2)	0.9 (0.6)	0.3 (0.2)	0.2 (0.2)	†	0.6 (0.1)
During a deployment	1.1 (0.3)	2.5 (1.0)[c,d]	0.4 (0.2)[b]	0.4 (0.2)[b]	†	1.0 (0.2)
Within 3 months following return from a deployment	0.6 (0.2)	†	1.2 (0.4)	1.4 (0.4)	†	0.7 (0.1)
Not prescribed this within 3 months before, during, or after a deployment	97.6 (0.4)	96.5 (1.1)	98.1 (0.5)	98.0 (0.5)	†	97.6 (0.3)

Note: Table displays the percentage of military personnel, by Service and combat exposure level, who reported being first prescribed anabolic steroids around the time of a deployment as indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Level of Combat Exposure, Q148, Q159, Q163; Deployment-Related Prescription Anabolic Steroids, Q158D).

Table 6.16 – Deployment and Prescribed Anti-Depressants, by Service and Combat Exposure

	Service[1]					
Combat Exposure/Prescription Timing	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
Non-Combat Deployed						
Within 3 months before a deployment	†	0.7 (0.4)	1.6 (0.7)	0.7 (0.3)	0.6 (0.2)	0.8 (0.3)
During a deployment	8.2 (3.3)[b,c,d,e]	0.6 (0.3)[a]	0.7 (0.5)[a]	0.6 (0.3)[a]	0.4 (0.2)[a]	1.3 (0.3)
Within 3 months following return from a deployment	3.2 (2.1)	0.7 (0.4)	1.9 (0.8)	0.7 (0.3)	0.9 (0.3)	1.1 (0.3)
Not prescribed this within 3 months before, during, or after a deployment	88.0 (3.9)[b,d,e]	98.1 (0.6)[a]	95.9 (1.2)	97.9 (0.6)[a]	98.1 (0.4)[a]	96.8 (0.5)
Low Combat Exposure						
Within 3 months before a deployment	†	1.1 (0.4)	1.8 (0.9)	0.4 (0.2)	1.4 (0.7)	0.8 (0.2)
During a deployment	2.6 (1.3)[d]	0.6 (0.3)	1.3 (0.8)	0.3 (0.1)[a]	0.5 (0.5)	0.8 (0.2)
Within 3 months following return from a deployment	1.8 (1.1)	0.8 (0.3)	1.1 (0.7)	0.8 (0.2)	1.4 (0.7)	0.9 (0.2)
Not prescribed this within 3 months before, during, or after a deployment	95.2 (1.8)[d]	97.5 (0.5)	95.8 (1.3)[d]	98.5 (0.3)[a,c]	96.7 (1.1)	97.4 (0.4)
Moderate Combat Exposure						
Within 3 months before a deployment	1.3 (0.4)	0.9 (0.3)	0.5 (0.3)	0.4 (0.1)	0.5 (0.5)	0.8 (0.2)
During a deployment	2.5 (0.6)[d]	0.9 (0.3)	0.7 (0.3)	0.5 (0.2)[a]	0.9 (0.7)	1.4 (0.2)
Within 3 months following return from a deployment	3.6 (0.7)[d]	1.7 (0.5)	2.0 (0.5)	1.6 (0.3)[a]	2.8 (1.2)	2.4 (0.3)
Not prescribed this within 3 months before, during, or after a deployment	92.5 (1.0)[b,c,d]	96.6 (0.7)[a]	96.9 (0.7)[a]	97.5 (0.4)[a]	95.8 (1.5)	95.4 (0.4)

Table 6.16 – Deployment and Prescribed Anti-Depressants, by Service and Combat Exposure

Combat Exposure/Prescription Timing	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
High Combat Exposure						
Within 3 months before a deployment	2.0 (0.4)[c]	0.9 (0.6)	0.6 (0.3)[a]	0.6 (0.3)	†	1.5 (0.2)
During a deployment	3.5 (0.5)[c,d]	2.5 (0.9)	0.7 (0.3)[a]	1.4 (0.4)[a]	†	2.8 (0.3)
Within 3 months following return from a deployment	7.3 (0.7)[c,d]	5.5 (1.4)	4.0 (0.7)[a]	2.7 (0.6)[a]	†	6.2 (0.4)
Not prescribed this within 3 months before, during, or after a deployment	87.2 (0.9)[c,d]	91.2 (1.7)	94.8 (0.8)[a]	95.4 (0.8)[a]	†	89.4 (0.5)

Note: Table displays the percentage of military personnel, by Service and combat exposure level, who reported being first prescribed anti-depressants around the time of a deployment as indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Level of Combat Exposure, Q148, Q159, Q163; Deployment-Related Prescription Anti-Depressants, Q158E).

Table 6.17 – Deployment-Related Change in Interpersonal Relations, by Service

Relationship Change Since Most Recent Deployment	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Relationship with Spouse, Fiancé, Boyfriend, or Girlfriend						
Argued more/had more conflict	29.1 (0.9)[b,c,d,e]	20.6 (0.8)[a,d,e]	23.9 (0.9)[a,d,e]	17.0 (0.5)[a,b,c]	14.4 (0.8)[a,b,c]	23.3 (0.4)
Got along about the same	41.6 (1.0)[d,e]	44.0 (1.0)[d,e]	41.7 (1.1)[d,e]	50.0 (0.7)[a,b,c]	52.6 (1.1)[a,b,c]	44.3 (0.5)
Argued less/had less conflict/got along better	8.8 (0.6)	9.6 (0.6)	8.2 (0.6)	8.7 (0.4)	9.5 (0.7)	8.9 (0.3)
Divorced or Separated from Spouse, Fiancé, Boyfriend, or Girlfriend Since Deployment						
Divorced	5.9 (0.5)[e]	4.3 (0.4)	5.6 (0.5)[e]	5.6 (0.3)[e]	3.6 (0.4)[a,c,d]	5.4 (0.2)
Separated	6.8 (0.5)[d]	6.6 (0.5)[d]	6.5 (0.5)[d]	4.7 (0.3)[a,b,c]	5.8 (0.5)	6.2 (0.2)
No Change	66.8 (1.0)[c]	63.2 (1.0)	61.6 (1.1)[a,d,e]	65.4 (0.7)[c]	67.2 (1.1)[c]	65.0 (0.5)
Did Not Have a Spouse or Significant Other	20.5 (0.8)[b,c,d]	25.9 (0.9)[a]	26.3 (1.0)[a]	24.3 (0.6)[a]	23.5 (1.0)	23.4 (0.4)

Note: Table displays the percentage of military personnel, by Service, who reported relationship changes indicated in the rows of the table following their most recent deployment. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Deployment-Related Change in Interpersonal Relationship Conflict, Q153; Deployment-Related Change in Interpersonal Relationship Status, Q154).

Table 6.18 – Stress and Mental Health Measures, by Service and Length of Combat Deployments Since 9/11

Stress and Mental Health/Service	Total Length of Combat Deployments Since 9/11[1]					
	Less than 30 Days	30 Days to 6 Months	7 to 12 Months	13 to 18 Months	More than 18 Months	Total
High Overall Stress						
Army	39.7 (1.5)[c,e]	45.9 (4.4)	51.1 (2.0)[a]	43.9 (2.7)	47.5 (1.6)[a]	45.1 (0.9)
Navy	42.4 (1.2)	42.7 (2.7)	47.4 (2.1)	46.6 (2.7)	46.6 (2.2)	44.3 (0.9)
Marine Corps	50.1 (1.2)	43.9 (3.8)	48.3 (2.0)	46.6 (2.5)	49.9 (2.3)	49.0 (0.9)
Air Force	29.5 (0.7)[e]	31.2 (1.3)[e]	32.6 (1.4)	31.3 (1.9)	38.5 (1.7)[a,b]	31.3 (0.5)
Coast Guard	35.8 (0.8)	41.9 (4.1)	39.9 (4.3)	39.1 (5.6)	54.0 (7.0)	36.5 (0.8)
All Services	38.8 (0.6)[c,e]	37.8 (1.4)[c,e]	45.8 (1.0)[a,b]	42.5 (1.3)	46.4 (0.9)[a,b]	41.7 (0.4)
High Depression Level						
Army	11.0 (0.9)	12.1 (2.9)	13.7 (1.4)	9.6 (1.6)	12.0 (1.0)	11.7 (0.6)
Navy	9.8 (0.7)	9.7 (1.6)	9.3 (1.2)	10.5 (1.6)	9.1 (1.3)	9.7 (0.5)
Marine Corps	15.4 (0.9)[c,d,e]	13.3 (2.6)	10.7 (1.3)[a]	6.7 (1.3)[a]	10.3 (1.4)[a]	12.7 (0.6)
Air Force	4.9 (0.3)	5.6 (0.6)	4.3 (0.6)	4.0 (0.8)	6.0 (0.8)	5.0 (0.2)
Coast Guard	5.5 (0.4)	4.4 (1.7)	7.8 (2.3)	5.5 (2.6)	9.5 (4.1)	5.6 (0.4)
All Services	9.3 (0.4)	8.3 (0.8)	10.2 (0.6)	8.3 (0.7)	10.5 (0.6)	9.5 (0.2)
High Anxiety Level						
Army	16.3 (1.1)[e]	13.8 (3.1)	21.7 (1.7)	21.2 (2.2)	23.1 (1.3)[a]	19.9 (0.7)
Navy	16.5 (0.9)	14.6 (1.9)	17.4 (1.6)	16.9 (2.0)	17.0 (1.7)	16.6 (0.6)
Marine Corps	22.0 (1.0)	19.0 (3.0)	23.2 (1.7)	18.6 (2.0)	22.0 (1.9)	21.7 (0.7)
Air Force	9.2 (0.5)[e]	9.6 (0.8)	10.0 (0.9)	9.3 (1.2)	12.5 (1.1)[a]	9.7 (0.3)
Coast Guard	11.6 (0.6)	8.4 (2.3)	9.3 (2.5)	13.8 (4.0)	19.9 (5.6)	11.5 (0.5)
All Services	14.9 (0.4)[c,e]	12.3 (0.9)[c,d,e]	18.4 (0.8)[a,b]	17.4 (1.0)[b]	20.5 (0.8)[a,b]	16.6 (0.3)

Table 6.18 – Stress and Mental Health Measures, by Service and Length of Combat Deployments Since 9/11

Stress and Mental Health/Service	Total Length of Combat Deployments Since 9/11[1]					
	Less than 30 Days	30 Days to 6 Months	7 to 12 Months	13 to 18 Months	More than 18 Months	Total
High Posttraumatic Stress Level						
Army	4.6 (0.6)[c,e]	4.8 (1.9)	8.4 (1.1)[a]	6.7 (1.4)	9.4 (0.9)[a]	7.1 (0.5)
Navy	4.1 (0.5)	2.9 (0.9)	3.8 (0.8)	3.6 (1.0)	4.8 (1.0)	3.9 (0.3)
Marine Corps	7.5 (0.6)	7.3 (2.0)	6.1 (1.0)	4.0 (1.0)[e]	9.6 (1.3)[d]	7.2 (0.4)
Air Force	1.7 (0.2)[e]	2.0 (0.4)	2.0 (0.4)	0.9 (0.4)[e]	4.0 (0.7)[a,d]	2.0 (0.2)
Coast Guard	2.0 (0.2)	†	3.9 (1.7)	†	6.6 (3.5)	2.0 (0.2)
All Services	3.9 (0.2)[c,e]	3.1 (0.5)[c,e]	5.7 (0.5)[a,b,e]	4.4 (0.5)[e]	7.9 (0.5)[a,b,c,d]	5.0 (0.2)
Suicidal Ideation, Past Year						
Army	4.9 (0.6)	3.7 (1.7)	5.3 (0.9)	4.6 (1.1)	4.3 (0.6)	4.7 (0.4)
Navy	3.7 (0.5)	3.5 (1.0)	3.9 (0.8)	3.6 (1.0)	3.4 (0.8)	3.6 (0.3)
Marine Corps	6.8 (0.6)[d]	5.5 (1.7)	6.1 (1.0)	2.9 (0.8)[a]	6.1 (1.1)	6.1 (0.4)
Air Force	2.3 (0.2)	1.5 (0.3)	2.5 (0.5)	2.8 (0.7)	1.5 (0.4)	2.1 (0.2)
Coast Guard	2.5 (0.3)	1.7 (1.1)	0.9 (0.8)	4.3 (2.3)	†	2.4 (0.3)
All Services	4.0 (0.2)	2.7 (0.5)	4.5 (0.4)	3.8 (0.5)	4.0 (0.4)	3.9 (0.2)
Attempted Suicide, Past Year						
Army	0.7 (0.3)	†	0.5 (0.3)	0.2 (0.2)	1.0 (0.3)	0.7 (0.1)
Navy	0.5 (0.2)	0.1 (0.1)	0.8 (0.4)	†	0.2 (0.2)	0.4 (0.1)
Marine Corps	1.2 (0.3)	†	0.5 (0.3)	†	1.2 (0.5)	0.9 (0.2)
Air Force	0.2 (0.1)	0.2 (0.1)	0.2 (0.1)	0.2 (0.2)	0.1 (0.1)	0.2 (0.1)
Coast Guard	0.1 (0.1)	†	0.9 (0.8)	†	†	0.2 (0.1)
All Services	0.6 (0.1)	0.2 (0.1)	0.5 (0.1)	0.1 (0.1)	0.8 (0.2)	0.5 (0.1)

Table 6.18 – Stress and Mental Health Measures, by Service and Length of Combat Deployments Since 9/11

Stress and Mental Health/Service	Total Length of Combat Deployments Since 9/11[1]					
	Less than 30 Days	30 Days to 6 Months	7 to 12 Months	13 to 18 Months	More than 18 Months	Total
Self-Inflicted Injury						
Army	6.0 (0.7)	9.5 (2.6)	5.3 (0.9)	4.7 (1.1)	5.9 (0.7)	5.8 (0.4)
Navy	4.6 (0.5)	5.2 (1.2)	6.0 (1.0)	5.3 (1.2)	5.8 (1.1)	5.2 (0.4)
Marine Corps	8.9 (0.7)	7.8 (2.0)	8.2 (1.1)	5.0 (1.1)	6.9 (1.1)	8.0 (0.5)
Air Force	3.2 (0.3)	2.7 (0.5)	3.4 (0.5)	3.0 (0.7)	3.3 (0.6)	3.2 (0.2)
Coast Guard	3.2 (0.3)	3.9 (1.6)	3.6 (1.6)	3.2 (2.0)	4.2 (2.8)	3.2 (0.3)
All Services	5.2 (0.3)	4.9 (0.6)	5.5 (0.5)	4.6 (0.6)	5.6 (0.4)	5.2 (0.2)
Possible TBI - Most Recent Deployment						
Army	10.6 (3.0)	6.6 (2.2)[d,e]	14.9 (1.4)[d]	22.1 (2.2)[b,c]	18.9 (1.2)[b]	17.2 (0.8)
Navy	2.8 (0.7)[e]	4.0 (1.1)	4.4 (0.9)[e]	5.4 (1.2)	8.7 (1.3)[a,c]	5.0 (0.4)
Marine Corps	3.6 (1.0)[c,d,e]	8.4 (2.1)[e]	11.8 (1.3)[a,e]	10.4 (1.5)[a,e]	17.9 (1.7)[a,b,c,d]	11.4 (0.7)
Air Force	0.8 (0.3)[d,e]	1.5 (0.3)[e]	2.6 (0.5)[e]	3.0 (0.7)[a,e]	7.3 (0.9)[a,b,c,d]	3.0 (0.2)
Coast Guard	0.8 (0.2)[e]	1.9 (1.1)	0.8 (0.8)[e]	2.9 (2.0)	9.6 (4.1)[a,c]	1.2 (0.2)
All Services	3.1 (0.5)[c,d,e]	3.6 (0.5)[c,d,e]	9.4 (0.6)[a,b,d,e]	12.4 (0.9)[a,b,c]	15.5 (0.7)[a,b,c]	10.0 (0.3)
High Risk-Taking						
Army	10.6 (0.9)	9.4 (2.6)	14.0 (1.4)	11.6 (1.7)	9.7 (0.9)	11.0 (0.6)
Navy	12.0 (0.8)[c]	7.4 (1.4)	7.2 (1.1)[a]	7.6 (1.4)	10.3 (1.4)	10.0 (0.5)
Marine Corps	17.4 (0.9)[d]	10.2 (2.3)	13.6 (1.4)	9.2 (1.6)[a]	15.2 (1.6)	15.1 (0.6)
Air Force	8.2 (0.4)	5.9 (0.7)	6.6 (0.7)	5.7 (1.0)	8.2 (0.9)	7.4 (0.3)
Coast Guard	8.4 (0.5)	10.5 (2.6)	8.5 (2.5)	8.3 (3.2)	13.4 (4.8)	8.6 (0.5)
All Services	11.1 (0.4)[b]	7.3 (0.7)[a,c,e]	10.8 (0.6)[b]	9.1 (0.8)	10.1 (0.6)[b]	10.3 (0.3)

Table 6.18 – Stress and Mental Health Measures, by Service and Length of Combat Deployments Since 9/11

Stress and Mental Health/Service	Total Length of Combat Deployments Since 9/11[1]					
	Less than 30 Days	30 Days to 6 Months	7 to 12 Months	13 to 18 Months	More than 18 Months	Total
High Anger						
Army	5.9 (0.7)[c,e]	9.1 (2.6)	10.3 (1.2)[a]	8.9 (1.6)	12.1 (1.0)[a]	9.2 (0.5)
Navy	7.6 (0.7)	6.2 (1.3)	5.1 (0.9)	7.6 (1.4)	6.2 (1.1)	6.8 (0.4)
Marine Corps	10.9 (0.7)	10.5 (2.4)	9.3 (1.2)	7.4 (1.3)	12.0 (1.5)	10.3 (0.5)
Air Force	3.2 (0.3)	2.6 (0.4)	2.9 (0.5)	2.9 (0.7)	4.6 (0.7)	3.2 (0.2)
Coast Guard	3.2 (0.3)[e]	2.0 (1.2)[e]	5.4 (2.0)	4.6 (2.5)	15.2 (5.2)[a,b]	3.4 (0.3)
All Services	6.1 (0.3)[e]	5.3 (0.6)[e]	7.4 (0.5)[e]	7.2 (0.7)[e]	10.1 (0.6)[a,b,c,d]	7.1 (0.2)
Low Resilience						
Army	4.6 (0.6)	4.8 (1.9)	3.5 (0.8)	3.3 (1.0)	3.4 (0.6)	3.9 (0.3)
Navy	6.0 (0.6)[d]	3.6 (1.0)	4.6 (0.9)	1.8 (0.7)[a]	4.5 (0.9)	4.9 (0.4)
Marine Corps	7.6 (0.6)[c,d,e]	4.3 (1.6)	3.7 (0.8)[a]	2.4 (0.8)[a]	3.0 (0.8)[a]	5.5 (0.4)
Air Force	4.5 (0.3)	2.8 (0.5)	2.9 (0.5)	2.3 (0.6)	2.9 (0.6)	3.7 (0.2)
Coast Guard	4.2 (0.4)	2.6 (1.3)	2.6 (1.4)	†	†	4.0 (0.3)
All Services	5.3 (0.3)[c,d,e]	3.5 (0.5)	3.6 (0.4)[a]	2.6 (0.4)[a]	3.5 (0.3)[a]	4.3 (0.2)
Low Positive Affect						
Army	9.3 (0.9)	10.6 (2.7)	10.2 (1.2)	10.8 (1.7)	11.2 (1.0)	10.3 (0.5)
Navy	9.2 (0.7)	7.4 (1.4)	10.0 (1.3)	7.9 (1.4)	10.0 (1.4)	9.2 (0.5)
Marine Corps	13.4 (0.8)	9.1 (2.2)	12.1 (1.3)	8.9 (1.4)	11.0 (1.4)	12.1 (0.6)
Air Force	7.9 (0.4)	7.4 (0.7)	7.0 (0.8)	7.3 (1.1)	8.2 (0.9)	7.7 (0.3)
Coast Guard	7.3 (0.5)	5.8 (2.0)	7.9 (2.4)	4.1 (2.3)	11.5 (4.5)	7.3 (0.4)
All Services	9.4 (0.4)	8.1 (0.8)	9.7 (0.6)	9.0 (0.8)	10.6 (0.6)	9.5 (0.2)

Note: Table displays the percentage of military personnel, by Service and total length of combat deployments since September 11, 2001, who reported the stress and mental health measures and behaviors as indicated by the rows of the table.

[1]Significance tests were conducted between all deployment length groups. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Less than 30 days) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (30 days to 6 months) at the 95% confidence level after Bonferroni adjustment.

[c]Indicates estimate is significantly different from the estimate in column #3 (7 to 12 months) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (13 to 18 months) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (More than 18 months) at the 95% confidence level after Bonferroni adjustment.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Total Length of Combat Deployments Since 9/11, Q162A; Overall Stress Level, Q119, Q120; Depression Level, Q125C, Q125E; Anxiety Level, Q126; Posttraumatic Stress Level, Q128B, Q128D, Q128E, Q128F; Suicidal Ideation, Q137, Q137A; Suicide Attempts, Q138, Q138A; Self-Inflicted Injury, Q135, Q136; Possible TBI, Q151, Q155, Q157; Risk-Taking Propensity, Q139G-H, Q168G; Anger Propensity, Q134, Q139C, Q139I, Q168B; Resilience Level, Q139A-B, Q139J, Q168A, Q168C, Q168I; Positive Affect, Q125A, Q125D).

Table 6.19 – Stress and Mental Health Measures, by Service and Theater of Deployment[1]

Stress and Mental Health/Service	Combat Deployed Since Sept 11, 2001 and Served in Operations Iraqi Freedom, Enduring Freedom, or New Dawn	Combat Deployed Since Sept 11, 2001 and Did Not Serve in Operations Iraqi Freedom, Enduring Freedom, or New Dawn	Not Combat Deployed Since Sept 11, 2001	Total
High Overall Stress				
Army	47.8 (1.1)[c]	40.5 (5.2)	39.7 (1.5)[a]	45.2 (0.9)
Navy	46.0 (1.2)[c]	46.2 (1.7)	40.9 (1.5)[a]	44.5 (0.8)
Marine Corps	47.7 (1.2)	51.4 (2.6)	50.1 (1.3)	49.1 (0.8)
Air Force	33.4 (0.7)[c]	29.3 (1.8)	29.2 (0.8)[a]	31.3 (0.5)
Coast Guard	42.8 (2.7)[c]	40.2 (1.2)[c]	31.8 (1.1)[a,b]	36.5 (0.8)
All Services	44.1 (0.6)[c]	42.5 (1.2)[c]	38.1 (0.7)[a,b]	41.8 (0.4)
High Depression Level				
Army	12.5 (0.7)	10.5 (3.2)	10.5 (1.0)	11.8 (0.6)
Navy	9.1 (0.7)	11.2 (1.1)	9.6 (0.9)	9.8 (0.5)
Marine Corps	9.5 (0.7)[b,c]	16.0 (1.9)[a]	15.8 (1.0)[a]	12.8 (0.6)
Air Force	4.9 (0.3)	4.7 (0.8)	5.0 (0.4)	5.0 (0.2)
Coast Guard	7.0 (1.4)	5.4 (0.6)	5.5 (0.6)	5.6 (0.4)
All Services	9.7 (0.3)	9.8 (0.7)	9.3 (0.4)	9.6 (0.2)
High Anxiety Level				
Army	22.0 (0.9)[c]	23.7 (4.5)	15.7 (1.2)[a]	20.1 (0.7)
Navy	15.9 (0.9)	17.6 (1.3)	17.1 (1.2)	16.7 (0.6)
Marine Corps	21.4 (1.0)	20.8 (2.1)	22.4 (1.1)	21.8 (0.7)
Air Force	10.2 (0.5)	8.8 (1.1)	9.3 (0.5)	9.7 (0.3)
Coast Guard	11.9 (1.7)	12.0 (0.8)	11.1 (0.8)	11.6 (0.5)
All Services	18.0 (0.4)[c]	16.3 (0.9)	14.9 (0.5)[a]	16.7 (0.3)
High Posttraumatic Stress Level				
Army	8.6 (0.6)[c]	4.0 (2.1)	4.5 (0.7)[a]	7.2 (0.5)
Navy	3.6 (0.5)	3.7 (0.7)	4.7 (0.7)	4.0 (0.3)
Marine Corps	6.7 (0.6)	8.5 (1.4)	7.4 (0.7)	7.2 (0.4)

Table 6.19 – Stress and Mental Health Measures, by Service and Theater of Deployment[1]

Stress and Mental Health/Service	Combat Deployed Since Sept 11, 2001 and Served in Operations Iraqi Freedom, Enduring Freedom, or New Dawn	Combat Deployed Since Sept 11, 2001 and Did Not Serve in Operations Iraqi Freedom, Enduring Freedom, or New Dawn	Not Combat Deployed Since Sept 11, 2001	Total
Air Force	2.3 (0.2)	2.2 (0.6)	1.6 (0.2)	2.0 (0.2)
Coast Guard	3.5 (1.0)	1.9 (0.3)	1.9 (0.3)	2.0 (0.2)
All Services	5.9 (0.3)[b,c]	3.9 (0.5)[a]	4.0 (0.3)[a]	5.0 (0.2)
Suicidal Ideation, Past Year				
Army	4.6 (0.4)	3.8 (2.0)	5.0 (0.7)	4.7 (0.4)
Navy	3.5 (0.5)	4.4 (0.7)	3.5 (0.6)	3.7 (0.3)
Marine Corps	5.3 (0.5)	6.0 (1.2)	7.0 (0.7)	6.1 (0.4)
Air Force	1.9 (0.2)	3.0 (0.7)	2.2 (0.3)	2.1 (0.2)
Coast Guard	1.7 (0.7)	2.6 (0.4)	2.3 (0.4)	2.4 (0.3)
All Services	3.8 (0.2)	4.1 (0.5)	4.1 (0.3)	4.0 (0.2)
Attempted Suicide, Past Year				
Army	0.7 (0.2)	†	0.8 (0.3)	0.7 (0.1)
Navy	0.3 (0.1)	0.5 (0.2)	0.6 (0.2)	0.4 (0.1)
Marine Corps	0.5 (0.2)[c]	1.5 (0.6)	1.3 (0.3)[a]	0.9 (0.2)
Air Force	0.2 (0.1)	0.1 (0.1)	0.1 (0.1)	0.2 (0.1)
Coast Guard	0.3 (0.3)	0.2 (0.1)	0.1 (0.1)	0.2 (0.1)
All Services	0.5 (0.1)	0.5 (0.2)	0.6 (0.1)	0.5 (0.1)
Self-Inflicted Injury[2]				
Army	6.1 (0.5)	9.5 (3.1)	5.1 (0.7)	5.9 (0.4)
Navy	4.7 (0.5)[b]	7.2 (0.9)[a,c]	4.2 (0.6)[b]	5.2 (0.4)
Marine Corps	7.3 (0.6)	9.2 (1.5)	8.5 (0.7)	8.0 (0.5)
Air Force	3.1 (0.3)	3.5 (0.7)	3.1 (0.3)	3.2 (0.2)
Coast Guard	2.9 (0.9)	3.5 (0.5)	3.1 (0.4)	3.2 (0.3)
All Services	5.3 (0.3)	6.5 (0.6)[c]	4.8 (0.3)[b]	5.2 (0.2)

Table 6.19 – Stress and Mental Health Measures, by Service and Theater of Deployment[1]

Stress and Mental Health/Service	Combat Deployed Since Sept 11, 2001 and Served in Operations Iraqi Freedom, Enduring Freedom, or New Dawn	Combat Deployed Since Sept 11, 2001 and Did Not Serve in Operations Iraqi Freedom, Enduring Freedom, or New Dawn	Not Combat Deployed Since Sept 11, 2001	Total
High Risk-Taking				
Army	11.0 (0.7)	8.0 (2.9)	11.0 (1.0)	10.9 (0.5)
Navy	8.3 (0.7)[c]	10.6 (1.1)	12.7 (1.0)[a]	10.1 (0.5)
Marine Corps	12.6 (0.8)[b,c]	18.6 (2.0)[a]	17.0 (1.0)[a]	15.1 (0.6)
Air Force	6.1 (0.4)[c]	7.6 (1.1)	8.8 (0.5)[a]	7.4 (0.3)
Coast Guard	10.0 (1.6)	8.5 (0.7)	8.4 (0.7)	8.6 (0.5)
All Services	9.5 (0.3)[c]	10.6 (0.8)	11.5 (0.4)[a]	10.3 (0.3)
High Anger				
Army	11.1 (0.7)[c]	10.2 (3.3)	5.6 (0.7)[a]	9.4 (0.5)
Navy	6.2 (0.6)	6.4 (0.9)	8.1 (0.9)	6.8 (0.4)
Marine Corps	9.7 (0.7)	10.5 (1.6)	11.1 (0.8)	10.4 (0.5)
Air Force	3.1 (0.3)	2.9 (0.7)	3.4 (0.3)	3.2 (0.2)
Coast Guard	5.9 (1.3)[b]	3.1 (0.4)[a]	3.3 (0.4)	3.4 (0.3)
All Services	8.1 (0.3)[b,c]	6.2 (0.6)[a]	6.2 (0.3)[a]	7.2 (0.2)
Low Resilience				
Army	3.7 (0.4)	5.9 (2.6)	4.4 (0.7)	4.0 (0.3)
Navy	3.6 (0.5)[b,c]	6.0 (0.8)[a]	6.1 (0.8)[a]	4.9 (0.4)
Marine Corps	3.1 (0.4)[b,c]	6.7 (1.3)[a]	7.8 (0.7)[a]	5.4 (0.4)
Air Force	2.8 (0.3)[b,c]	4.9 (0.9)[a]	4.5 (0.4)[a]	3.7 (0.2)
Coast Guard	1.7 (0.7)[c]	3.1 (0.4)[c]	5.4 (0.5)[a,b]	4.0 (0.3)
All Services	3.4 (0.2)[b,c]	5.5 (0.6)[a]	5.3 (0.3)[a]	4.3 (0.2)
Low Positive Affect				
Army	11.2 (0.7)	13.2 (3.6)	8.6 (0.9)	10.5 (0.5)
Navy	9.2 (0.7)	8.0 (0.9)	9.9 (0.9)	9.1 (0.5)
Marine Corps	10.7 (0.8)[c]	11.2 (1.6)	14.0 (0.9)[a]	12.1 (0.6)

Table 6.19 – Stress and Mental Health Measures, by Service and Theater of Deployment[1]

Stress and Mental Health/Service	Combat Deployed Since Sept 11, 2001 and Served in Operations Iraqi Freedom, Enduring Freedom, or New Dawn	Combat Deployed Since Sept 11, 2001 and Did Not Serve in Operations Iraqi Freedom, Enduring Freedom, or New Dawn	Not Combat Deployed Since Sept 11, 2001	Total
Air Force	7.5 (0.4)	8.4 (1.1)	7.8 (0.5)	7.7 (0.3)
Coast Guard	6.6 (1.3)	6.7 (0.6)	7.9 (0.7)	7.3 (0.4)
All Services	9.9 (0.3)	8.8 (0.7)	9.4 (0.4)	9.6 (0.2)

Note: Table displays the percentage of military personnel, by Service and theater of deployment since September 11, 2001, who reported the stress and mental health measures and behaviors as indicated by the rows of this table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between theater of deployment groups. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-3. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Combat Deployed Since Sept 11, 2001 and Served in Operations Iraqi Freedom, Enduring Freedom, or New Dawn) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Combat Deployed Since Sept 11, 2001 and Did Not Serve in Operations Iraqi Freedom, Enduring Freedom, or New Dawn) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Not Combat Deployed Since Sept 11, 2001) at the 95% confidence level after Bonferroni adjustment.

[2]Refers to reported self-inflicted injury since joining the military.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Theater of Operations, Q147; Overall Stress Level, Q119, Q120; Depression Level, Q125C, Q125E; Anxiety Level, Q126; Posttraumatic Stress Level, Q128B, Q128D, Q128E, Q128F; Suicidal Ideation, Q137, Q137A; Suicide Attempts, Q138, Q138A; Self-Inflicted Injury, Q135, Q136; Risk-Taking Propensity, Q139G-H, Q168G; Anger Propensity, Q134, Q139C, Q139I, Q168B; Resilience Level, Q139A-B, Q139J, Q168A, Q168C, Q168I; Positive Affect, Q125A, Q125D).

Table 6.20 – Possible Traumatic Brain Injury (TBI), by Service and Combat Exposure[a]

Possible TBI – Combat Deployed/Service[b]	Level of Combat Exposure			
	Low	Moderate	High	Total
Army	4.2 (1.8)[4]	5.5 (0.9)[4]	25.4 (1.2)[4]	18.0 (0.8)[2,3,4,5]
Navy	2.0 (0.6)[4]	4.6 (0.9)[4]	26.9 (2.9)[4]	7.2 (0.7)[1,3,4]
Marine Corps	1.7 (1.0)	6.2 (1.0)[4]	24.2 (1.6)[4]	14.4 (0.9)[1,2,4,5]
Air Force	0.5 (0.2)[1,2]	2.0 (0.3)[1,2,3]	13.2 (1.3)[1,2,3]	3.7 (0.3)[1,2,3]
Coast Guard	†	4.1 (2.2)	†	3.4 (1.2)[1,3]
All Services	1.8 (0.4)	4.5 (0.4)	24.2 (0.8)	12.5 (0.4)

Note: Table displays the percentage of military personnel, by Service and level of combat exposure, who reported experiencing a possible traumatic brain injury (TBI). The standard error of each estimate is presented in parentheses.

[a]Estimates of possible TBI are shown for service members who indicated their most recent deployment was a combat deployment only.

[b]Significance tests were conducted between the rows within each level of combat exposure and for total TBI. A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same group. In other words:

[1]Indicates estimate is significantly different from the estimate in row #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[5]Indicates estimate is significantly different from the estimate in row #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Level of Combat Exposure, Q148, Q159, Q163; Possible Traumatic Brain Injury, Q151, Q155, Q157; Type of Most Recent Deployment, Q150).

Table 6.21 – Sociodemographic Characteristics of Personnel with Possible Traumatic Brain Injury (TBI) During or Since Most Recent Deployment, by Service

Sociodemographic Characteristic[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Gender						
Male	17.9 (0.8)[2]	5.4 (0.5)	11.6 (0.7)	3.0 (0.3)	1.0 (0.2)	10.5 (0.3)[2]
Female	11.0 (1.9)[1]	3.9 (1.1)	8.0 (2.6)	2.7 (0.6)	2.7 (1.2)	6.4 (0.7)[1]
Race/Ethnicity						
White, non-Hispanic	17.4 (1.0)	5.0 (0.6)	11.8 (0.9)	2.9 (0.3)	1.4 (0.3)	9.9 (0.4)
African-American, non-Hispanic	13.6 (1.9)[4]	2.5 (0.8)[3,4]	7.2 (1.7)	2.6 (0.7)	1.1 (1.1)	8.0 (0.8)[4]
Hispanic	15.2 (2.1)	7.3 (1.5)[2]	13.3 (1.9)	4.4 (1.0)	†	10.8 (0.9)
Other	25.8 (4.3)[2]	7.6 (1.9)[2]	9.3 (3.0)	1.1 (0.7)	†	12.5 (1.5)[2]
Education						
High School or less	22.4 (2.1)[3]	4.3 (0.9)	12.7 (1.2)[3]	3.5 (0.9)	1.2 (0.6)	12.7 (0.8)[3]
Some college	19.6 (1.1)[3]	6.4 (0.7)[3]	11.7 (1.1)	3.3 (0.3)	1.6 (0.4)	11.2 (0.4)[3]
College graduate or higher	10.0 (1.1)[1,2]	3.6 (0.7)[2]	7.7 (1.3)[1]	2.1 (0.4)	0.3 (0.3)	6.1 (0.5)[1,2]
Age						
18-20	†	†	8.8 (4.0)	†	†	7.9 (3.1)
21-25	22.7 (2.4)[5]	6.8 (1.2)	11.7 (1.3)	2.7 (0.6)	1.2 (0.6)	12.1 (0.8)[4]
26-35	17.7 (1.3)	4.9 (0.7)	11.5 (1.1)	2.7 (0.4)	1.1 (0.4)	9.8 (0.5)
36-45	15.5 (1.4)	3.8 (0.7)	11.0 (1.6)	3.4 (0.5)	1.2 (0.5)	9.3 (0.6)[2]
46-65	11.5 (2.4)[2]	4.2 (1.7)	7.5 (3.9)	3.5 (1.3)	1.6 (1.4)	8.0 (1.2)
Family Status						
Not married	14.9 (1.5)	4.7 (0.8)	10.5 (1.2)	3.2 (0.5)	1.5 (0.5)	8.6 (0.5)[2,3]
Married, spouse not present	17.8 (2.3)	5.6 (1.4)	15.2 (2.5)	3.5 (1.1)	0.8 (0.7)	12.0 (1.0)[1]
Married, spouse present	17.7 (1.0)	5.3 (0.6)	11.2 (0.9)	2.8 (0.3)	1.0 (0.3)	10.3 (0.4)[1]

Table 6.21 – Sociodemographic Characteristics of Personnel with Possible Traumatic Brain Injury (TBI) During or Since Most Recent Deployment, by Service

Sociodemographic Characteristic[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Pay Grade						
E1-E4	20.5 (1.5)[4,5,6]	8.5 (1.2)[5,6]	12.6 (1.3)[6]	2.6 (0.6)	1.9 (0.7)	13.9 (0.7)[2,3,4,5,6]
E5-E6	19.6 (1.4)[4,5,6]	5.1 (0.7)	13.0 (1.2)[6]	3.5 (0.4)	1.4 (0.4)	10.3 (0.5)[1,5,6]
E7-E9	18.1 (2.2)[5,6]	3.8 (1.1)	11.8 (2.0)	3.3 (0.7)	0.5 (0.5)	10.3 (0.8)[1,5,6]
W1-W5	6.8 (2.6)[1,2]	†	7.3 (4.2)	-----	†	6.4 (1.7)[1]
O1-O3	8.4 (1.9)[1,2,3]	2.9 (1.0)[1]	5.4 (1.7)	1.2 (0.5)	†	4.8 (0.7)[1,2,3]
O4-O10	8.0 (1.9)[1,2,3]	1.4 (0.8)[1]	3.7 (1.6)[1,2]	2.2 (0.6)	0.9 (0.8)	4.2 (0.7)[1,2,3]
Region						
CONUS[b]	17.3 (0.9)	5.8 (0.6)[2]	12.0 (0.8)	3.1 (0.3)	1.1 (0.3)	10.4 (0.4)[2]
OCONUS[c]	16.3 (1.6)	3.7 (0.7)[1]	8.8 (1.4)	2.6 (0.5)	1.4 (0.7)	8.5 (0.6)[1]
Total	17.1 (0.8)	5.2 (0.4)	11.4 (0.7)	2.9 (0.2)	1.2 (0.2)	10.0 (0.3)

Note: Table displays the percentage of military personnel, by Service and sociodemographic characteristic, who reported a possible traumatic brain injury. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel who were stationed within the 48 contiguous States in the continental United States (excluding Alaska and Hawaii).

