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State of the Behavioral Health of the United States Coast Guard

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The views, opinions, and findings contained in this report are those of the authors and should not be construed as an official U.S. Coast Guard position, policy, or decision, unless so designated by other official documentation.

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Dear Coast Guard Colleagues,

I am pleased to introduce the first State of the Behavioral Health of the United States Coast Guard report, which provides the first population-based information examining health behaviors of our active duty members. Since 1980, the Department of Defense (DoD), through the Office of the Assistant Secretary of Defense (OASD) for Health Affairs (HA), has conducted a survey approximately every 3 years to acquire health behavior information on active duty personnel. In 2008, for the first time, the United States Coast Guard participated in the DoD Survey of Health Related Behaviors Among Active Duty Military Personnel (HRB Survey) and worked with RTI International to conduct the Coast Guard portion of the study. This effort established baseline information about substance abuse and mental health risk and protective factors and other health behaviors to help facilitate evaluation of policies and programs, and to establish collaborative, data-driven interventions.

This report builds on and goes beyond the analyses conducted in the final report for the 2008 HRB Survey (Bray et al., 2009). It reports additional in-depth analyses just for the Coast Guard data from the survey. It also incorporates recommendations from a Coast Guard working group for specific actions that the Coast Guard can take to strengthen further the readiness and well-being of our members.

I wish to thank RTI International and the working group for their efforts in conducting these analyses and preparing these recommendations. The working group was composed of individuals representing Coast Guard groups with an interest in health behaviors. The members were CDR Matthew Kleiman (Chair, CG-1112), CAPT Maura Dollymore (CG-112), CDR Erica Schwartz (CG-112), CDR Melburn Dayton (CG-113), LCDR James Cannon (HSWL SC), CWO Dennis Rangel (HSWL SC), Mr. Daniel Blaettler (CG-1111), Mr. John Reibling (CG-1112), Dr. Cris White (HSWL SC), and Mr. Mark Mattiko (CG-1111).

Taken together, the findings from the 2008 HRB Survey and the Coast Guard working group provide the very first valid, reliable, and timely information about lifestyle choices and behaviors that affect readiness and the overall well-being of the active duty Coast Guard. It is my hope that decision makers use this information to better their respective practice both in the Directorate of Health, Safety and Work-Life and throughout all of the Coast Guard.

RADM Mark J. Tedesco, MD, MPH
Director of Health, Safety and Work-Life

ACKNOWLEDGMENTS

EXECUTIVE SUMMARY

This report presents in-depth analyses of the Coast Guard data from the 2008 Department of Defense (DoD) Survey of Health Related Behaviors Among Active Duty Military Personnel (HRB Survey). RTI International (RTI) of Research Triangle Park, North Carolina conducted the analyses. The 2008 HRB Survey was conducted under the guidance of the Office of the Assistant Secretary of Defense (Health Affairs), TRICARE Management Activity, and the United States Coast Guard.

The 2008 HRB Survey assessed a wide array of behaviors covering substance use and abuse, stress and mental health issues, and selected *Healthy People 2010* objectives. The focus of this report is on Coast Guard data regarding the following:

- the nature, extent, and consequences of substance use and abuse (alcohol, illicit drugs, and tobacco);

- mental well-being with an emphasis on stress and coping at work and in the family, depression, serious psychological distress, generalized anxiety disorder, posttraumatic stress disorder (PTSD), physical and sexual abuse, and suicidality; and

- an assessment of progress of the Coast Guard in meeting selected *Healthy People 2010* objectives.

The eligible Coast Guard population for the 2008 HRB Survey consisted of all active duty military personnel except recruits, Service academy students, personnel absent without official leave (AWOL), and personnel who were incarcerated at the time of data collection. The final sample of Coast Guard personnel consisted of 3,856 active duty participants who completed anonymous self-administered questionnaires. Participants were selected to represent men and women in all pay grades of the active Coast Guard throughout the world. Data were collected primarily from participants in group sessions at military installations and by mail for those not attending the sessions. The overall Coast Guard response rate was 73.9%. The data were weighted to represent all active duty Coast Guard personnel, meaning that the results of the survey provide population estimates of the entire active Coast Guard.

Selected key findings for the Coast Guard from the 2008 HRB Survey are noted below. In interpreting and understanding the findings, three points should be considered:

- Data and results are self-reported findings that may differ from information in official records or other data sources.

- Some questionnaire items comprise screeners suggestive of possible substance abuse or mental health issues; results from these screeners may suggest the need for further evaluation but do not represent a formal clinical diagnosis.

- In reporting the findings, the term "significant" is often used; this term refers to statistical significance resulting from statistical tests of differences that were conducted.

The format of this report uses a graphic presentation to convey key findings and highlights from unadjusted data. Detailed tables showing more extensive information are provided in the appendices. The main analyses examined 24 outcome measures across the substance use, mental health, and other health-related behavior domains and identified the prevalence of these outcomes and their strongest predictors from a set of 28 variables. The predictor variables are valuable because they suggest issues or subgroups to which interventions can be profitably directed. Overall, the five variables that emerged most often as the strongest predictors across the set of 24 outcome measures were (1) pay grade, (2) avoidance coping, (3) age group, (4) suicidal ideation, and (5) meeting screening criteria for PTSD.

Working Group and Recommendations

To ensure that findings are of the greatest utility to Coast Guard policymakers, RADM Tedesco formed a Coast Guard working group consisting of commanders, medical officers, researchers, and substance abuse program specialists. The group reviewed the findings from the analyses and developed recommendations across six broad categories: alcohol use, illicit drug use, tobacco use, stress and mental health, physical and sexual abuse, and other health-related behaviors. The recommendations are an attempt to ensure that the survey findings are translated into action and that the data are put to use in reviewing and modifying programs and policies to improve overall readiness of Coast Guard personnel.

Alcohol Use

Rates of heavy drinking and harmful drinking (based on AUDIT scores ≥ 8) were 18% and 25%, respectively. Serious consequences of alcohol use had a prevalence of 7%, and 14% of personnel acknowledged productivity loss due to alcohol use. The most consistent and significant predictors of alcohol-related consequences were age, pay grade, heavy alcohol use, spirituality, and use of avoidance coping strategies, suggesting that Coast Guard personnel aged 21 to 34 who may not have the coping skills are at highest risk for alcohol-related problems. Alcohol interventions that focus on developing protective behavioral resources (such as drink refusal skills, spacing drinks, and setting drink limits) and alternative coping mechanisms (such as increasing spirituality, getting enough sleep, and talking with others) may serve to decrease

use in this more vulnerable population. In addition, a range of behavioral health issues (such as PTSD and serious psychological distress) were found to be associated with problematic alcohol use and may also need to be the focus of interventions.

The working group recommendations focused on the development of positive coping skills, protective behavioral strategies, and harm reduction strategies:

- Ensure that the current Substance Abuse Free Environment (SAFE) training curricula reflect state of the science.

- Increase focus on overall prevention/intervention efforts on younger at-risk drinkers.

- Develop unit-level alcohol awareness initiatives that focus on lowering high-risk drinking behavior and early prevention.

- Shift paradigms to a more integrated and coordinated approach to alcohol treatment/prevention/case management. (Work-Life Information Systems meet this recommendation.)