[c]Refers to personnel who were stationed outside the continental United States.

†Data not reported. Low precision.

-----Not applicable.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Possible Traumatic Brain Injury, Q151, Q155, Q157).

Table 6.22 – Stress and Mental Health Measures, by Possible Traumatic Brain Injury (TBI) During or Since Most Recent Deployment and Service

Stress and Mental Health/Possible TBI[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
High Overall Stress						
Possible TBI	68.0 (2.4)[2]	69.2 (4.1)[2]	70.4 (3.0)[2]	66.0 (4.0)[2]	†	68.3 (1.5)[2]
Unlikely TBI	43.4 (1.1)[1]	44.7 (1.0)[1]	45.7 (1.2)[1]	31.9 (0.7)[1]	40.4 (1.1)	41.1 (0.5)[1]
High Depression Level						
Possible TBI	22.6 (2.1)[2]	26.6 (4.0)[2]	19.7 (2.6)[2]	20.1 (3.4)[2]	†	22.5 (1.4)[2]
Unlikely TBI	10.4 (0.7)[1]	8.9 (0.6)[1]	9.5 (0.7)[1]	4.4 (0.3)[1]	5.5 (0.5)	8.3 (0.3)[1]
High Anxiety Level						
Possible TBI	44.7 (2.5)[2]	37.3 (4.4)[2]	43.8 (3.3)[2]	36.8 (4.1)[2]	†	43.2 (1.6)[2]
Unlikely TBI	17.5 (0.9)[1]	15.2 (0.8)[1]	18.5 (0.9)[1]	9.2 (0.4)[1]	11.6 (0.7)	14.9 (0.4)[1]
High Posttraumatic Stress Level						
Possible TBI	23.3 (2.2)[2]	18.6 (3.5)[2]	21.5 (2.7)[2]	20.4 (3.4)[2]	†	22.3 (1.4)[2]
Unlikely TBI	5.3 (0.5)[1]	2.9 (0.4)[1]	5.2 (0.5)[1]	1.7 (0.2)[1]	2.0 (0.3)	3.7 (0.2)[1]
Suicidal Ideation, Past Year						
Possible TBI	10.2 (1.5)[2]	11.8 (2.9)[2]	11.6 (2.1)[2]	9.6 (2.5)[2]	†	9.9 (1.0)[2]
Unlikely TBI	3.5 (0.4)[1]	3.4 (0.4)[1]	4.6 (0.5)[1]	1.8 (0.2)[1]	2.4 (0.4)	3.2 (0.2)[1]
Attempted Suicide, Past Year						
Possible TBI	2.0 (0.7)[2]	2.1 (1.3)[2]	2.9 (1.1)[2]	1.7 (1.1)[2]	†	2.1 (0.5)[2]
Unlikely TBI	0.4 (0.1)[1]	0.2 (0.1)[1]	0.4 (0.1)[1]	0.1 (0.1)[1]	0.2 (0.1)	0.3 (0.1)[1]
Self-Inflicted Injury						
Possible TBI	12.1 (1.6)[2]	15.3 (3.2)[2]	15.8 (2.4)[2]	9.9 (2.6)[2]	†	12.9 (1.1)[2]
Unlikely TBI	5.0 (0.5)[1]	5.0 (0.5)[1]	6.6 (0.6)[1]	3.0 (0.3)[1]	3.3 (0.4)	4.7 (0.2)[1]

Table 6.22 – Stress and Mental Health Measures, by Possible Traumatic Brain Injury (TBI) During or Since Most Recent Deployment and Service

Stress and Mental Health/Possible TBI[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
High Risk-Taking						
Possible TBI	17.0 (1.9)[2]	16.4 (3.9)[2]	27.7 (3.0)[2]	13.8 (3.0)[2]	†	18.1 (1.3)[2]
Unlikely TBI	9.6 (0.7)[1]	8.6 (0.8)[1]	11.9 (0.9)[1]	6.1 (0.4)[1]	8.8 (2.0)	8.8 (0.4)[1]
High Anger						
Possible TBI	19.1 (2.0)[2]	13.8 (3.1)[2]	24.1 (2.8)[2]	12.2 (2.8)[2]	†	18.7 (1.3)[2]
Unlikely TBI	9.4 (0.7)[1]	5.8 (0.5)[1]	8.0 (0.6)[1]	2.8 (0.2)[1]	3.5 (0.4)	6.6 (0.3)[1]
Low Resilience						
Possible TBI	5.2 (1.1)	3.5 (1.7)	3.5 (1.2)	6.3 (2.1)[2]	†	4.8 (0.7)
Unlikely TBI	3.5 (0.4)	4.5 (0.4)	3.7 (0.5)	3.0 (0.3)[1]	2.8 (0.4)	3.6 (0.2)
Low Positive Affect						
Possible TBI	16.5 (1.9)[2]	14.9 (3.2)[2]	19.1 (2.6)[2]	15.0 (3.1)[2]	†	16.6 (1.2)[2]
Unlikely TBI	10.2 (0.7)[1]	8.5 (0.6)[1]	9.6 (0.7)[1]	7.4 (0.4)[1]	6.6 (0.6)	9.0 (0.3)[1]

Note: Table displays the percentage of military personnel, by Service and possible traumatic brain injury (TBI), who exhibited the mental health indicators specified in the rows of the table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same Service group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same Service group. For example, consider the High Overall Stress rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (Possible TBI) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (Unlikely TBI) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Possible Traumatic Brain Injury, Q151, Q155, Q157; Overall Stress Level, Q119, Q120; Depression Level, Q125C, Q125E; Anxiety Level, Q126; Posttraumatic Stress Level, Q128B, Q128D, Q128E, Q128F; Suicidal Ideation, Q137, Q137A; Suicide Attempts, Q138, Q138A; Self-Inflicted Injury, Q135, Q136; Risk-Taking Propensity, Q139G-H, Q168G; Anger Propensity, Q134, Q139C, Q139I, Q168B; Resilience Level, Q139A-B, Q139J, Q168A, Q168C, Q168I; Positive Affect, Q125A, Q125D).

Table 6.23 – Substance Use Measures, by Possible Traumatic Brain Injury (TBI) During or Since Most Recent Deployment and Service

Substance Use/Possible TBI[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Alcohol Binge Episode, Past 30 Days						
Possible TBI	38.4 (2.5)[2]	38.9 (4.4)	51.9 (3.3)	21.2 (3.5)	†	39.2 (1.6)[2]
Unlikely TBI	31.7 (1.1)[1]	36.1 (1.0)	47.6 (1.2)	22.2 (0.6)	41.9 (1.1)	32.7 (0.5)[1]
Possible Alcohol Dependence						
Possible TBI	3.2 (0.9)[2]	†	4.5 (1.4)[2]	3.8 (1.6)[2]	†	3.0 (0.6)[2]
Unlikely TBI	1.5 (0.3)[1]	1.8 (0.3)	2.2 (0.3)[1]	1.0 (0.1)[1]	1.2 (0.3)	1.6 (0.1)[1]
Any Prescription Drug Use, Past 12 Months						
Possible TBI	47.9 (2.5)[2]	39.6 (4.4)[2]	34.2 (3.1)[2]	46.2 (4.3)[2]	†	44.9 (1.6)[2]
Unlikely TBI	31.9 (1.1)[1]	20.3 (0.8)[1]	20.9 (1.0)[1]	24.9 (0.6)[1]	15.4 (0.8)	25.5 (0.5)[1]
Any Prescription Drug Misuse, Past 12 Months[b]						
Possible TBI	3.8 (1.0)[2]	1.0 (0.9)	4.4 (1.3)[2]	1.9 (1.2)[2]	†	3.4 (0.6)[2]
Unlikely TBI	1.1 (0.2)[1]	1.1 (0.2)	1.4 (0.3)[1]	0.5 (0.1)[1]	0.6 (0.2)	1.0 (0.1)[1]
Current Smoker						
Possible TBI	38.6 (2.5)[2]	32.4 (4.2)	38.5 (3.2)[2]	23.8 (3.6)[2]	†	36.8 (1.6)[2]
Unlikely TBI	26.8 (1.0)[1]	25.0 (0.9)	28.2 (1.1)[1]	17.0 (0.6)[1]	20.6 (0.9)	24.0 (0.5)[1]
Heavy Smoker						
Possible TBI	7.3 (1.3)[2]	8.4 (2.5)[2]	6.0 (1.6)	2.7 (1.4)	†	6.9 (0.8)[2]
Unlikely TBI	4.0 (0.4)[1]	3.8 (0.4)[1]	4.0 (0.5)	2.2 (0.2)	2.4 (0.4)	3.5 (0.2)[1]

Table 6.23 – Substance Use Measures, by Possible Traumatic Brain Injury (TBI) During or Since Most Recent Deployment and Service

Substance Use/Possible TBI[a]	Service					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Smokeless Tobacco User						
Possible TBI	29.0 (2.3)[2]	22.7 (3.8)[2]	39.6 (3.2)[2]	17.8 (3.3)	†	28.9 (1.5)[2]
Unlikely TBI	20.9 (0.9)[1]	15.8 (0.8)[1]	29.1 (1.1)[1]	13.4 (0.5)	20.0 (0.9)	18.8 (0.4)[1]
Daily Smokeless User						
Possible TBI	14.6 (1.8)[2]	6.8 (2.3)	18.7 (2.6)[2]	10.6 (2.6)[2]	†	13.9 (1.1)[2]
Unlikely TBI	8.3 (0.6)[1]	6.3 (0.5)	10.3 (0.7)[1]	5.5 (0.3)[1]	7.6 (0.6)	7.3 (0.3)[1]

Note: Table displays the percentage of military personnel, by Service and possible traumatic brain injury (TBI), who reported the substance use behaviors indicated in the rows of the table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same Service group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same Service group. For example, consider the Possible Alcohol Dependence rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (Possible TBI) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (Unlikely TBI) at the 95% confidence level after Bonferroni adjustment.

[b]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)."

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Possible Traumatic Brain Injury, Q151, Q155, Q157; Alcohol Binge Episode, Q51; AUDIT Categories, Q46-Q49; Prescription Drug Use, Past 12 Months, Q84, Q85; Prescription Drug Misuse, Past 12 Months, Q84, Q86, Q87, Q89; Current Smoker, Q61, Q64; Smoking Levels, Q61, Q64, Q66; Smokeless Tobacco User, Q72, Q73).

Table 6.24 – Deployment-Related Suicidal Ideation and Suicide Attempts, by Service

Deployment-Related Suicide Ideation/Attempts	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Suicidal Ideation						
Within 6 months before leaving for deployment	1.1 (0.2)[d,e]	1.1 (0.2)[d,e]	1.1 (0.2)[d,e]	0.4 (0.1)[a,b,c]	0.5 (0.1)[a,b,c]	0.9 (0.1)
During a deployment	3.2 (0.3)[c,d,e]	2.2 (0.2)[d,e]	2.1 (0.2)[a,d,e]	0.6 (0.1)[a,b,c,e]	1.2 (0.2)[a,b,c,d]	2.1 (0.1)
Within 6 months after returning from a deployment	4.2 (0.3)[b,c,d,e]	2.2 (0.2)[a,d,e]	2.9 (0.3)[a,d,e]	1.1 (0.1)[a,b,c]	0.9 (0.2)[a,b,c]	2.7 (0.1)
Suicide Attempt						
Within 6 months before leaving for deployment	0.2 (0.1)	0.3 (0.1)[d]	0.2 (0.1)	0.1 (0.1)[b]	0.1 (0.1)	0.2 (0.0)
During a deployment	0.6 (0.1)[b,e]	0.2 (0.1)[a]	0.4 (0.1)	†	0.1 (0.1)[a]	0.3 (0.0)
Within 6 months after returning from a deployment	0.8 (0.2)[d,e]	0.3 (0.1)	0.5 (0.1)[d]	0.1 (0.1)[a,c]	0.1 (0.1)[a]	0.4 (0.1)

Note: Table displays the percentage of military personnel, by Service, who reported suicidal ideation and/or a suicide attempt either 6 months before, during, or 6 months after returning from a deployment. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Deployment-Related Suicidal Ideation, Q137, Q137A; Deployment-Related Suicide Attempt, Q138, Q138A).

Table 6.25 – Deployment-Related Suicidal Ideation and Suicide Attempts, by Length of Combat Deployment

Deployment-Related Suicide Ideation/Attempts	Total Length of Combat Deployments Since 9/11[1]					
	Less than 30 Days	30 Days to 6 Months	7 to 12 Months	13 to 18 Months	More than 18 Months	Total
Suicidal Ideation						
Within 6 months before leaving for deployment	0.6 (0.1)[e]	0.7 (0.2)	1.2 (0.2)	0.8 (0.2)	1.4 (0.2)[a]	0.9 (0.1)
During a deployment	0.9 (0.1)[c,d,e]	1.7 (0.4)[e]	3.2 (0.4)[a]	2.1 (0.4)[a,e]	4.2 (0.4)[a,b,d]	2.1 (0.1)
Within 6 months after returning from a deployment	0.7 (0.1)[b,c,d,e]	2.6 (0.5)[a,e]	3.9 (0.4)[a,e]	3.9 (0.5)[a]	5.8 (0.4)[a,b,c]	2.7 (0.1)
Suicide Attempt						
Within 6 months before leaving for deployment	0.2 (0.1)	0.1 (0.1)	0.3 (0.1)	0.2 (0.1)	0.2 (0.1)	0.2 (0.0)
During a deployment	0.2 (0.1)[e]	0.1 (0.1)	0.3 (0.1)	0.4 (0.2)	0.7 (0.2)[a]	0.3 (0.0)
Within 6 months after returning from a deployment	0.1 (0.1)[b,c,e]	0.8 (0.3)[a]	0.5 (0.1)[a]	0.4 (0.2)	1.1 (0.2)[a]	0.5 (0.1)

Note: Table displays the percentage of military personnel, by total length of combat deployments since September 11, 2001, who reported suicidal ideation and/or a suicide attempt either 6 months before, during, or 6 months after returning from a deployment. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all deployment length groups. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Less than 30 days) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (30 days to 6 months) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (7 to 12 months) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (13 to 18 months) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (More than 18 months) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Deployment-Related Suicidal Ideation, Q137, Q137A; Deployment-Related Suicide Attempt, Q138, Q138A; Total Length of Combat Deployments Since 9/11, Q162A).

Table 6.26 – Reasons for Non-Deployment and Returning Early from Deployment, by Service

Reason	Service[1]					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
Reasons for Being Unable to Deploy						
I was on training/I needed additional training	10.4 (1.3)[d,e]	8.2 (1.4)[d]	12.4 (1.2)[d,e]	17.0 (1.0)[a,b,c,e]	3.7 (1.3)[a,c,d]	12.1 (0.7)
I was on leave/TAD/TDY	2.4 (0.6)[e]	3.9 (1.0)	4.4 (0.7)	2.4 (0.4)[e]	7.3 (1.7)[a,d]	3.0 (0.3)
I was pregnant	7.3 (1.1)[b]	19.7 (2.0)[a,c,d,e]	5.2 (0.8)[b,d,e]	10.5 (0.8)[b,c]	10.8 (2.1)[b,c]	9.6 (0.6)
I needed/had dental work or problems	2.0 (0.6)[d]	1.7 (0.7)	1.8 (0.5)[d]	4.9 (0.6)[a,c]	3.1 (1.1)	2.7 (0.3)
I needed an HIV test	0.2 (0.2)	0.3 (0.3)	0.1 (0.1)	0.1 (0.1)	0.5 (0.4)	0.2 (0.1)
I had a family situation	2.7 (0.7)[r]	4.2 (1.0)[e]	3.3 (0.6)[e]	3.2 (0.5)[e]	10.6 (2.0)[a,b,c,d]	3.3 (0.4)
I had an injury	39.0 (2.0)[b,c,d]	22.1 (2.1)[a,e]	27.5 (1.6)[a,e]	27.9 (1.2)[a,e]	39.6 (3.2)[b,c,d]	31.5 (0.9)
I had an illness or medical problem	26.9 (1.8)[c]	23.6 (2.1)[c]	11.3 (1.1)[a,b,d,e]	26.4 (1.2)[c]	23.4 (2.8)[c]	23.4 (0.9)
I had mental health problems	9.2 (1.2)	9.3 (1.5)	6.3 (0.9)	7.1 (0.7)	4.4 (1.4)	8.1 (0.5)
A family member in the Exceptional Family Member Program	2.8 (0.7)	2.7 (0.8)	0.9 (0.3)	1.8 (0.4)	2.2 (1.0)	2.2 (0.3)
Another reason	26.9 (1.8)[c,e]	27.5 (2.3)[c,e]	48.9 (1.8)[a,b,d,e]	23.5 (1.1)[c]	16.2 (2.4)[a,b,c]	29.9 (0.9)
Total Unable to Deploy	17.9 (0.7)[b,c,e]	11.3 (0.5)[a,c,d,e]	22.5 (0.7)[a,b,d,e]	17.5 (0.4)[b,c,e]	6.2 (0.4)[a,b,c,d]	16.6 (0.3)
Reasons for Returning Early From Mission						
I was on training/I needed additional training	4.6 (2.3)	2.4 (1.8)	3.6 (1.8)	2.4 (1.6)	8.3 (2.7)	3.8 (1.1)
I was on leave/TAD/TDY	2.6 (1.7)[b,e]	19.7 (4.6)[a,d]	7.6 (2.6)	1.3 (1.2)[b,e]	17.8 (3.8)[a,d]	7.6 (1.5)
I was pregnant	1.9 (1.5)	1.7 (1.5)	3.2 (1.7)	1.6 (1.3)	3.3 (1.8)	2.1 (0.8)

Table 6.26 – Reasons for Non-Deployment and Returning Early from Deployment, by Service

	Service[1]					
Reason	**Army**	**Navy**	**Marine Corps**	**Air Force**	**Coast Guard**	**All Services**
I needed/had dental work or problems	†	†	†	1.3 (1.2)	2.9 (1.7)	0.6 (0.4)
I needed an HIV test	†	1.5 (1.4)	†	1.3 (1.2)	†	0.9 (0.5)
I had a family situation	29.1 (4.9)[c]	16.9 (4.3)	10.6 (3.0)[a]	23.5 (4.4)	20.0 (3.9)	22.1 (2.3)
I had an injury	16.2 (4.0)	4.9 (2.5)	11.8 (3.2)	10.4 (3.2)	12.6 (3.3)	12.1 (1.8)
I had an illness or medical problem	9.5 (3.2)	5.8 (2.7)	2.1 (1.4)	11.4 (3.3)	7.7 (2.6)	7.6 (1.5)
I had mental health problems	2.5 (1.7)	7.0 (2.9)	7.7 (2.6)	6.2 (2.5)	2.5 (1.5)	4.9 (1.2)
A family member in the Exceptional Family Member Program	9.2 (3.1)	1.9 (1.6)	1.5 (1.2)	1.3 (1.2)	†	4.9 (1.2)
Another reason	37.7 (5.2)	51.6 (5.8)[e]	50.5 (4.9)[e]	50.5 (5.1)[e]	29.6 (4.5)[b,c,d]	44.3 (2.7)
Total Returned Early	2.6 (0.3)[d]	2.2 (0.2)[d]	2.9 (0.3)[d]	1.2 (0.1)[a,b,c,e]	2.8 (0.3)[d]	2.2 (0.1)

Note: Table displays the percentage of military personnel, by Service, who reported being unable to deploy and/or returned home early from a deployment due to the reasons indicated in the rows of this table. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all pairs of Services. A superscripted letter beside an estimate indicates the estimate is significantly different from the estimate that appears in column #1-5. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Army) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Navy) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Marine Corps) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (Air Force) at the 95% confidence level after Bonferroni adjustment.
[e]Indicates estimate is significantly different from the estimate in column #5 (Coast Guard) at the 95% confidence level after Bonferroni adjustment.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Reasons for Non-Deployment and Returning Early from Deployment, Q142A, Q143A).

Chapter 7: Service Commitment

This chapter presents the results of a detailed analysis of active duty members' commitment to service, including high, moderate, low, and detached commitment to military service. Analyses show the levels of service commitment across all services and within each service and look at sociodemographic correlates of service commitment. In addition, the relationships between service commitment and work disruptions due to personal life interference and total length of combat deployments since September 11, 2001 are explored. Finally, measures of substance use, mental health, and productivity loss by service commitment are analyzed for all services overall and by service. The analyses provide insight into retention and readiness, highlighting the impact of risk behaviors like substance use and stress and mental health on the active duty force and their commitment to military service.

7.1 Overview of Key Measures of Service Commitment

The 'service commitment' scale is a composite index formed from one item that assessed job satisfaction and two items that measured intent to remain in the service. It has four levels – High, Moderate, Low, and Detached. Individuals who were classified as detached had very low levels of satisfaction with their current primary military occupation specialty (MOS) and were very unlikely to remain in the service. Those classified as having high service commitment had very high levels of satisfaction and high career intentions. A detailed explanation of the measures that compose this scale and the calculations used to compute the categories are presented in Appendix A: Key Definitions and Measures, along with explanations of the other scales included in this chapter.

The measure of 'work disruption due to personal life demands' was composed of items that assessed the extent to which personal/family/spouse or partner demands interfered with military work-related activities. The 'work-related productivity loss' scale is presented as a mean number of work days lost due to accident, injury, or illness.

7.2 Overview of Findings

Sociodemographic Characteristics Associated with Levels of Service Commitment

- Among all military personnel, the majority (53.7%) of active duty service members reported moderate service commitment, followed by high commitment (22.2%), low commitment (17.8%), and detached (6.3%) service commitment, as shown in Table 7.1.

- Personnel who reported detached or low service commitment more often had a high school education or less, were younger (18–25 years old), were junior enlisted (E1–E4 pay grades), were either not married or married but their spouse was not present, and were stationed OCONUS (see Table 7.1).
- Marine Corps personnel reported the highest percentage of detached service commitment (9.5%; see Table 7.4), whereas Navy and Coast Guard personnel reported the highest levels of service commitment (26.4% and 26.8% high commitment, respectively; see Table 7.3 and Table 7.6).
- A similar pattern of gender differences in service commitment was observed in the Navy, Air Force, and Coast Guard, with females more often reporting detached or low service commitment, and males more often reporting high service commitment (see Table 7.3 and Table 7.5 and Table 7.6). Males more frequently reported high service commitment compared to females in all services except the Army, where no gender difference was observed (see Table 7.2).

Work Disruption from Personal Life Demands and Service Commitment

- Across all services, personnel who reported high work interference due to personnel life demands were more often classified as having a detached service commitment than personnel who reported low/moderate work disruption from personal life (10.3% high interference vs. 5.9% low/moderate interference), as shown in Table 7.7.
- Conversely, personnel with low/moderate work disruption from personal life more often reported high service commitment than personnel with high work interference from personal life (23.0% low/moderate interference vs. 14.9% high interference), as shown in Table 7.7.
- Coast Guard personnel displayed no significant differences in service commitment based on level of work disruption from personal life demands (see Table 7.7).

Total Length of Combat Deployments Since 9/11 and Service Commitment

- Active duty military personnel who were combat deployed 13 to 18 months or more than 18 months since September 11, 2001 more often reported high service commitment (28.2%, respectively) than those deployed for 7 to 12 months (21.9%), 30 days to 6 months (23.2%), and less than 30 days (19.8%), as shown in Table 7.8.
- On the other hand, personnel who were combat deployed for less than 30 days since September 11, 2001 more often reported low service commitment (20.0%) compared to personnel who were combat deployed for longer periods of time, such as 13 to 18 months (15.7%) and more than 18 months (11.9%), as shown in Table 7.8.
- Total length of combat deployment was not related to service commitment among members of the Coast Guard (see Table 7.8).

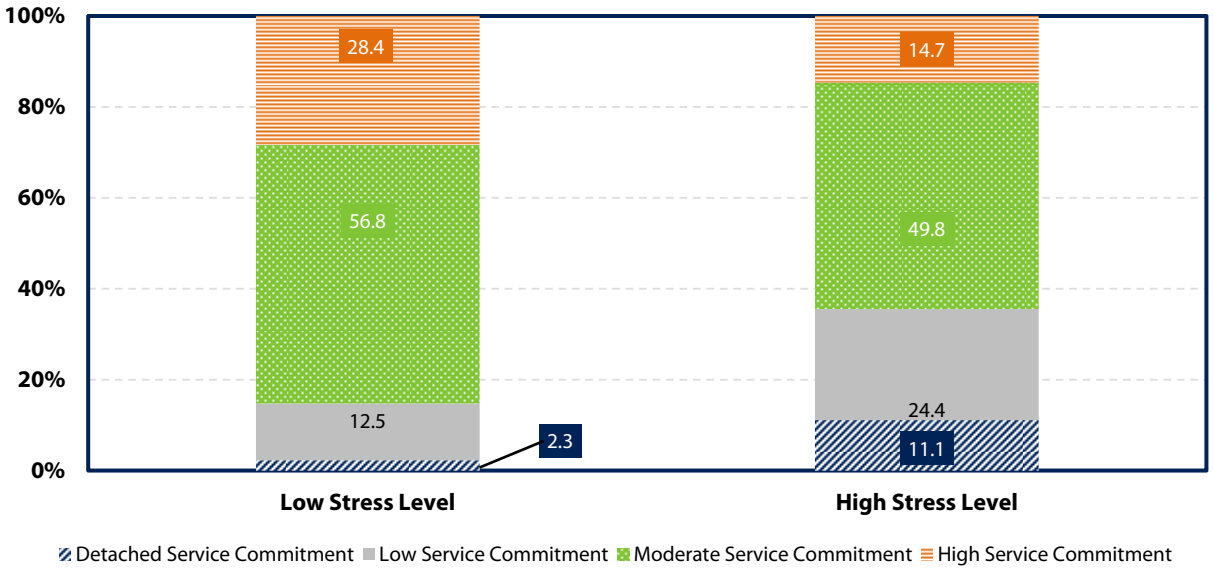
Substance Use, Mental Health, Productivity Loss and Service Commitment

- Among all active duty military personnel, those who had detached service commitment reported higher alcohol use, cigarette smoking, depressive symptoms, overall stress, and productivity loss, as well as lower resilience compared to other service commitment levels. Those with detached or low service commitment also had higher rates of prescription drug misuse than higher service commitment levels (see Table 7.9).

- Across all services, those with detached service commitment consistently reported high levels of depression and overall stress compared to other service commitment levels; in fact, stress and mental health indicators presented the only significant difference for those in the detached group compared to all other service commitment levels for Coast Guard, as shown in Table 7.14.

- Figure 7.A compares service members who experienced low and high overall stress on their level of service commitment. Personnel who reported experiencing a lower level of stress were about twice as likely to have a high level of service commitment compared to those who reported a high level of overall stress. In addition, over one-third of personnel who experienced a high level of overall stress had low or detached levels of service commitment.

Figure 7.A: Level of Commitment to Military Service, by Perception of Overall Stress



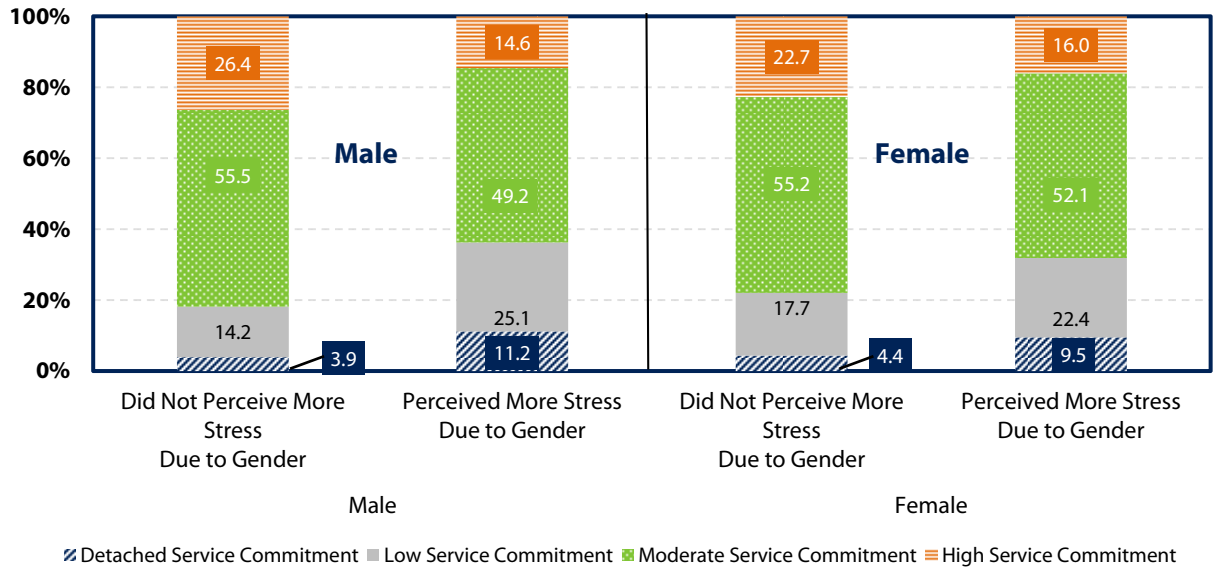
Note: Graph presents weighted data.

Service Commitment, Q9, Q10, Q11; Overall Stress Level, Q119, Q120.

- Figure 7.B compares the level of service commitment by the amount of perceived stress due to gender for male and female service members. Males who perceived more stress because of their gender were twice as likely to have low or detached service commitment (36.3% were low or

detached) compared with males who did not perceive additional stress because of gender (18.1% were low or detached). Approximately 32% of females who perceived more stress because of gender had low or detached commitment, compared to about 22% of females who did not perceive more stress due to their gender.

Figure 7.B: Level of Commitment to Military Service, by Perception of Gender-Related Stress and Gender



Note: Graph presents weighted data.

Service Commitment, Q9, Q10, Q11; Perception of Gender-Related Stress, Q4, Q123.

- Heavy alcohol use was reported more often for those with detached service commitment compared to other commitment levels for personnel in the Army (21.2%), Navy (23.7%), and Air Force (11.1%), as shown in Table 7.10, Table 7.11, and Table 7.13.
- The most pronounced differences in productivity loss across service commitment levels were found for those in the detached group for Army (6.1 days) and Air Force (4.0 days) compared to other service commitment levels, which was almost double the number of work days lost due to injury, accident, or illness for those with high service commitment, as displayed in Table 7.10 and Table 7.13.
- Low resilience was most often reported for those with detached service commitment compared to other levels of commitment for Navy, Marine Corps, and Air Force personnel, as shown in Table 7.11, Table 7.12, and Table 7.13.

7.3 Tables

The following tables present an in-depth analysis of service commitment in the military.

Table 7.1 – Sociodemographic Characteristics, by Service Commitment for All Services

Sociodemographic Characteristic[a]	Service Commitment			
	Detached	Low	Moderate	High
Total	6.3 (0.2)	17.8 (0.3)	53.7 (0.4)	22.2 (0.3)
Gender				
Male	6.2 (0.2)	17.4 (0.3)[2]	53.7 (0.4)	22.8 (0.3)[2]
Female	7.1 (0.5)	20.3 (0.7)[1]	53.4 (0.9)	19.2 (0.7)[1]
Race/Ethnicity				
White, non-Hispanic	6.7 (0.2)[2]	18.6 (0.3)[2,4]	52.5 (0.4)[2,4]	22.2 (0.4)[4]
African-American, non-Hispanic	4.2 (0.4)[1,3]	15.5 (0.7)[1]	57.0 (1.0)[1,3]	23.3 (0.8)[4]
Hispanic	7.1 (0.5)[2]	17.5 (0.7)	52.9 (1.0)[2,4]	22.4 (0.8)
Other	5.4 (0.7)	14.9 (1.0)[1]	60.9 (1.4)[1,3]	18.8 (1.1)[1,2]
Education				
High School or less	8.4 (0.4)[2,3]	21.3 (0.6)[2,3]	54.5 (0.8)[3]	15.8 (0.6)[2,3]
Some college	6.6 (0.3)[1,3]	18.7 (0.4)[1,3]	54.5 (0.5)[3]	20.1 (0.4)[1,3]
College graduate or higher	3.9 (0.3)[1,2]	13.1 (0.5)[1,2]	51.3 (0.7)[1,2]	31.7 (0.7)[1,2]
Age				
18-20	8.6 (0.9)[3,4,5]	22.0 (1.3)[2,3,4,5]	55.4 (1.6)[2,5]	14.0 (1.1)[3,4,5]
21-25	11.1 (0.5)[3,4,5]	26.9 (0.6)[1,3,4,5]	48.9 (0.7)[1,3,4]	13.0 (0.5)[3,4,5]
26-35	5.9 (0.3)[1,2,4,5]	16.4 (0.5)[1,2,4,5]	55.0 (0.6)[2,5]	22.7 (0.5)[1,2,4,5]
36-45	2.0 (0.2)[1,2,3]	10.8 (0.5)[1,2,3,5]	56.8 (0.8)[2,5]	30.4 (0.7)[1,2,3,5]
46-65	1.4 (0.4)[1,2,3]	4.9 (0.8)[1,2,3,4]	47.1 (1.8)[1,3,4]	46.6 (1.8)[1,2,3,4]
Family Status				
Not married	8.9 (0.3)[3]	23.1 (0.5)[2,3]	51.7 (0.6)[3]	16.3 (0.4)[2,3]
Married, spouse not present	7.9 (0.6)[3]	19.2 (0.9)[1,3]	52.2 (1.2)[3]	20.7 (0.9)[1,3]
Married, spouse present	4.3 (0.2)[1,2]	14.0 (0.3)[1,2]	55.2 (0.5)[1,2]	26.5 (0.4)[1,2]

Table 7.1 – Sociodemographic Characteristics, by Service Commitment for All Services

Sociodemographic Characteristic[a]	Service Commitment			
	Detached	Low	Moderate	High
Pay Grade				
E1-E4	10.7 (0.3)[2,3,4,5,6]	25.5 (0.5)[2,3,4,5,6]	50.3 (0.5)[2,3]	13.4 (0.4)[2,3,4,5,6]
E5-E6	4.3 (0.3)[1,3,4,5,6]	15.0 (0.5)[1,3,4,6]	59.8 (0.7)[1,4,5,6]	20.8 (0.5)[1,3,4,5,6]
E7-E9	0.5 (0.2)[1,2,5]	6.2 (0.6)[1,2,5]	56.8 (1.2)[1,4,5,6]	36.5 (1.1)[1,2,4,6]
W1-W5	0.6 (0.5)[1,2]	5.4 (1.4)[1,2,5]	46.6 (3.1)[2,3]	47.4 (3.1)[1,2,3,5]
O1-O3	2.4 (0.4)[1,2,3,6]	13.8 (0.8)[1,3,4,6]	51.9 (1.2)[2,3]	31.9 (1.1)[1,2,4,6]
O4-O10	0.7 (0.2)[1,2,5]	4.2 (0.6)[1,2,5]	47.6 (1.4)[2,3]	47.5 (1.4)[1,2,3,5]
Region				
CONUS[b]	5.8 (0.2)[2]	17.3 (0.3)[2]	53.7 (0.4)	23.3 (0.3)[2]
OCONUS[c]	8.1 (0.4)[1]	19.5 (0.6)[1]	53.7 (0.8)	18.7 (0.6)[1]

Note: Table displays the percentage of military personnel, by sociodemographic characteristics, who reported the service commitment level as indicated in the columns of the table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11).

Table 7.2 – Sociodemographic Characteristics, by Service Commitment for the Army

Sociodemographic Characteristic[a]	Service Commitment			
	Detached	Low	Moderate	High
Total	7.2 (0.4)	19.5 (0.6)	51.4 (0.8)	21.9 (0.6)
Gender				
Male	7.2 (0.4)	18.9 (0.7)[2]	51.6 (0.8)	22.3 (0.7)
Female	7.5 (1.1)	22.9 (1.7)[1]	50.1 (2.0)	19.6 (1.6)
Race/Ethnicity				
White, non-Hispanic	7.5 (0.5)[2]	21.0 (0.8)[2]	50.0 (1.0)[2,4]	21.4 (0.8)
African-American, non-Hispanic	4.3 (0.8)[1,3]	15.3 (1.4)[1]	56.2 (1.9)[1]	24.1 (1.7)
Hispanic	9.2 (1.2)[2]	18.5 (1.6)	49.2 (2.1)[4]	23.1 (1.7)
Other	7.4 (1.6)	15.2 (2.2)	59.4 (3.0)[1,3]	18.0 (2.3)
Education				
High School or less	10.1 (1.1)[2,3]	23.3 (1.5)[3]	52.4 (1.8)	14.3 (1.2)[2,3]
Some college	7.2 (0.6)[1]	20.0 (0.9)[3]	52.4 (1.1)	20.4 (0.9)[1,3]
College graduate or higher	5.5 (0.6)[1]	16.2 (1.0)[1,2]	49.1 (1.4)	29.1 (1.3)[1,2]
Age				
18-20	8.1 (2.2)[4]	16.7 (3.0)[2,5]	63.7 (3.9)[2,3,5]	11.6 (2.6)[4,5]
21-25	12.5 (1.2)[3,4,5]	31.8 (1.7)[1,3,4,5]	43.0 (1.8)[1,3,4]	12.8 (1.2)[3,4,5]
26-35	8.7 (0.7)[2,4,5]	19.3 (1.0)[2,4,5]	51.6 (1.3)[1,2]	20.4 (1.0)[2,4,5]
36-45	3.1 (0.5)[1,2,3]	14.5 (1.1)[2,3,5]	55.0 (1.5)[2]	27.4 (1.4)[1,2,3,5]
46-65	2.3 (1.0)[2,3]	5.2 (1.5)[1,2,3,4]	47.6 (3.3)[1]	44.8 (3.2)[1,2,3,4]
Family Status				
Not married	10.3(0.8)[3]	23.2 (1.2)[3]	50.0 (1.4)	16.5 (1.0)[3]
Married, spouse not present	8.6 (1.2)[3]	21.8 (1.8)[3]	49.7 (2.2)	19.9 (1.7)[3]
Married, spouse present	5.3 (0.5)[1,2]	16.9 (0.8)[1,2]	52.5 (1.0)	25.3 (0.9)[1,2]

Table 7.2 – Sociodemographic Characteristics, by Service Commitment for the Army

Sociodemographic Characteristic[a]	Service Commitment			
	Detached	Low	Moderate	High
Pay Grade				
E1-E4	11.6 (0.7)[2,3,5,6]	27.1 (1.0)[2,3,4,5,6]	48.3 (1.1)[2,3]	13.0 (0.8)[2,3,4,5,6]
E5-E6	5.9 (0.7)[1,3,6]	17.6 (1.2)[1,3,4,6]	56.6 (1.5)[1,6]	19.9 (1.2)[1,3,4,5,6]
E7-E9	0.4 (0.3)[1,2,5]	6.1 (1.1)[1,2,5]	56.6 (2.4)[1,6]	37.0 (2.3)[1,2,6]
W1-W5	†	5.7 (2.2)[1,2]	47.7 (4.6)	45.8 (4.6)[1,2,5]
O1-O3	3.1 (0.9)[1,3]	16.0 (1.9)[1,3,6]	51.4 (2.6)	29.5 (2.3)[1,2,4,6]
O4-O10	0.6 (0.5)[1,2]	4.4 (1.3)[1,2,5]	45.0 (3.1)[2,3]	50.0 (3.2)[1,2,3,5]
Region				
CONUS[b]	6.8 (0.4)[2]	19.3 (0.7)	51.2 (0.9)	22.7 (0.7)[2]
OCONUS[c]	8.7 (0.9)[1]	19.9 (1.3)	52.2 (1.6)	19.2 (1.3)[1]

Note: Table displays the percentage of Army personnel, by sociodemographic characteristics, who reported the service commitment level as indicated in the columns of the table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11).

Table 7.3 – Sociodemographic Characteristics, by Service Commitment for the Navy

Sociodemographic Characteristic[a]	Service Commitment			
	Detached	Low	Moderate	High
Total	5.5 (0.3)	15.4 (0.5)	52.7 (0.7)	26.4 (0.6)
Gender				
Male	5.0 (0.3)[2]	14.8 (0.6)[2]	52.8 (0.8)	27.4 (0.7)[2]
Female	8.2 (1.0)[1]	18.6 (1.4)[1]	51.7 (1.8)	21.5 (1.5)[1]
Race/Ethnicity				
White, non-Hispanic	6.0 (0.4)	15.9 (0.7)	51.0 (0.9)[4]	27.2 (0.8)[4]
African-American, non-Hispanic	4.8 (0.8)	14.8 (1.3)	54.4 (1.8)	25.9 (1.6)
Hispanic	6.1 (1.0)	15.1 (1.4)	52.0 (2.0)[4]	26.8 (1.8)
Other	2.8 (0.8)	14.1 (1.7)	62.2 (2.4)[1,3]	20.9 (2.0)[1]
Education				
High School or less	7.5 (0.8)[3]	18.5 (1.1)[3]	54.6 (1.4)[3]	19.4 (1.1)[2,3]
Some college	5.6 (0.5)[3]	16.3 (0.8)[3]	53.6 (1.1)[3]	24.5 (0.9)[1,3]
College graduate or higher	3.3 (0.5)[1,2]	10.6 (0.9)[1,2]	48.9 (1.5)[1,2]	37.1 (1.4)[1,2]
Age				
18-20	7.9 (2.1)[4,5]	25.7 (3.4)[3,4,5]	46.7 (3.9)	19.8 (3.1)[4,5]
21-25	11.2 (0.9)[3,4,5]	23.6 (1.2)[3,4,5]	50.4 (1.4)[4]	14.9 (1.0)[3,4,5]
26-35	4.5 (0.5)[2,4]	14.5 (0.8)[1,2,4,5]	52.9 (1.2)	28.1 (1.1)[2,4,5]
36-45	1.0 (0.3)[1,2,3]	7.2 (0.9)[1,2,3]	56.6 (1.7)[2,5]	35.2 (1.6)[1,2,3,5]
46-65	0.7 (0.6)[1,2]	4.4 (1.4)[1,2,3]	43.8 (3.5)[4]	51.1 (3.5)[1,2,3,4]
Family Status				
Not married	8.0 (0.6)[3]	21.8 (1.0)[2,3]	50.8 (1.2)	19.5 (0.9)[3]
Married, spouse not present	7.1 (1.2)[3]	14.4 (1.7)[1]	54.8 (2.4)	23.6 (2.0)[3]
Married, spouse present	3.2 (0.4)[1,2]	10.7 (0.6)[1]	53.7 (1.0)	32.4 (1.0)[1,2]

Table 7.3 – Sociodemographic Characteristics, by Service Commitment for the Navy

Sociodemographic Characteristic[a]	Service Commitment			
	Detached	Low	Moderate	High
Pay Grade				
E1-E4	9.7 (0.7)[2,3,5,6]	22.7 (1.0)[2,3,5,6]	50.1 (1.2)[2]	17.5 (0.9)[2,3,5,6]
E5-E6	3.7 (0.5)[1,3,6]	12.6 (0.8)[1,3,6]	59.1 (1.2)[1,5,6]	24.6 (1.1)[1,3,5,6]
E7-E9	0.6 (0.4)[1,2]	4.8 (1.1)[1,2,5]	53.8 (2.5)[6]	40.8 (2.5)[1,2,6]
W1-W5	†	†	†	†
O1-O3	2.3 (0.7)[1]	12.7 (1.6)[1,3,6]	47.8 (2.3)[2]	37.3 (2.3)[1,2,6]
O4-O10	0.4 (0.3)[1,2]	3.8 (1.1)[1,2,5]	41.8 (2.8)[2,3]	54.0 (2.9)[1,2,3,5]
Region				
CONUS[b]	4.4 (0.4)[2]	13.6 (0.6)[2]	52.8 (0.9)	29.2 (0.8)[2]
OCONUS[c]	8.5 (0.8)[1]	20.1 (1.1)[1]	52.3 (1.4)	19.1 (1.1)[1]

Note: Table displays the percentage of Navy personnel, by sociodemographic characteristics, who reported the service commitment level as indicated in the columns of the table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11).

Table 7.4 – Sociodemographic Characteristics, by Service Commitment for the Marine Corps

Sociodemographic Characteristic[a]	Service Commitment			
	Detached	Low	Moderate	High
Total	9.5 (0.4)	22.7 (0.6)	50.4 (0.7)	17.5 (0.6)
Gender				
Male	9.4 (0.4)	22.4 (0.6)	50.3 (0.8)	17.9 (0.6)[2]
Female	10.4 (1.7)	26.0 (2.4)	51.1 (2.7)	12.4 (1.8)[1]
Race/Ethnicity				
White, non-Hispanic	10.8 (0.6)[2,3]	24.6 (0.8)[2,3]	47.7 (0.9)[2,3]	16.9 (0.7)
African-American, non-Hispanic	4.7 (1.0)[1]	15.0 (1.6)[1]	58.8 (2.2)[1]	21.4 (1.9)
Hispanic	7.6 (0.9)[1]	20.2 (1.4)[1]	53.6 (1.7)[1]	18.6 (1.3)
Other	8.6 (1.9)	22.9 (2.8)	55.0 (3.3)	13.6 (2.3)
Education				
High School or less	9.7 (0.7)[3]	24.4 (1.0)[3]	52.1 (1.1)	13.8 (0.8)[3]
Some college	11.0 (0.7)[3]	24.1 (0.9)[3]	48.8 (1.1)	16.1 (0.8)[3]
College graduate or higher	3.7 (0.8)[1,2]	12.7 (1.3)[1,2]	50.3 (2.0)	33.2 (1.9)[1,2]
Age				
18-20	11.8 (1.4)[3,4]	26.1 (1.9)[3,4,5]	50.7 (2.2)	11.4 (1.4)[3,4,5]
21-25	14.4 (0.8)[3,4]	29.7 (1.1)[3,4,5]	46.3 (1.2)[3,4]	9.6 (0.7)[3,4,5]
26-35	5.5 (0.6)[1,2,4]	17.4 (1.0)[1,2,4]	55.8 (1.4)[2]	21.3 (1.1)[1,2,4,5]
36-45	0.5 (0.3)[1,2,3]	6.2 (1.1)[1,2,3]	54.9 (2.3)[2]	38.4 (2.2)[1,2,3]
46-65	†	4.7 (2.8)[1,2]	39.5 (6.5)	55.8 (6.6)[1,2,3]
Family Status				
Not married	12.5 (0.7)[3]	29.6 (1.0)[2,3]	46.5 (1.1)[3]	11.3 (0.7)[2,3]
Married, spouse not present	10.3 (1.5)[3]	21.0 (2.0)[1]	50.0 (2.4)	18.7 (1.9)[1]
Married, spouse present	6.3 (0.5)[1,2]	16.3 (0.8)[1]	54.3 (1.1)[1]	23.1 (0.9)[1]

Table 7.4 – Sociodemographic Characteristics, by Service Commitment for the Marine Corps

Sociodemographic Characteristic[a]	Service Commitment			
	Detached	Low	Moderate	High
Pay Grade				
E1-E4	14.3 (0.7)[2,3,5]	30.1 (0.9)[2,3,4,5,6]	46.5 (1.0)[2]	9.1 (0.6)[2,3,4,5,6]
E5-E6	4.0 (0.6)[1,3]	16.3 (1.1)[1,3,6]	60.0 (1.5)[1,6]	19.7 (1.2)[1,3,4,5,6]
E7-E9	0.4 (0.3)[1,2]	5.4 (1.2)[1,2]	51.8 (2.7)	42.5 (2.7)[1,2]
W1-W5	†	4.3 (2.9)[1]	42.4 (7.1)	53.1 (7.2)[1,2]
O1-O3	2.6 (0.9)[1]	11.7 (1.8)[1]	52.1 (2.9)	33.6 (2.7)[1,2,6]
O4-O10	†	4.1 (1.6)[1,2]	46.3 (4.0)[2]	49.2 (4.0)[1,2,5]
Region				
CONUS[b]	8.7 (0.5)[2]	22.5 (0.7)	50.9 (0.8)	17.9 (0.6)
OCONUS[c]	11.6 (1.0)[1]	23.6 (1.3)	48.8 (1.5)	16.0 (1.1)

Note: Table displays the percentage of Marine Corps personnel, by sociodemographic characteristics, who reported the service commitment level as indicated in the columns of the table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11).

Table 7.5 – Sociodemographic Characteristics, by Service Commitment for the Air Force

Sociodemographic Characteristic[a]	Service Commitment			
	Detached	Low	Moderate	High
Total	4.4 (0.2)	15.8 (0.4)	59.0 (0.5)	20.8 (0.4)
Gender				
Male	4.2 (0.2)[2]	15.3 (0.4)[2]	59.1 (0.5)	21.5 (0.5)[2]
Female	5.3 (0.5)[1]	18.0 (0.9)[1]	58.6 (1.1)	18.1 (0.9)[1]
Race/Ethnicity				
White, non-Hispanic	4.5 (0.2)	15.6 (0.4)	58.4 (0.6)	21.5 (0.5)
African-American, non-Hispanic	3.2 (0.5)	17.4 (1.1)[4]	60.3 (1.5)	19.1 (1.2)
Hispanic	4.7 (0.7)	16.8 (1.2)	59.5 (1.5)	19.1 (1.2)
Other	4.4 (0.9)	11.9 (1.5)[2]	64.4 (2.2)	19.3 (1.8)
Education				
High School or less	5.4 (0.6)[3]	18.9 (1.0)[3]	61.0 (1.3)[3]	14.7 (0.9)[3]
Some college	5.2 (0.3)[3]	17.6 (0.5)[3]	59.9 (0.6)[3]	17.3 (0.5)[3]
College graduate or higher	2.2 (0.3)[1,2]	10.8 (0.6)[1,2]	56.1 (0.9)[1,2]	30.8 (0.9)[1,2]
Age				
18-20	5.9 (1.0)[4,5]	20.5 (1.7)[3,4,5]	57.6 (2.1)	16.0 (1.5)[4,5]
21-25	7.5 (0.5)[3,4,5]	23.5 (0.8)[3,4,5]	55.2 (1.0)[3,4]	13.9 (0.7)[3,4,5]
26-35	3.8 (0.3)[2,4,5]	14.3 (0.6)[1,2,4,5]	61.1 (0.8)[2,5]	20.8 (0.7)[2,4,5]
36-45	1.2 (0.3)[1,2,3]	9.2 (0.7)[1,2,3]	60.5 (1.1)[2,5]	29.1 (1.0)[1,2,3,5]
46-65	0.6 (0.4)[1,2,3]	5.0 (1.2)[1,2,3]	50.8 (2.8)[3,4]	43.6 (2.8)[1,2,3,4]
Family Status				
Not married	6.2 (0.4)[3]	20.8 (0.7)[3]	57.0 (0.8)[3]	16.0 (0.6)[3]
Married, spouse not present	5.9 (1.0)[3]	18.1 (1.6)[3]	57.6 (2.0)	18.5 (1.6)[3]
Married, spouse present	3.0 (0.2)[1,2]	12.3 (0.4)[1,2]	60.4 (0.7)[1]	24.4 (0.6)[1,2]

Table 7.5 – Sociodemographic Characteristics, by Service Commitment for the Air Force

Sociodemographic Characteristic[a]	Service Commitment			
	Detached	Low	Moderate	High
Pay Grade				
E1-E4	7.8 (0.4)[2,3,5,6]	22.4 (0.7)[2,3,5,6]	56.6 (0.8)[2]	13.3 (0.6)[2,3,5,6]
E5-E6	3.6 (0.3)[1,3,5,6]	14.8 (0.6)[1,3,6]	63.5 (0.8)[1,5,6]	18.1 (0.7)[1,3,5,6]
E7-E9	0.9 (0.3)[1,2]	8.3 (0.9)[1,2,5,6]	60.7 (1.5)[6]	30.1 (1.4)[1,2,6]
W1-W5	-----	-----	-----	-----
O1-O3	1.7 (0.4)[1,2]	13.3 (1.0)[1,3,6]	55.2 (1.5)[2]	29.8 (1.4)[1,2,6]
O4-O10	1.0 (0.3)[1,2]	4.5 (0.7)[1,2,3,5]	54.0 (1.7)[2,3]	40.4 (1.7)[1,2,3,5]
Region				
CONUS[b]	4.2 (0.2)	15.6 (0.4)	58.7 (0.6)	21.5 (0.5)[2]
OCONUS[c]	4.9 (0.5)	16.8 (0.8)	60.0 (1.0)	18.4 (0.8)[1]

Note: Table displays the percentage of Air Force personnel, by sociodemographic characteristics, who reported the service commitment level as indicated in the columns of the table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

-----Not applicable.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11).

Table 7.6 – Sociodemographic Characteristics, by Service Commitment for the Coast Guard

Sociodemographic Characteristic[a]	Service Commitment			
	Detached	Low	Moderate	High
Total	2.1 (0.2)	9.9 (0.4)	61.3 (0.7)	26.8 (0.7)
Gender				
Male	1.7 (0.2)[2]	9.0 (0.5)[2]	61.6 (0.8)	27.6 (0.7)[2]
Female	4.4 (0.8)[1]	15.3 (1.4)[1]	58.9 (2.0)	21.4 (1.7)[1]
Race/Ethnicity				
White, non-Hispanic	2.2 (0.2)	9.9 (0.5)	60.5 (0.8)	27.4 (0.7)
African-American, non-Hispanic	1.7 (0.9)	9.1 (1.9)	68.2 (3.1)	21.0 (2.7)
Hispanic	1.5 (0.5)	11.0 (1.3)	61.2 (2.1)	26.3 (1.9)
Other	2.3 (1.0)	8.7 (2.0)	65.7 (3.3)	23.4 (2.9)
Education				
High School or less	1.6 (0.4)	10.0 (1.0)	64.2 (1.5)[3]	24.2 (1.4)[3]
Some college	2.4 (0.3)	10.8 (0.6)[3]	61.8 (1.0)[3]	25.0 (0.9)[3]
College graduate or higher	1.8 (0.4)	7.7 (0.8)[2]	57.5 (1.5)[1,2]	33.0 (1.4)[1,2]
Age				
18-20	6.6 (2.6)[3,4]	19.5 (4.1)[3,4,5]	62.2 (5.0)	11.7 (3.3)[3,4,5]
21-25	3.2 (0.6)[4]	15.9 (1.2)[3,4,5]	61.7 (1.6)	19.2 (1.3)[3,4,5]
26-35	2.2 (0.3)[1,4]	9.4 (0.7)[1,2,4,5]	61.1 (1.1)	27.3 (1.0)[1,2,4,5]
36-45	0.4 (0.2)[1,2,3]	4.9 (0.7)[1,2,3]	62.0 (1.6)	32.6 (1.6)[1,2,3,5]
46-65	†	2.2 (1.0)[1,2,3]	51.8 (3.5)	46.1 (3.5)[1,2,3,4]
Family Status				
Not married	2.8 (0.4)[3]	14.5 (0.9)[2,3]	63.1 (1.2)[2]	19.5 (1.0)[2,3]
Married, spouse not present	1.3 (0.6)	9.3 (1.6)[1]	55.7 (2.7)[1]	33.7 (2.6)[1]
Married, spouse present	1.7 (0.3)[1]	7.1 (0.5)[1]	60.9 (1.0)	30.3 (0.9)[1]

Table 7.6 – Sociodemographic Characteristics, by Service Commitment for the Coast Guard

Sociodemographic Characteristic[a]	Service Commitment			
	Detached	Low	Moderate	High
Pay Grade				
E1-E4	4.1 (0.5)[2,6]	16.2 (1.0)[2,3,4,5,6]	61.2 (1.3)[4]	18.6 (1.0)[2,3,4,5,6]
E5-E6	1.5 (0.3)[1]	8.0 (0.7)[1,3,6]	64.4 (1.2)[4,6]	26.1 (1.1)[1,3,4,6]
E7-E9	†	3.6 (0.8)[1,2,5]	62.6 (2.2)[4]	33.6 (2.1)[1,2]
W1-W5	†	6.2 (1.8)[1]	48.7 (3.8)[1,2,3]	45.1 (3.8)[1,2,5]
O1-O3	1.8 (0.7)	9.5 (1.4)[1,3,6]	57.1 (2.4)	31.6 (2.3)[1,4,6]
O4-O10	0.3 (0.3)[1]	2.5 (0.9)[1,2,5]	54.1 (3.0)[2]	43.2 (2.9)[1,2,5]
Region				
CONUS[b]	2.1 (0.2)	10.2 (0.5)[2]	61.0 (0.8)	26.7 (0.7)
OCONUS[c]	2.3 (0.6)	7.3 (1.1)[1]	63.1 (2.0)	27.2 (1.9)

Note: Table displays the percentage of Coast Guard personnel, by sociodemographic characteristics, who reported the service commitment level as indicated in the columns of the table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between all rows within the same sociodemographic group. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in the row # within the same sociodemographic group. For example, consider the Race/Ethnicity rows in this table:

[1]Indicates estimate is significantly different from the estimate in row #1 (White, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (African American, non-Hispanic) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (Hispanic) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (Other) at the 95% confidence level after Bonferroni adjustment.

[b]Refers to personnel stationed within the 48 contiguous States in the continental United States.

[c]Refers to personnel stationed outside the continental United States.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11).

Table 7.7 – Extent of Work Disruption Resulting from Personal Life Demands, by Service Commitment and Service

Service/Work Disruption from Personal Life[a]	Service Commitment			
	Detached	Low	Moderate	High
All Services				
Low/Moderate Interference	5.9 (0.2)[2]	17.5 (0.3)[2]	53.6 (0.4)	23.0 (0.3)[2]
High Interference	10.3 (0.7)[1]	20.1 (1.0)[1]	54.7 (1.2)	14.9 (0.9)[1]
Army				
Low/Moderate Interference	6.5 (0.4)[2]	19.2 (0.6)	51.6 (0.8)	22.7 (0.7)[2]
High Interference	13.2 (1.7)[1]	21.5 (2.1)	50.9 (2.6)	14.4 (1.8)[1]
Navy				
Low/Moderate Interference	5.4 (1.1)	15.0 (0.6)	52.1 (0.8)[2]	27.5 (0.7)[2]
High Interference	6.9 (0.4)	18.3 (1.7)	57.8 (2.2)[1]	17.0 (1.7)[1]
Marine Corps				
Low/Moderate Interference	9.0 (1.6)[2]	22.5 (0.6)	50.5 (0.8)	18.1 (0.6)[2]
High Interference	14.2 (0.4)[1]	23.8 (1.9)	50.5 (2.3)	11.4 (1.4)[1]
Air Force				
Low/Moderate Interference	4.2 (0.2)[2]	15.7 (0.4)[2]	58.8 (0.5)	21.4 (0.4)[2]
High Interference	7.4 (1.0)[1]	18.6 (1.5)[1]	60.5 (1.9)	13.5 (1.3)[1]
Coast Guard				
Low/Moderate Interference	2.0 (0.2)	9.6 (0.5)	61.3 (0.8)	27.1 (0.7)
High Interference	2.9 (0.8)	11.5 (1.5)	60.2 (2.2)	25.4 (2.0)

Note: Table displays the percentage of military personnel within each Service, by work disruption from personal life interference level, who reported each level of service commitment. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between personal life interference levels. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in row #1-2. In other words:

[1]Indicates estimate is significantly different from the estimate in row #1 (Low/Moderate Interference) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (High Interference) at the 95% confidence level after Bonferroni adjustment.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11; Work Disruption from Personal Life, Q37D-E).

Table 7.8 – Service Commitment, by Service and Total Length of Combat Deployments Since 9/11

Service/Deployment Length[a]	Service Commitment			
	Detached	Low	Moderate	High
All Services				
Less than 30 Days	6.7 (0.3)[4,5]	20.0 (05)[2,4,5]	53.5 (0.6)	19.8 (05)[4,5]
30 Days to 6 Months	4.8 (0.6)[3]	16.2 (1.0)[1,5]	55.9 (1.4)	23.2 (1.2)[4,5]
7 to 12 Months	8.0 (0.6)[2,4,5]	18.5 (0.8)[5]	51.6 (1.0)[5]	21.9 (0.8)[4,5]
13 to 18 Months	3.7 (0.5)[1,3]	15.7(1.0)[1,5]	52.3 (1.3)	28.2 (1.2)[1,2,3]
More than 18 Months	4.1 (0.4)[1,3]	11.9 (0.6)[1,2,3,4]	55.7 (0.9)[3]	28.2 (0.8)[1,2,3]
Army				
Less than 30 Days	6.9 (0.8)[3]	21.6 (1.2)[5]	53.3 (1.5)	18.2 (1.2)[4,5]
30 Days to 6 Months	6.3 (2.2)	25.1 (3.9)[5]	47.0 (4.4)	21.6 (3.7)
7 to 12 Months	10.9 (1.3)[1,4,5]	23.5 (1.7)[5]	46.7 (2.0)	18.9 (1.6)[4,5]
13 to 18 Months	4.8 (1.2)[3]	22.2 (2.3)[5]	45.2 (2.7)	27.8 (2.4)[1,3]
More than 18 Months	4.9 (0.7)[3]	12.8 (1.0)[1,2,3,4]	53.5 (1.6)	28.8 (1.4)[1,3]
Navy				
Less than 30 Days	6.1 (0.6)	19.1 (1.0)[3,4,5]	50.1 (1.2)[5]	24.7 (1.1)
30 Days to 6 Months	4.8 (1.2)	14.7 (1.9)[5]	51.6 (2.7)	28.9 (2.5)
7 to 12 Months	7.2 (1.1)[5]	12.5 (1.4)[1]	52.5 (2.1)	27.8 (1.9)
13 to 18 Months	3.5 (1.0)	11.4 (1.7)[1]	54.7 (2.7)	30.3 (2.4)
More than 18 Months	3.1 (0.8)[3]	8.4 (1.2)[1,2]	57.6 (2.2)[1]	30.9 (2.1)
Marine Corps				
Less than 30 Days	12.2 (0.8)[3,4,5]	27.2 (1.1)[3,4,5]	48.3 (1.2)	12.3 (0.8)[3,4,5]
30 Days to 6 Months	7.0 (2.0)	17.8 (2.9)	56.8 (3.8)	18.4 (3.0)[5]
7 to 12 Months	8.0 (1.1)[1,4,5]	20.2 (1.6)[1,5]	52.6 (2.0)	19.2 (1.6)[1,4,5]
13 to 18 Months	2.4 (0.8)[1,3]	13.9 (1.7)[1]	54.4 (2.5)	29.3 (2.3)[1,3]
More than 18 Months	2.7 (0.7)[1,3]	12.0 (1.5)[1,3]	54.3 (2.3)	31.0 (2.1)[1,3,5]
Air Force				
Less than 30 Days	5.1 (0.3)	17.6 (0.6)[2,4,5]	57.8 (0.8)[5]	19.6 (0.6)[4]
30 Days to 6 Months	3.9 (0.5)	13.9 (1.0)[1,4]	61.0 (1.4)	21.2 (1.1)
7 to 12 Months	3.3 (0.5)	14.3 (1.0)[4]	59.2 (1.5)	23.2 (1.3)
13 to 18 Months	2.9 (0.7)	9.3 (1.2)[1,2,3]	62.2 (2.0)	25.6 (1.8)[1]
More than 18 Months	3.0 (0.6)	12.3 (1.1)[1]	64.2 (1.6)[1]	20.5 (1.4)
Coast Guard				
Less than 30 Days	2.1 (0.3)	10.1 (0.5)	60.9 (0.9)	26.9 (0.8)
30 Days to 6 Months	2.8 (1.4)	4.7 (1.8)	60.6 (4.1)	31.9 (3.9)
7 to 12 Months	2.4 (1.3)	8.7 (2.5)	59.6 (4.3)	29.2 (4.0)
13 to 18 Months	†	5.3 (2.6)	66.1 (5.5)	28.6 (5.2)
More than 18 Months	3.6 (2.6)	12.3 (4.6)	59.8 (6.9)	24.3 (6.0)

Note: Table displays the percentage of military personnel, by Service and total length of combat deployments since September 11, 2001, who reported the service commitment level indicated in the columns of the table. The standard error of each estimate is presented in parentheses.

[a]Significance tests were conducted between deployment length groups. A superscripted number adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in row #1-5. In other words:

[1]Indicates estimate is significantly different from the estimate in row #1 (Less than 30 Days) at the 95% confidence level after Bonferroni adjustment.
[2]Indicates estimate is significantly different from the estimate in row #2 (30 Days to 6 Months) at the 95% confidence level after Bonferroni adjustment.
[3]Indicates estimate is significantly different from the estimate in row #3 (7 to 12 Months) at the 95% confidence level after Bonferroni adjustment.
[4]Indicates estimate is significantly different from the estimate in row #4 (13 to 18 Months) at the 95% confidence level after Bonferroni adjustment.
[5]Indicates estimate is significantly different from the estimate in row #5 (More than 18 Months) at the 95% confidence level after Bonferroni adjustment.

[†]Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11; Total Length of Combat Deployments Since 9/11, Q162A).

Table 7.9 – Substance Use, Mental Health, and Productivity Loss, by Service Commitment for All Services

Substance Use/Mental Health/Productivity Loss	Service Commitment[1]				
	Detached	Low	Moderate	High	Total
Heavy Alcohol Use	20.3 (1.2)[b,c,d]	11.9 (0.6)[a,c,d]	7.2 (0.3)[a,b,d]	5.2 (0.3)[a,b,c]	8.4 (0.2)
Heavy Smokers	6.6 (0.8)[b,c,d]	4.5 (0.4)[a,c,d]	2.8 (0.2)[a,b]	2.3 (0.2)[a,b]	3.2 (0.1)
Any Prescription Drug Misuse[2]	3.8 (0.6)[c,d]	2.4 (0.3)[c,d]	1.0 (0.1)[a,b]	0.5 (0.1)[a,b]	1.3 (0.1)
High Depression	34.5 (1.6)[b,c,d]	16.5 (0.7)[a,c,d]	6.9 (0.3)[a,b,d]	4.0 (0.3)[a,b,c]	9.6 (0.2)
High Overall Stress	77.9 (1.4)[b,c,d]	58.4 (1.0)[a,c,d]	38.7 (0.5)[a,b,d]	27.1 (0.8)[a,b,c]	41.9 (0.4)
Resilience					
Low	12.0 (1.1)[b,c,d]	6.8 (0.5)[a,c,d]	3.6 (0.2)[a,b,d]	1.9 (0.2)[a,b,c]	4.3 (0.2)
Moderate	66.8 (1.6)[d]	69.2 (0.9)[c,d]	63.4 (0.5)[b,d]	48.9 (0.9)[a,b,c]	61.3 (0.4)
Work Days Lost Due to Injury, Accident, or Illness	4.7 (0.3)[b,c,d]	3.4 (0.1)[a,c,d]	2.4 (0.1)[a,b,d]	1.8 (0.1)[a,b,c]	2.6 (0.1)

Note: Table displays estimates of military personnel, by service commitment level, who reported the indicated substance use, mental health, and productivity loss measures. Table entries for heavy alcohol use, heavy smokers, any prescription drug misuse, high depression, high overall stress, and resilience are percentages, whereas work days lost due to injury, accident, or illness are average values. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all service commitment levels. A superscripted letter adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in column #1-4. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Detached) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Low) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (High) at the 95% confidence level after Bonferroni adjustment.

[2]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)."

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11; Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; Smoking Levels, Q61, Q64, Q66; Any Prescription Drug Misuse, Q84, Q86, Q87, Q89; Depression Level, Q125C, Q125E; Overall Stress Level, Q119, Q120; Resilience, Q139A-B, Q139J, Q168A, Q168C, Q168I; Work-Related Productivity Loss, Q29).

Table 7.10 – Substance Use, Mental Health, and Productivity Loss, by Service Commitment for the Army

Substance Use/Mental Health/ Productivity Loss	Service Commitment[1]				
	Detached	Low	Moderate	High	Total
Heavy Alcohol Use	21.2 (2.4)[b,c,d]	11.3 (1.1)[a,c,d]	7.2 (0.6)[a,b]	5.7 (0.8)[a,b]	8.7 (0.4)
Heavy Smokers	8.9 (1.8)[c,d]	5.9 (0.9)[c,d]	3.1 (0.4)[a,b]	2.2 (0.5)[a,b]	3.9 (0.3)
Any Prescription Drug Misuse[2]	5.3 (1.5)[c,d]	3.3 (0.7)[c,d]	1.2 (0.3)[a,b]	0.7 (0.3)[a,b]	1.8 (0.2)
High Depression	39.4 (3.3)[b,c,d]	20.3 (1.6)[a,c,d]	8.0 (0.7)[a,b,d]	4.5 (0.8)[a,b,c]	11.7 (0.6)
High Overall Stress	82.0 (2.5)[b,c,d]	61.2 (1.9)[a,c,d]	41.3 (1.2)[a,b,d]	28.8 (1.6)[a,b,c]	45.1 (0.8)
Resilience					
Low	10.6 (2.1)[c,d]	7.4 (1.1)[c,d]	2.6 (0.4)[a,b]	2.0 (0.5)[a,b]	3.9 (0.3)
Moderate	68.2 (3.2)[d]	70.9 (1.8)[c,d]	62.2 (1.2)[b,d]	44.5 (1.8)[a,b,c]	60.3 (0.9)
Work Days Lost Due to Injury, Accident, or Illness	6.1 (0.6)[b,c,d]	4.2 (0.3)[a,c,d]	2.9 (0.2)[a,b,d]	1.9 (0.2)[a,b,c]	3.2 (0.1)

Note: Table displays estimates of Army personnel, by service commitment level, who reported the indicated substance use, mental health, and productivity loss measures. Table entries for heavy alcohol use, heavy smokers, any prescription drug misuse, high depression, high overall stress, and resilience are percentages, whereas work days lost due to injury, accident, or illness are average values. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all service commitment levels. A superscripted letter adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in column #1-4. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Detached) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Low) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (High) at the 95% confidence level after Bonferroni adjustment.

[2]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)."

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11; Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; Smoking Levels, Q61, Q64, Q66; Any Prescription Drug Misuse, Q84, Q86, Q87, Q89; Depression Level, Q125C, Q125E; Overall Stress Level, Q119, Q120; Resilience, Q139A-B, Q139J, Q168A, Q168C, Q168I; Work-Related Productivity Loss, Q29).

Table 7.11 – Substance Use, Mental Health, and Productivity Loss, by Service Commitment for the Navy

Substance Use/ Mental Health/ Productivity Loss	Service Commitment[1]				
	Detached	Low	Moderate	High	Total
Heavy Alcohol Use	23.7 (2.7)[b,c,d]	14.2 (1.3)[a,c,d]	7.8 (0.5)[a,b,d]	5.2 (0.6)[a,b,c]	9.0 (0.4)
Heavy Smokers	6.6 (1.7)	3.4 (0.7)	3.2 (0.4)	3.1 (0.5)	3.4 (0.3)
Any Prescription Drug Misuse[2]	3.9 (1.4)[c,d]	2.8 (0.7)[c,d]	0.8 (0.2)[a,b]	0.4 (0.2)[a,b]	1.2 (0.2)
High Depression	31.4 (3.4)[b,c,d]	16.9 (1.6)[a,c,d]	8.2 (0.6)[a,b,d]	4.7 (0.7)[a,b,c]	9.8 (0.5)
High Overall Stress	78.5 (3.0)[b,c,d]	61.6 (2.1)[a,c,d]	43.0 (1.1)[a,b,d]	31.2 (1.5)[a,b,c]	44.6 (0.8)
Resilience					
Low	15.8 (2.7)[b,c,d]	7.0 (1.1)[a,d]	4.8 (0.5)[a,d]	1.7 (0.4)[a,b,c]	4.9 (0.4)
Moderate	65.5 (3.5)[d]	66.0 (2.1)[d]	63.2 (1.2)[d]	53.7 (1.7)[a,b,c]	61.1 (0.8)
Work Days Lost Due to Injury, Accident, or Illness	3.1 (0.6)[c,d]	2.8 (0.3)[c,d]	2.0 (0.1)[a,b]	1.6 (0.2)[a,b]	2.1 (0.1)

Note: Table displays estimates of Navy personnel, by service commitment level, who reported the indicated substance use, mental health, and productivity loss measures. Table entries for heavy alcohol use, heavy smokers, any prescription drug misuse, high depression, high overall stress, and resilience are percentages, whereas work days lost due to injury, accident, or illness are average values. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all service commitment levels. A superscripted letter adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in column #1-4. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Detached) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Low) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (High) at the 95% confidence level after Bonferroni adjustment.

[2]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)."

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11; Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; Smoking Levels, Q61, Q64, Q66; Any Prescription Drug Misuse, Q84, Q86, Q87, Q89; Depression Level, Q125C, Q125E; Overall Stress Level, Q119, Q120; Resilience, Q139A-B, Q139J, Q168A, Q168C, Q168I; Work-Related Productivity Loss, Q29).

Table 7.12 – Substance Use, Mental Health, and Productivity Loss, by Service Commitment for the Marine Corps

Substance Use/ Mental Health/ Productivity Loss	Service Commitment[1]				
	Detached	Low	Moderate	High	Total
Heavy Alcohol Use	23.1 (2.0)[c,d]	18.8 (1.2)[c,d]	14.6 (0.7)[a,b,d]	9.9 (1.0)[a,b,c]	15.5 (0.5)
Heavy Smokers	6.2 (1.3)[d]	5.8 (0.8)[d]	3.7 (0.4)	2.3 (0.6)[a,b]	4.2 (0.3)
Any Prescription Drug Misuse[2]	2.6 (0.9)	1.9 (0.5)	1.5 (0.3)	0.7 (0.3)	1.6 (0.2)
High Depression	37.5 (2.7)[b,c,d]	16.0 (1.3)[a,c,d]	10.1 (0.7)[a,b,d]	5.7 (0.9)[a,b,c]	13.1 (0.6)
High Overall Stress	76.9 (2.3)[b,c,d]	62.3 (1.7)[a,c,d]	46.2 (1.2)[a,b,d]	30.2 (1.8)[a,b,c]	49.5 (0.8)
Resilience					
Low	12.3 (1.9)[b,c,d]	5.5 (0.8)[a]	5.1 (0.5)[a]	2.8 (0.7)[a]	5.4 (0.4)
Moderate	62.7 (2.9)[d]	68.2 (1.7)[d]	63.0 (1.2)[d]	47.7 (2.0)[a,b,c]	61.3 (0.8)
Work Days Lost Due to Injury, Accident, or Illness	3.9 (0.5)[c,d]	2.9 (0.2)	2.2 (0.1)[a]	2.1 (0.2)[a]	2.5 (0.1)

Note: Table displays estimates of Marine Corps personnel, by service commitment level, who reported the indicated substance use, mental health, and productivity loss measures. Table entries for heavy alcohol use, heavy smokers, any prescription drug misuse, high depression, high overall stress, and resilience are percentages, whereas work days lost due to injury, accident, or illness are average values. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all service commitment levels. A superscripted letter adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in column #1-4. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Detached) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Low) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (High) at the 95% confidence level after Bonferroni adjustment.