- Develop additional training for Coast Guard health care providers that focuses on identifying high-risk individuals and providing them with appropriate resources. (The Addiction Orientation for Health Care Providers [AOHCP] meets this recommendation.)

- Change Coast Guard personnel policy with respect to alcohol self-referral. (The chartered Coast Guard substance abuse working group has been directed to address this issue. CG-111 is currently reviewing and rewriting the alcohol abuse prevention and education sections of COMDTINST M6200.1A to reflect these changes.)

- Review all alcohol awareness training curricula (including General Mandated Trainings, Leadership Development Courses, Enlisted Specialty Schools, and Prime for Life Training) to ensure alignment with state-of-the-science preventive practices and Commandant Policy.

Illicit Drug Use

The prevalence of any illicit drug use in the past year, including prescription drug misuse, was 15% among Coast Guard personnel. Prescription drug misuse was reported by 14% of personnel and was significantly higher for a number of risk groups, including those screening positive for PTSD (26%), suicidal ideation (26%), or serious psychological distress (24%). Pay grades E1 to E9 and W1 to W9, lower levels of education, and the use of avoidance coping strategies were consistent predictors of illicit drug use among Coast Guard personnel. Individuals evidencing behavioral health problems should be screened for illicit drug use, and strategies to reduce the risk for drug use should focus on those populations who are most vulnerable to drug

use. A strong sense of spirituality, more hours of nightly sleep, and the use of active coping strategies were all protective against illicit drug use.

The working group recommendations focused on the development of positive coping skills, safeguards against prescription drug misuse, and strategies for early identification and diagnosis of misuse and/or dependency:

- Develop initiatives that focus on positive coping skills education and the self-management of chronic conditions.

- Evaluate safeguards for reducing "doctor shopping" for prescription drugs in areas where services are provided by contract/civilian physicians.

- Implement a team approach for diagnoses involving alcohol and drug dependency, as well as chronic pain, with a heavy focus on appropriately managing these conditions. (This is currently being explored as the Coast Guard looks into implementing patient-centered medical home [PCMH] interventions across the service.)

- Develop a training program for Coast Guard health care providers and a command cadre that focuses on early identification of drug use/misuse.

Tobacco Use

The prevalence of past month cigarette smoking (27%) was much higher than the rate of smokeless tobacco use (12%). The common predictors of cigarette use and smokeless tobacco use were gender, age, race/ethnicity, education, family status, pay grade, average hours of nightly sleep, heavy alcohol use, and use of avoidance coping strategies. Having children living with you was the only common protective factor against cigarette and smokeless tobacco use. The highest rates of smoking occurred among heavy alcohol users, persons who screened positive for PTSD, and those who reported thinking about suicide (41% to 48%). The highest rates of smokeless tobacco use were for heavy alcohol users, cigarette smokers, those who used avoidance coping strategies, and those who got 4 hours or less of nightly sleep on average (20% to 23%). These data show an overlap of tobacco types with behavioral health issues and heavy alcohol use and suggest that those with psychological issues may turn to substance use as a way of coping with these challenges.

The working group recommendations focused on tobacco cessation programs and incentives, as well as diagnostic and educational tools, to raise awareness of tobacco-related issues and promote effective cessation programs:

- Use incentive programs to promote tobacco cessation and continued abstinence.

- Promote current successful programs more heavily (e.g., the "Quit Tobacco, Make Everyone Proud" program).

- Design a systematic global approach with targeted intervention strategies for tobacco cessation. (Currently there is not enough of a coordinated effort in this arena.)

- Primary care providers should conduct a brief tobacco use screening during the periodic health assessment (PHA) review as a follow-up to the PHA survey question on tobacco use.

- Implement a phased approach to making all Coast Guard work environments 100% tobacco-free, including incentivizing units to initiate local reforms. (Sector Jacksonville is currently implementing such a policy. This model should be reviewed to determine its application across the service.)

- Train and require unit health promotion coordinators (UHPCs) to conduct a brief tobacco use screening as part of each member's unit check-in process. (UHPCs are currently required by policy to brief every new unit member on the Coast Guard Health Promotion Program.)

- Conduct pilot studies to identify the most effective tobacco cessation programs in Coast Guard work and health care settings.

- Utilize Coast Guard HRB tobacco use data to develop targeted education, awareness, and intervention strategies.

Stress and Mental Health

Coast Guard personnel reported a number of stress and mental health issues. Overall, the prevalence for those reporting "a lot" of work or family stress was 34%, but was considerably higher for those with additional behavioral health problems. An estimated 18% of Coast Guard personnel screened positive for depression, about 7% had a positive screening for PTSD, nearly 12% indicated serious psychological distress, and about 10% met criteria for generalized anxiety. These behavioral health issues were highly interrelated, with a large number of overlapping variables serving as predictors for psychological problems. Demonstrating PTSD symptoms, for example, was associated with work or family stress, serious psychological distress, generalized anxiety, depression, and a history of physical or sexual abuse. Likewise, prevalence rates for anxiety and depression were much higher among personnel demonstrating other behavioral health problems. These findings highlight the need for a comprehensive assessment of functioning when considering an intervention plan for personnel demonstrating any of a number of behavioral health problems.

The working group recommendations focused on possible interventions for coping with stress and addressing mental health issues:

- Embed active duty mental health providers within Coast Guard clinics and primary care settings to focus on short-term, preventative interventions.

- Develop and implement a pilot program to deploy "behavioral health coordinators" to underserved geographical areas with the ultimate goal of providing services and coordination to all members in need of mental health intervention at all levels across the Coast Guard.

- Collect data that would support better decision making within the behavioral health arena (e.g., family advocacy, suicide prevention, sexual assault).

- Develop a campaign for reducing stigma associated with seeking mental health services.

- Implement a leadership/command-focused "Operational Stress Control" program in coordination with other Coast Guard operational programs.

- Use a team approach to better manage patients with multiple and/or chronic behavioral health issues. (The implementation of PCMH addresses this recommendation.)

- Address stress management through the development of enhanced resilience training for all Coast Guard personnel, with an emphasis on adaptive coping skills.

- Charter a working group that addresses "operational stress management" issues and the implementation of an integrated leadership program.

The authors propose that exercise, in any form, be added to the list of recommendations for the Coast Guard. Vigorous exercise was a significant protective factor for a number of mental health issues.

Physical or Sexual Abuse

Analyses showed that nearly 41% of Coast Guard personnel reported a history of lifetime physical or sexual abuse, although most of that occurred prior to joining the Coast Guard. A history of abuse was highly correlated with psychological problems. Demonstrating PTSD symptoms, serious psychological distress, and thinking about suicide were predictive of a history of physical or sexual abuse. Abuse history was more prevalent among those with shorter sleeping patterns and those who rely on avoidance coping strategies.

The working group developed several recommendations focused on physical or sexual abuse:

- Prioritize work-life specialists to place more emphasis on education, prevention, and surveillance of physical or sexual assault.

- Develop education programs that focus on leadership's awareness and knowledge of stress characteristics and detection of signs of physical or sexual abuse to increase sensitivity to this issue and promote early detection.

- Educate primary care physicians about the connection between physical/sexual abuse and alcohol/drug abuse.

- Evaluate Coast Guard policies and procedures for reporting a history of physical or sexual abuse to determine whether changes are needed to ensure that effective processes are in place for victims wishing to disclose this information.

- Develop trend analyses to drive strategic programmatic direction for physical/sexual abuse awareness and prevention.

Other Health-Related Behaviors

A variety of other health-related behaviors were examined, including overweight, exercise, blood pressure, cholesterol, and achievement of *Healthy People 2010* objectives. The prevalence of overweight (defined as body mass index of 25 or greater) in the Coast Guard was 62%. Nearly half (48%) of Coast Guard members reported that they engaged in regular vigorous activity during the past 30 days. An estimated 15% indicated that they had been told by a health care practitioner that they had high blood pressure, and 16% that they had high cholesterol. The Coast Guard met or exceeded four *HP 2010* objectives (obesity, vigorous physical activity, seat belt use, motorcycle helmet use) of 12 objectives examined. Objectives that were not met were past month cigarette use, past month smokeless tobacco use, past month binge drinking, past month any illicit drug use, healthy weight, fruit intake, vegetable intake, and condom use. However, condom use was very close to the goal (within 2 percentage points).

Sociodemographic variables, such as gender, the presence of children living with you, age group, pay grade, education, and family status were the most significant predictors of chronic conditions, including overweight, high blood pressure, and high cholesterol. These findings are reflective of commonly acknowledged risk factors for these conditions, such as older age (and therefore, generally, higher pay grade) and male gender. Conversely, vigorous physical activity during the past 30 days was largely associated with positive psychological and coping characteristics. Personnel indicating generalized anxiety, suicidal ideation, and use of avoidance coping strategies were less likely to report vigorous physical activity.

The Coast Guard working group made the following recommendations:

- Provide telephone and online coaching services to reduce risk behaviors and promote healthy behavior change surrounding weight management, physical fitness, substance

use, healthy eating, and stress management. (The Mind and Body weight management program currently addresses this issue in part.)

- Integrate the relationship between personal readiness (e.g., healthy weight and regular physical activity) and unit readiness through the requirement of annual command PHA reviews and unit health promotion program planning in consultation with regional health promotion managers.

- Target behavioral health interventions to specific high-risk populations (e.g., high blood pressure, high cholesterol).

- Increase compliance with the Commandant's physical activity requirements and adherence to healthy food intake norms as established by the U.S. Department of Agriculture and the U.S. Centers for Disease Control and Prevention.

Job Satisfaction

Overall job satisfaction was high. About 76% of Coast Guard personnel indicated being "satisfied" or "very satisfied" with their job. Senior enlisted personnel (E7 to E9) and officers reported the highest rates of job satisfaction (80% or higher). Positive mental health and coping strategies were also positively associated with job satisfaction (including the likelihood of staying on active duty and the likelihood of serving at least 20 years). Those who reported no generalized anxiety, no PTSD, and no suicidal ideation were more likely to indicate higher job satisfaction than their counterparts. These findings highlight the impact that positive mental health can have on longer-term intentions, such as the likelihood of staying on active duty and the likelihood of serving at least 20 years.

The Coast Guard working group did not make any specific recommendations regarding job satisfaction.

Maintaining the health of the active duty Coast Guard is vital to mission readiness. The findings noted above and other related findings are discussed in detail throughout this report. The report also describes the study methods and suggests areas in need of attention to address key health behavior issues facing the Coast Guard.

SECTION 1
INTRODUCTION AND BACKGROUND

This report provides the first assessment of the state of the behavioral health of the United States Coast Guard. It examines data and presents findings for the Coast Guard from the 2008 Department of Defense (DoD) Survey of Health Related Behaviors Among Active Duty Military Personnel (HRB Survey), conducted by RTI International (RTI) of Research Triangle Park, North Carolina. It describes substance use, selected health behaviors, mental health and stress, and progress toward achieving selected *2010 Healthy People* objectives. For this report, *substance use* includes use of alcohol, illicit drugs (illegal drugs or nonmedical use of prescription drugs), and tobacco (cigarettes and smokeless tobacco). Indicators of mental health include the need for further depression evaluation, serious psychological distress, generalized anxiety disorder, posttraumatic stress disorder (PTSD), and considering or attempting suicide. In addition, physical or sexual abuse is reported.

This chapter provides background on the series of HRB Surveys and objectives for the 2008 HRB Survey, describes the formation and activities of a Coast Guard working group and its recommendations, and outlines the organization of the report.

1.1 Health Related Behaviors Survey Series

In 1980, under the direction of the Assistant Secretary of Defense (Health Affairs), a systematic effort to obtain data for use in guiding and evaluating health and substance abuse programs and policies was initiated. DoD began a series of recurrent surveys to (a) improve understanding of the nature, causes, and consequences of substance use and other health behaviors in the military; (b) determine the appropriateness of the emphasis placed on program elements; and (c) examine the impact of current and future program policies. Ten surveys have been conducted on active duty personnel from 1980 to 2008. The 1980 survey was conducted by Burt Associates, Incorporated, of Bethesda, Maryland (Burt, Biegel, Carnes, & Farley, 1980). The subsequent surveys conducted in 1982, 1985, 1988, 1992, 1995, 1998, 2002, 2005, and 2008, were conducted by RTI International (see Bray et al., 2006, 2009, 2010). All 10 surveys have assessed the extent and consequences of alcohol, illicit drug, and tobacco use. Later surveys expanded the survey content within a broader health promotion context, incorporated selected *Healthy People* objectives, and expanded the emphasis on stress and other mental health measures.

1.2   Overview and Objectives of the 2008 HRB Survey

The 2008 HRB Survey was the first in the series to include Coast Guard service members, thus providing the first comprehensive assessment of health-related behaviors among Coast Guard personnel.

The 2008 HRB Survey

- provided a baseline assessment of the nature, extent, and consequences of substance use and abuse (alcohol, illicit drugs, and tobacco) in the Coast Guard;

- provided an assessment of progress for the Coast Guard in meeting selected *Healthy People 2010* objectives, including overweight;

- appraised selected stress and mental health issues in Coast Guard personnel; and

- assessed overall job satisfaction in the Coast Guard.

Taken together, the results of the analysis of Coast Guard data from the 2008 HRB Survey presented in this report provide information upon which Coast Guard policymakers can base recommendations for prevention and intervention efforts in order to support and ensure the health and readiness of Coast Guard personnel.

1.3   Working Group and Recommendations

To ensure that findings from our analyses were of the greatest utility to Coast Guard policymakers, a working group was formed consisting of Coast Guard representatives, including commanders, medical officers, researchers, substance abuse program specialists, and others. The group met on three occasions in September, November, and December 2010 to review the findings from the Coast Guard data and to develop recommendations across the following six broad categories captured in the analyses: alcohol, illicit drugs, tobacco, stress and mental health, physical and sexual abuse, and well-being of the force. The recommendations are an attempt to ensure that the survey findings are translated into action and that the data are put to use in reviewing and modifying programs and policies, where needed, to improve the overall readiness of Coast Guard personnel. These recommendations are presented at the end of each substantive chapter.