[2]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)."

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11; Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; Smoking Levels, Q61, Q64, Q66; Any Prescription Drug Misuse, Q84, Q86, Q87, Q89; Depression Level, Q125C, Q125E; Overall Stress Level, Q119, Q120; Resilience, Q139A-B, Q139J, Q168A, Q168C, Q168I; Work-Related Productivity Loss, Q29).

Table 7.13 – Substance Use, Mental Health, and Productivity Loss, by Service Commitment for the Air Force

Substance Use/ Mental Health/ Productivity Loss	Service Commitment[1]				
	Detached	Low	Moderate	High	Total
Heavy Alcohol Use	11.1 (1.5)[b,c,d]	5.6 (0.6)[a,c,d]	3.2 (0.2)[a,b,d]	2.1 (0.3)[a,b,c]	3.7 (0.2)
Heavy Smokers	1.9 (0.7)	1.7 (0.3)	1.6 (0.2)	1.6 (0.3)	1.6 (0.1)
Any Prescription Drug Misuse[2]	1.9 (0.7)[c,d]	0.9 (0.3)	0.6 (0.1)[a]	0.5 (0.2)[a]	0.7 (0.1)
High Depression	23.6 (2.3)[b,c,d]	10.0 (0.8)[a,c,d]	3.4 (0.3)[a,b,d]	2.0 (0.3)[a,b,c]	5.0 (0.2)
High Overall Stress	68.7 (2.4)[b,c,d]	47.7 (1.4)[a,c,d]	29.0 (0.6)[a,b,d]	18.5 (0.9)[a,b,c]	31.4 (0.5)
Resilience					
Low	10.8 (1.7)[b,c,d]	6.3 (0.7)[a,c,d]	3.3 (0.3)[a,b,d]	1.5 (0.3)[a,b,c]	3.7 (0.2)
Moderate	69.0 (2.5)[d]	69.7 (1.3)[c,d]	65.1 (0.7)[b,d]	50.9 (1.2)[a,b,c]	63.0 (0.5)
Work Days Lost Due to Injury, Accident, or Illness	4.0 (0.4)[b,c,d]	2.7 (0.2)[a,c,d]	2.0 (0.1)[a,b,d]	1.6 (0.1)[a,b,c]	2.1 (0.1)

Note: Table displays estimates of Air Force personnel, by service commitment level, who reported the indicated substance use, mental health, and productivity loss measures. Table entries for heavy alcohol use, heavy smokers, any prescription drug misuse, high depression, high overall stress, and resilience are percentages, whereas work days lost due to injury, accident, or illness are average values. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all service commitment levels. A superscripted letter adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in column #1-4. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Detached) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Low) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (High) at the 95% confidence level after Bonferroni adjustment.

[2]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)."

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11; Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; Smoking Levels, Q61, Q64, Q66; Any Prescription Drug Misuse, Q84, Q86, Q87, Q89; Depression Level, Q125C, Q125E; Overall Stress Level, Q119, Q120; Resilience, Q139A-B, Q139J, Q168A, Q168C, Q168I; Work-Related Productivity Loss, Q29).

Table 7.14 – Substance Use, Mental Health, and Productivity Loss, by Service Commitment for the Coast Guard

Substance Use/ Mental Health/ Productivity Loss	Service Commitment[1]				
	Detached	Low	Moderate	High	Total
Heavy Alcohol Use	14.5 (3.7)[d]	9.5 (1.4)	7.5 (0.5)	6.2 (0.7)[a]	7.5 (0.4)
Heavy Smokers	†	3.7 (1.0)	2.2 (0.3)	2.0 (0.4)	2.3 (0.2)
Any Prescription Drug Misuse[2]	2.9 (1.9)[d]	1.0 (0.5)	0.7 (0.2)	0.4 (0.2)[a]	0.7 (0.1)
High Depression	28.0 (5.3)[b,c,d]	13.4 (1.8)[a,c,d]	5.3 (0.5)[a,b,d]	2.0 (0.4)[a,b,c]	5.6 (0.4)
High Overall Stress	80.6 (4.5)[b,c,d]	56.8 (2.6)[a,c,d]	36.8 (1.0)[a,b,d]	26.5 (1.4)[a,b,c]	36.9 (0.8)
Low Resilience					
Low	8.4 (3.3)[d]	7.7 (1.4)[c,d]	4.2 (0.4)[b,d]	2.1 (0.5)[a,b,c]	4.0 (0.3)
Moderate	72.1 (5.3)[d]	64.0 (2.6)[d]	65.3 (1.0)[d]	49.0 (1.6)[a,b,c]	60.9 (0.8)
Work Days Lost Due to Injury, Accident, or Illness	3.2 (0.7)	3.7 (0.4)[c,d]	2.3 (0.1)[b]	2.2 (0.2)[b]	2.4 (0.1)

Note: Table displays estimates of Coast Guard personnel, by service commitment level, who reported the indicated substance use, mental health, and productivity loss measures. Table entries for heavy alcohol use, heavy smokers, any prescription drug misuse, high depression, high overall stress, and resilience are percentages, whereas work days lost due to injury, accident, or illness are average values. The standard error of each estimate is presented in parentheses.

[1]Significance tests were conducted between all service commitment levels. A superscripted letter adjacent to an estimate indicates the estimate is significantly different from the estimate that appears in column #1-4. In other words:

[a]Indicates estimate is significantly different from the estimate in column #1 (Detached) at the 95% confidence level after Bonferroni adjustment.
[b]Indicates estimate is significantly different from the estimate in column #2 (Low) at the 95% confidence level after Bonferroni adjustment.
[c]Indicates estimate is significantly different from the estimate in column #3 (Moderate) at the 95% confidence level after Bonferroni adjustment.
[d]Indicates estimate is significantly different from the estimate in column #4 (High) at the 95% confidence level after Bonferroni adjustment.

[2]Prescription drug misuse is defined as reported use of stimulants, sedatives, pain relievers, and/or anabolic steroids within the past 12 months AND (1) a response to Q86B of "prescribed to someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "used a greater amount than prescribed;" OR (3) a response to Q89 of "to feel good (get high or buzzed, etc.)."

†Data not reported. Low precision.

Source: 2011 Health Related Behaviors Survey of Active Duty Military Personnel (Service Commitment, Q9, Q10, Q11; Drinking Levels, Q4, Q38, Q39, Q40, Q46, Q47; Smoking Levels, Q61, Q64, Q66; Any Prescription Drug Misuse, Q84, Q86, Q87, Q89; Depression Level, Q125C, Q125E; Overall Stress Level, Q119, Q120; Resilience, Q139A-B, Q139J, Q168A, Q168C, Q168I; Work-Related Productivity Loss, Q29).

Chapter 8: Conclusions and Recommendations

The results of the 2011 Health Related Behaviors Survey (HRB) provided a comprehensive view of the health of the U.S. Armed Forces, including Army, Navy, Marine Corps, Air Force, and Coast Guard personnel. The survey covered many important health issues concerning active duty service members, such as alcohol, tobacco, and prescription drug use, stress and mental health indicators, and other issues related to deployment and combat exposure. The methodological improvements to the 2011 HRB ensured that the data presented in this report reflect emerging and important topics in health and wellness for active duty personnel as the military draws down U.S. troops from Iraq and Afghanistan and begins to focus on reintegration back into civilian life. This period of transition for service members and their families is a critical moment for policies and programs to be evaluated and advanced to effectively address the most pertinent needs and challenges facing our troops.

In the introduction of this report, three major research questions were proposed:

1) After a decade of war and heightened operations tempo, what was the state of behavioral health of the United States active duty military?

2) What were the areas of strength where training, programs, and policies have done well to support and prepare service members?

3) What areas warranted additional concern and attention?

This chapter highlights the main conclusions from the report in regards to these questions, including identifying areas of strength in the health behaviors of active duty personnel, areas of behavioral health that merit additional attention, and it concludes by providing general recommendations to using these data in supporting troops and their families.

8.1 Areas of Strength in Health Behaviors of Active Duty Personnel

The results of the 2011 HRB indicated that the military met or exceeded five out of eight *Healthy People 2020* objectives captured in the survey, including measures of weight, physical activity, and safety behaviors when driving in a personal vehicle or on a motorcycle. The majority of service members met weight standards and were in excellent physical condition, as indicated by low obesity rates, high engagement in regular exercise and strength training activities, and high rates of having passed the most recent physical fitness examination. We also found that military personnel were likely to follow safety recommendations, as reflected in high rates of seat belt and motorcycle helmet

use as well as a high likelihood of wearing hearing protection when in close proximity to weapons firing. Other areas in which the military demonstrated strength were in low blood pressure and cholesterol levels, regular tooth brushing, and low occurrence of self-reported sexually transmitted infections. Many service members drew strength from religious/spiritual affiliation, which appeared to serve a protective role against substance use and mental health symptoms. Service commitment levels, a composite measure of job satisfaction and intent to remain in the service, were high. Overall, the morale and commitment to the military among service members after a decade of increased operations tempo is commendable.

The HRB results demonstrated that the Armed Forces were doing well in the areas of weight management, physical activity and strength training, and the military should continue to invest in policies, programs, and facilities that support service members' ability to maintain healthy weight standards and physical activity levels. In addition, policies should continue to encourage regular health screenings for all personnel, particularly those who are at risk for being overweight or have a family history of high blood pressure or cholesterol. Continuing to invest in preventive efforts will increase the likelihood to detect health problems as early as possible and prevent long-term complications from increased hypertension and other related illnesses. Such health promotion efforts also serve to maintain the force at high readiness levels.

The findings for resilience and religiosity/spirituality as protective factors against substance abuse and mental health symptoms align well with the military's investment in programs that support the 'Pillars of Resilience.' Military programs also may benefit from including in programs characteristics associated with health by focusing on emotion regulation in the context of risk, anger management, and other skills that encourage generally resilient behaviors, particularly for those exposed to high combat levels or other traumatic events. Specifically, the military should consider investing in programs that target younger, junior enlisted personnel, and women to increase commitment to the military, which is related to overall well-being. Another promising area may be in providing support to assist with personal life demands with regard to child care and associated costs or extended leave to care for sick family members. Overall, a comprehensive, strengths-based approach may prove most effective in continuing to encourage healthy behaviors among service members.

8.2 Areas of Behavioral Health that Require Additional Attention

Although there are many areas in which the military is doing well, there are also areas of concern. A particular high-risk group was those who have experienced multiple deployments and high levels of combat exposure, as service members exposed to high combat were more at risk for substance abuse, high stress, and other mental health indicators, such as PTS symptoms and possible TBI. The

substance use behaviors and mental health areas of concern are summarized briefly below, along with accompanying recommendations to guide military policy and practice.

Although the majority of personnel did not abuse substances, rates of heavy and binge drinking, cigarette smoking, and smokeless tobacco use were high and merit concern. Results showed that heavy drinkers most often reported serious consequences and work-related productivity loss as a result of drinking.[23] The culture of heavy alcohol and tobacco use in the military needs further exploration and interventions with the goal of ultimately meeting or exceeding *Healthy People 2020* objectives. Attention should be paid to providing substance use education that does not result in associated stigma for those receiving the education. The military is aggressively addressing alcohol use with substance abuse treatment programs, educational campaigns, alcohol awareness training, and alcohol testing.[24] Examples of education, training, and programs include: Army's PATROL, That Guy, and Prime for Life programs; Navy's mandatory Alcohol Aware Course, its use of alcohol detection devices, and educational campaigns like The Domino Strategy on How to Drink Responsibly; the Marine Corps' alcohol breathalyzer tests by random unit testing and Prime for Life Program; the Air Force's Alcohol and Drug Abuse Prevention and Treatment (ADAPT) Program; and the Coast Guard's use of Addiction Prevention Specialists and Alcohol Awareness education. Further, approximately one-quarter of service members reported some prescription drug use in the past year, including those using a drug as prescribed; while rates of prescription drug misuse were low, the growing concern over prescription drug misuse in the U.S. and the overall rate of prescriptions in the military are indications that this is an area that should continue to be closely monitored. Thus, further attention on substance use and misuse, including binge drinking, tobacco use, and prescription drug use, is warranted.

Overall, service members reported experiencing stress from military and personal life demands, but most service members appeared to be coping with stress in constructive ways. In general, females reported more stress than males, and services that faced more deployment-related stressors and combat exposure also reported higher stress levels. In regards to mental health, service members who experienced more deployments and combat exposure also reported a higher prevalence of PTS, depressive and anxiety symptoms, and suicidal ideation. Mental health conditions often coincided with substance abuse and other health problems such as high stress. In addition, a history of sexual or physical abuse, including experiencing abuse since joining the military, increased the risk for mental health symptoms.

Some of the survey findings highlighted the importance of ensuring that subgroups within the larger military population are supported. The rates of substance use among female service members were

[23] See also Mattiko et al. (2011). Alcohol use and negative consequences among active duty military personnel. *Addictive Behaviors, 36,* 608-614.

[24] Army Regulation 600–85, The Army Substance Abuse Program, December 2012, Retrieved from: http://www.apd.army.mil/pdffiles/r600_85.pdf

higher than their civilian counterparts and more in line with their male colleagues. In addition, rates of sexual assault among female service members were high and warrant additional concern. These results suggest the need to review existing programs and design new programs with the differences between subgroups within the population in mind. Identifying sub-groups who are "at risk" (e.g., women, junior enlisted, heavy drinkers, those with multiple and long deployments) and providing or directing them to supportive services is key to improving overall readiness and retention.

8.3 General Recommendations for Use of the HRB Data

The overarching goal of the recommendations provided is to highlight ways the HRB survey can be effectively used by Armed Forces leadership, medical practitioners and behavioral health service providers, researchers, and the public to inform the investment in and improvement of policies, services, prevention and treatment programs, and support research to further examine the current and future needs of active duty service members and their families. The following are general recommendations for use of the HRB data:

1) *Guide military programs and policies.* The HRB survey taps into a wide range of behaviors that can inform military policies and programs, and points to areas where leadership can invest in programs that may yield the greatest returns in terms of promoting force readiness. For example, the high reported rates of regular drug testing may explain the low prevalence of drug use and prescription drug misuse; continuing to invest in drug testing and expanding detection capabilities to include more classes of drugs that are commonly misused may continue to deter drug use. Each service can create a list of high performing and lower performing areas to monitor over the next few years.

2) *Evaluate the effectiveness of interventions and programs for service members and their families.* The Department of Defense and each of the services are implementing programs that are designed to promote many of the healthy behaviors and address many of the maladaptive behaviors assessed in this survey. Program evaluators may benefit from deeper analysis into constructs that are implemented in programs. Similarly, we see that perceptions of help-seeking stigma are more prevalent in certain subgroups. Practitioners may want to focus primary efforts on programs targeting at-risk groups, and may benefit from comparing their own evaluation data to the HRB results to gauge program effectiveness. This review can identify programs that maintain and support areas of strength, as well as programs that are making strides against issues or concerns.

3) *Provide commanders, health providers, and researchers with a rich and comprehensive data set on the current state of behavioral health of service members.* The HRB surveys are unprecedented in the large number of service members surveyed and the timeliness of the health behaviors assessed. These rich data can provide a valuable tool for commanders, health providers, researchers, and

the public to further delve into issues that are of importance. The 2011 report analyses cover the surface of what is possible in analyzing the data; researchers could apply sophisticated data analytic techniques to examine health behaviors in greater depth. In addition, medical practitioners and mental health providers can benefit from such a rich data source that includes an assessment of a wide array of health promotion and behavioral health measures. Identifying profiles of at-risk individuals and common patterns of co-occurring substance use and mental health conditions can help practitioners and treatment providers ensure that they are asking their patients a broad array of behavior-related questions and helping them seek an optimal health status beyond the presenting condition.

Overall, data from the HRB can be used to guide military leadership, in each service, in making important policy and programmatic changes related to personnel health, to inform medical practitioners and mental health providers in developing appropriate prevention and treatment programs, and to assist the research community and greater public in understanding the current needs of service members. Importantly, these data can be used to inform behavioral health policies and programs that directly impact the productivity of personnel and their commitment to the Armed Forces. Investing in behavioral health leads to a stronger force, enhanced readiness, and increased retention of service members.

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Appendices

Appendix A: Key Definitions and Measures

This document describes how variables and values were recoded, transformed, and combined for analysis, including the calculation of scales and composite measures, and presentation in the 2011 Health Related Behaviors Survey (HRB) of Active Duty Military Personnel Report. This document acts as a guide to understanding how the responses provided by service members were analyzed for the final report. Each substantive section of the report, including sociodemographic characteristics, healthy lifestyle and disease prevention, substance use (alcohol use, illicit and prescription drug use and misuse, tobacco use, culture of substance use), stress and mental health, deployment and combat exposure, and service commitment are listed below with definitions, original survey item numbers, and response options.

I. Sociodemographic Characteristics

Service: The Service component refers to the branch of the active duty military to which the respondent belongs. The branches include the four Department of Defense (DoD) services: Army, Navy, Marine Corps, and Air Force. In addition, the Department of Homeland Security's United States Coast Guard (USCG) service was included in the survey.

Source: Q1

Responses: Army
Navy
Marine Corps
Air Force
Coast Guard

Gender: Gender was defined as the respondents' biological sex.

Source: Q4

Responses: Male
Female

Race/Ethnicity: Race/ethnicity comprises two separate items, similar to the format used by the United States Census. Respondents first indicated Hispanic or Latino ancestry on Q13 using the response options "Yes" or "No." The next item, Q14, inquired about racial background, with respondents given the option to select up to 5 racial categories, as applicable: "American Indian or Alaska Native," "Asian," "Black or African American," "Native Hawaiian or other Pacific Islander," and "White." The responses on Q13 and Q14 were collapsed into 4 categories, with Hispanic ethnicity overriding racial categories. Individuals who selected multiple racial backgrounds or a racial/ethnic category other than White, African American, or Hispanic were categorized as "Other" race/ethnicity.

Source: Q13, Q14

Responses: White, non-Hispanic
African American, non-Hispanic
Hispanic
Other

Education: Respondents reported their highest level of education using a 9-category response format, which ranged from "I did not graduate from high school" to "Graduate or professional degree." For the purposes of the analysis, the response choices were collapsed into 3 categories. The bottom 3 response choices, "I did not graduate from high school," "GED or ABE certificate," and "High school diploma" were grouped into 'High school or less'. The next 3 choices, "Trade or technical school graduate," "Some college but not a 2- or 4-year degree," and "2-year college degree" were grouped into 'Some college'. The top 3 response choices, "4-year college degree," "Graduate or professional study but no graduate degree," and "Graduate or professional degree" were grouped into 'College graduate or higher'.

Source: Q12

Responses: High school or less
Some college
College graduate or higher

Age: Respondents were prompted to enter their age using an open-format numeric response box. The individual age responses were categorized into 5 age groups and presented in this format for the majority of the tables in the report.

Source: Q15

Responses: 18-20
21-25
26-35
36-45
46-65

Family Status: Family status for this report was measured by two items: 1) "Are you currently married?" and 2) "Is your spouse or significant other now living with you at your present duty location?" Responses to these items were collapsed into a single variable to represent family status.

Source: Q18, Q19

Responses: Not married
Married, spouse not present
Married, spouse present

Pay Grade: This variable refers to the military pay grade of an individual respondent. Responses to the pay grade question were grouped to protect the anonymity of those who were included in services and grades with fewer individuals. The survey also included a response option for "Officer Trainee." Due to the small number of survey respondents within this group, officer trainees were combined with the E5-E6 pay grade group.

Source: Q3

Responses: E1-E4
E5-E6
E7-E9
W1-W5
O1-O3
O4-O10

Region: Respondents were asked for the zip code, APO or FPO number of their current duty station, which was then parsed into regions within the Continental United States (CONUS) and regions Outside of the Continental United States (OCONUS). The Military Postal Service Agency's (MPSA) frequently asked questions document (hqdainet.army.mil/mpsa/faqweb.pdf) from their website was used to differentiate OCONUS zip codes.

Source: Q8

Responses: CONUS
OCONUS

II. Healthy Lifestyle and Disease Prevention

Body Mass Index (BMI): The BMI is a measure of body mass to detect possible weight problems in male and female adults age 20 and older (Centers for Disease Control and Prevention; CDC, 2011). Respondents were asked two open-ended items to calculate BMI: 1) height in feet and inches, and 2) weight in pounds. The formula to calculate BMI is to divide weight in pounds by height in inches squared, and then multiply by the conversion factor of 703:

$$(\text{Weight in Pounds} / \text{Height in Inches}^2)*703$$

For those 20 years of age or older, the calculated BMI score was then divided into 4 weight categories: Underweight (BMI<18.5), Healthy weight (18.5≤BMI<25.0), Overweight (25.0≤BMI<30.0), and Obese (BMI≥30.0).

The criteria used to interpret BMI for individuals under 20 years old differs from the criteria for adults. This is due to changes in the amount of body fat with age and differences in the amount of body fat between males and females. For individuals under age 20, age and gender were included in the assignment of individuals to the four weight categories.

The table below summarizes the weight category criteria for 18 and 19 year olds.

	Underweight	Healthy Weight	Overweight	Obese
18 year old males	BMI<18.24	18.24≤BMI<25.66	25.66≤BMI<28.96	BMI≥28.96
18 year old females	BMI<17.55	17.55≤BMI<25.68	25.68≤BMI<30.33	BMI≥30.33
19 year old males	BMI<18.73	18.73≤BMI<26.36	26.36≤BMI<29.73	BMI≥29.73
19 year old females	BMI<17.77	17.77≤BMI<26.10	26.10≤BMI<31.03	BMI≥31.03

Source: Q4, Q15, Q16, Q17

Responses: Underweight
Healthy weight
Overweight
Obese

Required to Lose Weight and Amount of Weight Loss to Join Military: Respondents were asked two items about weight loss required to join the military. The first item asked whether weight loss was required to join the military, with the response options of "Yes" and "No." If respondents answered "Yes," they were asked a follow-up question about how much weight loss was required to join the military. Response options were provided on a 6-point scale, ranging from "Less than 5 pounds" to "30 or more pounds." Response choices for "10 to 14 pounds" and "15 to 19 pounds" were combined to reflect "10 to 19 pounds," and response choices for "20 to 29 pounds" and "30 or more pounds" were combined to indicate "20 pounds or more."

Source: Q22, Q22A

Response 1: Yes, had to lose weight to join the military
No

Response 2: Less than 5 pounds
5 to 9 pounds
10 to 19 pounds
20 pounds or more

Currently Enrolled in Mandatory Weight Control Program: Respondents were asked about current enrollment in a mandatory weight control program: "Are you currently enrolled in a mandatory weight control/management program?" Response options were "Yes" and "No."

Source: Q21

Responses: Yes, currently enrolled
No

Passed Most Recent Physical Fitness Test: Respondents were asked about passing their most recent physical fitness test: "Did you pass your most recent physical fitness test?" The 4 response choices were: "Yes," "No," "I have not yet had a physical fitness test since joining the military," and "I was exempt from my most recent physical fitness test." Those who selected either of the latter two response options were excluded from the analysis.

Source: Q35

Responses: Yes, passed most recent test
No

Moderate Physical Activity, Past 30 Days: Respondents were asked two items about the frequency and duration of moderate physical activity in the past month. Moderate physical activity was defined as "exertion that raises heart rate and breathing, but you should be able to carry on a conversation comfortably during the activity." Response options for frequency of moderate physical activity were provided on a 6-point scale, ranging from "Not at all in the past 30 days" to "About every day." Response options for the length of time engaged in moderate physical activity in the past month were provided on a 5-point scale, ranging from "Never in the past month" to "60 or more minutes." The frequency and duration items were combined by using the midpoint of each response option to form 3 response categories based on *Healthy People 2020* Objectives: "Less than 150 minutes per week," "150 minutes or more per week," and "300 minutes or more per week."

Source: Q23A, Q24A

Responses: Less than 150 minutes per week
150 minutes or more per week
300 minutes or more per week

Vigorous Physical Activity, Past 30 Days: Respondents were asked two items about frequency and duration of vigorous physical activity in the past month. Vigorous physical activity was defined as "exertion that is high enough that you would find it difficult to carry on a conversation during the activity." Response options for frequency of vigorous physical activity were provided on a 6-point scale, ranging from "Not at all in the past 30 days" to "About every day." Response options for length of time engaged in vigorous physical activity in the past month were provided on a 5-point scale, ranging from "Never in the past month" to "60 or more minutes." The frequency and

duration items were combined by using the midpoint of each response choice to form 3 response categories based on *Healthy People 2020* Objectives: "Less than 75 minutes per week," "75 minutes or more per week," and "150 minutes or more per week."

Source: Q23B, Q24B

Responses: Less than 75 minutes per week
75 minutes or more per week
150 minutes or more per week

Strength Training, Past 30 Days: Respondents were asked about frequency of strength training in the past month. Strength training was defined as "using weights or resistance training to increase muscle strength." Response options were provided on a 6-point scale, and responses were combined for the top 3 choices, "3-4 days a week," "5-6 days a week," and "About every day," to form "3 or more days per week" of strength training. The bottom two response choices, "Less than 1 day a week" and "Not at all in the past 30 days" were combined to indicate "Less than 1 day per week," and "1-2 days a week" was presented as a separate category.

Source: Q23C

Responses: Less than 1 day per week
1 to 2 days per week
3 or more days per week

Exercise Interference, Past 30 Days: Respondents were provided with 9 reasons that may have prevented exercise in the past month, such as "Not enough time," "I had an injury," and "The demands of my personal/family life" as well as the choice, "I exercise as much as I like." Respondents could select as many reasons as applicable given the response options of "Yes" and "No."

Source: Q34

Responses: Yes, prevented me from exercising
No

Limited Usual Activities Due to Poor Physical Health, Past 30 Days: Respondents were asked about frequency of limiting usual activities in the past month due to poor physical health: "In the past 30 days, how often did poor physical health keep you from doing your usual activities, such as work or recreation?" Response options were provided on a 7-point scale, and combined for "Once in the past 30 days" and "2-3 days in the past 30 days" to indicate "Less than once a week." The remaining response choices, "1-2 days a week," "3-4 days a week," "5-6 days a week," and "About every day" were combined to reflect "Once a week or more." The response of "Not at all in the past 30 days" was presented as its own category, "Never."

Source: Q33

Responses: Never
Less than once a week
Once a week or more

History of Selected Health Conditions: Respondents were asked whether a doctor or health care professional had provided a diagnosis of the following five conditions within specified timeframes: "High blood pressure," "High blood sugar," "High cholesterol," "Low HDL cholesterol," and

"High triglycerides." Response options were "No," "Yes, within the past 2 years," and "Yes, more than 2 years ago."

Source: Q26A – Q26E

Responses: Within the past 2 years
More than 2 years ago
Never been told I had a problem

Advised to Quit Smoking, Past 12 Months: Respondents were asked about whether they were advised to quit smoking in the past year: "In the past 12 months, has a medical doctor or other health care professional advised you to quit smoking or using other kinds of tobacco?" Response choices were "Yes," "No," and "Don't smoke."

Source: Q36

Responses: Yes
No
Don't smoke

Food Intake in a Typical Week: Respondents were asked how often they ate or drank 11 types of foods and beverages in a typical week. The food categories were: "Fruit," "Starchy Vegetables," "Vegetables," "Whole Grains," "Dairy," "Lean Protein," "Snack Foods," "Sweets," "Sugary Drinks," "Caffeinated Drinks," and "Fried Foods." Response options were provided on a 6-point scale, ranging from "Rarely/Never" to "3 or more times per day."

Source: Q27A – Q27K

Responses: 3 or more times per day
2 times per day
1 time per day
3 to 6 times per week
1 to 2 times per week
Rarely/Never

Supplement Use, Past 12 Months: Respondents were asked about past year use of 7 types of vitamins and supplements: "Multiple vitamins and minerals," "Individual vitamins or minerals," "Antioxidants," "Body-building supplements that are legal," "Herbal supplements," "Weight loss products," and "Fish oil." Responses were provided on a 6-point scale, with "Two or more times a day" and "Once a day" combined to represent "Once a day or more." The response options "Every other day," "Once a Week," and "Once a month" were combined to represent "Used in past year, less than once a day," and "Never in past year" was presented as a separate category.

Source: Q28A – Q28G

Responses: Once a day or more
Used in past year, less than once a day
Never in past year

Brushing Teeth with Fluoride Toothpaste: Respondents were asked about frequency of brushing teeth with fluoride toothpaste: "How often do you brush your teeth with fluoride toothpaste?" Five response choices were provided: "Two or more times a day," "Once a day,"

"Several times a week, but less than once a day," "Once a week," and "A few times a month or less."

Source: Q104

Responses: Two or more times a day
Once a day
Several times a week, but less than once a day
Once a week
A few times a month or less

Flossing Teeth: Respondents were asked about frequency of teeth flossing: "How often do you floss your teeth?" Five response options were provided: "Once a day," "A few times a week," "Once a week," "Several times a month, but less than once a week," and "Less than once a month."

Source: Q105

Responses: Once a day
A few times a week
Once a week
Several times a month, but less than once a week
Less than once a month

Mouth Guard Use: Respondents were asked about frequency of mouth guard use: "How often do you use a mouth guard in recommended situations (such as combat training, contact sports, etc.)?" Responses were provided on a 5-point scale, ranging from "Never" to "Always." Response options also included "I have not been in situations requiring a mouth guard" and "I don't have/have not been provided a mouth guard." Response choices were then combined to represent: "Always/Often," "Sometimes," "Seldom/Never," and "I do not have a mouth guard." Individuals who indicated they had never been in situations requiring a mouth guard were excluded from the analysis.

Source: Q103

Responses: Always/Often
Sometimes
Seldom/Never
Do not have a mouth guard

Average Hours of Sleep Per Night, Past 7 Days: Respondents were asked two open-ended items about the average number of hours and minutes of sleep per 24 hour period in the past week: "In the past week (7 days), about how many hours on average did you sleep each 24 hour period?" The item was adapted from the 2010 National Health Interview Survey (NHIS; Centers for Disease Control and Prevention; CDC, 2010). Responses were coded as "4 hours or less," "5 or 6 hours," "7 or 8 hours," and "9 hours or more."

Source: Q141

Responses: 4 hours or less
5 or 6 hours
7 or 8 hours

9 hours or more

Number of New Sexual Partners, Past 12 Months: Respondents were asked about the number of new sexual partners in the past year: "How many new sex partners did you have during the past 12 months?" The item was adapted from the 2010 Behavioral Risk Factor Surveillance System (BRFSS) Questionnaire (Centers for Disease Control and Prevention; CDC, 2010). A new sex partner was defined as "someone you had sexual intercourse with for the first time in the past 12 months." Response choices were provided on a 6-point scale, with "5-9 people," "10-19 people," and "20 or more people" combined to represent "5 or more partners" in the past year.

Source: Q94

Responses: No new sex partners
1 new partner
2-4 partners
5 or more partners

Condom Use with New Sexual Partners, Past 12 Months: Respondents were asked about frequency of condom use with new sexual partners in the past year: "In the past 12 months, how often did you use a condom when having sexual intercourse with a new sexual partner?" The item was adapted from the 2010 National Health and Nutrition Examination Survey (NHANES; Centers for Disease Control and Prevention; CDC, 2010). Response choices were provided on a 5-point scale, ranging from "Never" to "Always." Individuals who indicated "I haven't had sex with a new partner in the past year" were excluded from the analysis.

Source: Q95

Responses: Always
Often
Sometimes
Seldom
Never

History of Sexually Transmitted Infections (STIs): Respondents were asked about contraction of STIs in the past 12 months and in their lifetime: "Have you ever had a sexually transmitted infection – such as gonorrhea, syphilis, chlamydia, HPV, or genital herpes?" Response choices were "No," "Yes, contracted within the past 12 months," "Yes, contracted more than 1 year ago," and "I have not been tested."

Source: Q97

Responses: Yes, contracted within past 12 months
Yes, contracted more than 1 year ago
No
Have not been tested

Sexually Active Unmarried Personnel, Past 12 Months: Respondents were asked about number of sexual partners to determine sexual activity in the past 12 months: "In the past 12 months, with how many different people did you have sexual intercourse?" Responses were presented on a 6-point scale, ranging from "I did not have sex in the past 12 months" to "20 or more people." The response choices were then dichotomized into two categories, "No, not sexually active in the past 12

months" and "Yes, sexually active in the past 12 months." These responses were then combined with the respondents' marital status to determine those who were unmarried and sexually active in the past year.

Source: Q18, Q93

Responses: Yes, unmarried and sexually active in the past 12 months
No

Seat Belt Use in Personally Owned Vehicle, Past 12 Months: Respondents were asked about frequency of seat belt use in the past year: "How often do you use seat belts when you drive or ride in a personally owned vehicle?" Responses were provided on a 5-point scale, ranging from "Never" to "Always." For comparison to *Healthy People 2020* Objectives, response options were converted into a percent of time to indicate frequency of seat belt use in the past year according to the conversion below. Responses were also presented by combining the top two response box options, "Always" and "Often," and "Never" was presented as a separate category. Those who reported that they didn't drive or ride in a car in the past 12 months were excluded from the analysis.

Source: Q106

Response 1: Always = 100%
Often = 75%
Sometimes = 50%
Seldom = 25%
Never = 0%

Response 2: Always/Often
Never

Motorcycle Helmet Use, Past 12 Months: Respondents were asked about frequency of motorcycle helmet use in the past year: "In the past 12 months, how often did you wear a helmet when you drove or rode on a motorcycle?" Responses were provided on a 5-point scale, ranging from "Never" to "Always." For comparison to *Healthy People 2020* Objectives, response options were converted into a percent of time to indicate frequency of motorcycle helmet use in the past year according to the conversion below. Responses were also presented by combining the top two response options, "Always" and "Often," and "Never" was presented as a separate category. Those who reported that they didn't drive or ride on a motorcycle in the past 12 months were excluded from the analysis.

Source: Q107

Response 1: Always = 100%
Often = 75%
Sometimes = 50%
Seldom = 25%
Never = 0%

Response 2: Always/Often
Never

Motorcycle Use, Past 12 Months: Respondents were asked about frequency of motorcycle use in the past year: "In the past 12 months, how many times did you drive or ride on a motorcycle?" Response choices were provided on a 5-point scale, ranging from "I didn't drive or ride on a motorcycle in the past 12 months" to "40 or more times." Responses "1-10 times," "11-20 times," and "21-39 times" were combined to represent "1 to 39 times," with the remaining response choices, "40 or more times" and "Did not drive or ride on a motorcycle" presented separately.

Source: Q110

Responses: 40 or more times
1 to 39 times
Did not drive or ride on a motorcycle

Close Proximity to Weapons Firing or Explosions, Past 12 Months: Respondents were asked about frequency of exposure to loud noises in the past year: "In the past 12 months, on how many occasions were you in close proximity to weapons firing or explosions?" Response choices were provided on a 5-point scale, ranging from "0 times" to "40 or more times."

Source: Q112

Responses: 0 times
1-10 times
11-20 times
21-39 times
40 or more times

Use of Hearing Protection While Exposed to Loud Noises, Past 12 Months: Respondents who indicated they had been exposed to loud noises at least once in the past year were asked about the use of hearing protection when exposed: "In the past 12 months, how often did you wear hearing protection when you were in close proximity to weapons firing or explosions?" Response choices were provided on a 5-point scale, ranging from "Never" to "Always."

Source: Q112A

Responses: Always
Often
Sometimes
Seldom
Never

Medical Treatment for Injuries, Past 12 Months: Respondents were asked about three accidents/injuries in which medical care was sought in the past year: "In the past 12 months, did you seek medical care for treatment of the following: 'Car or motorcycle accident', 'Other type of accidental injury', and 'Overuse injury (such as carpal tunnel, sports- or exercise-related, etc.)'?" Response choices provided were "Yes" and "No."

Source: Q111A, Q111B, Q111C

Responses: Yes, sought medical treatment
No

Experience with Gang-Related Activity in the Military: Respondents were asked three items about experiences with gang-related activity in the military: 1) "In the past 12 months, have you noticed any gang-related activities among active duty personnel?"; 2) "While in the military, have you been approached about joining a gang/crew in the past 12 months?"; and 3) "While in the military, have you been a member of a gang/crew?" Response choices were provided as "Yes" and "No."

Source: Q113A, Q113B, Q113C

Responses: Yes, have experienced gang-related activity
No

Religiosity/Spirituality Index: Respondents were asked about religious/spiritual beliefs: "My religious/spiritual beliefs influence how I make personal decisions in my life." The item was derived from the 2010 National Survey on Drug Use and Health (NSDUH), sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). Responses were provided on a 4-point scale, ranging from "Strongly disagree" to "Strongly agree." The response choices were converted to a religiosity/spirituality index, with "Strongly agree" indicative of High, "Agree" indicative of Medium, and "Disagree" and "Strongly disagree" combined to indicate Low religiosity/spirituality. There was also a response option for "Not applicable."