1.4   Organization of the Report

This report describes substance use and other health-related behaviors among Coast Guard personnel in 2008. The format of this report includes graphics and bulleted summaries intended to highlight key findings. The appendices include tables that convey more detailed

information. The measures and analytic approach for the 2008 HRB Survey are presented in Chapter 2, which includes a description of survey measures examined among Coast Guard personnel, statistical methods employed in the analysis of the data, general demographic characteristics of the Coast Guard population, and a brief overview of key findings.

Chapters 3 through 5 present figures and bulleted text to describe key findings. A series of appendices provides extensive tables supporting and extending the findings in these chapters. Recommendations of the working group appear at the end of each chapter.

Chapter 3 presents findings on substance abuse, including alcohol, illicit drugs, and tobacco. For alcohol, different levels of use are examined, as well as serious consequences and alcohol-related productivity loss. Following this, analyses of illicit drug use in the past year are presented, including use of illicit drugs as well as nonmedical use of prescription drugs. Finally, analyses related to tobacco use are presented; these describe cigarette and smokeless tobacco use as well as attempts to quit the use of tobacco products.

Chapter 4 describes selected stress and mental health measures among Coast Guard personnel. Topics presented include work and family stress, depression, PTSD, serious psychological distress, generalized anxiety, and history of physical or sexual abuse.

Chapter 5 presents other health-related topics, including overweight and exercise, blood pressure and cholesterol levels, achievement of selected *Healthy People* 2010 objectives, and overall job satisfaction among Coast Guard personnel.

In Chapters 3 through 5, figures present the five variables showing the strongest association with each outcome of interest. Each figure is accompanied by a brief summary that highlights the findings as well as a listing of all significant risk and protective factors for the specified outcome measure.

SECTION 2
MEASURES AND ANALYTIC APPROACH

This chapter describes the survey measures and analytic approach used in the analyses of the Coast Guard data from the 2008 HRB Survey. This chapter includes definitions for measures included in the special analysis of Coast Guard data as well as an overview of measurement approaches and analysis techniques. In addition, it presents sample size information of the Coast Guard respondents and demographic characteristics of the Coast Guard population. Finally, it also provides a brief overview of key findings. More details about the survey methodology appear in Appendix D.

2.1 Survey Measures

2.1.1 Sociodemographic Characteristics

The sociodemographic (and military) characteristics examined in this report include gender, race/ethnicity, education, age, family status, children living with you, deployment, pay grade (rank) and region. Definitions for these characteristics are given below.

- **Gender.** Gender was defined as male or female.

- **Race/Ethnicity.** Personnel were classified into four racial/ethnic groups: white non-Hispanic, African American non-Hispanic, Hispanic, and other (including all other persons not classified above). Non-Hispanics who indicated more than one race where classified in the "other" category.

- **Education.** Education was defined as the highest level of educational attainment. Categories included high school or less, some college, and college degree or beyond. Personnel with General Educational Development (GED) certification were classified as high school graduates.

- **Age.** Age of respondents was defined as current age at the time of the survey. For several of the analyses presented in this report, estimates are presented for the age groups 20 or younger, 21 to 25, 26 to 34, and 35 or older. Other age groups are used in a few situations as dictated by the standards under consideration.

- **Family Status.** Family status was defined in terms of marital status and spouse presence at the duty location. Categories included not married (personnel living as single, widowed, divorced, or separated); married, spouse not present (those who were legally married and whose spouse was not at the duty location); and married, spouse present (those legally married and living with their spouse).

- **Children Living With You.** Personnel were asked to indicate whether they had children living with them.

- **Deployment.** Participants were asked to indicate whether they had been on any deployment in the past year.

- **Pay Grade.** Military pay grades for enlisted personnel were grouped as E1 to E3, E4 to E6, and E7 to E9. Pay grades for officers and warrant officers were grouped as O1 to O3, O4 to O10, and W1 to W5.

- **Region.** Region refers to the location where personnel were stationed at the time of the survey and was defined as being within the continental United States (CONUS) or outside the continental United States (OCONUS).

2.1.2 Substance Use Measures

Measures of substance use for the 2008 HRB Survey are generally consistent with those used in prior surveys in this series and with those in other major national surveys, such as the National Survey on Drug Use and Health (NSDUH) (Office of Applied Studies [OAS], 2008).

Alcohol Use. Alcohol use in this study was measured in terms of the quantity of alcohol consumed and frequency of drinking. Any alcohol use was defined as any use of alcohol in the 30 days prior to the survey. Heavy drinkers, the category of most concern, were defined as drinking five or more drinks per typical drinking occasion at least once a week in the 30 days prior to the survey. The criterion of five or more drinks to define heavy drinkers is consistent with the definition used in other national surveys of civilians, such as NSDUH (OAS, 2008) and the Monitoring the Future (MTF) study (Johnston, O'Malley, & Bachman, 1998a, 1998b; University of Michigan, 2008).

Negative Effects of Alcohol Use. The prevalence of adverse effects associated with alcohol use in the past 12 months was also estimated. The measure of alcohol-related *serious consequences* refers to the occurrence of the following problems in the past 12 months one or more times: (a) being passed over for promotion because of drinking, (b) receiving a lower score on a performance rating because of drinking, (c) loss of 1 week or more from duty because of a drinking-related illness, (d) Uniform Code of Military Justice (UCMJ) punishment because of drinking, (e) arrest for driving under the influence of alcohol (DUI), (f) alcohol-related arrest other than DUI, (g) alcohol-related incarceration, (h) alcohol-related injury to the service person, (i) alcohol-related accident resulting in someone else's injury or property damage, (j) physical fights while drinking, (k) spouse threatening to leave or leaving because of drinking, or (l) spouse asking the service person to leave or the service person having left.

The measure of alcohol-related *productivity loss* was defined as 1 or more days in the past 12 months in which any of the following behaviors occurred: (a) being hurt in an on-the-job

accident because of drinking; (b) being late for work or leaving early because of drinking, a hangover, or an illness caused by drinking; (c) not coming to work because of an illness or a personal accident caused by drinking; (d) performing below a normal level of performance caused by drinking; (e) being drunk while working; or (f) being called in during off-duty hours and reporting feeling drunk.

The Alcohol Use Disorders Identification Test (AUDIT) was used to characterize participants' risk of developing alcohol problems. The AUDIT consists of 10 questions scored 0 to 4 that are summed to yield a total score ranging from 0 to 40. Scores greater than or equal to 8 are indicative of *hazardous, harmful,* or *possibly dependent* alcohol use.

Illicit Drug Use. In an effort to better characterize the differences in prevalence of use of prescription drugs and illicit drugs, the 2008 HRB Survey asked about participants' use of these substances separately. For the 2008 HRB Survey, illicit drug use was measured in terms of the prevalence of use of 10 categories of drugs: (1) marijuana or hashish, (2) cocaine (including "crack"), (3) LSD, (4) PCP, (5) MDMA, (6) other hallucinogens, (7) methamphetamine, (8) heroin, (9) GHB/GBL, and (10) inhalants. Questions on anabolic steroids and erectile dysfunction drugs were included in the survey but not in the definition of illicit drug use.

The 2008 HRB Survey's questions about nonmedical use of prescription drugs asked about recency of last use and frequency of use during the past year (prior to the survey). Categories of prescription drugs included (1) stimulants other than methamphetamine, (2) tranquilizers or muscle relaxers, (3) sedatives or barbiturates, (4) pain relievers, (5) anabolic steroids, and (6) erectile dysfunction drugs. "Nonmedical use" was defined as any use of these drugs "on your own," that is, either without a doctor's prescription or in greater amounts or more often than prescribed, or for any reasons other than as prescribed, such as for the feelings they caused. No attempt was made to measure quantity (e.g., number of pills) or the size of doses for any of the drug categories because most respondents cannot furnish this information adequately and because of the considerable variation in street drug purity. Anabolic steroids and erectile dysfunction drugs were not included in the definitions of illicit drug use or prescription drug misuse.

To estimate the prevalence of use, questions were included about use of each drug type (both illicit and nonmedical use of prescription drugs) within the past 30 days and within the past 12 months. Definitions followed those used in prior HRB Surveys as closely as possible in order to facilitate comparisons. These definitions also have been commonly used in NSDUH (e.g., OAS, 2008). Indices were constructed for illicit drug use categories (e.g., any illicit drug use,

including prescription drug misuse; any illicit drug use, excluding prescription drug misuse; any prescription drug misuse) by creating use/no use dichotomies for each drug category and then setting an individual's score to the maximum score value of the categories (steroids and erectile dysfunction drugs were not included in these summary measures).

Tobacco Use. Most analyses of tobacco use focus on cigarette smoking. For the 2008 HRB Survey, *past 30 day cigarette use* was defined as any cigarette use during the past 30 days. *Past 30 day smokeless tobacco use* was defined as any use of smokeless tobacco products (i.e., chewing tobacco or snuff) during the past 30 days. Quitting or attempting to quit smoking was defined as quitting or making a serious attempt to quit smoking cigarettes in the year prior to the survey.

2.1.3 Mental Health

The 2008 HRB Survey included questions on a variety of stress, coping, and mental health issues:

- work or family stress,

- active coping and avoidance coping,

- depression,

- generalized anxiety disorder,

- serious psychological distress,

- posttraumatic stress disorder (PTSD),

- history of physical or sexual abuse, and

- suicidal ideation.

Measures for several of these items were based on responses to specific questions. Other measures consisted of specific scales.

Work or Family Stress. Personnel were asked to report the level of stress that they attributed to their military work and family relationships, and to provide information on the perceived impact of stressful experiences on their military performance in the 12 months prior to the survey. Personnel who reported experiencing "a lot" of stress at work or "a lot" of stress in their family life or in a relationship (i.e., with their spouse, live-in fiancé, boyfriend or girlfriend, or the person they date seriously) were coded as having high work or family stress in the past 12

months. Two other dichotomous variables (used as predictors in many of the analyses) were created for work stress and family stress by combining those reporting "a lot" or "some" stress versus those reporting "a little" or "no" stress.

Active Coping and Avoidance Coping. Personnel were asked to specify the methods they used to cope with feeling stressed. Methods included talking to a friend or family member, lighting up a cigarette, having a drink, saying a prayer, exercising or playing sports, engaging in a hobby, getting something to eat, smoking marijuana or using other illegal drugs, thinking of a plan to solve the problem, and thinking about hurting or killing themselves. These were categorized as either active copying strategies (approach-oriented problem solving) or avoidance coping strategies. Participants were coded as endorsing active coping if they responded frequently or sometimes to any of the positive coping strategies. Similarly, participants were coded as endorsing avoidance coping if they responded frequently or sometimes to any of the negative coping strategies. Personnel could be coded as engaging in both active and avoidance coping because they were not mutually exclusive.

Depression. To determine whether personnel were in need of further depression screening, the Version A Burnam depression screen, which included one item from the Center for Epidemiologic Studies–Depression Scale (CES-D; Radloff, 1977) and two items from the Diagnostic Interview Schedule (Robins, Helzer, Croughan, & Ratcliff, 1981), was used. From these items, an index of need for further depression evaluation was constructed based on reports of both current and extended periods of depression. Personnel were defined as needing further evaluation or assessment if they (a) felt sad, blue, or depressed for 2 weeks or more in the past 12 months *or* (b) reported 2 or more years in their lifetime of feeling depressed and felt depressed "much of the time" in the past 12 months *and* (c) felt depressed on 1 or more days in the past week. This index was based on work by Burnam and colleagues (Burnam, Wells, Leake, & Landsverk, 1988; Rost, Burnam, & Smith, 1993), which showed that this screener had high sensitivity and good positive predictive value for detecting depressive disorder.

Generalized Anxiety Disorder. To screen for symptoms of generalized anxiety disorder (GAD), a set of items adapted from the Patient Health Questionnaire (Spitzer, Kroenke, & Williams, 1999) was used. If respondents indicated that they had been feeling nervous, anxious, or on edge or that they had been worrying a lot about different things for several days or more, the analysis examined whether they reported any of the other symptoms. If they reported experiencing three or more symptoms on more than half of the days in the past 30 days, they were considered to be meeting screening criteria.

Serious Psychological Distress. A standardized measure to screen for serious psychological distress was included in the survey. This six-item scale of serious psychological distress, the K-6, has been found to be an efficient serious psychological distress screening scale in national samples and is used in NSDUH (Kessler et al., 2002; OAS, 2008). This instrument asked respondents how often in the past 30 days they felt nervous, hopeless, restless, or fidgety; so depressed nothing could cheer them up; that everything was an effort; or worthless. The five-point scale scored 0 to 4 ranged from 0 to 24 with response options from "none of the time" to "all of the time." Items were summed, and the standard cutoff of 13 or more indicated possible serious mental illness (Kessler et al., 2002, 2003). This scale has been shown to have a sensitivity of 0.36 and a specificity of 0.96 in the general population (Kessler et al., 2003).

PTSD. The 2008 HRB Survey also included the PTSD Checklist-Civilian Version (PCL-C) (Weathers, Litz, Huska, & Keane, 1994), which consists of a set of 17 items that ask about experiences related to PTSD. The civilian version rather than military version was used to capture PTSD symptoms that may be the result of either military or nonmilitary (i.e., traumatic exposures that occurred before being in the service) experiences. Items included characteristics such as loss of interest in activities that used to be enjoyable, being extremely alert or watchful, having physical reactions when reminded of a stressful experience, and feeling jumpy or easily startled. Respondents were asked to indicate how much they had been bothered by each of the 17 experiences in the past 30 days. Response options were not at all, a little bit, moderately, quite a bit, and extremely. Each statement was scored from 1 to 5, and a sum for all items was computed. The standard diagnostic cutoff was used such that if the sum was greater than or equal to 50, participants were classified as needing further evaluation for current (past month) PTSD; those with a score less than 50 were considered not to need further evaluation (Forbes, Creamer, & Biddle, 2001). It should be noted that the published cutpoints used to indicate need for further evaluation of PTSD were derived from samples with high prevalence rates of current PTSD and should be interpreted with caution (Orr & Kaloupek, 2004).