Source: Q115

Responses: High
Medium
Low
Not applicable

Number of Children Living at Current Duty Station: Respondents were asked two items about the presence and number of children under age 18 living at the active service members' current duty station: 1) "Do you have any children under age 18 living with you at your current duty station?" and 2) "How many children under age 18 live with you at your current duty station?" Response choices were coded into 4 categories, "None," "1 child," "2 children," and "3 or more children."

Source: Q25, Q25A

Responses: None
1 child
2 children
3 or more children

Relationship of Children to Active Duty Member: Respondents were asked about relationship of children to the active duty member: "Are the children under age 18 living with you at your current duty station…" and provided with 5 response choices: "Your own biological children," "Step-children," "Adoptive children," "Foster children," and "Other children."

Source: Q25B

Responses: Biological children
Step-children
Adoptive children
Foster children
Other children

Promotion of Healthy Food and Beverage Choices in Children: Respondents were asked about promotion of healthy food and beverage choices in children: "For the children under age 18 who are living with you, how often do you promote/provide healthy food and beverage choices for meals and snacks?" Responses were provided on a 5-point scale, with "Always" and "Often" combined to represent "Always/Often" and "Never" presented as a separate response category.

Source: Q25C

Responses: Always/Often
Never

Children's Ease of Access to Prescription Medications in the Home: Respondents were asked about children's access to prescription drugs in the home: "How easy or difficult would it be for the children under age 18 who are living with you at your current duty station to gain access to prescription medications within the home that are not intended for them?" Responses were provided on a 4-point scale, ranging from "Very difficult" to "Very easy." There was also a response option for "No such prescription medications" in the home.

Source: Q25D

Responses: Very Easy
Very Difficult
No such prescription medications

Current Cigarette Smokers Who Smoke with Children Present: Current cigarette smokers were asked about frequency of smoking around children: "How often do you smoke with children present?" Responses were provided on a 4-point scale, ranging from "I never smoke with children present" to "I often smoke with children present." There was also a response option for "I am not ever around children." The top two response choices "Often" and "Sometimes" were combined to indicate high frequency of smoking around children.

Source: Q67

Responses: Often/Sometimes smoke with children present

III. Alcohol Use

Average Drinking Days Per Month, Past 12 Months: Respondents were asked the number of days they had drunk alcohol over the past 12 months in an open response format. The reported number was divided by 12 to estimate the average number of days drinking per month in the past year.

Source: Q39

Responses: Range 0 – 30

Largest Number of Drinks, Past 30 Days: Respondents were asked to report the largest number of drinks that they had on any one occasion in the past 30 days. Respondents entered the number in an open response box and a mean score was calculated to determine the average number of drinks consumed on a single occasion in the past month.

Source: Q50

Responses: Range 0 – 99

Number of Drinks to Feel Drunk, Past 12 Months: Respondents who indicated that they drank enough alcohol to feel drunk at least "once or twice in the past 12 months" for Q42 were asked a follow-up question about the number of drinks it typically takes to feel drunk. Respondents entered the typical number of drinks to feel drunk in an open format response box. A mean score was calculated to determine the average number of drinks to feel drunk in the past year.

Source: Q42A

Responses: Range 0 – 20

Alcohol Binge Episode, Past 30 Days: Respondents were asked to report the frequency of having 5 or more drinks of beer, wine, or liquor on the same occasion for males, and 4 or more drinks on the same occasion for females, within the past 30 days. Response choices were provided on a 7-point scale, ranging from "Not at all in the past 30 days" to "About every day." The question was recoded as a dichotomous variable for analysis to reflect those who had binged in the past month.

Source: Q51

Responses: Yes, binged at least once in past 30 days
No

Felt Drunk 7 or More Times, Past 12 Months: Respondents were asked to report the frequency of drinking enough alcohol to feel drunk in the past 12 months. Responses were provided on an 8-point scale, ranging from "I did not drink enough alcohol to feel drunk in the past 12 months" to "Every day or nearly every day." Responses were recoded into a dichotomous variable for the analysis to reflect those who had felt drunk 7 or more times in the past year.

Source: Q42

Responses: Yes, felt drunk 7 or more times in past 12 months
No

Drinking Level Classifications: The coding for drinking level classifications was based on the definitions established in the 2010 National Health Interview Survey (NHIS) using Q38, Q39, and Q40, as well as gender (Q4). For those who were missing data on Q39 and Q40, Q46 and Q47 were

used to calculate frequency and quantity of alcohol consumption in the past year. The midpoints of each response option were used as a proxy for average number of days drinking and average number of drinks per week in the past year. An 'Abstainer' was defined as having less than 12 alcoholic drinks in their entire lifetime. A 'Former Drinker' was defined as having at least 12 drinks in their lifetime and reported 0 days of drinking in the past 12 months. A 'Current Drinker' was defined as having at least 12 drinks in their lifetime and reported 1 or more days of drinking in the past 12 months. Current drinkers were categorized into three levels of drinking intensity. An 'Infrequent/Light Drinker' was defined as having less than 4 drinks per week in the past year. A 'Moderate Drinker' was defined as having 4 to 14 drinks per week for males, and 4 to 7 drinks per week for females in the past year. A 'Heavy Drinker' was defined as having more than 14 drinks per week for males, and more than 7 drinks per week for females in the past year.

Source: Q4, Q38, Q39, Q40, Q46, Q47

Responses: Abstainer
Former Drinker
Infrequent/Light Drinker
Moderate Drinker
Heavy Drinker

Work-Related Productivity Loss, Past 12 Months: Respondents were asked 11 items about the frequency of alcohol-related work productivity loss in the past 12 months. Response options for Q43 and Q44 were on a 4-point scale, ranging from "0 times" to "3 or more times." Response options for Q45 were on a slightly different 4-point scale, ranging from "0 work days" to "3 or more work days." Response options were first recoded into a dichotomous variable to represent whether alcohol-related work productivity loss had occurred or had not occurred at least once in the past 12 months. The 11 items were then summed and recoded into a dichotomous variable for at least 1 event that occurred 1 or more times, and another dichotomous variable was created for at least 2 different events that occurred 1 or more times in the past 12 months.

Source: Q43C, Q43F, Q43G, Q43H, Q44I, Q45A, Q45B, Q45C, Q45D, Q45E, Q45F

Response 1: Yes, 1 or more items at least once in the past 12 months
No

Response 2: Yes, 2 or more items at least once in the past 12 months
No

Serious Consequences Related to Alcohol Use, Past 12 Months: Respondents were asked 15 items about the frequency of serious consequences associated with alcohol use in the past 12 months. Response options were on a 4-point scale, ranging from "0 times" to "3 or more times." Response options were first recoded into a dichotomous variable to represent whether a serious consequence had occurred or had not occurred in the past 12 months. The 15 items were then summed and recoded into a dichotomous variable for at least 1 event that occurred 1 or more times, and another dichotomous variable was created for at least 2 different events that occurred 1 or more times in the past 12 months.

Source: Q43A, Q43B, Q43D, Q43E, Q43I, Q43J, Q43K, Q43L, Q43M, Q44C, Q44F, Q44G, Q44H, Q44J, Q44K

Response 1: Yes, 1 or more items at least once in the past 12 months

No

Response 2: Yes, 2 or more items at least once in the past 12 months

No

Risk Behaviors Related to Alcohol Use, Past 12 Months: Respondents were asked 4 items about the frequency of alcohol-related risk behaviors in the past 12 months. Response options were on a 4-point scale, ranging from "0 times" to "3 or more times." Response options were first recoded into a dichotomous variable to represent whether a risk behavior had occurred or had not occurred in the past 12 months. The 4 items were then summed and recoded into a dichotomous variable for at least 1 event that occurred 1 or more times, and another dichotomous variable was created for at least 2 different events that occurred 1 or more times in the past 12 months.

Source: Q44A, Q44B, Q44D, Q44E

Response 1: Yes, 1 or more items at least once in the past 12 months

No

Response 2: Yes, 2 or more items at least once in the past 12 months

No

Age at First Alcohol Use: Respondents were asked to report age at first alcohol use by responding to categorical options that ranged from "14 years old or younger" to "21 years old or older," with additional options on the survey to distinguish those who never consumed alcohol in their lifetime. Those who had never consumed alcohol were excluded from the analysis.

Source: Q59

Responses: 14 years old or younger

15 to 17 years old

18 to 20 years old

21 years old or older

Drinking at Work, Past 30 Days: Respondents were asked to report the frequency of drinking at work, either on the job, during a lunch break, or during a work break in the past 30 days. Response choices were provided on a 7-point scale, ranging from "I didn't drink in the past 30 days" to "Every work day." Responses were recoded into a dichotomous variable to reflect drinking at work at least once and not drinking at work in the past month.

Source: Q52

Responses: Drank at work

Did not drink at work

AUDIT Scale Score: The AUDIT (Alcohol Use Disorders Identification Test) scale sum score was calculated to determine the potential for alcohol dependence across military components. The scale uses 10 items, which were recoded based on the AUDIT scale scoring guide developed by the World Health Organization (WHO).

Source: Q46, Q47, Q48A, Q48B, Q48C, Q48D, Q48E, Q48F, Q49A, Q49B

Responses: Range 0 – 40

AUDIT Categories: The AUDIT categorical indicator was computed to classify the risk levels of drinking across the military. The AUDIT scale score (see description above) was split into 4 categories, as presented below. The categories and cut-scores corresponding to each category were based on scoring guidelines developed by the WHO.

Source: Q46, Q47, Q48A, Q48B, Q48C, Q48D, Q48E, Q48F, Q49A, Q49B

Responses: Low Risk (AUDIT score < 8)
Hazardous Drinking (AUDIT score 8-15)
Harmful Drinking (AUDIT score 16-19)
Possible Alcohol Dependence (AUDIT score of 20+)

Energy Drink Combined with Alcoholic Beverage, Past 30 Days: Respondents were asked about frequency of drinking caffeinated energy drinks in combination with an alcoholic beverage in the past 30 days: "During the past 30 days, on how many days did you drink a caffeinated energy drink (such as Red Bull, Monster, Rockstar, etc.) in combination with an alcoholic beverage?" Responses were provided on a 4-point scale, ranging from "None" to "20-30 days." Responses were recoded into a dichotomous variable to reflect consumption at least one day in the past month.

Source: Q53

Responses: Yes, consumed at least 1 day in the past month
No

Drinking Facilitators: Respondents were asked 10 items about facilitators of alcohol use, such as fitting in with people, drinking to be sociable, and peer pressure. Response options for Q54 were on a 4-point scale, ranging from "Not at all important" to "Very important." Response options for Q55 were on a slightly different 4-point scale, ranging from "Strongly disagree" to "Strongly agree." The top two response choices were combined to indicate importance ("Very important" and "Somewhat important") for Q54, and to indicate agreement ("Strongly agree" and "Agree") for Q55.

Source: Q54A, Q54B, Q54C, Q54D, Q54E, Q54F, Q54G, Q54H, Q55B, Q55D

Responses: Important/Agree

Drinking Deterrents: Respondents were asked 6 items about deterrents to alcohol use, such as upsetting friends and family and getting in trouble with the authorities. Response options for Q55 were on a 4-point scale, ranging from "Strongly disagree" to "Strongly agree." Response options for Q56 were on a slightly different 4-point scale, ranging from "Not at all likely" to "Extremely likely." The top two response choices were combined for Q55 to indicate agreement ("Strongly agree" and "Agree") and for Q56 to indicate likelihood ("Extremely likely" and "Very likely").

Source: Q55A, Q55C, Q56A, Q56B, Q56C, Q56D
Responses: Agree/Likely

Likelihood of Seeking Treatment for Alcohol Use in Next 6 Months: Respondents were asked to indicate the likelihood of seeking treatment for alcohol use in the next 6 months. Responses were provided on a 5-point scale, from "Not at all likely" to "Already in treatment." Responses were recoded into a three-level variable to reflect those already in treatment, those who are likely to seek treatment ("Absolutely certain" and "Probably"), and those who are not likely to seek treatment ("Possibly" and "Not at all likely").

Source: Q58

Responses: Already in treatment
Likely

Likely Form of Treatment for Alcohol Use: Respondents were asked 10 items about likelihood of using each specific form of treatment or assistance for alcohol-related issues. Response options were provided on a 4-point scale, ranging from "Not at all likely" to "Extremely likely." There was also a response option to indicate "Not familiar." The top two response choices were combined to indicate likelihood ("Extremely likely" and "Very likely"), and the bottom two response choices were combined to indicate not likely to use ("Somewhat likely" and "Not at all likely"). In addition, a response was presented to distinguish those who were "Not familiar" with the alcohol-related treatment option.

Source: Q57A – Q57J

Responses: Likely
Not familiar

IV. Illicit and Prescription Drug Use and Misuse

Any Illicit Drug Use: Respondents were asked two items to determine illicit drug use for three time periods: lifetime, past 12 months, and past 30 days. The items were derived from the 2010 National Survey on Drug Use and Health (NSDUH), sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). The first question asked if the respondent had ever used each of 9 substances, including marijuana, cocaine, LSD, PCP, MDMA, other hallucinogens, methamphetamine, heroin, and GHB/GBL. The response options were "Never Used," "Used at least once in my life," and "Used at least once in the past 12 months." Those who responded with "Used at least once in my life" were categorized as "Lifetime" users. Those who responded with "Used at least once in the past 12 months" were asked a follow-up question about the number of days in the past 30 days they had used any of the substances. If those individuals who were presented the second question answered "0 Days" they were categorized as "Past 12 Months" users; respondents answering "Used 1 to 3 days," "Used 4 to 10 days," or "11 or more days" were classified as "Past 30 Days" users. 'Any Illicit Drug Use' included only substances that were illegal to possess or use, but did not include all substances banned for use by the Armed Services (i.e., synthetic cannabis and inhalants).

Source: Q82, Q83

Responses: Lifetime
Past 12 Months
Past 30 Days

Use of Other Substances: There are some substances that have been prohibited from use within the Armed Services, but are not illegal to possess or to use for their intended purposes in many areas of the United States. At the time of the data collection, synthetic cannabis was not illegal to obtain, possess, or use in many areas of the United States. In addition, the substances classified as inhalants are not illegal to possess or use for their intended purposes (e.g., gasoline as a fuel for vehicles or other motors, glue as a binding compound). These substances were listed separately because they are not illicit substances. However, these substances are presented to illustrate prohibited use by military personnel.

Source: Q82, Q83

Responses: Lifetime
Past 12 Months
Past 30 Days

Overall Use of Prohibited Substances: This is a composite indicator of any illicit drug use and the use of other substances (i.e., synthetic cannabis and inhalants) that are prohibited by the U.S. Armed Services. This measure does not include prescription drug misuse.

Source: Q82, Q83

Responses: Lifetime
Past 12 Months
Past 30 Days

Any Prescription Drug Use: Prescription drugs are controlled substances that can be legally

obtained and possessed with a health care professional's authorization (i.e., prescription). The items measuring prescription drug use and misuse were derived from the 2010 National Survey on Drug Use and Health (NSDUH). The first question asked if the respondent had ever used any of the prescription drugs, which included stimulants, sedatives, pain relievers, and anabolic steroids. Response options were "Never Used," "Used at least once in my life," and "Used at least once in the past 12 months." Those who indicated use at least once in their lifetime were classified as "Lifetime" users. Those who responded with "Used at least once in the past 12 months" were asked a follow-up question about the number of days in the past 30 days they had used any of the substances. If those individuals who were presented the second question answered "0 Days" they were categorized as "Past 12 Months" users; respondents answering "Used 1 to 3 days," "Used 4 to 10 days," or "11 or more days" were classified as "Past 30 Days" users.

Source: Q84, Q85

Responses: Lifetime
Past 12 Months
Past 30 Days

Prescription Drug Target, Past 12 Months: Respondents were asked whether or not they used a prescription drug (i.e., stimulants, sedatives, pain relievers, and anabolic steroids) in the past 12 months that was prescribed for them. Respondents who indicated that they had used a drug in the past 12 months, but that it was not prescribed for them were asked how they obtained it for each of the 4 types of prescription drugs. Response options included "Prescribed for me in a prior year," "Prescribed for someone else," and "Obtained another way."

Source: Q84, Q86A, Q86B

Responses: Prescribed for me
Prescribed for someone else
Other source

Prescription Drug Amount Used, Past 12 Months: Respondents were asked how they used a prescription drug (i.e., stimulants, sedatives, pain relievers, and anabolic steroids) that was prescribed for them in the past 12 months with regard to the amount of the drug used. Response options included "Used a lower amount than prescribed," "Used as prescribed," and "Used a greater amount than prescribed."

Source: Q84, Q86A, Q87

Responses: Less than prescribed
As prescribed
More than prescribed

Prescription Drug Source, Past 12 Months: Respondents were asked how they obtained the prescription drug (i.e., stimulants, sedatives, pain relievers, and anabolic steroids) used in the past 12 months. Response options included several sources of medical health care professionals, internet/mail order, illicit sources such as family members and street pharmacists, and other sources. In addition, 'Any Medical Source' was presented as an overall measure of obtaining a drug from any of the four medical sources, which were a health care provider at a military treatment facility (MTF), a health care provider at a VA medical facility, a non-military doctor or health care worker, or an emergency room. 'Any Illicit Source' included a family member or friend, or a dealer or street pharmacist.

Source: Q84, Q86A, Q88

Responses:
Health care provider at an MTF
Health care provider at a VA medical facility
Non-military doctor or health care worker
Emergency room
Internet/Mail order
Family member or friend
Dealer/Street pharmacist
Other

Prescription Drug Use Motivation, Past 12 Months: Respondents who used prescription drugs in the past 12 months were asked their reasons for using a prescription drug (i.e., stimulants, sedatives, pain relievers, and anabolic steroids). Response options included "To control pain," "To feel good," "To reduce depression," "To reduce anxiety," "To control stress," "To help me sleep," and "To help me stay awake." The depression and anxiety responses were combined to form a single indicator of "To reduce anxiety or depression."

Source: Q84, Q89

Responses:
To control pain
Get buzzed
To reduce anxiety or depression
To control stress
To help me sleep
To help me stay awake

Any Prescription Drug Misuse, Past 12 Months: To measure misuse of prescription drugs, respondents were asked a series of questions pertaining to the prescription target, the amount used, and the motivation for use. Each of these questions was asked in the timeframe of the past year, therefore all presentation of prescription drug misuse is based on the past 12 months. For the purpose of this study, prescription drug misuse was categorized as (1) a response to Q86B of "prescribed for someone else and I used in the past year" or "obtained prescription medication another way and I used in the past year;" OR (2) a response to Q87 of "Used a greater amount than prescribed;" OR (3) a response to Q89 of "To feel good (get high or buzzed, etc.)."

Source: Q84, Q86A, Q86B, Q87, Q89

Responses:
Yes, misused the drug in the past 12 months
No

Any Prescription Drug Misuse Among All Drug Users, Past 12 Months: Similar to the measure above, this indicator represents prescription drug misuse only for those who reported prescription drug use in the past 12 months (versus the total population). In other words, the denominator for this indicator was smaller than using the total population, resulting in a larger percentage of misusers among only those who reported prescription drug use in the past year.

Source: Q84, Q86A, Q86B, Q87, Q89

Responses: Yes, misused the drug in the past 12 months

No

Drug Testing: Respondents were asked the last time they had to give a urine sample for a random, unannounced drug test. Response options were provided on a 6-point scale, ranging from "In the past month" to "More than 3 years ago," with the additional option of "I have never given a urine sample for a random unannounced drug test." The response options "1 to 2 months ago," "3 to 6 months ago," and "7 to 12 months ago" were collapsed into "Tested in the past year, but more than one month ago." In addition, "1 year to 3 years ago" and "More than 3 years ago" were collapsed into "Tested more than 1 year ago." Finally, "Tested in the past month" and "Never tested" were presented as separate response options in the tables.

Source: Q90

Responses: Tested in past month
Tested in past year but more than one month ago
Tested more than 1 year ago
Never tested

V. Tobacco Use

Current Cigarette Smokers: Respondents were asked two items to determine current cigarette smoking status based on the definition established in the 2010 National Health Interview Survey (NHIS). If the respondent smoked at least 100 cigarettes in their lifetime and indicated smoking cigarettes now (i.e., currently) "Every day" or "Some days," the respondent was considered a current cigarette smoker.

Source: Q61, Q64

Responses: Yes, current cigarette smoker
No

Cigarette Smoking Classification Levels: The coding for cigarette smoking classification levels was based on the definitions established in the 2010 National Health Interview Survey (NHIS). An 'Abstainer' was defined as smoking less than 100 cigarettes in their lifetime. A 'Former' smoker was defined as smoking at least 100 cigarettes in their lifetime, but did not currently smoke cigarettes now. A current smoker was defined by the criteria described above for "current cigarette smoker," and then split into three categories of smoking intensity. An 'Infrequent' smoker reported smoking cigarettes "Some days." A 'Light/Moderate' smoker reported smoking cigarettes "Every day" and on average, currently smoked less than 20 cigarettes (less than one pack) per day. A 'Heavy' smoker reported smoking "Every day" and currently smoked 20 or more cigarettes per day (1 pack or more) on average.

Source: Q61, Q64, Q66

Responses: Abstainer
Former Smoker
Infrequent Smoker
Light/Moderate Smoker
Heavy Smoker

Age of Cigarette Smoking Initiation: Respondents were asked to report age of initiation for smoking cigarettes, and were provided with four categorical options that ranged from "14 years old or younger" to "21 years old or older."

Source: Q62

Responses: 14 years old or younger
15 to 17 years old
18 to 20 years old
21 years old or older

Cigarette Smoking Facilitators: Current cigarette smokers were presented with 11 items representing reasons for smoking cigarettes, such as to "Fit in with my friends," "Help me relax or calm down," and "When drinking alcohol." Respondents were asked to rank the items on a 4-point scale, ranging from "Not at all important" to "Very important." The top two response choices ("Very important" and "Somewhat important") were combined to indicate importance of reason for smoking cigarettes. The bottom two response choices ("Not very important" and "Not at all important") were combined into a "Not important" category, but not presented in the tables.

Source: Q71A – Q71K

Responses: Important
Not important

Tobacco Deterrents: Respondents were asked two items about deterrents of tobacco use (both cigarettes and smokeless tobacco), including "A decrease in the number of places at the installation where smoking or tobacco use is permitted" and "Prices on the installation were increased to match prices outside the installation." Respondents were asked to rank how much each of these factors would decrease use of tobacco products given three options: "Would use/smoke much less," "Would use/smoke somewhat less," and "Would not affect how much I use/smoke tobacco." The top two response choices, "Would use/smoke much less" and "Would use/smoke somewhat less" were combined to indicate whether each deterrent would decrease tobacco use. The analysis was presented for currents cigarette smokers only.

Source: Q80A, Q80B

Responses: Yes, would decrease tobacco use
No

Cigarette Smoking Cessation and Reduction Attempts, Past 12 Months: Current cigarette smokers were asked two items to gauge the number of times they had tried to 1) quit smoking cigarettes; and 2) reduce or cut back on the number of cigarettes smoked, for at least 30 consecutive days during the past 12 months. Responses were provided on a 5-point scale, ranging from "Never" to "6 or more times." The response categories "2 to 3 times," "4 to 5 times," and "6 or more times" were combined to indicate multiple (i.e., 2 or more) quit or reduction attempts in the past year. The response options for "Never" and "1 time" were presented as separate categories in the tables.

Source: Q68, Q69

Responses: Never
1 time
2 or more times

Likelihood to Quit Cigarette Smoking in Next 6 Months: Current cigarette smokers were asked to gauge the likelihood of quitting smoking within the next 6 months. Responses were provided on a 4-point scale, ranging from "Not at all likely" to "Absolutely certain." The top two response choices ("Absolutely certain" and "Probably") were combined to indicate likelihood of smoking cessation in the next 6 months. The bottom two response choices ("Possibly" and "Not at all likely") were combined into a "Not likely" category, which was not presented in the analysis.

Source: Q70

Responses: Likely
Not likely

Cigar and Pipe Use, Past 12 Months: Respondents were asked two items to determine frequency of cigar and pipe (including hookah) use in the past 12 months. The frequency of use was determined with a 6-point scale, ranging from "Less than once a month" to "About every day." There were also response options to indicate "Not in the past 12 months" and "I never smoked." The top four response choices ("About every day," "5-6 days a week," "3-4 days a week," "1-2 days a week") were combined to indicate use "1 or more days per week" and the remaining two response choices ("About once a month" and "Less than once a month") were combined to reflect use "Less

than once per week" in the past year. The combination of the two use categories represented "Any cigar/pipe use" in the past12 months. Those who did not smoke in the past year or who never smoked in their lifetime were combined to represent "Did not smoke."

Source: Q78A, Q78B

Responses: Did not smoke
Less than once/week
1 or more days/week
Any cigar/pipe use

Smokeless Tobacco Use, Past 12 Months: Respondents were asked two questions to determine frequency of smokeless tobacco use in the past 12 months. First, respondents were asked to indicate "Yes" or "No" as to whether they had ever used chewing tobacco, snuff, or any other form of smokeless tobacco. Those who indicated "Yes" were then asked how often they had used smokeless tobacco in the past 12 months on 7-point scale, ranging from "Less than once a month" to "About every day." The response option "I have not used chewing tobacco, snuff, or other smokeless tobacco in the past 12 months" was also provided. The top four response choices ("About every day," "5-6 days a week," "3-4 days a week," and "1-2 days a week") were combined to represent the category "1 or more days per week." The responses "2-3 days a month," "About once a month," and "Less than once a month" were combined to indicate usage "Less than once per week." Both use categories were combined to indicate "Any smokeless tobacco use" in the past 12 months. The response, "I have not used chewing tobacco, snuff, or other smokeless tobacco in the past 12 months" was combined with those who had previously indicated for Q72 they had never used any kind of smokeless tobacco to represent "Did not use."

Source: Q72, Q73

Responses: Did not use
Less than once/week
1 or more days/week
Any smokeless tobacco use

Current Smokeless Tobacco Use: Respondents were asked two items to determine current smokeless tobacco use. If the respondent reported lifetime use of chewing tobacco, snuff, or any other form of smokeless tobacco and use within the past year, the respondent was considered a current smokeless tobacco user.

Source: Q72, Q73

Responses: Yes, current user
No

All Smokeless Tobacco Products: Respondents who indicated they had used chewing tobacco, snuff, or any other form of smokeless tobacco were asked about the last time they had used these products. Responses were given on a 6-point scale ranging from "Today" to "More than 2 years ago." The bottom two response categories ("More than 1 year ago but within the past 2 years" and "More than 2 years ago") were combined to indicate use "More than 12 months ago." The top four response categories ("Today," "During the past 30 days," "More than 1 month ago but within the past 6 months," and "More than 6 months ago but within the past year") were combined to represent use "In the past 12 months." Those individuals who indicated for Q72 that they had never

used chewing tobacco, snuff, or other smokeless tobacco were also included to represent the response category "Never."

Source: Q72, Q75, Q79A – Q79D

Responses: In the past 12 months
More than 12 months ago
Never

New Forms of Smokeless Tobacco: Respondents were asked about four new forms of smokeless tobacco, including electronic cigarettes, nicotine dissolvables, caffeinated smokeless tobacco, and nicotine gel. Response choices included use "In the past 12 months," "More than 12 months ago," and "Never."

Source: Q79A, Q79B, Q79C, Q79D

Responses: In the past 12 months
More than 12 months ago
Never

Any Nicotine Use, Past 12 Months: A nicotine use indicator was created by combining participants' responses to their cigarette, smokeless tobacco, cigar, and pipe smoking use in the past 12 months. Those who indicated they had a) smoked cigarettes, b) used chewing tobacco, snuff, or other smokeless tobacco, including new forms of smokeless tobacco, c) smoked cigars, OR d) smoked pipes in the past 12 months were classified as using "any nicotine" in the past year.

Source: Q61, Q63, Q72, Q75, Q78A, Q78B, Q79A – Q79D

Responses: Yes, nicotine use in past 12 months
No

Smokeless Tobacco Classification Levels: The coding for smokeless tobacco classification levels used two items. An 'Abstainer' was defined as no lifetime use of chewing tobacco, snuff, or any other form of smokeless tobacco. A 'Former' smokeless tobacco user reported use of smokeless tobacco products in their lifetime, but did not use in the past 12 months. An 'Infrequent' user reported use of smokeless tobacco products "about once a month" or less in the past year. Respondents classified as using smokeless tobacco 'Some days' reported using more than once a month, but not on a daily basis in the past year. The last group, 'Every day' reported smokeless tobacco use on a daily basis in the past 12 months.

Source: Q72, Q73

Responses: Abstainer
Former
Infrequent
Some days
Every day

Smokeless Tobacco Cessation Attempts, Past 12 Months: Respondents who used smokeless tobacco products in the past 12 months were asked the number of times they had tried to quit using chewing tobacco, snuff, or smokeless tobacco products for at least 30 consecutive days during the past 12 months. Responses were provided on a 5-point scale, ranging from "Never" to "6 or more times." The bottom three response categories ("2 to 3 times," "4 to 5 times," and "6 or more

times") were combined to indicate multiple quit or reduction attempts in the past year.

Source: Q76

Responses: Never
1 time
2 or more times

Likelihood to Quit Smokeless Tobacco Use in Next 6 Months: Respondents who used smokeless tobacco products in the past 12 months were asked to gauge the likelihood of quitting smokeless tobacco use within the next 6 months. Responses were provided on a 4-point scale, ranging from "Not at all likely" to "Absolutely certain." The top two response choices ("Absolutely certain" and "Probably") were combined to indicate likelihood of smokeless tobacco cessation in the next 6 months. The bottom two response choices ("Possibly" and "Not at all likely") were combined into a "Not likely" category, which was not presented in the tables. Respondents who had already quit using smokeless tobacco were not included in the analysis.

Source: Q77

Responses: Likely
Not likely

Likely Form of Treatment for Nicotine Dependence: Respondents were asked 11 items about treatment or assistance methods for nicotine dependence resulting from smoking cigarettes or using smokeless tobacco products. Response options were provided on a 4-point scale, ranging from "Not at all likely" to "Extremely likely." The top two response choices ("Extremely likely" and "Probably") were combined to indicate likelihood of use, and the bottom two response choices ("Possibly" and "Not at all likely") were combined into a "Not likely to use" category, which was not presented in the tables. There was also a response option to indicate "Not familiar" with the method of treatment.

Source: Q81A – Q81K

Responses: Likely
Not Familiar

VI. Culture of Substance Use

Social Network Facilitation of Substance Use: Respondents were asked about friends' use of five substances, including cigarettes, smokeless tobacco, alcohol, marijuana, and prescription drug misuse: "In your off-duty hours, how many of your friends do the following when you are around them: a) Smoke cigarettes, b) Use chewing/smokeless tobacco, c) Drink alcohol, d) Smoke marijuana, and e) Misuse prescription drugs?" Response options were "None," "Some," and "Most." The top two response options ("Some" and "Most") were combined to indicate any social network facilitation of each of the five substances.

Source: Q100A – Q100E

Responses: Some/Most

None

Leadership Deterrence of Substance Use: Respondents were asked two items about installation and supervisor deterrence of the use of five substances, including cigarettes, smokeless tobacco, alcohol, marijuana, and prescription drug misuse. The first item asked about installation deterrence of substance use: "Thinking about the installation at which you are currently stationed (such as your post, camp, base, station, ship and support facilities, or other geographic duty location), how strongly does it discourage the use of the following…" and the second item asked about supervisor deterrence of substance use: "Thinking about your immediate supervisor(s) at the installation where you are currently stationed, how strongly does he/she discourage the use of the following: a) Cigarettes, b) Chewing/smokeless tobacco, c) Alcohol, d) Marijuana, and e) Prescription drug misuse?" Response options for both items were "Not at all," "Somewhat," and "Strongly." The two items measuring installation and supervisor deterrence of substance use were added together for each of the five substances. Those with scores of 4 or higher were coded as "1" to reflect high leadership deterrence of use for each of the five substances. Those with scores less than 4 were coded as "0" to reflect low leadership deterrence of substance use.

Source: Q101A – Q101E, Q102A – Q102E

Responses: Somewhat/Strongly

Not at all

VII. Stress and Mental Health

Stress from Military-Related Events, Past 12 Months: Respondents were asked 9 items about how much stress they experienced from military-related events in the past 12 months, such as "deployment," "problems with coworkers," and "insufficient training." Response options were provided on a 4-point scale, ranging from "None at all" to "A lot." The top two response choices, "A lot" and "Some" were combined and presented in the tables to represent experiences of stress for each of the 9 military-related events that took place in the past year.

Source: Q121A – Q121I

Responses: A lot/Some
None/A little

Stress from Personal Events, Past 12 Months: Respondents were asked 11 items about how much stress they experienced from non-military life events in the past 12 months, such as "having a baby," "death in the family," and "problems with money." Response options were provided on a 4-point scale, ranging from "None at all" to "A lot." The top two response choices, "A lot" and "Some" were combined and presented in the tables to represent experiences of stress for each of the 11 personal life events that took place in the past year.

Source: Q121J, Q124A – Q124J

Responses: A lot/Some
None/A little

Stress Coping Behaviors: Respondents were asked 13 items about how often they used stress coping behaviors, such as "talk to a friend or family member," "engage in a hobby," and "sleep." Response options were provided on a 4-point scale, ranging from "Never" to "Frequently." The top two response choices, "Frequently" and "Sometimes" were combined and presented in the tables to represent whether a behavior was used for coping with stress.

Source: Q122A – Q122M

Responses: Frequently/Sometimes
Never/Rarely

Gender-Related Stress in the Military: Respondents were asked about stress associated with being a man or a woman in the military: "Do you feel that you experience more stress in the military because you are a man/woman?" Response options were "Yes" and "No."

Source: Q123

Responses: Yes, experience more stress due to gender
No

High Posttraumatic Stress (PTS) Level, Past 30 Days: Respondents were asked 4 items to determine the extent to which they experienced symptoms in the past 30 days that indicated need for further PTS evaluation (Blanchard et al., 1996). Participants were asked how much they had been bothered by each of the 4 symptoms in the past month, including "feeling very upset when something reminded you of a stressful experience," "feeling emotionally numb or being unable to have loving feelings for those close to you," "having difficulty concentrating," and "feeling jumpy or easily startled." Responses were provided on a 5-point scale, ranging from "Not at all" to

"Extremely." To create this scale, an average was calculated from participants' responses on each of the 4 items. A dichotomous cut off was then used to determine 'High PTS level'. Respondents with scores below 4 were categorized as "Low PTS," and those with scores of 4 and above were categorized and presented in the tables as "High PTS."

Source: Q128B, Q128D, Q128E, Q128F

Responses: High PTS level
Low PTS level

Suicidal Ideation: Respondents were asked two items about suicide ideation to determine whether it had occurred and the timing of the occurrence. If respondents answered "Yes" to lifetime suicide ideation for Q137, they were asked a follow-up item about when the ideation had occurred. Timeframes included within the past year, since joining the military, and before joining the military.

Source: Q137, Q137A

Responses: Past year
Not within past year but since joining service
Not within past year but before joining service

Suicide Attempts: Respondents were asked two items about suicide attempts to determine whether and when it had occurred. If respondents answered "Yes" to lifetime suicide attempt for Q138, they were asked a follow-up item about when the attempt had occurred. Timeframes included within the past year, since joining the military, and before joining the military.

Source: Q138, Q138A

Responses: Past year
Not within past year but since joining service
Not within past year but before joining service

Self-Inflicted Injury: Respondents were asked two items about intentional self-inflicted injuries, defined as "scratching, cutting, or burning" oneself, but not in an attempt to commit suicide. The items asked about frequency of occurrence in lifetime and since joining the military. Response options were provided on a 5-point scale, ranging from "Never" to "6 or more times." Reponses were combined to reflect at least 1 incident in the participant's lifetime and since joining the military.

Source: Q135, Q136

Responses: Lifetime
Since joining the military

High Overall Stress Level, Past 12 Months: Respondents were asked two items to measure level of overall stress in the past 12 months. The first question asked participants to indicate how often they experienced a lot of stress in the past 12 months. Responses were provided on a 5-point scale, ranging from "Never" to "Always." The second question asked participants to indicate how much military-related stress they experienced overall in the past 12 months. Responses were provided on a 4-point scale, ranging from "None at all" to "A lot." Average scores were calculated for each item separately; these scores were then averaged together. Overall stress level was then dichotomized based on a cutoff value. Those participants with an average score of 0.70 or greater were classified and presented in the tables as "High overall stress," whereas those with an average score of less than 0.70 were classified as "Low overall stress."

Source: Q119, Q120

Responses: High overall stress level
Low overall stress level

High Anxiety Level, Past 30 Days: Respondents were asked 4 items to assess how often they experienced symptoms of anxiety associated with stress in the past 30 days, such as "feeling nervous, anxious, on edge, or worrying a lot about different things" and "trouble falling asleep or staying asleep." Responses were provided on a 4-point scale, ranging from "Not at all" to "More than half the days." To create an anxiety level scale, the responses on the 4 items were recoded (i.e., "More than half the days" was assigned a value of 1, "Several days" was assigned a value of .667, "One or two days" was assigned a value of .333, and "Not at all" was assigned a value 0) and averaged. Anxiety level was then dichotomized based on a cutoff value. Those participants with an average score of 0.75 or greater were classified and presented in the tables as "High anxiety," whereas those with an average score of less than 0.75 but greater than 0 were classified as "Low anxiety."