Physical or Sexual Abuse. The 2008 HRB Survey included three items from the Brief Trauma Questionnaire to assess physical and sexual trauma or abuse. Two items inquired whether the respondent was ever physically punished or beaten by a parent, caretaker, or teacher so that they were very frightened, thought they would be injured, or were injured; and whether they had ever been attacked, beaten, or mugged. A third item inquired whether anyone had ever made or pressured the respondent into having some type of unwanted sexual contact. Response items inquired whether the trauma happened before age 18, between age 18 and the time the respondent entered the service, or since the respondent entered the service.

Suicidal Ideation. Suicidal ideation was assessed by asking respondents whether they had seriously considered suicide in the year prior to the survey.

2.1.4 Other Health Behaviors

For this report, several other health behaviors of interest to the Coast Guard were assessed.

Overweight. Overweight was defined as personnel with a body mass index (BMI) of 25.0 or greater regardless of age. This is based on the National Heart, Lung, and Blood Institute, (1998) national BMI guidelines for screening for overweight.

Illness and Injury. The 2008 HRB Survey also asked specifically about *illnesses* and unintentional *injuries* during the past 12 months. Illness was defined as any illness that kept the respondent from duty for a week or longer. Injury was defined as an injury or pain that kept the respondent from duty or limited the respondent's physical activity for a week or longer.

Vigorous Physical Exercise. Physical activity was assessed, including *vigorous physical exercise,* which was defined as activities such as jogging, chopping wood, high-impact aerobics, or bicycling up hill at least 20 minutes a day 3 times per week or more.

Risk taking/Impulsivity. Risk taking/impulsivity behaviors (Cherpitel, 1999) were assessed as part of this survey. The risk taking/impulsivity items included the following: (a) I often act on the spur of the moment without stopping to think, (b) I get a real kick out of doing things that are a little dangerous, (c) you might say I act impulsively, (d) I like to test myself every now and then by doing something a little chancy, and (e) many of my actions seem hasty. For our analyses, these items were combined, and each question was scored from 1 to 4, creating a mean score for each scale. Each item was scored along a four-point scale (1 = not at all, 2 = a little, 3 = some, 4 = quite a lot). A mean score (rounded to the next highest integer) was created across items for the scale so that scale items retained the same four-point integer scale. A dichotomous variable was then created that compared "quite a lot" and "some" versus "a little" or "not at all."

High Blood Pressure. Respondents were categorized as having high blood pressure if they reported having been told by a doctor or other health professional at any point since entering the Coast Guard that they had high blood pressure.

High Cholesterol. Respondents were categorized as having high cholesterol if they reported having been told by a doctor or other health professional at any point since entering the Coast Guard that they had high cholesterol.

Sleep. Respondents were asked to report how many hours of sleep they got on average each night in the 6 months prior to the survey. Responses were categorized as 7 hours or more, 5 to 6 hours, and 4 hours or less.

Spirituality. Three items inquiring about religious and spiritual practices were included. Respondents were asked to what extent they agreed with two questions regarding the importance of religious/spiritual beliefs and the degree to which religious/spiritual beliefs influenced their decision making. Respondents' spirituality was categorized as high if they reported *strongly agree* to both questions, medium if they reported either *strongly agree* or *agree* to at least one of the questions, and low if they reported either *disagree* or *strongly disagree* to both questions. These items were drawn from those used in NSDUH.

Job Satisfaction. Job satisfaction was defined as personnel being either "satisfied" or "very satisfied" with the primary Coast Guard Rating they held at the time of the survey.

Likelihood of Staying in the Coast Guard. The HRB 2008 Survey assessed respondents' likelihood of staying in the Coast Guard if given a choice. Personnel who endorsed the "likely" or "very likely" response options were categorized as being likely to stay in the Coast Guard, while those endorsing the "neither likely nor unlikely," "unlikely," or "very unlikely" response options were categorized as not being likely to stay in the Coast Guard.

Likelihood of Serving in the Coast Guard for at Least 20 Years. The 2008 HRB Survey also assessed respondents' likelihood of serving a full career (at least 20 years) in the Coast Guard. Personnel who endorsed the "likely" or "very likely" response options were categorized as being likely to serve for at least 20 years, while those endorsing the "neither likely nor unlikely," "unlikely," or "very unlikely" response options were categorized as not being likely to serve for at least 20 years.

Healthy People 2010 **Objectives.** In addition to the measures listed previously, the 2008 HRB Survey measured a variety of other health-related behaviors and health promotion activities among military personnel related to progress toward selected *Healthy People 2010* objectives (Department of Health and Human Services [DHHS], 2000a, 2000b). These include measures of substance use (any cigarette use, smokeless tobacco use, binge drinking, and any illicit drug use), physical health (obesity, healthy weight, vigorous physical activity, and fruit and vegetable

intake), and safety (seatbelt use, motorcycle helmet use, and condom use). Definitions of measures not already defined are provided below.

- **Binge Drinking.** Binge drinking was defined as having five or more drinks (four or more for women) on a single occasion at least once in the past 30 days.

- **Obesity.** Obesity was based on BMI and was calculated from self-reported height and weight and defined as BMI of 30.0 or higher.

- **Healthy Weight.** Healthy weight was based on BMI and was calculated from self-reported height and weight and defined as BMI between 18.5 and 25.0.

- **Fruit and Vegetable Intake.** Target fruit and vegetable intake for all personnel was defined as consumption of respective food categories three or more times per day in an average week.

- **Seatbelt and Motorcycle Helmet Use.** Seatbelt and motorcycle helmet use was measured as the proportion of personnel who reported wearing seat belts or helmets "always" or "nearly always." The objective on helmet use was subset to personnel who rode a motorcycle in the past 12 months.

- **Condom Use.** Condom use at last encounter was measured among sexually active, unmarried personnel, which was defined as unmarried personnel who had one or more sexual partners in the past 12 months. These estimates do not include personnel living as married.

2.2 Analysis Methods

The focus of our analyses of the 2008 HRB Survey Coast Guard data was to provide knowledge about current levels of substance use and health behaviors and negative effects associated with alcohol use. In addition, analyses provide estimates of progress toward the achievement of selected *Healthy People 2010* objectives and other selected behaviors of interest. These analyses provide information to help assess and guide policy and program directions, including the most effective targeting of resources to problem areas.

To accomplish these aims, two basic types of analyses were conducted within this study:

- descriptive univariate and bivariate analyses of the prevalence of substance use, negative consequences, health behaviors, and selected *Healthy People 2010* objectives in 2008; and

- multivariate logistic regression analyses of these measures.

Some analyses were descriptive cross-tabulations of the responses from two or more variables. Statistical significance for these data was assessed using *t* tests. The main analyses

consisted of examining the prevalence and the predictive value of 28 variables for each of 24 outcome measures across the substance use, mental health, and other health behavior domains. Two types of logistic regression models were computed: unadjusted models and adjusted models.

The unadjusted models examined the relationship of the 28 variables one at a time for each outcome, whereas the adjusted models examined the set of variables simultaneously and adjusted the estimates to take into account the effects of the other independent predictor variables in the models. Results from both types of analyses appear in the tables in Appendices A, B, and C. In Chapters 3 through 5, unadjusted rates (i.e., observed rates) are presented. Unadjusted, or raw, estimates are the *observed* rates and identify the challenges facing the Coast Guard in its efforts to prevent and reduce substance use and encourage various other approaches to physical and mental well-being. In general, adjusted estimates are constructed estimates that allow us to determine whether observed changes in the dependent measures can be explained by the predictors in the model.

In logistic regression, the natural log of the odds (i.e., *ln p*/1-*p*) is modeled as a linear function of the independent variables. The parameters of a logistic regression model are transformed to reflect relative changes in the odds due to changes in the independent variables.

The estimates and the standard errors presented in this report were calculated using the SUDAAN analysis software. SUDAAN is a software package developed at RTI for the specific purpose of analyzing data from complex surveys (RTI, 2008). The approach used for calculating the standard errors is a first-order Taylor series approximation of the deviation of the estimates from their expected values.

2.3   Study Sample and Demographic Characteristics of the Coast Guard

Table 2-1 presents the numbers of Coast Guard respondents in the survey arrayed within demographic characteristics and the estimated sociodemographic characteristics of the Coast Guard for 2008. These latter estimates are based on data from the sample respondents that were weighted and post-stratified to represent the active duty Coast Guard population. The survey population included all active duty personnel except recruits, service academy students, personnel who were absent without leave (AWOL), and personnel who were incarcerated at the time of data collection. As shown in Table 2-1, 3,856 Coast Guard members took part in the survey. The majority of these personnel were male (87.6%), white non-Hispanic (72.2%), educated beyond high school (69.1%), aged 34 or younger (73.5%), married (51.1%), and in pay grades E1 to E6 (69.2%).

Table 2-1. Estimated Sociodemographic Characteristics of the Coast Guard, 2008

Sociodemographic Characteristic	N	Percentage
Gender		
Male	2,988	87.6 (0.9)
Female	868	12.4 (0.9)
Race/Ethnicity		
White, non-Hispanic	2,899	72.2 (1.2)
African American, non-Hispanic	241	5.6 (0.7)
Hispanic	448	10.5 (0.6)
Other	268	11.7 (1.4)
Education		
High school or less	933	30.8 (2.0)
Some college	1,853	48.0 (1.3)
College graduate or higher	1,070	21.1 (2.8)
Age		
20 or younger	231	12.3 (0.9)
21–25	952	30.5 (1.9)
26–34	1,279	30.7 (1.0)
35 or older	1,394	26.6 (1.7)
Family Status		
Not married	1,651	48.9 (0.9)
Married, spouse not present	237	5.4 (0.5)
Married, spouse present	1,924	45.7 (0.8)
Pay Grade		
E1–E3	485	15.7 (1.1)
E4–E6	1,729	53.5 (2.7)
E7–E9	504	10.6 (0.4)
W1–W5	295	3.9 (0.3)
O1–O3	461	10.1 (1.2)
O4–O10	382	6.2 (1.2)
Total Personnel	**3,856**	**100.0**

Note: Table displays the unweighted sample sizes and weighted percentage of military personnel in the Coast Guard by sociodemographic characteristic (i.e., table displays column percentages). Percentages for each sociodemographic characteristic may not add to 100% due to rounding. The standard error of each estimate is presented in parentheses.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors Among Active Duty Military Personnel, 2008.

2.4   Broad Overview of Findings

Table 2-2 provides a summary of the relationship among the 24 outcome measures and the 28 predictor variables used in the analyses. The cells in Table 2-2 have one of the following three symbols (some cells are also blank):

- S identifies a column variable (e.g., gender, region, age group) as one of the five most significant predictor variables of the outcome measure identified by that row (e.g., any alcohol use, heavy alcohol use, job satisfaction).

- + identifies a factor with one or more significant odds ratio that had a value ≥ 2.00 or ≤ 0.50.

- - identifies a factor with one or more significant odds ratio between 0.50 and 2.00.

The purpose of this table is to show at a glance, which variables were most likely to be statistically significant predictors of the outcome measures and with what strength of association based on the odds ratios from the logistic regression analyses. Table 2-2 does not permit a full explanation of which subgroups (i.e., which levels) within the variables account for the significant differences. The detailed tables shown in Appendices A, B, and C provide that information.

To summarize the information in Table 2-2, a tally was made of the number of S and + symbols that appear for each predictor (table column). These were also summed to give an overall picture of the variables that were highly significant most often, and then the variables were rank ordered for S and for the sum of S and +. This analysis showed that the five variables with the highest rankings with an S were (1) avoidance coping, (2) pay grade, (3) age group, (4) screened positive for PTSD, and (5) suicidal ideation (the latter two were tied). The highest rankings of the sum of S and + revealed the same set of variables, but in a slightly different order: (1) pay grade, (2) avoidance coping, (3) age group, (4) suicidal ideation, and (5) screened positive for PTSD. This consistency suggests that, for unadjusted estimates, these five variables are strong predictors of many of the outcome measures that appear often in the analyses in the remaining chapters and may help identify subgroups or focal points for possible intervention to modify the behavior of Coast Guard members.

Table 2-2. Summary of Predictive Ability of Each Factor in Coast Guard Analysis

Outcomes Measures	Gender	Region	Age Group	Race/Ethnicity	Education	Family Status	Children Living with You	Pay Grade	Deployed in Past Year
1. Any Alcohol Use in Past 30 Days	*	*	S		S	*		S	*
2. Heavy Alcohol Use, Among Total Coast Guard	+	*	S	+	+	+	+	S	*
3. Harmful Alcohol Use (AUDIT Score ≥ 8), Among Total Coast Guard	+	*	S	*	*	+	+	S	*
4. Serious Consequences of Alcohol Use, Among Total Coast Guard			+		+	+	+	S	
5. Productivity Loss due to Alcohol Use, Among Total Coast Guard			S		*	+	+	S	*
6. Past 12 Month Illicit Drug Use, Including Prescription Drug Misuse			*	+	S	*		S	
7. Past 12 Month Illicit Drug Use, Excluding Prescription Drug Misuse			S	+	S	S	+	S	
8. Past 12 Month Prescription Drug Misuse			*	+	S			S	
9. Past 30 Day Cigarette Use	*		S	+	S	*	*	S	
10. Past 30 Day Smokeless Tobacco Use	S	*	+	S	S	*	*	S	
11. Quit/Tried to Quit Smoking in Past Year Among Past Year Smokers									
12. Work or Family Stress	*		*			*	*		*
13. Need for Further Depression Evaluation	*	*	*	+	*	+	*	+	
14. Positive Screen for PTSD	*	*	+	*	+	*		+	
15. Serious Psychological Distress	+		+		*	*		+	
16. Generalized Anxiety, Past Month	+	*	*		*	*		*	
17. History of Physical/Sexual Abuse	+	*	*	*	*		*		
18. Overweight	S	*	S		*	S	S	S	
19. Vigorous Physical Exercise in Past 30 Days	*		S				*	*	
20. High Blood Pressure since Entering the Coast Guard	S		S	*	*	S	S	S	
21. High Cholesterol since Entering the Coast Guard	+		S		S	S	S	S	
22. Job Satisfaction in the Coast Guard			+		*	*	*	S	
23. Likelihood of Staying on Active Duty	*	*	S		*	+	+	S	
24. Likelihood of Serving in the Coast Guard at Least 20 Years	*	*	S		+	+	S	S	