Source: Q126A – Q126D

Responses: High anxiety level
Low anxiety level

High Depression Level, Past Week: Respondents were asked two items to assess level of depressive symptoms in the past week; these items were "I felt depressed" and "I felt sad." Response options were provided on a 5-point scale, ranging from "Never" to "5-7 days." To create a depression level scale, the responses were recoded (i.e., "5-7 days" was assigned a value of 1, "3-4 days" was assigned a value of .75, "1-2 days" was assigned a value of .5, "Less than 1 day" was assigned a value of .25, and "never" was assigned a value 0) and averaged. Depression level was then dichotomized based on a cutoff value. Those with an average score of 0.75 or greater were classified and presented in the tables as "High depression," whereas those with an average score of less than 0.75 but greater than 0 were classified as "Low depression."

Source: Q125C, Q125E

Responses: High depression level
Low depression level

Physical or Sexual Abuse History: Respondents were asked 6 items about physical and sexual abuse history before joining the military and since joining the military, as well as the perpetrator of the violence, i.e., either a civilian or someone in the military. Response options were "Yes" and "No." Physical and sexual abuse occurrences were also combined to reflect whether the respondent had experienced any abuse.

Source: Q127A – Q127F

Responses: Before joining the military
Since joining the military, by someone in the military
Since joining the military, by a civilian
Any physical or sexual abuse

High Risk-Taking Propensity: Respondents were asked 3 items about how much behaviors related to risk-taking described them, such as "You might say I act impulsively" and "I go for the thrills in life when I get a chance." Responses were measured on a 5-point scale, ranging from "Not

at all" to "A great deal." To create a risk-taking propensity scale, the response values for these 3 items were recoded (i.e., "A great deal" was assigned a value of 1, "A lot" was assigned a value of .75, "Somewhat" was assigned a value of .5, "A little" was assigned a value of .25, and "Not at all" was assigned a value 0) and averaged. Risk-taking propensity was then dichotomized based on a cutoff value. Those with an average score of 0.75 or greater were classified and presented in the tables as "High risk-taking," whereas those with an average score of less than 0.75 but greater than 0 were classified as "Low risk-taking."

Source: Q139G, Q139H, Q168G

Responses: High risk-taking
Low risk-taking

High Anger Propensity: Respondents were asked 4 items about how much behaviors related to anger described them, including "I often find myself getting angry at people or situations," "When I get angry, I get really mad," and "When I get angry I stay angry." Responses for these 3 items were measured on a 5-point scale, ranging from "Not at all" to "A great deal." To create a risk-taking propensity scale, the response values on these 3 items were recoded (i.e., "A great deal" was assigned a value of 1, "A lot" was assigned a value of .75, "Somewhat" was assigned a value of .5, "A little" was assigned a value of .25, and "Not at all" was assigned a value 0). The fourth item asked respondents about internalization of anger on a 5-point scale, ranging from "Other people never know when I am angry" to "Other people always know when I am angry." Responses to this item were recoded in the same way as the other 3 items (i.e., "Other people always know when I am angry" was assigned a value of 1, "Other people often know when I am angry" was assigned a value of .75, "Other people sometimes know when I am angry" was assigned a value of .5, "Other people rarely know when I am angry" was assigned a value of .25, and "Other people never know when I am angry" was assigned a value of 0). The scores for all 4 items were then averaged, and anger propensity was dichotomized based on a cutoff value. Those with an average score of 0.75 or greater were classified as "High anger," whereas those with an average score of less than 0.75 but greater than 0 were classified as "Low anger."

Source: Q134, Q139C, Q139I, Q168B

Responses: High anger
Low anger

Resilience Level: Respondents were asked 6 items about resilience – 3 related to confidence in overcoming challenges and 3 related to enjoyment of challenges. Resilience confidence items included "I am very optimistic" and "I can bounce back from adversity easily." Resilience enjoyment included "I like overcoming challenges" and "I can easily control what happens in my life." Responses were provided on a 5-point scale, ranging from "Not at all" to "A great deal." Responses to these 6 items were recoded (i.e., "A great deal" was assigned a value of 1, "A lot" was assigned a value of .75, "Somewhat" was assigned a value of .5, "A little" was assigned a value of .25, and "Not at all" was assigned a value 0), and averages were calculated separately for both resilience confidence and resilience enjoyment. Theses scores were then averaged, and resilience level was trichotomized. Participants with an average score of .25 or less were categorized as 'Low' resilience, those with a score between .25 and .75 were categorized as 'Moderate' resilience, and those with an average score of .75 or higher were classified as 'High' resilience. Only low and moderate levels of resilience were presented in the tables.

Source: Q139A, Q139B, Q139J, Q168A, Q168C, Q168I

Responses: Low resilience
Moderate resilience
High resilience

Positive Affect, Past Week: Respondents were asked two items to measure positive affect in the past 7 days. These items were "I was happy" and "I was hopeful about the future." Response choices were provided on a 5-point scale, ranging from "Never" to "5-7 days." To create a positive affect scale, the responses were recoded (i.e., "5-7 days" was assigned a value of 1, "3-4 days" was assigned a value of .75, "1-2 days" was assigned a value of .5, "Less than 1 day" was assigned a value of .25, and "never" was assigned a value 0) and averaged. Positive affect level was then trichotomized based on cutoff values. Those with an average score of 0.25 or lower were classified as 'Low Positive Affect', those averaging 0.90 or higher were classified as 'High Positive Affect', and those in between .25 and .90 were classified as 'Moderate Positive Affect'.

Source: Q125A, Q125D

Responses: Low positive affect
Moderate positive affect
High positive affect

Counseling Need, Past 12 Months: Respondents were asked about perceived need for "counseling, therapy, or treatment from either a military or civilian mental health professional" in the past year. Response options were "Yes" and "No."

Source: Q129

Responses: Yes, needed counseling in past 12 months
No

Source of Counseling, Past 12 Months: Respondents were asked 7 items about sources of "counseling or mental health therapy/treatment" in the past year, including "military chaplain" and "self-help group such as AA." The 7 sources were also combined to form a measure of help from 'Any Counseling Professional'. Response options were "Yes" and "No."

Source: Q130A – Q130G

Responses: Yes, received counseling in past 12 months
No

Reasons for Help-Seeking, Past 12 Months: Respondents were asked about 7 concerns for which counseling was sought, including depression, anxiety, family problems, substance use problems, anger and stress management, as well as "other" reasons. Responses also included "I did not seek help from a mental health professional in the past 12 months." Respondents were able to select more than one response choice, with response options being "Yes" and "No."

Source: Q132

Responses: Yes, sought counseling for reason specified
No

Perceived Stigma for Help-Seeking: Respondents were asked about perceived damage to military career if counseling or therapy were sought, regardless of the reason for seeking counseling. Response options were presented on a 4-point scale, ranging from "It definitely would NOT damage a person's career" to "It definitely would damage a person's career." The top two response

options, "Definitely would" and "Probably would" were combined and presented in the tables to reflect opinions of perceived damage to military career for seeking counseling.

Source: Q131

Responses: Would damage career
Would not damage career

Stigma of Military-Provided Mental Health Services: Respondents were asked about how receiving mental health services through the military affected one's career for those who received it. Response options were presented on a 5-point scale, ranging from "Very negatively" to "Very positively." The two response options "Very negatively" and "Somewhat negatively" were combined and presented in the tables to reflect negative impact on military career for receiving mental health services through the military.

Source: Q133

Responses: Yes, negatively affected career
No, did not negatively affect career

VIII. Deployment and Combat Exposure

Combat Deployed, Past 12 Months: Respondents were asked about the duration of combat zone deployments in the past year. Combat zone deployment was defined as "deployment where you received imminent danger pay (IDP), hazardous duty pay, and/or combat zone tax exclusion benefits." Response choices were provided on an 8-point scale, ranging from "Not at all in the past 12 months" to "11 or 12 months." Response options were dichotomized to reflect whether or not a combat zone deployment had occurred in the past year.

Source: Q161

Responses: Yes, combat deployed in past 12 months
No

Total Number of Combat Deployments Since September 11, 2001: Respondents were asked about the number of combat zone deployments since 9/11: "How many combat zone deployments have you been on since September 11, 2001?" Response options were provided on a 6-point scale, ranging from "I have not had any combat zone deployments" to "7 or more combat zone deployments" since September 11, 2001. The top 3 response options, "3 or 4 combat zone deployments," "5 or 6 combat zone deployments," and "7 or more combat zone deployments" were combined to reflect "3 or more combat deployments." The bottom 3 responses were presented separately in the tables.

Source: Q159

Responses: 0 combat deployments
1 combat deployment
2 combat deployments
3 or more combat deployments

Total Length of Combat Deployments, Past 5 Years and Since September 11, 2001: Respondents were asked two items about the total duration of combat zone deployments in the past 5 years and since September 11, 2001: "Adding up all your combat zone deployments, about how long were you deployed for the periods listed below [in the past 5 years (60 months) / since September 11, 2001]?" The item responses were provided on an 8-point scale, ranging from "Less than 30 days" to "More than 48 months." The top 4 response options, "19 to 24 months," "25 to 36 months," "37 to 48 months," and "more than 48 months" were combined to reflect "More than 18 months." The bottom 4 response choices were presented separately in the tables.

Source: Q162A, Q162B

Responses: Less than 30 days
30 days to 6 months
7 to 12 months
13 to 18 months
More than 18 months

Among Deployed, Length of Longest Combat Deployment Since September 11, 2001: Respondents who had been combat deployed were asked about the length of longest single combat zone deployment since September 11, 2001. The item was presented on a 4-point scale, ranging

from "Less than 6 months" to "More than 18 months."

Source: Q160

Responses: Less than 6 months
6 to 12 months
13 to 18 months
More than 18 months

Non-Combat Deployed, Past 12 Months: Respondents were asked about the duration of non-combat deployments in the past year. Non-combat deployment was defined as "deployment where you did NOT receive imminent danger pay (IDP), hazardous duty pay, or combat zone tax exclusion benefits." Response choices were provided on an 8-point scale, ranging from "Not at all in the past 12 months" to "11 or 12 months." Response options were dichotomized to reflect whether or not a non-combat deployment had occurred in the past year.

Source: Q167

Responses: Yes, non-combat deployed in past 12 months
No

Total Number of Non-Combat Deployments Since September 11, 2001: Respondents were asked about the number of non-combat zone deployments since 9/11: "How many non-combat deployments have you been on since September 11, 2001?" Response options were provided on a 6-point scale, ranging from "I have not had any non-combat zone deployments" to "7 or more non-combat zone deployments" since September 11, 2001. The top 3 response options, "3 or 4 non-combat zone deployments," "5 or 6 non-combat zone deployments," and "7 or more non-combat zone deployments" were combined to reflect "3 or more non-combat deployments." The bottom 3 responses were presented separately in the tables.

Source: Q164

Responses: 0 non-combat deployments
1 non-combat deployment
2 non-combat deployments
3 or more non-combat deployments

Total Length of Non-Combat Deployments, Past 5 Years and Since September 11, 2001: Respondents were asked two items about the total duration of non-combat deployments in the past 5 years and since September 11, 2001: "Adding up all your non-combat zone deployments, about how long were you deployed for the periods listed below [in the past 5 years (60 months) / since September 11, 2001]?" The item responses were provided on an 8-point scale, ranging from "Less than 30 days" to "More than 48 months." The top 4 response options, "19 to 24 months," "25 to 36 months," "37 to 48 months," and "more than 48 months" were combined to reflect "More than 18 months." The bottom 4 response choices were presented separately in the tables.

Source: Q165A, Q165B

Responses: Less than 30 days
30 days to 6 months
7 to 12 months
13 to 18 months

More than 18 months

Length of Longest Non-Combat Deployment Since September 11, 2001: Respondents were asked about the length of longest single non-combat deployment since September 11, 2001. The item was presented on a 4-point scale, ranging from "Less than 6 months" to "More than 18 months."

Source: Q166

Responses: Less than 6 months
6 to 12 months
13 to 18 months
More than 18 months

Level of Combat Exposure: Respondents were asked 17 items to assess level of combat exposure across all combat zone deployments. The items asked participants to indicate the number of times they had experienced combat-related events, such as "I personally fired my weapon at the enemy," "My unit suffered causalities," and "I was wounded in combat." Response options were provided on a 5-point scale, ranging from "Never" to "More than 50 times." From these items, a sum score was created using each individual item (A through Q), where a response of "More than 50 times" was assigned a value of 4, "13 to 50 times" was assigned a value of 3, "4 to 12 times" was assigned a value of 2, "1 to 3 times" was assigned a value of 1, and "Never" was assigned a value of 0. This sum score was trichotomized, with "10 and above=High Exposure," "1 to 9=Moderate Exposure," and "0=Low Exposure." Those who had not been deployed since September 11, 2001 according to Q148 or Q159 were categorized as "No combat deployments."

Source: Q148, Q159, Q163A – Q163Q

Responses: High (10 times or more)
Moderate
Low
No Combat Deployments

High Stress Upon Returning from Deployment: Respondents were asked about how much stress they experienced upon returning home from their most recent deployment: "For your most recent deployment, how much stress did you experience upon returning home?" Response options were provided on a 5-point scale, ranging from "None at all" to "A great deal." Response categories were combined for the top two choices, "A great deal" and "A fairly large amount" and reported as "High Stress Upon Returning from Deployment" in the tables.

Source: Q152

Responses: A great deal/A fairly large amount
Some or a moderate amount/A little/None at all

Theater of Operations: Respondents were asked about involvement in 13 missions since September 11, 2001, including "Operation Iraqi Freedom (OIF)," "Operation Enduring Freedom (OEF)," and "Operation New Dawn (OND)." Response choices were presented as "Yes" and "No." Responses were combined for those who 1) served in Operations Iraqi Freedom, Enduring Freedom, or New Dawn, 2) were combat deployed since 9/11 but did not serve in OIF, OEF, or OND, and 3) were not combat deployed since 9/11.

Source: Q147

Responses: Combat deployed since 9/11 and served in Operations Iraqi Freedom, Enduring Freedom, or New Dawn

Combat deployed since 9/11 and did not serve in Operations Iraqi Freedom, Enduring Freedom, or New Dawn

Not combat deployed since 9/11

Deployment-Related Change in Substance Use: Respondents were asked 7 items about change in substance use during most recent deployment, including change in use of alcohol, cigarettes, chewing/smokeless tobacco, cigars, prescription medications, marijuana, and opium/heroin/morphine. Response choices were provided on a 4-point scale, ranging from "I have never used" to "Used more when deployed."

Source: Q156A – Q156G

Responses: Used more when deployed

Used about the same when deployed

Used less when deployed

Never used

Deployment-Related Prescribed Medications: Respondents were asked about the timing of prescription medications in relation to deployment, including stimulants, sedatives, pain relievers, anabolic steroids, and anti-depressants. Response choices were provided for three timeframes regarding the deployment cycle ("Within 3 months before a deployment," "During a deployment," and "Within 3 months following return from a deployment") as well as provided with a "Not prescribed this" option.

Source: Q158A – Q158E

Responses: Within 3 months before a deployment

During a deployment

Within 3 months following return from a deployment

Not prescribed this within 3 months before, during, or after a deployment

Deployment-Related Change in Interpersonal Relationship Conflict: Respondents were asked about change in interpersonal relationship conflict since most recent deployment: "Following your most recent deployment, how did your relationship change with your spouse or significant other (fiancé, boyfriend, or girlfriend)?" Response options were presented on a 3-point scale, ranging from "We argued less/had less conflict/got along better" to "We argued more/had more conflict." There was also a separate response choice for those who did not have a spouse or significant other.

Source: Q153

Responses: Argued more/had more conflict

Got along about the same

Argued less/had less conflict/got along better

Did not have a spouse or significant other

Deployment-Related Change in Interpersonal Relationship Status: Respondents were asked about change in interpersonal relationship status since most recent deployment: "Since your most recent deployment, have you divorced or separated from your spouse or significant other?" Response options were "Yes, divorced," "Yes, separated," "No change," and "I do not have a spouse/significant other."

Source: Q154

Responses: Divorced
Separated
No change
Did not have a spouse or significant other

Possible Traumatic Brain Injury (TBI): Respondents were asked three sets of items to assess need for further evaluation of mild TBI, based on the Brief Traumatic Brain Injury Screen (BTBIS; Schwab et al., 2006). The first set of items asked about 6 events experienced during most recent deployment (combat or non-combat) including "blast or explosion, vehicular accident/crash, fragment wound above the shoulders, bullet wound above the shoulders, a fall serious enough to need medical attention, and another type of a TBI-related injury." A response of "Yes" to at least one item verified occurrence of an injury. The second set of items asked about 8 symptoms experienced during or after most recent deployment, including "memory problems or lapses, balance problems, dizziness, ringing in the ears, sensitivity to bright light, irritability, headaches, and nightmares." A response of "Yes" to at least one item verified the presence of TBI-related symptoms. The final set of items asked whether an injury received during most recent deployment resulted in any of the following seven outcomes: "lost consciousness or got knocked out for less than a minute, lost consciousness or got knocked out for 1 to 20 minutes, lost consciousness or got knocked out for more than 20 minutes, felt dazed, confused, or saw stars, didn't remember the event, concussion or symptoms of a concussion, and head injury." If the respondent answered "Yes" to at least one of the injury outcome items, in addition to verification of at least one injury-related event and one symptom based on the first two sets of items, further evaluation is recommended for possible TBI.

Source: Q151A – Q151F, Q155A – Q155H, Q157A – Q157G

Responses: Possible TBI
Unlikely TBI

Deployment-Related Suicidal Ideation: Respondents were asked two items about suicide ideation to determine whether and when it had occurred. If respondents answered "Yes" to lifetime suicide ideation, they were asked a follow-up item about when the ideation had occurred. Deployment-related timeframes included "Within 6 months before leaving for deployment/mission," "During a deployment/mission," and "Within 6 months after returning from a deployment/mission."

Source: Q137, Q137A

Responses: Within 6 months before leaving for deployment
During a deployment
Within 6 months after returning from a deployment

Deployment-Related Suicide Attempt: Respondents were asked two items about suicide attempts to determine whether and when it had occurred. If respondents answered "Yes" to lifetime

suicide attempt, they were asked a follow-up item about when the attempt had occurred. Deployment-related timeframes included "Within 6 months before leaving for deployment/mission," "During a deployment/mission," and "Within 6 months after returning from a deployment/mission."

Source: Q138, Q138A

Responses: Within 6 months before leaving for deployment
During a deployment
Within 6 months after returning from a deployment

Reasons for Being Unable to Deploy, Past 12 Months: Respondents were asked two items about reasons for being unable to deploy in the past 12 months. The 11 reasons presented included "I was pregnant," "I needed an HIV test," and "I had mental health problems." Response choices were "Yes" and "No."

Source: Q142, Q142A

Responses: Yes, was unable to deploy in past 12 months
No

Reasons for Returning Early from Mission, Past 12 Months: Respondents were asked two items about reasons for returning early from deployment in the past 12 months. The 11 reasons presented included "I was pregnant," "I needed an HIV test," and "I had mental health problems." Response choices were "Yes" and "No."

Source: Q143, Q143A

Responses: Yes, returned early from deployment in past 12 months
No

IX. Service Commitment

Level of Service Commitment: Respondents were asked 3 items to assess level of service commitment to the military. The items assessed job satisfaction, likelihood to remain on active military duty beyond current enlistment term, and likelihood to stay on active military duty for at least 20 years. The job satisfaction item was presented on a 4-point scale, ranging from "Very dissatisfied" to "Very satisfied." The likelihood to remain items were presented on a 5-point scale, ranging from "Very unlikely" to "Very likely." To create a scale of service commitment, the two items measuring likelihood to remain in the service were averaged together to create a single score. The job satisfaction item and the likelihood to remain item were then converted to comparable scales, averaged together, and multiplied by 100 to represent percentage of service commitment, and then divided into 4 categories: 'Detached' (scores less than 20), 'Low' service commitment (scores between 20 and 50), 'Moderate' service commitment (scores between 51 and 85), and 'High' service commitment (scores greater than 85).

Source: Q9, Q10, Q11

Responses: Detached
Low
Moderate
High

Work Disruption from Personal Life Demands: Respondents were asked two items based on a work-family conflict scale (Netemeyer, Boles, & McMurrian, 1996) about the extent to which work was disrupted as a result of personal issues: 1) "The demands of my personal life, family, or spouse/partner interfere with military work-related activities" and 2) "Things I want to do at my military work do not get done because of the demands of my personal life, family, or spouse/partner." Response options were provided on a 4-point scale, ranging from "Strongly disagree" to "Strongly agree." The two items were averaged together to determine two levels of work disruption, low/moderate interference (mean score less than 2.5) and high interference (mean score of 2.5 or greater).

Source: Q37D, Q37E

Responses: Low/Moderate interference
High interference

Work-Related Productivity Loss Due to Injury, Accident, or Illness, Past 12 Months: Respondents were asked 3 items about the number of work days missed in the past 12 months "due to an injury from an on-the-job accident, because of an illness, and because of a personal accident." Response choices were presented on an 8-point scale, ranging from "None" to "More than 20 days." The top response category, "More than 20 days" was assigned a value of 25, and the categories with ranges were assigned the midpoint within each response choice ("12 to 20 days" was assigned a value of 16, "7 to 11 days" was assigned a value of 9, "4 to 6 days" was assigned a value of 5), and "3 days" was assigned a value of 3, "2 days" was assigned a value of 2, "1 day" was assigned a value of 1, and "None" was assigned a value of 0. From these 3 items, a sum score was created to represent a scale of total number of days contributing to work productivity loss in the past year. The mean was presented in the tables for the analysis.

Source: Q29A, Q29B, Q29C

Responses: 0 – 75 range

Appendix B: Privacy and Consent Statement

Please read the information in the statement below. Do you consent to participate?

Yes No

If you experience technical difficulties with the survey, please call the survey contractor (ICF International) toll-free at 1-877-713-2816 or send an e-mail to our helpdesk at 2011HRBSurvey@icfi.com.

RCS Number: DD-HA(AR)2189
Expiration Date: June 30, 2013

Privacy Act Statement: This information is provided in accordance with Public Law 93-579, the Privacy Act of 1974.

Authority: Authority for the survey includes, but is not limited to: DODD 1010.4, Drug and Alcohol Abuse. The Under Secretary of Defense for Personnel & Readiness shall, in coordination with the Office of the Assistant Secretary of Defense (Health Affairs) (OASD (HA)) and the DoD Coordinator for Drug Enforcement Policy and Support, periodically assess the extent of drug and alcohol abuse. DODD 1010.10, Health Promotion. Directive establishes a health promotion policy within the Department of Defense to improve and maintain military readiness and the quality of life of DoD personnel and other beneficiaries. The Office of the Assistant Secretary of Defense (Health Affairs) (OASD (HA)) shall coordinate health data collection efforts to ensure standardization and facilitate joint studies across DoD components.

Purpose: This is a research study for the Department of Defense (DoD) designed to provide a comprehensive, nationwide assessment of health-related behaviors for active duty service members.

Routine Uses: None, except those generally permitted under 5 USC 552a(b) of the Privacy Act.

Selection: You were randomly selected from active duty personnel to represent your Service branch in this important research.

Confidentiality: Your answers will be seen only by civilian researchers. No military personnel will be able to see them. You will submit your completed questionnaire directly to a civilian scoring contractor, so no member of the military will ever see your completed questionnaire. The information you provide will be combined with that from other military personnel to prepare a statistical report. At no time will your individual data be reported. This questionnaire is anonymous.

Participation: Your participation in this survey is voluntary and anonymous. We hope that you will choose to participate, however no negative consequences to you or your assignments, promotions, or benefits to which you are entitled will result should you choose not to, nor will there be any negative consequences from your Command chain. If you choose to participate, we encourage you to answer all of the questions honestly, but you are not required to answer any question to which you object.

Risks: If you would like to seek counseling or other mental or behavioral health care, many resources are available to you, including:

- Military OneSource, a 24/7 resource for Military Members, Spouses & Families http://www.militaryonesource.com
- The Health.mil website at http://www.health.mil/MHSFor/ServiceMembersandFamilies.aspx offers links to mental and behavioral health care sources
- The Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury hosts a 24/7 Outreach Center: (toll-free) 1-866-966-1020 or http://www.dcoe.health.mil/24-7help.aspx
- The Real Warriors Campaign at http://www.realwarriors.net offers links and information
- Afterdeployment.org http://www.afterdeployment.org offers wellness resources for the military community

If you have any suicidal thoughts, please seek help immediately. We encourage you to contact your unit's chaplain or a mental health professional. Also, you can contact a civilian counseling hotline: 1-800-784-2433 (1-800-SUICIDE: this is an anonymous, civilian hotline).

Length: The survey questionnaire will take you about 45 minutes to one hour to complete.

Consent: In order to protect your identity, we do not request that you sign a consent form. In returning a completed questionnaire, you will have indicated your agreement to participate.

If you experience technical difficulties with the survey, or if you have questions about the survey or about your rights as a survey participant, please call the survey contractor (ICF International) toll-free at 1-877-713-2816 or send an e-mail to our helpdesk at 2011HRBSurvey@icfi.com.

A support letter from your leadership is posted on the following link:

http://www.tricare.mil/tma/StudiesEval.aspx

If you do not wish to complete the survey and you would like to opt-out of any further messages, click here or call the ICF helpdesk toll-free at 1-877-713-2816.

Appendix C:

2011 Health Related Behaviors Survey of Active Duty Military Personnel

Web-based Questionnaire

[PROGRAMMING COMMENTS ARE CONTAINED IN BRACKETS]
[RESPONDENT-FACING ITEMS BEGIN HERE]

PLEASE NOTE:
This survey will take about 40 minutes to complete. Please try to complete it in one session. To preserve your privacy, if you stop before you are finished with the survey, your answers will be erased and you will need to start the survey over from the beginning.

INSTRUCTIONS:

1. **Please use the survey navigation buttons below (*Next* and *Back*) to move through the survey and do NOT use your browser's forward and back buttons.**

2. **Please try to be as accurate and honest as possible.**

Thank you for agreeing to take our survey!

BASE: ALL RESPONDENTS - MANDATORY
Q1. In which Service are you serving?

[UNLESS OTHERWISE NOTED, RESPONSES ARE PRESENTED VERTICALLY ALIGNED]
[UNLESS OTHERWISE NOTED, NUMBER CODES FOR THE RESPONSES WERE NOT PRESENTED WITH THE RESPONSE LABEL.]
1. Army [SKIP TO 2C]
2. Navy [SKIP TO 2C]
3. Marine Corps [SKIP TO 2C]

4. Air Force [SKIP TO 2C]
5. Coast Guard [THIS CODE WAS AUTOFILLED BASED ON CG URL LINK]

[PRESENT Q2A AND Q2B ON SAME SCREEN]

BASE: COAST GUARD (Q1=5) - MANDATORY

Q2A. Within which United States Coast Guard district is your unit located? Please select ONE. **Click here to see a map of Coast Guard**

1. Headquarters - Washington, DC [need to align codes in dataset to match these]
2. District 1
3. District 5
4. District 7
5. District 8
6. District 9
7. District 11
8. District 13
9. District 14
10. District 17
11. Other Command: _____ [Q2A_a]

BASE: COAST GUARD (Q1=5) - MANDATORY

Q2B Are you serving on shore, sea, or air duty? Please select ONE.

1. Shore duty
2. Sea duty
3. Air duty

BASE: ALL RESPONDENTS - MANDATORY

Q2C. In which type of unit do you serve? Please select ONE response only. If you are in a unit which might be classified as more than one type, which most often describes the work that you do in the unit?

[UNLESS OTHERWISE NOTED IN THIS DOCUMENT THE 'Decline to Answer' RESPONSE WAS **NOT** PRESENTED ON THE INITIAL SCREEN. IF NO RESPONSE WAS SELECTED, THE ITEM WAS PRESENTED A SECOND TIME BUT THIS TIME WITH A DECLINE TO ANSWER ON THE SUBSEQUENT SCREEN.]

1. Infantry (including airborne, air assault, amphibious assault forces)
2. Armored/Tank
3. Artillery/Naval gun crew
4. Combat engineer
5. Aircraft aircrew
6. Aircraft/Missile command and control
7. Reconnaissance, surveillance, or target acquisition

8. Communications, signals, or military intelligence
9. Headquarters, command, or administrative
10. Logistics (including acquisition, supply or personnel transportation, storage, or distribution)
11. Maintenance or repair - computers or electronics
12. Maintenance or repair - vehicles
13. Maintenance or repair - ship, aircraft, missile, or space systems
14. Maintenance or repair - other
15. Food preparation or food service
16. Medical, dental, or other healthcare
17. Recruitment
18. Security, military police, maritime enforcement/rescue
19. Training/Education
20. Other type of unit not listed
21. Decline to answer

BASE: ALL RESPONDENTS - MANDATORY
Q2D. What is your Active Duty status?

1. Regular Active Duty
2. Reserve member serving on Active Duty
3. National Guard member serving on Active Duty
4. Not currently serving on Active Duty

[PRESENT Q3 AND Q4 ON SAME SCREEN]

BASE: ALL RESPONDENTS - MANDATORY
Q3 What is your current pay grade?

1. E1 - E4
2. E5 - E6
3. E7 - E9
4. Officer Trainee
5. WO1 - WO5
6. O1 - O3
7. O4 - O10

BASE: ALL RESPONDENTS - MANDATORY
Q4. Are you…?

1. Male
2. Female

[PRESENT Q5 AND Q6 ON SAME SCREEN]

BASE: ALL RESPONDENTS

Q5 How long have you been on active duty? If you had a break in service, count current time and time in previous tours, but NOT time during the break in service.

Q5A: **Years:** _____ [2 DIGITS; 0 - 65] Q5B: **Months:** _____ [2 DIGITS; 0 - 11]

BASE: ALL RESPONDENTS

Q6 <u>As of today</u>, how many months have you been assigned to your CURRENT permanent post, base, ship, or duty station? Please include any extension of your present tour in your count. However, do NOT count previous tours at this duty station.

1. 1 month or less
2. 2 - 3 months
3. 4 - 6 months
4. 7 - 12 months
5. 13 - 18 months
6. 19 - 24 months
7. 25 - 36 months
8. More than 3 years

[PRESENT Q7 AND Q8 ON SAME SCREEN]

BASE: ALL RESPONDENTS

Q7 How many months during the PAST 12 MONTHS have you been AWAY from your permanent duty station (berthed out of the area, not at home), not including medical or personal leave?

1. 0 months
2. Less than 1 month
3. 1 or 2 months
4. 3 or 4 months
5. 5 or 6 months
6. 7 or 8 months
7. 9 or 10 months
8. 11 or 12 months

BASE: ALL RESPONDENTS - MANDATORY

Q8 What is the ZIP code or APO or FPO number for your CURRENT post, base, ship, or other duty station where you spend most of your duty time?

_____ [5 DIGITS]

BASE: ALL RESPONDENTS

Q9 All in all, how satisfied or dissatisfied are you with your current primary MOS / PS / Rating / Designator / AFSC?

1. Very satisfied
2. Satisfied
3. Dissatisfied
4. Very dissatisfied

[PRESENT Q10 ON SAME SCREEN AS Q11]

BASE: ALL RESPONDENTS

Q10 Assuming you could stay on active duty beyond your current enlistment term, how likely is it that you would choose to do so?

1. Very likely
2. Likely
3. Neither likely nor unlikely
4. Unlikely
5. Very unlikely

BASE: ALL RESPONDENTS

Q11 If you could stay on active duty as long as you want, how likely is it that you would choose to serve in the military for at least 20 years?

1. I already have 20 or more years of service
2. Very likely
3. Likely
4. Neither likely nor unlikely
5. Unlikely
6. Very unlikely

BASE: ALL RESPONDENTS

Q12 What is your highest level of education?

1. I did not graduate from high school
2. GED or ABE certificate
3. High school diploma
4. Trade or technical school graduate
5. Some college but not a 2- or 4-year degree
6. 2-year college degree (AA or equivalent)
7. 4-year college degree (BA, BS, or equivalent)
8. Graduate or professional study but no graduate degree

9. Graduate or professional degree

[PRESENT Q13, Q14, AND Q15 ON SAME SCREEN]

BASE: ALL RESPONDENTS
Q13 Are you Hispanic or Latino?

1. No, not Hispanic or Latino
2. Yes, Hispanic or Latino

BASE: ALL RESPONDENTS
Q14 What is your race? Please select ONE OR MORE responses that best characterize you.

[MULTIPLE RESPONSE]

1. American Indian or Alaska Native
2. Asian
3. Black or African American
4. Native Hawaiian or other Pacific Islander
5. White

BASE: ALL RESPONDENTS
Q15 How old are you?

_____ [2 DIGITS; 18 - 65]

BASE: ALL RESPONDENTS
Q16 About how tall are you <u>without shoes</u> on?

Q16A: **Feet:** ____ [1 DIGIT; 3 – 7] Q16B: **Inches:** _____ [2 DIGITS; 0 - 11]

BASE: ALL RESPONDENTS
Q17 How much do you weigh <u>without shoes</u> on? (If you are currently pregnant, what was your typical weight before pregnancy?)

Pounds: _____ [3 DIGITS; 0 - 500]

BASE: ALL RESPONDENTS - MANDATORY
Q18 Are you currently married?

1. No
2. Yes [SKIP TO Q18B]

BASE: NOT CURRENTLY MARRIED (Q18=1)

Q18A Have you ever been married?

1. No, never married
2. Yes, but now divorced
3. Yes, but now widowed

BASE: CURRENTLY MARRIED (Q18=2)

Q18B Are you currently separated or have you filed for divorce from your spouse?

1. No
2. Yes

[IF CURRENTLY MARRIED (Q18=2) PRESENT Q19 AND Q20 ON SAME SCREEN.]

BASE: ALL RESPONDENTS

Q19 Is your spouse or significant other now living with you at your present duty location?

1. I do not have a spouse or significant other [ONLY PRESENT OPTION IF Q18=1; SKIP TO Q21]
2. No, not living with me
3. Yes, living with me

BASE: ALL MARRIED RESPONDENTS OR NOT MARRIED AND HAVE A SIGNIFICANT OTHER (Q18=2 OR Q19=2,3)

Q20 Is your spouse or significant other also on active duty?

1. I do not have a spouse or significant other [ONLY PRESENT OPTION IF Q18=1]
2. No, not on active duty
3. Yes, on active duty

[Q21 AND Q22 PRESENTED ON SAME SCREEN]

BASE: ALL RESPONDENTS

Q21 Are you <u>currently</u> enrolled in a mandatory weight control/management program?

1. No
2. Yes

BASE: ALL RESPONDENTS - MANDATORY

Q22 Did you have to lose weight to join the military?

1. No [SKIP TO Q23]
2. Yes
3. Decline to answer [SKIP TO Q23]

BASE: HAD TO LOSE WEIGHT TO JOIN MILITARY (Q22=2)

Q22A If you had to lose weight, how much weight did you have to lose to join the military?

1. Less than 5 pounds
2. 5 to 9 pounds
3. 10 to 14 pounds
4. 15 to 19 pounds
5. 20 to 29 pounds
6. 30 or more pounds

BASE: ALL RESPONDENTS

Q23 During the PAST 30 DAYS, how often did you do the following kinds of physical activity? Please select ONE response per row.

[GRID PRESENTATION – UNLESS OTHERWISE NOTED, A QUESTION PRESENTED IN A GRID FORMAT HAS THE RESPONSES ANCHORING THE COLUMNS AND THE LETTERED ITEMS IN THE ROWS. ALSO, UNLESS OTHERWISE NOTED, NUMBER CODES FOR THE RESPONSES WERE NOT PRESENTED WITH THE RESPONSE LABEL.]

1. **About every day**
2. **5 - 6 days a week**
3. **3 - 4 days a week**
4. **1 - 2 days a week**
5. **Less than 1 day a week**
6. **Not at all in the past 30 days**

a. **Moderate Physical Activity** – exertion that raises heart rate and breathing, but you should be able to carry on a conversation comfortably during the activity
b. **Vigorous Physical Activity** – exertion that is high enough that you would find it difficult to carry on a conversation during the activity
c. **Strength Training** – including using weights or resistance training to increase muscle strength

BASE: ALL RESPONDENTS

Q24 During the PAST 30 DAYS, on the days you did the following, how long PER DAY did you typically do each? Please select ONE response per row.

[GRID PRESENTATION]

1. **60 or more minutes**
2. **30 to 59 minutes**
3. **20 to 29 minutes**
4. **Less than 20 minutes**
5. **Never in the past month**

a. **Moderate Physical Activity** – exertion that raises heart rate and breathing, but you should be able to carry on a conversation comfortably during the activity
b. **Vigorous Physical Activity** – exertion that is high enough that you would find it difficult to carry on a conversation during the activity
c. **Strength Training** – including using weights or resistance training to increase muscle strength

BASE: ALL RESPONDENTS - MANDATORY

Q25 Do you have any children under age 18 living with you at your current duty station?

1. No [SKIP TO Q26]
2. Yes
3. Decline to answer [SKIP TO Q26]

[PRESENT Q25A AND Q25B ON SAME SCREEN]

BASE: HAVE CHILDREN UNDER 18 AT CURRENT DUTY STATION (Q25=2)

Q25A How many children under age 18 live with you at your current duty station?

_____ [2 DIGITS; 1 - 20]

BASE: HAVE CHILDREN UNDER 18 AT CURRENT DUTY STATION (Q25=2)

Q25B Are the children under age 18 who are living with you at your current duty station…? Please select ONE OR MORE responses that apply to you.

[MULTIPLE RESPONSE]

1. Your own biological children
2. Step-children
3. Adoptive children
4. Foster children
5. Other children

[PRESENT Q25C AND Q25D ON SAME SCREEN]

BASE: HAVE CHILDREN UNDER 18 AT CURRENT DUTY STATION (Q25=2)

Q25C For the children under age 18 who are living with you, how often do you promote/provide healthy food and beverage choices for meals and snacks?

1. Never
2. Rarely
3. Sometimes
4. Often
5. Always

BASE: HAVE CHILDREN UNDER 18 AT CURRENT DUTY STATION (Q25=2)

Q25D How easy or difficult would it be for the children under age 18 who are living with you at your current duty station to gain access to prescription medications within the home that are not intended for them?

1. Very easy
2. Somewhat easy
3. Somewhat difficult
4. Very difficult
5. No such prescription medications

BASE: ALL RESPONDENTS

Q26 Have you been told by a doctor or other health care professional that you have the following? Please select ONE response per row.

[GRID PRESENTATION]

1. **No**
2. **Yes, within the past 2 years**
3. **Yes, more than 2 years ago**

a. High blood pressure
b. High blood sugar
c. High cholesterol
d. Low HDL Cholesterol (low amounts of good cholesterol)
e. High triglycerides (blood fat)

BASE: ALL RESPONDENTS

Q27 In a TYPICAL WEEK, how often do you eat or drink the following foods? Please select ONE response per row.

[GRID PRESENTATION]

1. **3 or more times per day**
2. **2 times per day**
3. **1 time per day**
4. **3 - 6 times per week**
5. **1 - 2 times per week**
6. **Rarely/ Never**

[RANDOMIZE A-K]

a. FRUIT: fresh, frozen, canned, or dried
b. STARCHY VEGETABLES: white potatoes, corn, peas
c. VEGETABLES: fresh, frozen, canned, cooked or raw (not fried)
d. WHOLE GRAINS: rye, whole grain bread, brown or wild rice, whole wheat pasta, oatmeal, etc.
e. DAIRY: milk, yogurt, cheese, etc.
f. LEAN PROTEIN: baked or broiled lean (low fat) meat, eggs, natural peanut butter, nuts, beans or legumes, tofu
g. SNACK FOODS: potato chips, corn chips, pretzels
h. SWEETS: chocolate, candy, cake, pie, breakfast bars, etc.
i. SUGARY DRINKS: juice, regular soda, Kool-Aid, Yoo-hoo, sports drinks, etc.
j. CAFFEINATED DRINKS: coffee, tea, or energy drinks (Red Bull, Monster, 5-Hour Energy, Power Shots, etc.)
k. FRIED FOODS: French fries, fried chicken, donuts, etc.

BASE: ALL RESPONDENTS

Q28 In the PAST 12 MONTHS, how often did you take any of the following supplements? Please select ONE response per row.

[GRID PRESENTATION]

1. **Two or more times a day**
2. **Once a day**
3. **Every other day**
4. **Once a week**
5. **Once a month**
6. **Never in past year**

a. Multiple vitamins and minerals (such as Centrum, One-A-Day)
b. Individual vitamins or minerals (such as calcium, iron, selenium, vitamin D)
c. Antioxidants (such as combinations of beta-carotene, vitamin E, vitamin C)

d. Body-building supplements that are legal (such as amino acids, protein powders, Creatine, "Andro", Nitric oxide boosters)
e. Herbal supplements (such as Ginkgo biloba, Echinacea, Ginseng)
f. Weight loss products (such as Ripped Fuel, caffeine, Dexatrim, Lipo 6, Metabolife, QuickTrim, Xenadrine)
g. Fish Oil

BASE: ALL RESPONDENTS

Q29 On how many work days in the PAST 12 MONTHS did the following happen to you? Please select ONE response per row.

[GRID PRESENTATION]

1. **More than 20 days**
2. **12 to 20 days**
3. **7 to 11 days**
4. **4 to 6 days**
5. **3 days**
6. **2 days**
7. **1 day**
8. **None**

a. I missed work due to an injury from an on-the-job accident
b. I did not come to work at all because of an illness
c. I did not come to work at all because of a personal accident

BASE: ALL RESPONDENTS

Q30 How many times have the following happened to you? Please select ONE response per row.

[GRID PRESENTATION]

1. **4 or more times**
2. **3 times**
3. **2 times**
4. **1 time**
5. **0 times**

a. Concussion/Brain injury before joining the military
b. Concussion/Brain injury since joining the military
c. Back injury before joining the military
d. Back injury since joining the military

BASE: ALL RESPONDENTS

Q31 In the PAST WEEK, have you had any of the following symptoms? Please select ONE response per row.

[GRID PRESENTATION]

1. **No**
2. **Yes**

[RANDOMIZE A-H]

a. Memory problems or lapses
b. Balance problems
c. Dizziness
d. Ringing in the ears
e. Sensitivity to bright light
f. Irritability
g. Headaches
h. Nightmares

[PRESENT Q32 AND Q33 ON SAME SCREEN]

BASE: ALL RESPONDENTS

Q32 Are you current on your annual health assessment requirements (e.g. physicals, mammograms, etc.)?

1. No
2. Yes
3. Not sure

BASE: ALL RESPONDENTS

Q33 In the PAST 30 DAYS, how often did poor physical health keep you from doing your usual activities, such as work or recreation?

1. About every day
2. 5 - 6 days a week
3. 3 - 4 days a week
4. 1 - 2 days a week
5. 2 - 3 days in the past 30 days
6. Once in the past 30 days
7. Not at all in the past 30 days

[PRESENT Q34 AND Q35 ON SAME SCREEN]

BASE: ALL RESPONDENTS

Q34 In the PAST 30 DAYS, which of the following have prevented you from exercising as much as you would like? Please select ONE OR MORE responses that apply to you.

[MULTIPLE RESPONSE – RANDOMIZE 1-8; 9-10 PRESENTED LAST]

1. Not enough time
2. Absence/Inconvenience of exercise facilities
3. The mission I've been assigned
4. Policy/Command took precedence
5. I had an injury
6. I don't like to exercise
7. I haven't had anyone to work out with at times I could
8. The demands of my personal/family life
9. Another reason
10. I exercise as much as I like

BASE: ALL RESPONDENTS

Q35 Did you pass your most recent physical fitness test?

1. No
2. Yes
3. I have not yet had a physical fitness test since joining the military
4. I was exempt from my most recent physical fitness test

[PRESENT Q36 AND Q37 ON SAME SCREEN]

BASE: ALL RESPONDENTS

Q36 In the PAST 12 MONTHS, has a medical doctor or other health care professional advised you to quit smoking or using other kinds of tobacco?

1. No
2. Yes
3. Don’t smoke

BASE: ALL RESPONDENTS

Q37 The statements below are about how your military work/job and your personal life or family may affect one another. How much do you agree or disagree with each of the following statements? Please select ONE response per row.

[GRID PRESENTATION]

1. **Strongly agree**
2. **Somewhat agree**
3. **Somewhat disagree**
4. **Strongly disagree**

a. The amount of time my military job takes up makes it difficult to fulfill personal or family responsibilities.
b. Due to military work-related duties, I have to make changes to my plans for personal or family activities.
c. My military job produces strain that makes it difficult to fulfill personal or family responsibilities.
d. The demands of my personal life, family, or spouse/partner interfere with military work-related activities.
e. Things I want to do at my military work do not get done because of the demands of my personal life, family, or spouse/partner.

BASE: ALL RESPONDENTS - MANDATORY

Q38 The next few questions ask about drinking alcoholic beverages which include liquor, such as whiskey or gin, mixed drinks, beer, wine, wine coolers, and any other type of alcoholic beverage. Please remember that your responses are ANONYMOUS. We would like you to answer as honestly and accurately as possible.

First, in asking about drinks you've had, ONE drink is the equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor. A 40-ounce beer would count as 3 drinks, or a cocktail drink with 2 shots would count as 2 drinks.

Have you had at least 12 alcoholic drinks over your ENTIRE LIFE?

1. No [SKIP TO Q39]
2. Yes
3. Decline to answer [SKIP TO Q39]

BASE: HAD AT LEAST 12 ALCOHOLIC DRINKS IN ENTIRE LIFE (Q38=2)

Q38A Have you had at least 12 alcoholic drinks during any single year of your life?

1. No
2. Yes

BASE: ALL RESPONDENTS - MANDATORY

Q39 In the PAST 12 MONTHS (365 days), on how many different DAYS would you estimate that you drank <u>any</u> type of alcoholic beverage? Your best guess is fine.

Number of DAYS you drank any type of alcohol in PAST 12 MONTHS (0 TO 365):
_____ [3 DIGITS; 0 – 365; IF Q39 = 0, SKIP TO Q55]
1.Decline to answer [PRESENTED ON INITIAL QUESTION SCREEN]

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0/Decline to Answer)

Q40 In the PAST 12 MONTHS, on those days that you drank alcoholic beverages, on the average, how many drinks did you have? NOTE: One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor. A 40-ounce beer would count as 3 drinks, or a cocktail drink with 2 shots would count as 2 drinks.

Average number of DRINKS you drank per day when you did drink: _____ [2 DIGITS; 0 - 50]

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0)

Q41 In the PAST 12 MONTHS, on how many DAYS did you have <u>5 or more</u> drinks of any alcoholic beverage? Your best guess is fine.

Number of DAYS you drank 5 or more drinks of alcohol in PAST 12 MONTHS (0 to 365):
_____ [3 DIGITS; 0 - 365]

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0) - MANDATORY

Q42 During the PAST 12 MONTHS, how often did you drink enough alcohol to feel drunk?

1. I did not drink enough alcohol to feel drunk in the past 12 months [SKIP TO Q43]
2. Once or twice in the past 12 months
3. 3 to 6 times in the past 12 months
4. 7 to 11 times in the past 12 months
5. 1 to 3 times a month
6. 1 or 2 times a week
7. 3 or 4 times a week
8. Every day or nearly every day
9. Decline to answer [SKIP TO Q43]

BASE: GOT DRUNK AT LEAST ONCE IN PAST YEAR (Q42=2-8)

Q42A If you drank enough alcohol to <u>feel drunk</u> in the PAST 12 MONTHS, how many drinks did it typically take for you to feel drunk?

Number of drinks it typically takes for you to feel drunk: _____ [2 DIGITS; 0 - 20]

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0)

Q43 Here are some things that might happen to people while or after drinking, or because of using alcohol. How many times in the PAST 12 MONTHS did each of the following happen to you? Please select ONE response per row.

[GRID PRESENTATION]

1. **3 or more times**
2. **2 times**
3. **1 time**
4. **0 times**

[RANDOMIZE A-M]

a. I found it harder to handle my problems because of my drinking.
b. I received UCMJ punishment (e.g., Court Martial, Article 15, Captain's Mast, Office Hours, Letter of Reprimand, etc.) because of my drinking.
c. I was arrested for a drinking incident not related to driving.
d. I had trouble on the job because of my drinking.
e. I didn't get promoted because of my drinking.
f. I got a lower score on my efficiency report or performance rating because of my drinking.
g. I hit my spouse/significant other after having too much to drink.
h. I got into a fight where I hit someone other than a member of my family when I was drinking.
i. My spouse or live-in fiancé/boyfriend/girlfriend threatened to leave me or left me because of my drinking.
j. My spouse or live-in fiancé/boyfriend/girlfriend asked me to leave because of my drinking.
k. I did something sexually that I regretted.
l. I had trouble with the police (civilian or military) because of my drinking.
m. I spent time in jail, stockade, or brig because of my drinking.

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0)

Q44 How many times in the PAST 12 MONTHS did each of the following happen to you? Please select ONE response per row.

[GRID PRESENTATION]

1. **3 or more times**
2. **2 times**
3. **1 time**
4. **0 times**

[RANDOMIZE A-K]

a. I operated power tools or machinery when I had too much to drink.
b. I drove a car or other vehicle when I had too much to drink.
c. I was arrested for driving under the influence of alcohol.
d. I rode in a car or other vehicle driven by someone who had too much to drink.
e. I drove or rode in a boat, canoe, or other watercraft when I had too much to drink.
f. I was hurt in an accident because of my drinking (e.g., vehicle, work, other).
g. My drinking caused an accident where someone else was hurt or property was damaged.
h. I received detoxification treatment in a hospital or residential center because of my drinking.
i. I had an illness connected with my drinking that kept me from duty for a week or longer.
j. I had to have emergency medical help because of my drinking.
k. I was hospitalized because of my drinking.

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0)

Q45 On how many <u>work days</u> in the PAST 12 MONTHS did the following things happen to you? Please select ONE response per row. "Work day" refers to a day you worked at your duty station or were on quick-response (30 minutes or less) call.

[GRID PRESENTATION]

1. **3 or more work days**
2. **2 work days**
3. **1 work day**
4. **0 work days**

[RANDOMIZE A-F]

a. I was hurt in an on-the-job accident because of my drinking.
b. I was late for work or left work early because of drinking, a hangover, or an illness caused by drinking.

c. I did not come to work at all because of a hangover, an illness, or a personal accident caused by drinking.
d. I worked below my normal level of performance because of drinking, a hangover, or an illness caused by drinking.
e. I was drunk while working.
f. I was called in during off-duty hours and reported to work feeling drunk.

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0)

Q46 Next, we are interested in your <u>current</u> behavior regarding alcohol. How often do you typically have a drink containing alcohol?

1. Never
2. Less than once a month
3. Once a month
4. Two to three times a month
5. Once a week
6. Two to three times a week
7. Four or more times a week

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0)

Q47 How many drinks containing alcohol do you have on a TYPICAL DAY when you are drinking?

1. I don't drink
2. 1 or 2
3. 3 or 4
4. 5 or 6
5. 7 to 9
6. 10 or more

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0)

Q48 Next, we have a few questions that ask about somewhat different issues. For each question below, please indicate how often you do the following. Please select ONE response per row.

[GRID PRESENTATION]

1. Never
2. Less than Monthly
3. Monthly
4. Weekly
5. Daily or almost Daily

[RANDOMIZE A-F]

a. How often do you have six or more drinks on one occasion?
b. How often during the past year have you found that you were not able to stop drinking once you had started?
c. How often during the past year have you failed to do what was normally expected of you because of drinking?
d. How often during the past year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
e. How often during the past year have you had a feeling of guilt or remorse after drinking?
f. How often during the past year have you been unable to remember what happened the night before because you have been drinking?

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0)

Q49 For each question below, have you EVER experienced the following because of drinking? Please select ONE response per row.

[GRID PRESENTATION]

1. **No**
2. **Yes, but not in the past year**
3. **Yes, during the past year**

[RANDOMIZE A-B]

a. Have you or someone else been injured as a result of your drinking?
b. Has a relative or friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0)

Q50 Next we have some questions about alcohol use in the PAST 30 DAYS.

During the PAST 30 DAYS, what was the <u>largest number of drinks</u> of any form of alcohol you had on one occasion?

Largest number of drinks on any one occasion in the PAST 30 DAYS: _____ [2 DIGITS; 0 - 99]

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0)

Q51 During the PAST 30 DAYS, on how many days did you have [IF MALE INSERT '5'; IF FEMALE INSERT '4'] or more drinks of beer, wine, or liquor on the same occasion?

1. About every day
2. 5 to 6 days a week
3. 3 to 4 days a week
4. 1 to 2 days a week
5. 2 to 3 days in the past 30 days
6. 1 day in the past 30 days
7. Not at all in the past 30 days

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0)

Q52 On those days when you worked during the PAST 30 DAYS, how often did you have a drink while you were working – either on-the-job, during your lunch break, or during a work break?

1. Every work day
2. Most work days
3. About half of my work days
4. Several work days
5. 1 or 2 work days
6. I drank during the past 30 days, but not while working, during a lunch break, or during a work break
7. I didn't drink in the past 30 days

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0)

Q53 During the PAST 30 DAYS, on how many days did you drink a CAFFEINATED energy drink (such as Red Bull, Monster, Rockstar, etc.) <u>in combination</u> with an alcoholic beverage?

1. None
2. 1 - 4 days
3. 5 - 19 days
4. 20 - 30 days

BASE: HAS HAD 12 OR MORE ALCOHOLIC DRINKS OVER LIFETIME AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 and Q39>0)

Q54 Next, listed below are some of the reasons people give for drinking beer, wine, or liquor. How important is each reason TO YOU for drinking alcohol? Please select ONE response per row.

[GRID PRESENTATION]

1. **Very important**
2. **Somewhat important**
3. **Not very important**
4. **Not at all important**

[RANDOMIZE A-H]

a. As a way to celebrate
b. To be sociable
c. To fit in with people you like
d. To forget about your problems
e. To cheer up when you're in a bad mood
f. Because your friends pressure you to drink
g. So that others won't kid/tease you about not drinking
h. I like to drink/I enjoy drinking

BASE: ALL RESPONDENTS

Q55 For the following statements, how much do you agree or disagree with each? Please select ONE per row.

[GRID PRESENTATION]

1. **Strongly agree**
2. **Agree**
3. **Disagree**
4. **Strongly disagree**
5. **Don't know** [RESPONSE COLUMN HAS LIGHT GREY BACKGROUND]

[RANDOMIZE A-D]

a. Alcoholic beverages cost too much for me.
b. Drinking to the point of losing control is acceptable.
c. Alcoholic beverages are difficult for me to get.
d. Drinking is part of being in my unit.

BASE: ALL RESPONDENTS

Q56 How likely are you to experience the following if you were to drink alcohol? Please select ONE per row.

[GRID PRESENTATION]

1. **Extremely likely**
2. **Very likely**
3. **Somewhat likely**
4. **Not at all likely**

[RANDOMIZE A-D]

a. Upsetting my family/ friends
b. Affecting my military career negatively
c. Doing things that I'd be sorry for later
d. Getting in trouble with the police or military authorities

BASE: ALL RESPONDENTS

Q57 Listed below are forms of treatment or assistance you could obtain for alcohol-related issues. IF you were to have a problem with drinking, how likely would you be to use each? Please select ONE response per row.

[GRID PRESENTATION]

1. **Extremely likely**
2. **Very likely**
3. **Somewhat likely**
4. **Not at all likely**
5. **Not familiar** [RESPONSE COLUMN HAS LIGHT GREY BACKGROUND]

[RANDOMIZE A-J]

a. Alcoholics Anonymous (AA) meetings
b. Family Services Centers
c. Outpatient/ Behavioral (Mental) Health Counseling Services
d. Military OneSource
e. Community Counseling Centers for Alcohol (YMCA, County Mental Health Counseling)
f. Church
g. Private Residential Treatment/ Residential Treatment outside the military
h. Military Residential Treatment Facility
i. Substance Abuse Prevention Personnel in Unit
j. Military chaplain

BASE: DRANK AT LEAST 12 DRINKS IN LIFE AND DRANK ON AT LEAST 1 DAY IN THE PAST 12 MONTHS (Q38=2 OR Q39>0) (CURRENT DRINKERS)

Q58 How likely are you to seek treatment for your alcohol use in the NEXT 6 MONTHS?

1. Already in treatment
2. Absolutely certain
3. Probably
4. Possibly
5. Not at all likely
6. I do not drink alcohol

BASE: DRANK AT LEAST 12 DRINKS IN LIFE AND INDICATED A NUMBER OF 0 OR HIGHER AT Q39 (Q38=2 AND (Q39=0 OR Q39>0)) (CURRENT OR FORMER DRINKERS)

Q59 Not counting small tastes or sips, about how old were you when you drank your first alcoholic beverage (beer, wine, liquor, etc.)?

1. 14 years old or younger
2. 15 to 17 years old
3. 18 to 20 years old
4. 21 years old or older
5. I never have consumed any alcohol

BASE: DRANK AT LEAST 12 DRINKS IN LIFE AND INDICATED A NUMBER OF 0 OR HIGHER AT Q39 (Q38=2 AND (Q39=0 OR Q39>0)) (CURRENT OR FORMER DRINKERS)

Q60 About how old were you when you first began to use alcohol once a month or more often?

1. 14 years old or younger
2. 15 to 17 years old
3. 18 to 20 years old
4. 21 years old or older
5. I never have consumed alcohol once a month or more often
6. I never have consumed any alcohol

BASE: ALL RESPONDENTS - MANDATORY

Q61 Next we would like to ask you some questions about cigarettes and other tobacco products.

Have you smoked at least 100 cigarettes in your entire life? Note: Smoking at least 100 cigarettes would be equal to 5 or more packs in your entire life.

1. No [SKIP TO Q72]
2. Yes

3. Decline to answer [SKIP TO Q72]

BASE: SMOKED 100+ CIGARETTES (Q61=2)

Q62 When did you start smoking cigarettes?

1. 14 years old or younger
2. 15 to 17 years old
3. 18 to 20 years old
4. 21 years old or older

BASE: SMOKED 100+ CIGARETTES (Q61=2)

Q63 When was the last time you smoked a cigarette?

1. Today
2. During the past 30 days
3. 1 - 3 months ago
4. 4 - 6 months ago
5. 7 - 12 months ago
6. 1 - 3 years ago
7. More than 3 years ago

BASE: SMOKED 100+ CIGARETTES (Q61=2) - MANDATORY

Q64 Do you NOW smoke cigarettes every day, some days or not at all?

1. Every day
2. Some days
3. Not at all [SKIP TO Q72]
4. Decline to answer [SKIP TO Q72]

BASE: USED AT LEAST 100 CIGARETTES IN LIFETIME AND SMOKE AT LEAST SOME DAYS (Q61=2 and Q64=1, 2)

Q65 On how many of the PAST 30 DAYS did you smoke a cigarette?

Number of Days (from 0 to 30): _____ [2 DIGITS; 0 - 30]

BASE: USED AT LEAST 100 CIGARETTES IN LIFETIME AND SMOKE AT LEAST SOME DAYS (Q61=2 and Q64=1, 2)

Q66 On the <u>average</u>, how many cigarettes do you now smoke a day?

Cigarettes per day on average: _____ [2 DIGITS; 0 - 99]

BASE: USED AT LEAST 100 CIGARETTES IN LIFETIME AND SMOKE AT LEAST SOME DAYS (Q61=2 and Q64=1, 2)

Q67 How often do you smoke with children present?

1. I am not ever around children
2. I never smoke with children present
3. I rarely smoke with children present
4. I sometimes smoke with children present
5. I often smoke with children present

BASE: USED AT LEAST 100 CIGARETTES IN LIFETIME AND SMOKE AT LEAST SOME DAYS (Q61=2 and Q64=1, 2)

Q68 During the PAST 12 MONTHS, how many times have you QUIT smoking cigarettes for <u>at least 30 consecutive days</u>?

1. Never
2. 1 time
3. 2 to 3 times
4. 4 to 5 times
5. 6 or more times

BASE: USED AT LEAST 100 CIGARETTES IN LIFETIME AND SMOKE AT LEAST SOME DAYS (Q61=2 and Q64=1, 2)

Q69 During the PAST 12 MONTHS, how many times have you <u>reduced</u> or <u>cut back</u> on the number of cigarettes you smoked for at least 30 consecutive days?

1. Never
2. 1 time
3. 2 to 3 times
4. 4 to 5 times
5. 6 or more times

BASE: USED AT LEAST 100 CIGARETTES IN LIFETIME AND SMOKE AT LEAST SOME DAYS (Q61=2 and Q64=1, 2)

Q70 How likely will you be to quit smoking cigarettes within the NEXT 6 MONTHS?

1. Not at all likely
2. Possibly
3. Probably
4. Absolutely certain
5. I have already quit smoking cigarettes

BASE: USED AT LEAST 100 CIGARETTES IN LIFETIME AND SMOKE AT LEAST SOME DAYS (Q61=2 and Q64=1, 2)

Q71 The following list includes reasons that people sometimes give for why they smoke cigarettes. How important are the following reasons for why YOU smoke (if you are a current smoker) or why YOU have smoked cigarettes (if you are a former smoker)? Please select ONE response per row.

[GRID PRESENTATION]

1. **Very important**
2. **Somewhat important**
3. **Not very important**
4. **Not at all important**
5. **I never smoked** [RESPONSE COLUMN HAS LIGHT GREY BACKGROUND]

[RANDOMIZE A-K]

a. Fit in with my friends
b. Fit in with my military unit
c. Irritate those in authority
d. Help relieve stress
e. Help me relax or calm down
f. Help relieve boredom
g. Reduce the amount I eat
h. Avoid gaining weight
i. Help keep me awake or alert
j. Because I can't quit
k. When drinking alcohol

BASE: ALL RESPONDENTS - MANDATORY

Q72 Have you EVER used chewing tobacco, snuff, or any other form of smokeless tobacco?

1. No [SKIP TO Q78]
2. Yes
3. Decline to answer [SKIP TO Q78]

BASE: USED ANY FORM OF SMOKELESS TOBACCO EVER (Q72=2)

Q73 During the PAST 12 MONTHS, how often on the average have you used chewing tobacco, snuff, or other smokeless tobacco?

1. About every day
2. 5 - 6 days a week
3. 3 - 4 days a week
4. 1 - 2 days a week
5. 2 - 3 days a month

6. About once a month
7. Less than once a month
8. I have not used chewing tobacco, snuff, or other smokeless tobacco in the past 12 months [SKIP TO Q75 AND THEN SKIP TO Q78]

BASE: USED ANY FORM OF SMOKELESS TOBACCO EVER AND USED ANY FORM OF SMOKELESS TOBACCO IN LAST 12 MONTHS (Q72=2 AND Q73<8)

Q74 On the average, on the days when you use chewing tobacco, snuff, or other smokeless tobacco, how many TIMES PER DAY do you use it?

Times per day: _____ [2 DIGITS; 0 - 99]

BASE: USED ANY FORM OF SMOKELESS TOBACCO EVER (Q72=2)

Q75 When was the last time you used chewing tobacco, snuff, or other smokeless tobacco?

1. Today
2. During the past 30 days
3. More than 1 month ago but within the past 6 months
4. More than 6 months ago but within the past year
5. More than 1 year ago but within the past 2 years
6. More than 2 years ago

BASE: USED ANY FORM OF SMOKELESS TOBACCO EVER AND USED ANY FORM OF SMOKELESS TOBACCO IN LAST 12 MONTHS (Q72=2 AND Q73<8)

Q76 During the PAST 12 MONTHS, how many times have you QUIT using chewing tobacco, snuff, or smokeless tobacco for <u>at least 30 consecutive days</u>?

1. Never
2. 1 time
3. 2 to 3 times
4. 4 to 5 times
5. 6 or more times

BASE: USED ANY FORM OF SMOKELESS TOBACCO EVER AND USED ANY FORM OF SMOKELESS TOBACCO IN LAST 12 MONTHS (Q72=2 AND Q73<8)

Q77 How likely will you be to quit using chewing tobacco, snuff, or smokeless tobacco within the NEXT 6 MONTHS?

1. Not at all likely
2. Possibly
3. Probably
4. Absolutely certain
5. I have already quit using chewing tobacco, snuff or smokeless tobacco

BASE: ALL RESPONDENTS

Q78 During the PAST 12 MONTHS, how often have you smoked the following? Please select ONE response per row.

[GRID PRESENTATION]

1. **About every day**
2. **5-6 days a week**
3. **3-4 days a week**
4. **1-2 days a week**
5. **About once a month**
6. **Less than once a month**
7. **Not in the past 12 months**
8. **I never smoked**

[RANDOMIZE A-B]

a. Cigars
b. Pipes (including a hookah pipe)

BASE: ALL RESPONDENTS

Q79 When was the last time you used any of the following smokeless tobacco products? Please select ONE response per row.

[GRID PRESENTATION]

1. **In the past 12 months**
2. **More than 12 months ago**
3. **Never**

[RANDOMIZE A-D]

a. Electronic or smoking nicotine delivery products (e.g., E-pipe, E-cigar, E-cigarette, smokeless cigarettes, etc.)
b. Nicotine dissolvables (e.g., orbs, dissolvable sticks, dissolvable strips, etc.)
c. Caffeinated smokeless tobacco (e.g., caffeinated snuff or dip)
d. Nicotine gel

BASE: ALL RESPONDENTS

Q80 There may be a number of factors that would decrease your use of tobacco products at your installation (your post, camp, base, station, ship/support facilities, or other geographic duty location). How much would the following affect how much you use/smoke tobacco products (e.g., cigarettes, chewing/smokeless tobacco)? Please select ONE response per row.

[GRID PRESENTATION]

1. **Would use/ smoke much less**
2. **Would use/ smoke somewhat less**
3. **Would not affect how much I use/ smoke tobacco**
4. **I don't use tobacco products**

[RANDOMIZE A-B]

a. A significant decrease in the number of places at the installation where smoking or using tobacco is permitted
b. Prices on the installation were increased to match prices outside the installation

BASE: ALL RESPONDENTS

Q81 Listed below are various methods of treatment or assistance you could use for nicotine dependence (resulting from smoking cigarettes, chewing tobacco, etc.). If you used and/or smoked tobacco products and wanted to give up using tobacco products, how likely would you be to use each? Please select ONE response per row.

[GRID PRESENTATION]

1. **Extremely likely**
2. **Probably**
3. **Possibly**
4. **Not at all likely**
5. **Not familiar with this** [RESPONSE COLUMN HAS LIGHT GREY BACKGROUND]

[RANDOMIZE A-K]

a. Stop all at once (cold turkey)
b. Gradual decrease in number of cigarettes
c. Tobacco cessation classes
d. Prescription medication
e. Nicotine replacement gum
f. Nicotine replacement patch
g. Health care provider counseling
h. TRICARE telephone quit counselor
i. Herbal supplements
j. Hypnosis
k. UCANQUIT2 online quit support

BASE: ALL RESPONDENTS - MANDATORY

Q82 Next, we have some questions about your experience with a number of different substances.

Have you EVER used the following?

[GRID PRESENTATION]

1. **Never used** [SKIP TO Q84 IF ALL A-K = 1, 2, OR 4]
2. **Used at least once in my life** [SKIP TO Q84 IF ALL A-K = 1, 2, OR 4]
3. **Used at least once in past 12 months**
4. **Decline to Answer** [SKIP TO Q84 IF ALL A-K = 1, 2, OR 4]

a. Marijuana or hashish (such as "pot," THC, "weed")
b. Synthetic cannabis ("spice", K2, herbal smoking blend)
c. Cocaine (including crack)
d. LSD (such as "acid")
e. PCP (such as "angel dust" or marijuana laced with PCP)
f. MDMA (such as "Ecstasy")
g. Other hallucinogens (such as peyote, mescaline, psilocybin - "shrooms")
h. Methamphetamine (such as "ice," "crystal meth," "speed," "crank")
i. Heroin (such as "Smack")
j. GHB/GBL (such as "Liquid X," "Gamma 10")
k. Inhalants (such as aerosol sprays, gasoline, poppers, "whippets")

BASE: USED IN PAST YEAR (Q82a-k=3 'Used at least once in past 12 months')

Q83 How many days in the PAST 30 DAYS did you use the following?

[GRID PRESENTATION]

1. **11 or more days**
2. **Used 4 to 10 days**
3. **Used 1 to 3 days**
4. **0 days**

a. Marijuana or hashish (such as "pot," THC, "weed")
b. Synthetic cannabis ("spice", K2, herbal smoking blend)
c. Cocaine (including crack)
d. LSD (such as "acid").
e. PCP (such as "angel dust" or marijuana laced with PCP)
f. MDMA (such as "Ecstasy")
g. Other hallucinogens (such as peyote, mescaline, psilocybin - "shrooms")
h. Methamphetamine (such as "ice," "crystal meth," "speed," "crank")
i. Heroin (such as "Smack")
j. GHB/GBL (such as "Liquid X," "Gamma 10")
k. Inhalants (such as aerosol sprays, gasoline, poppers, "whippets")

BASE: ALL RESPONDENTS - MANDATORY

Q84 Next, we have some questions about prescription drugs. These drugs require a doctor's prescription to obtain. We are NOT interested in your use of "over-the-counter" drugs such as Tylenol, Advil, NoDoz, Nytol, or Unisom that can be purchased legally without a doctor's prescription in drug stores or grocery stores.

Have you EVER used the following?

[GRID PRESENTATION]

1. **Never used** [SKIP TO Q86A IF ALL A-D = 1, 2, OR 4]
2. **Used at least once in my life** [SKIP TO Q86A IF ALL A-D = 1, 2, OR 4]
3. **Used at least once in past 12 months**
4. **Decline to Answer** [SKIP TO Q86A IF ALL A-D = 1, 2, OR 4]

a. **Prescription** stimulants or attention enhancers (such as amphetamines, Ritalin, Prescription diet pills, etc.),
b. **Prescription** sedatives, tranquilizers, muscle relaxers, or barbiturates (such as Ambien, Quaalude, Valium, Xanax, Rohypnol, Phenobarbital, etc.)
c. **Prescription** pain relievers (Oxycodone, Percocet, Cough syrups with codeine, Methadone, etc.)
d. **Prescription** anabolic steroids (such as Deca Durbolin, Testosterone, etc.)

BASE: USED AT LEAST ONCE IN PAST 12 MONTHS (ANY Q84a-d=3)

Q85 How many days in the PAST 30 DAYS did you use the following?

[GRID PRESENTATION]

1. **11 or more days**
2. **Used 4 to 10 days**
3. **Used 1 to 3 days**
4. **0 days**

a. **Prescription** stimulants or attention enhancers (such as amphetamines, Ritalin, Prescription diet pills, etc.),
b. **Prescription** sedatives, tranquilizers, muscle relaxers, or barbiturates (such as Ambien, Quaalude, Valium, Xanax, Rohypnol, Phenobarbital, etc.)
c. **Prescription** pain relievers (Oxycodone, Percocet, Cough syrups with codeine, Methadone, etc.)
d. **Prescription** anabolic steroids (such as Deca Durbolin, Testosterone, etc.)

BASE: ALL RESPONDENTS - MANDATORY

Q86A Have you EVER been prescribed the following?

[GRID PRESENTATION]

1. **Never prescribed for me**
2. **Prescribed for me at least once in my life**
3. **Prescribed for me at least once in past 12 months** [SKIP TO Q87]
4. **Decline to Answer**

a. **Prescription** stimulants or attention enhancers (such as amphetamines, Ritalin, Prescription diet pills, etc.),
b. **Prescription** sedatives, tranquilizers, muscle relaxers, or barbiturates (such as Ambien, Quaalude, Valium, Xanax, Rohypnol, Phenobarbital, etc.)
c. **Prescription** pain relievers (Oxycodone, Percocet, Cough syrups with codeine, Methadone, etc.)
d. **Prescription** anabolic steroids (such as Deca Durbolin, Testosterone, etc.)

BASE: USED IN PAST 12 MONTHS AND NOT PRESCRIBED IN PAST 12 MONTHS (Q84=3 and Q86A_a-d=1,2,4)

Q86B How did you obtain the following?

[GRID PRESENTATION]

1. **Prescribed for me in a prior year**
2. **Prescribed for someone else**
3. **Obtained another way**

a. **Prescription** stimulants or attention enhancers (such as amphetamines, Ritalin, Prescription diet pills, etc.),
b. **Prescription** sedatives, tranquilizers, muscle relaxers, or barbiturates (such as Ambien, Quaalude, Valium, Xanax, Rohypnol, Phenobarbital, etc.)
c. **Prescription** pain relievers (Oxycodone, Percocet, Cough syrups with codeine, Methadone, etc.)
d. **Prescription** anabolic steroids (such as Deca Durbolin, Testosterone, etc.)

BASE: PRESCRIBED IN THE PAST 12 MONTHS (Q86A_a-d=3)

Q87 IF you were prescribed the following in the PAST 12 MONTHS, how did you use it? Please select ONE response per row.

[GRID PRESENTATION]

1. **Used a lower amount than prescribed**
2. **Used as prescribed**
3. **Used a greater amount than prescribed**

a. **Prescription** stimulants or attention enhancers (such as amphetamines, Ritalin, Prescription diet pills, etc.),
b. **Prescription** sedatives, tranquilizers, muscle relaxers, or barbiturates (such as Ambien, Quaalude, Valium, Xanax, Rohypnol, Phenobarbital, etc.)
c. **Prescription** pain relievers (Oxycodone, Percocet, Cough syrups with codeine, Methadone, etc.)
d. **Prescription** anabolic steroids (such as Deca Durbolin, Testosterone, etc.)

BASE: USED AT LEAST ONCE IN PAST 12 MONTHS OR PRESCRIBED IN PAST 12 MONTHS (ANY Q84a-d=3 OR Q86A_a-d=3)

Q88 How did you obtain the following in the PAST 12 MONTHS? If you obtained it from more than one source, for <u>each row</u>, select ONE OR MORE responses that apply to you.

[GRID PRESENTATION]
[MULTIPLE RESPONSE BY ROW]

1. **Health care provider at an MTF**
2. **Health care provider at a VA Medical Facility**
3. **Non-military doctor or health care worker**
4. **Emergency Room**
5. **Internet/ Mail order**
6. **Family member or friend**
7. **Dealer/ Street Pharmacist**
8. **Other**

a. **Prescription** stimulants or attention enhancers (such as amphetamines, Ritalin, Prescription diet pills, etc.),
b. **Prescription** sedatives, tranquilizers, muscle relaxers, or barbiturates (such as Ambien, Quaalude, Valium, Xanax, Rohypnol, Phenobarbital, etc.)
c. **Prescription** pain relievers (Oxycodone, Percocet, Cough syrups with codeine, Methadone, etc.)
d. **Prescription** anabolic steroids (such as Deca Durbolin, Testosterone, etc.)

BASE: USED AT LEAST ONCE IN PAST 12 MONTHS (ANY Q84a-d=3)

Q89 What was the reason you took the following in the PAST 12 MONTHS? If there was more than one reason, for <u>each row</u>, select ONE OR MORE responses that apply to you.

[GRID PRESENTATION]
[MULTIPLE RESPONSE BY ROW]

1. **To control pain**
2. **To feel good (get high or buzzed, etc.)**
3. **To reduce depression**
4. **To reduce anxiety**

5. **To control stress**
6. **To help me sleep**
7. **To help me stay awake**

a. **Prescription** stimulants or attention enhancers (such as amphetamines, Ritalin, Prescription diet pills, etc.),
b. **Prescription** sedatives, tranquilizers, muscle relaxers, or barbiturates (such as Ambien, Quaalude, Valium, Xanax, Rohypnol, Phenobarbital, etc.)
c. **Prescription** pain relievers (Oxycodone, Percocet, Cough syrups with codeine, Methadone, etc.)
d. **Prescription** anabolic steroids (such as Deca Durbolin, Testosterone, etc.)

BASE: ALL RESPONDENTS

Q90 When was the last time you had to give a urine sample for a random, unannounced drug test?

1. In the past month
2. 1 to 2 months ago
3. 3 to 6 months ago
4. 7 to 12 months ago
5. 1 year to 3 years ago
6. More than 3 years ago
7. I have never given a urine sample for a random unannounced drug test

BASE: ALL RESPONDENTS

Q91 While in the military, how many times have you ever altered or tampered with a urine sample that you had to provide?

1. 0 times
2. 1 time
3. 2 to 3 times
4. 4 or more times

BASE: ALL RESPONDENTS

Q92 If the military stopped random, unannounced drug testing would you be any more likely to use drugs?

1. Much more likely
2. Somewhat more likely
3. No more likely
4. Would not use at all

BASE: ALL RESPONDENTS

Q93 This next set of questions asks about sexual behavior. Please remember that your answers are strictly anonymous and NO ONE can or will link your answers to you.

In the PAST 12 MONTHS, with how many different people did you have sexual intercourse?

1. 20 or more people
2. 10 - 19 people
3. 5 - 9 people
4. 2 - 4 people
5. 1 person
6. I did not have sex in the past 12 months

BASE: ALL RESPONDENTS

Q94 How many NEW sex partners did you have during the PAST 12 MONTHS? A new sex partner is someone you had sexual intercourse with for the first time in the past 12 months.

1. 20 or more people
2. 10 - 19 people
3. 5 - 9 people
4. 2 - 4 people
5. 1 person
6. No new sex partners in the past 12 months

BASE: ALL RESPONDENTS

Q95 In the PAST 12 MONTHS, how often did you use a condom when having sexual intercourse with a new sexual partner?

1. Always
2. Often
3. Sometimes
4. Seldom
5. Never
6. I haven't had sex with a new partner in the past year

BASE: ALL RESPONDENTS - MANDATORY

Q96 In the PAST 12 MONTHS, did you cause or did you have an unintended pregnancy?

1. No [SKIP TO Q97]
2. Yes
3. Decline to answer [SKIP TO Q97]

BASE: CAUSED OR HAD AN UNINTENDED PREGANCY IN THE PAST 12 MONTHS (Q96=2)

Q96A What form of birth control were you/your partner using when the unplanned pregnancy occurred? Please select ONE OR MORE responses that apply to you.

[MULTIPLE RESPONSE]

1. No form of birth control
2. Birth control pills
3. IUD
4. Withdrawal method
5. Biological rhythm (natural family planning)
6. Other form of birth control

BASE: ALL RESPONDENTS

Q97 Have you ever had a sexually transmitted infection – such as gonorrhea, syphilis, chlamydia, HPV, or genital herpes?

1. No
2. Yes, contracted something within the past 12 months
3. Yes, contracted something more than 1 year ago
4. Have not been tested

BASE: COAST GUARD RESPONDENTS (Q1=5)

Q98 Do you think of yourself as…?

1. Heterosexual ('straight')
2. Gay or Lesbian
3. Bisexual
4. Something else
5. Not at all sure

BASE: COAST GUARD RESPONDENTS (Q1=5)

Q99 People are different in their sexual attraction to other people. Which best describes your feelings?

1. Only attracted to males
2. Mostly attracted to males
3. Equally attracted to males and females
4. Mostly attracted to females
5. Only attracted to females
6. Not attracted to either males or females
7. Not sure

BASE: ALL RESPONDENTS

Q100 Next, some questions about substance use around you. In your off-duty hours, how many of your friends do the following when you are around them? Please select ONE response per row.

[GRID PRESENTATION]

1. **None**
2. **Some friends**
3. **Most friends**

a. Smoke cigarettes
b. Use chewing/ smokeless tobacco
c. Drink alcohol
d. Smoke marijuana
e. Misuse prescription drugs

BASE: ALL RESPONDENTS

Q101 Thinking about the installation at which you are currently stationed (such as your post, camp, base, station, ship and support facilities, or other geographic duty location), how strongly does it DISCOURAGE the use of the following? Please select ONE response per row.

[GRID PRESENTATION]

1. **Not at all**
2. **Somewhat discourages**
3. **Strongly discourages**

a. Cigarettes
b. Chewing/ smokeless tobacco
c. Alcohol
d. Marijuana
e. Prescription drug misuse

BASE: ALL RESPONDENTS

Q102 Thinking about your immediate supervisor(s) at the installation where you are currently stationed, how strongly does he/she DISCOURAGE the use of the following? Please select ONE response per row.

[GRID PRESENTATION]

1. **Not at all**
2. **Somewhat discourages**
3. **Strongly discourages**

a. Cigarettes
b. Chewing/ smokeless tobacco
c. Alcohol
d. Marijuana
e. Prescription drug misuse

BASE: ALL RESPONDENTS

Q103 Next, we have some questions about oral safety and health.

How often do you use a mouth guard in recommended situations (such as combat training, contact sports, etc.)?

1. Always
2. Often
3. Sometimes
4. Seldom
5. Never
6. I have not been in situations requiring a mouth guard
7. I don't have/have not been provided a mouth guard

BASE: ALL RESPONDENTS

Q104 How often do you brush your teeth with fluoride toothpaste?

1. Two or more times a day
2. Once a day
3. Several times a week, but less than once a day
4. Once a week
5. A few times a month or less

BASE: ALL RESPONDENTS

Q105 How often do you floss your teeth?

1. Once a day
2. A few times a week
3. Once a week
4. Several times a month, but less than once a week
5. Less than once a month

BASE: ALL RESPONDENTS

Q106 Next, some questions on vehicle use.

How often do you use seat belts when you drive or ride in a personally owned vehicle?

1. Always
2. Often
3. Sometimes
4. Seldom
5. Never
6. I didn't drive or ride in a car in the past 12 months

BASE: ALL RESPONDENTS

Q107 In the PAST 12 MONTHS, how often did you wear a helmet when you drove or rode on a motorcycle?

1. Always
2. Often
3. Sometimes
4. Seldom
5. Never
6. I didn't drive or ride on a motorcycle in the past 12 months

BASE: ALL RESPONDENTS

Q108 In the PAST 12 MONTHS, about how many miles did you drive a privately-owned 4-wheeled vehicle(s) (car, truck, van, SUV, etc.) on public roads and highways?

1. 0 - not in the past 12 months
2. Less than 1,000 miles
3. 1,000 - 5,000 miles
4. 5,001 - 7,500 miles
5. 7,501 - 10,000 miles
6. 10,001 - 12,500 miles
7. 12,501 - 15,000 miles
8. More than 15,000 miles

BASE: ALL RESPONDENTS

Q109 In the PAST 12 MONTHS, about how many miles did you drive a privately-owned motorcycle on public roads and highways?

1. 0 - not in the past 12 months
2. Less than 1,000 miles
3. 1,000 - 5,000 miles
4. 5,001 - 7,500 miles

5. 7,501 - 10,000 miles
6. 10,001 - 12,500 miles
7. 12,501 - 15,000 miles
8. More than 15,000 miles

BASE: ALL RESPONDENTS

Q110 In the PAST 12 MONTHS, how many times did you drive or ride on a motorcycle?

1. 40 or more times
2. 21 - 39 times
3. 11 - 20 times
4. 1 - 10 times
5. I didn't drive or ride on a motorcycle in the past 12 months

BASE: ALL RESPONDENTS

Q111 In the PAST 12 MONTHS, did you seek medical care for treatment of the following? Please select ONE response per row.

[GRID PRESENTATION]

1. No
2. Yes

a. Car or motorcycle accident
b. Other type of accidental injury
c. Overuse injury (such as carpal tunnel, sports- or exercise related, etc.)

BASE: ALL RESPONDENTS - MANDATORY

Q112 In the PAST 12 MONTHS, on how many occasions were you in close proximity to weapons firing or explosions?

1. 0 times [SKIP TO Q113]
2. 1 - 10 times
3. 11 - 20 times
4. 21 - 39 times
5. 40 or more times
6. Decline to answer [SKIP TO Q113]

BASE: IN CLOSE PROXIMITY TO WEAPONS FIRE OR EXPLOSIONS 1 OR MORE TIMES (Q112>1 AND NOT DTA)

Q112A In the PAST 12 MONTHS, how often did you wear hearing protection when you were in close proximity to weapons firing or explosions?

1. Always
2. Often

3. Sometimes
4. Seldom
5. Never

BASE: ALL RESPONDENTS

Q113 The following questions ask about your experience with gangs and gang activity in the military. Please select ONE response per row.

[GRID PRESENTATION]

1. No
2. Yes

a. In the past 12 months, have you noticed any gang-related activities among active duty personnel?
b. While in the military, have you been approached about joining a gang/crew in the past 12 months?
c. While in the military, have you been a member of a gang/crew?

BASE: ALL RESPONDENTS

Q114 During the PAST 12 MONTHS, how many times did you attend religious/spiritual services? Please do NOT include special occasions such as weddings, christenings, funerals, or other special events in your answer.

1. More than 52 times
2. 25 - 52 times
3. 6 - 24 times
4. 3 - 5 times
5. 1 - 2 times
6. 0 times

BASE: ALL RESPONDENTS

Q115 My religious/spiritual beliefs influence how I make personal decisions in my life.

1. Strongly agree
2. Agree
3. Disagree
4. Strongly disagree
5. Not applicable

BASE: ALL RESPONDENTS

Q116 Next, we have some questions about your Internet usage. This would include access by computer, laptop, phone, or other device that can go online.

About how many hours in a TYPICAL WEEK do you spend online for each of the following? Please select ONE response per row.

[GRID PRESENTATION]

1. **Zero**
2. **Less than 2 hours per week**
3. **2 to 5 hours per week**
4. **6 to 10 hours per week**
5. **11 to 15 hours per week**
6. **16 to 30 hours per week**
7. **More than 30 hours per week**

[RANDOMIZE A-B]

a. Work use of the Internet (office, home, on the road, etc.)
b. Personal use of the Internet (email, browsing, shopping, Facebook, entertainment, gaming, etc.)

BASE: ALL RESPONDENTS

Q117 Have you ever done the following online? Please select ONE response per row.

[GRID PRESENTATION]

1. **No, never**
2. **Yes, but more than 30 days ago**
3. **Yes, within PAST 30 DAYS**

[RANDOMIZE A-I]

a. Made a purchase online
b. Bid on a product in an online auction
c. Participated in an online survey
d. Posted a picture or commented on a picture on Facebook
e. Logged in to a checking account online
f. Watched a video on YouTube
g. Browsed online classified ads (such as Craig's List)
h. Downloaded music (for computer, iPod, etc.)
i. Gambled for money online

BASE: ALL RESPONDENTS

Q118 During the PAST 30 DAYS, how often did emotional difficulties or poor mental health keep you from doing your usual activities, such as work or recreation?

1. About every day
2. 5 - 6 days a week
3. 3 - 4 days a week
4. 1 - 2 days a week
5. 2 - 3 days in the past 30 days
6. Once in the past 30 days
7. Never in the past 30 days

BASE: ALL RESPONDENTS

Q119 In the PAST 12 MONTHS, how often did you feel a lot of stress?

1. Always
2. Often
3. Sometimes
4. Seldom
5. Never

BASE: ALL RESPONDENTS

Q120 In the PAST 12 MONTHS, how much military-related stress have you experienced overall?

1. A lot
2. Some
3. A little
4. None at all

BASE: ALL RESPONDENTS

Q121 During the PAST 12 MONTHS, how much stress did you experience from each of the following? Please select ONE response per row.

[GRID PRESENTATION]

1. **A lot**
2. **Some**
3. **A little**
4. **None at all**
5. **Not applicable** [RESPONSE COLUMN HAS LIGHT GREY BACKGROUND]

[RANDOMIZE A-J]

a. Being deployed – at sea, in the field or in a remote location (include combat-related experiences)
b. Having to undergo a permanent change of station (PCS)
c. Problems with my coworkers
d. Problems with my immediate supervisor(s)
e. Concern about my performance rating
f. Change in my work load
g. Conflicts between my military responsibilities and my family/personal responsibilities
h. Insufficient training
i. Being away from my family and friends
j. Having a baby

BASE: ALL RESPONDENTS

Q122 When you feel pressured, stressed, depressed or anxious, how often do you do each of the following? Please select ONE response per row.

[GRID PRESENTATION]

1. Frequently
2. Sometimes
3. Rarely
4. Never

[RANDOMIZE A-M]

a. Talk to a friend or family member
b. Light up a cigarette
c. Have a drink of alcohol (e.g., beer, wine, liquor, etc.)
d. Say a prayer
e. Exercise or play sports
f. Engage in a hobby
g. Get something to eat
h. Smoke marijuana or use other illegal drugs
i. Think of a plan to solve the problem
j. Think about hurting myself or killing myself
k. Sleep
l. Get angry
m. Spend time by myself

BASE: ALL RESPONDENTS

Q123 Do you feel that you experience more stress in the military because you are a [IF MALE (Q4=1) INSERT 'man'; IF FEMALE (Q4=2) INSERT 'woman')?

1. No
2. Yes

BASE: ALL RESPONDENTS

Q124 During the PAST 12 MONTHS, how much stress did you experience from each of the following? Please select ONE response per row.

[GRID PRESENTATION]

1. **A lot**
2. **Some**
3. **A little**
4. **None at all**
5. **Not applicable** [RESPONSE COLUMN HAS LIGHT GREY BACKGROUND]

[RANDOMIZE A-J]

a. Finding childcare/daycare
b. Death in the family
c. Divorce or breakup
d. Infidelity or unfaithfulness in a committed relationship
e. Problems with money
f. Problems with housing
g. Health problems that I had
h. Health problems that my family members had
i. Behavior problems with one or more of my children
j. Unexpected events or other major problems (such as, hurricane, flood, home robbery)

BASE: ALL RESPONDENTS

Q125 On how many days in the PAST WEEK did you feel the following for <u>most</u> of the day? Please select ONE response per row.

[GRID PRESENTATION]

1. **5 - 7 days**
2. **3 - 4 days**
3. **1 - 2 days**
4. **Less than 1 day**
5. **Never**

[RANDOMIZE A-E]

a. I was happy
b. I felt angry
c. I felt depressed
d. I was hopeful about the future
e. I felt sad

BASE: ALL RESPONDENTS

Q126 During the PAST 30 DAYS, how often have you been bothered by the following? Please select ONE response per row.

[GRID PRESENTATION]

1. **More than half the days**
2. **Several days**
3. **One or two days**
4. **Not at all**

[RANDOMIZE A-D]

a. Feeling nervous, anxious, on edge, or worrying a lot about different things
b. Getting tired very easily
c. Trouble falling asleep or staying asleep
d. Becoming easily annoyed or irritable

BASE: ALL RESPONDENTS

Q127 Next, we have some questions about experiences you may have had. Please select ONE response per row.

[GRID PRESENTATION]

1. **No**
2. **Yes**

a. BEFORE joining the military, were you ever physically abused, punished, or beaten by a person in authority or having some power over you so that you received bruises, cuts, welts, lumps, or other injuries?
b. SINCE joining the military, have you ever been physically abused, punished, or beaten by someone in the military so that you received bruises, cuts, welts, lumps, or other injuries?
c. SINCE joining the military, have you ever been physically abused, punished, or beaten by a civilian so that you received bruises, cuts, welts, lumps, or other injuries?
d. BEFORE joining the military, did you experience ANY type of unwanted sexual contact? This would mean contact between someone else and your private parts or between you and someone else's private parts.
e. SINCE joining the military, have you experienced ANY type of unwanted sexual contact from anyone in the military?
f. SINCE joining the military, have you experienced ANY type of unwanted sexual contact from any civilian?

BASE: ALL RESPONDENTS

Q128 How much have you been bothered by each of the following in the PAST 30 DAYS? Please select ONE response per row.

[GRID PRESENTATION]

1. **Extremely**
2. **Quite a bit**
3. **Moderately**
4. **A little bit**
5. **Not at all**

[RANDOMIZE A-F]

a. Repeated, disturbing dreams of a stressful experience
b. Feeling very upset when something reminded you of a stressful experience
c. Avoiding activities or situations because they reminded you of a stressful experience
d. Feeling emotionally numb or being unable to have loving feelings for those close to you
e. Having difficulty concentrating
f. Feeling jumpy or easily startled

BASE: ALL RESPONDENTS

Q129 At any time in in the PAST 12 MONTHS, did you feel that you need counseling, therapy, or treatment from either a military or civilian mental health professional?

1. No
2. Yes

BASE: ALL RESPONDENTS

Q130 In the PAST 12 MONTHS, did you receive counseling or mental health therapy/treatment from the following? Please select ONE response per row.

[GRID PRESENTATION]

1. **No**
2. **Yes**

[RANDOMIZE A-G]

a. Mental health professional at a military facility (e.g., psychologist, psychiatrist, clinical social worker or other mental health counselor)
b. General medical doctor at a military facility
c. General medical doctor at a civilian facility
d. Military chaplain
e. Civilian pastor, rabbi, or other pastoral counselor

f. Civilian mental health professional (e.g., psychologist, psychiatrist, clinical social worker or other mental health counselor)
g. Self-help group (AA, NA)

BASE: ALL RESPONDENTS

Q131 In general, do you think it would damage a person's military career if the person were to seek counseling or mental health therapy/treatment through the military, regardless of the reason for seeking counseling?

1. It definitely would damage a person's career
2. It probably would damage a person's career
3. It probably would **NOT** damage a person's career
4. It definitely would **NOT** damage a person's career

BASE: ALL RESPONDENTS

Q132 For what concerns did you seek counseling or mental health therapy/treatment in the PAST 12 MONTHS? Please select ONE OR MORE responses that apply to you.

[MULTIPLE RESPONSE]

1. Depression
2. Anxiety
3. Family problems
4. Substance use problems
5. Anger management
6. Stress management
7. Other
8. I did not seek help from a mental health professional in the past 12 months

BASE: ALL RESPONDENTS

Q133 IF you received mental health services through the military, how did it affect your career?

1. Very positively
2. Somewhat positively
3. Neither positively nor negatively
4. Somewhat negatively
5. Very negatively
6. I did not receive any mental health services through the military

BASE: ALL RESPONDENTS

Q134 When you get angry, which best describes you?

1. Other people always know when I am angry
2. Other people often know when I am angry
3. Other people sometimes know when I am angry
4. Other people rarely know when I am angry
5. Other people never know when I am angry

BASE: ALL RESPONDENTS

Q135 In your lifetime, how often have you intentionally hurt yourself - for example, by scratching, cutting, or burning - even though you were not trying to commit suicide?

1. Never
2. 1 time
3. 2 or 3 times
4. 4 or 5 times
5. 6 or more times

BASE: ALL RESPONDENTS

Q136 Since joining the military, how often have you intentionally hurt yourself - for example, by scratching, cutting, or burning - even though you were not trying to commit suicide?

1. Never
2. 1 time
3. 2 or 3 times
4. 4 or 5 times
5. 6 or more times

BASE: ALL RESPONDENTS - MANDATORY

Q137 Have you ever seriously considered suicide?

1. No [SKIP TO Q138]
2. Yes
3. Decline to answer [SKIP TO Q138]

BASE: CONSIDERED SUICIDE (Q137=2)

Q137A If you have seriously considered suicide, did you consider it during the following periods? Please select ONE response per row.

[GRID PRESENTATION]

1. **No**
2. **Yes**

a. Within the past year
b. Since joining the military
c. Before joining the military
d. Within 6 months before leaving for deployment / mission
e. During a deployment / mission
f. Within 6 months after returning from a deployment / mission

BASE: ALL RESPONDENTS - MANDATORY

Q138 Have you ever attempted suicide?

1. No [SKIP TO Q139]
2. Yes
3. Decline to answer [SKIP TO Q139]

BASE: ATTEMPTED SUICIDE (Q138=2)

Q138A If you have ever attempted suicide, did you attempt it during any of the following periods? Please select ONE response per row.

[GRID PRESENTATION]

1. No
2. Yes

a. Within the past year
b. Since joining the military
c. Before joining the military
d. Within 6 months before leaving for deployment / mission
e. During a deployment / mission
f. Within 6 months after returning from a deployment / mission

BASE: ALL RESPONDENTS

Q139 How much do the following statements describe you? Please select ONE response per row.

[GRID PRESENTATION]

1. A great deal
2. A lot
3. Somewhat
4. A little
5. Not at all

[RANDOMIZE A-J]

a. I am very optimistic.
b. I enjoy facing many challenges that I need to overcome.

c. I often find myself getting angry at people or situations.
d. If I'm under stress I can easily find the resources to help me.
e. I love learning about new technology.
f. I feel overwhelmed when I'm in stressful situations.
g. You might say I act impulsively.
h. I like to test myself every now and then by doing something a little chancy or risky.
i. When I get angry, I get really mad.
j. I can bounce back from adversity easily.

BASE: ALL RESPONDENTS

Q140 During the past 12 months, did you use any of the following complementary or alternative medicine/treatments? Please select ONE response per row.

[GRID PRESENTATION]

1. No
2. Yes

[RANDOMIZE A-S]

a. Acupuncture
b. Homeopathy
c. Herbal medicines (such as St. John's Wort, Gingko Biloba, Echinacea)
d. Chiropractic
e. Massage therapy
f. Exercise/movement therapy (such as Tai Chi, yoga)
g. High dose megavitamins
h. Spiritual healing by others (such as healing ritual or sacrament)
i. Lifestyle diet (such as vegetarian, diet without preservatives or additives, heart-healthy, or diabetic)
j. Relaxation techniques
k. Guided imagery therapy (such as meditation or aromatherapy)
l. Energy healing (such as reiki, polarity therapy)
m. Folk remedies (such as Native American Healing, curanderismo)
n. Biofeedback
o. Hypnosis (self or led by practitioner)
p. Art/music therapy
q. Self-help group
r. Hyperbaric oxygen therapy
s. Prayer for your own health

BASE: ALL RESPONDENTS

Q141 In the PAST WEEK (past 7 days), about how many hours on <u>average</u> did you sleep <u>each</u> 24 hour period?

Average hours/minutes per night:

a. **Hours:** _____ [2 DIGITS; 0 - 24]
b. **Minutes:** _____ [2 DIGITS; 0 -59]

BASE: ALL RESPONDENTS - MANDATORY

Q142 Next, we have some questions concerning deployments and missions.

Were you <u>unable</u> to deploy in the PAST 12 MONTHS?

1. No [SKIP TO Q143]
2. Yes
3. Decline to answer [SKIP TO Q143]

BASE: UNABLE TO DEPLOY IN PAST 12 MONTHS (Q142=2)

Q142AWhy were you unable to deploy? Please select ONE OR MORE responses that characterize you.

[MULTIPLE RESPONSE]

1. I was on training/I needed additional training
2. I was on leave/TAD/TDY
3. I was pregnant
4. I needed/had dental work or dental problems
5. I needed an HIV test
6. I had a family situation
7. I had an injury
8. I had an illness or medical condition
9. I had mental health problems
10. A family member in the Exceptional Family Member Program (EFMP)
11. Another reason

BASE: ALL RESPONDENTS - MANDATORY

Q143 During the PAST 12 MONTHS, did you return early from deployment or mission (before the rest of your unit)?

1. No / Not Deployed [SKIP TO Q144]
2. Yes
3. Decline to answer [SKIP TO Q144]

BASE: HAD TO RETURN EARLY FROM DEPLOYMENT IN PAST 12 MONTHS (Q143=2)

Q143A Why did you return early from deployment or mission? Please select ONE OR MORE responses that best characterizes you.

[MULTIPLE RESPONSE]

1. I was on training/I needed additional training
2. I was on leave/TAD/TDY
3. I was pregnant
4. I needed/had dental work or dental problems
5. I needed an HIV test
6. I had a family situation
7. I had an injury
8. I had an illness or medical condition
9. I had mental health problems
10. A family member in the Exceptional Family Member Program (EFMP)
11. Another reason

BASE: ALL RESPONDENTS

Q144 Were you actively involved in the rescue, recovery or cleanup for the following missions?

[GRID PRESENTATION]

1. No
2. Yes

a. The Deep Water Horizon oil spill in the gulf
b. The earthquake in Haiti

BASE: ACTIVELY INVOLVED IN EITHER DEEP WATER HORIZON OR HAITI RELIEF MISSION (Q144a-b=2)

Q145 If you were involved in the following, do you have lasting memories, such as nightmares, recurring thoughts or generalized sadness resulting from the events? Please select ONE response per row.

[GRID PRESENTATION]

1. A lot
2. Some
3. A little
4. None at all
5. Not involved in this mission

a. Deep Water Horizon oil spill mission
b. Haiti earthquake mission

BASE: ALL RESPONDENTS

Q146 Are you <u>currently</u> assigned to a Warrior Transition Unit, Medical Hold, Medical Holdover, or Medical Extension Status?

1. No
2. Yes

BASE: ALL RESPONDENTS

Q147 In which of the following missions have you served? Please select ONE OR MORE responses that apply to you.

[MULTIPLE RESPONSE]

1. Operations Desert Shield or Desert Storm (e.g., The Persian Gulf)
2. Operation Just Cause (e.g., Panama)
3. Operation Restore Hope (e.g., Somalia)
4. Operation Uphold Democracy (e.g., Haiti)
5. Operations Joint Endeavor or Joint Guard (e.g., Bosnia)
6. Operation Safe Haven (e.g., Cuba)
7. Operation Enduring Freedom (e.g., Afghanistan)
8. Operation Iraqi Freedom (e.g., Iraq)
9. Operation New Dawn (Iraq)
10. Tsunami Relief (e.g., South Asia)
11. Hurricane Relief (e.g., Louisiana, Texas, Mississippi)
12. Other combat and/or peace-keeping mission
13. Other remote
14. None/Did not deploy

BASE: ALL RESPONDENTS - MANDATORY

Q148 Have you been deployed on either a combat or non-combat mission/deployment <u>since</u> September 11, 2001?

1. No, not deployed since 9/11/01 [SKIP TO Q168]
2. Yes
3. Decline to answer [SKIP TO Q159]

BASE: DEPLOYED SINCE SEPT 11, 2001 (Q148=2)

Q149 In the PAST 12 MONTHS, approximately how many <u>months</u> were you away in total for all deployments (both combat and non-combat missions)?

1. I did not deploy in the last 12 months
2. 1 month or less
3. 2 months

4. 3 or 4 months
5. 5 or 6 months
6. 7 or 8 months
7. 9 or 10 months
8. 11 or 12 months

BASE: DEPLOYED SINCE SEPT 11, 2001 (Q148=2)

Q150 Next, we have some questions about your MOST RECENT DEPLOYMENT. A combat zone deployment typically receives imminent danger pay (IDP), hazardous duty pay, and/or combat zone tax exclusion benefits. A non-combat deployment typically does not receive such benefits.

Was your MOST RECENT DEPLOYMENT since 9/11/2001 a combat zone or non-combat zone deployment?

1. Combat zone
2. Non-combat zone

BASE: DEPLOYED SINCE SEPT 11, 2001 (Q148=2)

Q151 During your MOST RECENT DEPLOYMENT (either combat or non-combat), did you experience any of the following events? Please select ONE response per row.

[GRID PRESENTATION]

1. No
2. Yes

[RANDOMIZE A-E; F PRESENTED LAST]

a. Blast or explosion (IED, RPG, land mine, grenade, etc.)
b. Vehicular accident/crash (any vehicle, including aircraft)
c. Fragment wound above the shoulders
d. Bullet wound above the shoulders
e. A fall serious enough to need medical attention
f. Another type of injury

BASE: DEPLOYED SINCE SEPT 11, 2001 (Q148=2)

Q152 For your MOST RECENT DEPLOYMENT, how much stress did you experience upon returning home?

1. A great deal
2. A fairly large amount
3. Some/a moderate amount
4. A little
5. None at all

BASE: DEPLOYED SINCE SEPT 11, 2001 (Q148=2)

Q153 Following your MOST RECENT DEPLOYMENT, how did your relationship change with your spouse or significant other (fiancé, boyfriend, or girlfriend)?

1. We argued more/had more conflict
2. We got along about the same
3. We argued less/had less conflict/got along better
4. I did not have a spouse or significant other following my most recent deployment

BASE: DEPLOYED SINCE SEPT 11, 2001 (Q148=2)

Q154 Since your MOST RECENT DEPLOYMENT, have you divorced or separated from your spouse or significant other?

1. No
2. Yes, divorced
3. Yes, separated
4. I do not have a spouse/significant other

BASE: DEPLOYED SINCE SEPT 11, 2001 (Q148=2)

Q155 Did any of the following problems begin or get worse during or after your MOST RECENT DEPLOYMENT? Please select ONE response per row.

[GRID PRESENTATION]

1. No
2. Yes

[RANDOMIZE A-H]

a. Memory problems or lapses
b. Balance problems
c. Dizziness
d. Ringing in the ears
e. Sensitivity to bright light
f. Irritability
g. Headaches
h. Nightmares

BASE: DEPLOYED SINCE SEPT 11, 2001 (Q148=2)

Q156 How did your use of the substances listed below change during your MOST RECENT DEPLOYMENT, compared with your use before you were deployed? Please select ONE response per row.

[GRID PRESENTATION]

1. Used more when deployed
2. Used about the same when deployed

3. **Used less or not at all when deployed**
4. **I have never used**

[RANDOMIZE A-G]
a. Alcohol
b. Cigarettes
c. Chewing/Smokeless tobacco
d. Cigars
e. Prescription medications
f. Marijuana
g. Opium, heroin, morphine, etc.

BASE: DEPLOYED SINCE SEPT 11, 2001 (Q148=2)
Q157 Did any injury that you received while on your MOST RECENT DEPLOYMENT result in any of the following? Please select ONE response per row.

[GRID PRESENTATION]
1. **No**
2. **Yes**

[RANDOMIZE A-G]
a. Lost consciousness or got "knocked out" for less than a minute
b. Lost consciousness or got "knocked out" for 1 to 20 minutes
c. Lost consciousness or got "knocked out" for more than 20 minutes
d. Felt dazed, confused, or "saw stars"
e. Didn't remember the event
f. Concussion or symptoms of a concussion (such as headache, dizziness, irritability, etc.)
g. Head injury

BASE: DEPLOYED SINCE SEPT 11, 2001 (Q148=2)
Q158 When were you FIRST prescribed the medications below? Please select ONE response per row.

[GRID PRESENTATION]
1. **Within 3 months before a deployment**
2. **During a deployment**
3. **Within 3 months following return from a deployment**
4. **Not prescribed this within 3 months before, during, or 3 months after a deployment** [RESPONSE COLUMN HAS LIGHT GREY BACKGROUND]

[RANDOMIZE A-E]
a. **Prescription** stimulants or attention enhancers (such as amphetamines, Ritalin, Prescription diet pills, etc.)

b. **Prescription** sedatives, tranquilizers, muscle relaxers, or barbiturates (such as Ambien, Quaalude, Valium, Xanax, Rohypnol, Phenobarbital, etc.)
c. **Prescription** pain relievers (Oxycodone, Percocet, Cough syrups with codeine, Methadone, etc.)
d. **Prescription** anabolic steroids (such as Deca Durbolin, Testosterone, etc.)
e. **Prescription** anti-depressants (such as Cymbalta, Strattera, Prozac, Paxil, etc.)

BASE: DEPLOYED OR DECLINED TO ANSWER DEPLOYED SINCE SEPT 11, 2001 (Q148=2, 3) - MANDATORY

Q159 The term "combat zone deployment," as used in this questionnaire, refers to a deployment where you received imminent danger pay (IDP), hazardous duty pay, and/or combat zone tax exclusion benefits.

How many COMBAT deployments (including OIF, OEF, OND - missions where you received IDP, hazardous duty pay, and/or combat zone tax exclusion benefits) have you been on since September 11, 2001?

1. I have not had any combat zone deployments [SKIP TO Q164]
2. 1 combat zone deployment
3. 2 combat zone deployments
4. 3 or 4 combat zone deployments
5. 5 or 6 combat zone deployments
6. 7 or more combat zone deployments
7. Decline to answer [SKIP TO Q164]

BASE: AT LEAST 1 COMBAT DEPLOYMENT (Q159>1 AND NOT DTA)

Q160 How long was your longest COMBAT zone deployment since September 11, 2001?

1. Less than 6 months
2. 6 to 12 months
3. 13 to 18 months
4. More than 18 months

BASE: AT LEAST 1 COMBAT DEPLOYMENT (Q159>1 AND NOT DTA)

Q161 In the PAST 12 MONTHS, approximately how many months were you away on COMBAT zone deployments?

1. Not at all in past 12 months
2. 1 month or less
3. 2 months or less
4. 3 or 4 months
5. 5 or 6 months
6. 7 or 8 months

7. 9 or 10 months
8. 11 or 12 months

BASE: AT LEAST 1 COMBAT DEPLOYMENT (Q159>1 AND NOT DTA)

Q162 Adding up all your COMBAT deployments, about how long were you deployed for the periods listed below? Please select ONE response per row.

[GRID PRESENTATION]

1. **Less than 30 days**
2. **30 days to 6 months**
3. **7 to 12 months**
4. **13 to 18 months**
5. **19 to 24 months**
6. **25 to 36 months**
7. **37 to 48 months**
8. **More than 48 months**

a. Since September 11, 2001
b. In the past 5 years (60 months)

BASE: AT LEAST 1 COMBAT DEPLOYMENT (Q159>1 AND NOT DTA)

Q163 Across all your COMBAT zone deployments, about how many times did the following happen? Please select ONE response per row.

[GRID PRESENTATION]

1. **Never**
2. **1 to 3 times**
3. **4 to 12 times**
4. **13 to 50 times**
5. **More than 50 times**

[RANDOMIZE A-Q]

a. I was sent outside the wire on combat patrols, convoys, or sorties.
b. I, or members of my unit, received incoming fire from small arms, artillery, rockets, or mortars.
c. I, or members of my unit, encountered mines, booby traps, or, or IEDs (improvised explosive devices).
d. I worked with landmines or other unexploded ordnances.
e. My unit fired on the enemy.
f. I personally fired my weapon at the enemy.
g. I engaged in hand-to-hand combat.
h. I was responsible for the death or serious injury of an enemy.
i. I witnessed members of my unit or an ally unit being seriously wounded or killed.
j. My unit suffered causalities.

k. I saw dead bodies or human remains.
l. I handled, uncovered, or removed dead bodies or human remains.
m. Someone I knew well was killed in combat.
n. I took care of injured or dying people.
o. I interacted with enemy prisoners of war.
p. I witnessed or engaged in acts of cruelty, excessive force, or acts violating rules of engagement.
q. I was wounded in combat.

BASE: DEPLOYED OR DECLINED TO ANSWER DEPLOYED SINCE SEPT 11, 2001 (Q148=2, 3) - MANDATORY

Q164 The term "non-combat deployment" refers to a deployment where you did NOT receive IDP, hazardous duty pay, or combat zone tax exclusion benefits. Examples of non-combat include Unit Deployed Programs, on afloat not related to a mission, on exercises or training, as an individual augmentee, or on humanitarian/relief missions.

How many NON-combat deployments (missions where you did not receive IDP, hazardous duty pay, or combat zone tax exclusion benefits) have you been on since <u>September 11, 2001</u>?

1. I have not had any non-combat zone deployments [SKIP TO Q168]
2. 1 non-combat zone deployment
3. 2 non-combat zone deployments
4. 3 or 4 non-combat zone deployments
5. 5 or 6 non-combat zone deployments
6. 7 or more non-combat zone deployments
7. Decline to answer [SKIP TO Q168]

BASE: AT LEAST 1 NONCOMBAT DEPLOYMENT (Q164>1 AND NOT DTA)

Q165 Adding up all your NON-combat deployments, about how long were you deployed for the periods listed below? Please select ONE response per row.

[GRID PRESENTATION]

1. **Less than 30 days**
2. **30 days to 6 months**
3. **7 to 12 months**
4. **13 to 18 months**
5. **19 to 24 months**
6. **25 to 36 months**
7. **37 to 48 months**
8. **More than 48 months**

a. Since September 11, 2001
b. In the past 5 years (60 months)

BASE: AT LEAST 1 NONCOMBAT DEPLOYMENT (Q164>1 AND NOT DTA)

Q166 How long was your longest NON-combat deployment since September 11, 2011?

1. Less than 6 months
2. 6 to 12 months
3. 13 to 18 months
4. More than 18 months

BASE: AT LEAST 1 NONCOMBAT DEPLOYMENT (Q164>1 AND NOT DTA)

Q167 In the PAST 12 MONTHS, approximately how many months were you away on NON-combat deployments ONLY?

1. Not at all in past 12 months
2. 1 month or less
3. 2 months or less
4. 3 or 4 months
5. 5 or 6 months
6. 7 or 8 months
7. 9 or 10 months
8. 11 or 12 months

BASE: ALL RESPONDENTS

Q168 How much do the following statements describe you? Please select ONE response per row.

[GRID PRESENTATION]

1. **A great deal**
2. **A lot**
3. **Somewhat**
4. **A little**
5. **Not at all**

[RANDOMIZE A-I]

a. I like overcoming challenges.
b. When I get angry I stay angry.
c. I function well under adverse circumstances.
d. I'm always up for a new experience.
e. I dislike revealing much about myself to others.
f. When I get angry at someone, I want to hurt the person.
g. I go for the thrills in life when I get a chance.
h. My anger prevents me from getting along with people as well as I'd like to.
i. I can easily control what happens in my life.