(continued)

2-13

Table 2-2.   Summary of Predictive Ability of Each Factor in CG Analysis (continued)

Outcome Measures	Average Hours of Nightly Sleep	Stress from Work in Past 12 Months	Stress from Family in Past 12 Months	History of Physical/Sexual Abuse	Risk Taking/Impulsivity	Spirituality	Vigorous Physical Exercise, Past 30 Days	Illness in Past 12 Months	Injury in Past 12 Months
1. Any Alcohol Use in Past 30 Days		*	*			S		*	
2. Heavy Alcohol Use, Among Total Coast Guard	*				+	S	*		
3. Harmful Alcohol Use (AUDIT Score ≥ 8), Among Total Coast Guard	*		*		+	S			
4. Serious Consequences of Alcohol Use, Among Total Coast Guard	+			*	S	+	*	+	*
5. Productivity Loss due to Alcohol Use, Among Total Coast Guard		*		*	+	S			*
6. Past 12 Month Illicit Drug Use, Including Prescription Drug Misuse	*			*	*	*		*	*
7. Past 12 Month Illicit Drug Use, Excluding Prescription Drug Misuse	+			+	S	+	*		
8. Past 12 Month Prescription Drug Misuse	*			*		*		*	*
9. Past 30 Day Cigarette Use	+			*	+	+	*		
10. Past 30 Day Smokeless Tobacco Use	+				*	+		*	
11. Quit/Tried to Quit Smoking in Past Year Among Past Year Smokers	S					S	S		
12. Work or Family Stress	+			*	*			*	
13. Need for Further Depression Evaluation	+	+	+	+	*	*	*	*	*
14. Positive Screen for PTSD	S	+	+	+	+			+	*
15. Serious Psychological Distress	+	+	+	+	+	*	*	+	*
16. Generalized Anxiety, Past Month	S	+	+	+	*		*	*	*
17. History of Physical/Sexual Abuse	S	*	*					*	*
18. Overweight					*	*			*
19. Vigorous Physical Exercise in Past 30 Days	*		*		*	*			
20. High Blood Pressure since Entering the Coast Guard	*	*	*	*	*		*	*	*
21. High Cholesterol since Entering the Coast Guard		*	*	*	*	*	*		*
22. Job Satisfaction in the Coast Guard	S	*		*	*	*		*	*
23. Likelihood of Staying on Active Duty	+	*			*	*		*	
24. Likelihood of Serving in the Coast Guard at Least 20 Years	*				*				

(continued)

Table 2-2.   Summary of Predictive Ability of Each Factor in CG Analysis (continued)

Outcome Measures	Illicit Drug Use in Past 12 Months	Heavy Alcohol Use	Cigarette Use, 30 Days	Need for Further Depression Evaluation	Generalized Anxiety, Past Month	Screened Positive for PTSD	Serious Psychological Distress	Suicidal Ideation, Past Year	Active Coping	Avoidance Coping
1. Any Alcohol Use in Past 30 Days			+							S
2. Heavy Alcohol Use, Among Total Coast Guard	+		S	*		*		*	*	S
3. Harmful Alcohol Use (AUDIT Score ≥ 8), Among Total Coast Guard	*	S	+	*	*	+	*	+	*	S
4. Serious Consequences of Alcohol Use, Among Total Coast Guard	S	S	+	+	+	+	+	+		S
5. Productivity Loss due to Alcohol Use, Among Total Coast Guard	+	S	+	*	*	+	*			S
6. Past 12 Month Illicit Drug Use, Including Prescription Drug Misuse		S	*	*	+	S	+	+	*	S
7. Past 12 Month Illicit Drug Use, Excluding Prescription Drug Misuse		+	+	+		+	+	+	+	
8. Past 12 Month Prescription Drug Misuse		+	*	*	+	S	+	S	*	S
9. Past 30 Day Cigarette Use	*	S		*	*	*	*	*	*	S
10. Past 30 Day Smokeless Tobacco Use		+	S							*
11. Quit/Tried to Quit Smoking in Past Year Among Past Year Smokers										S
12. Work or Family Stress			*	S	S	S	S	S		+
13. Need for Further Depression Evaluation	*	*	*		S	S	S	S	*	S
14. Positive Screen for PTSD	+	*	*	S	S		S	+	*	S
15. Serious Psychological Distress	+		*	S	S	S		S	*	S
16. Generalized Anxiety, Past Month	+		*	S		S	S	+		S
17. History of Physical/Sexual Abuse	*		*	+	+	S	S	S	*	S
18. Overweight		*	*	*						*
19. Vigorous Physical Exercise in Past 30 Days		*	*	*	S		*	S	S	S
20. High Blood Pressure since Entering the Coast Guard		*		*		*			*	*
21. High Cholesterol since Entering the Coast Guard		*	*			*				
22. Job Satisfaction in the Coast Guard	*	*	*	+	S	S	+	+	*	S
23. Likelihood of Staying on Active Duty	*	*	*	S	+	+	+	S	*	S
24. Likelihood of Serving in the Coast Guard at Least 20 Years	*	*		+	+	+	+	S		S

Note: Definitions of measured constructs are provided above in this chapter.

S identifies the five most significant factors in the tables based on the odds ratios.
+ identifies factors that had one or more significant odds ratio that was ≥ 2.00 or ≤ 0.50.
* identifies factors that had one or more significant odds ratio between 0.50 and 2.00.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

SECTION 3
SUBSTANCE USE

The 2008 HRB Survey devoted a significant number of questions to the exploration of substance use, including alcohol, tobacco, and illicit drug use. This chapter presents findings regarding significant predictors of a variety of substance use indicators. Questions related to the frequency, recency, and levels of use were included to capture multiple facets of use. Correlates of use, reasons for use and for limiting use, engagement in risky behaviors and negative consequences of use, and relationships to other health-related constructs (such as stress and mental health) were examined to create a comprehensive view of population-level substance use issues. The figures in this chapter present the prevalence of the five variables that had the highest odds ratios associated with each outcome variable of interest. Each figure also presents the overall prevalence rate for each outcome variable displayed as a mean by a red horizontal line. Related tables appear in Appendix B.

3.1   Alcohol Use

This section reports the results of analyses of alcohol use among Coast Guard members. Reported outcomes include any alcohol use; heavy alcohol use; harmful alcohol use based on AUDIT scores; and serious consequences and productivity loss resulting from alcohol use. Even though some alcohol use is common and expected, data indicate that heavier rates of drinking are more likely to result in higher rates of problems. Mattiko et al. (2011) found that alcohol-related negative outcomes showed a curvilinear dose-response relationship with drinking levels among active duty military personnel. Higher levels of drinking were associated with higher rates of alcohol problems, but problem rates were notably higher for heavy drinkers.

3.1.1   Any Alcohol Use

Analyses showed that 82% of Coast Guard personnel reported some alcohol use in the past month. Figure 3-1 presents the five variables most strongly associated with any alcohol use in the Coast Guard: age group, pay grade, spirituality, education, and avoidance coping.
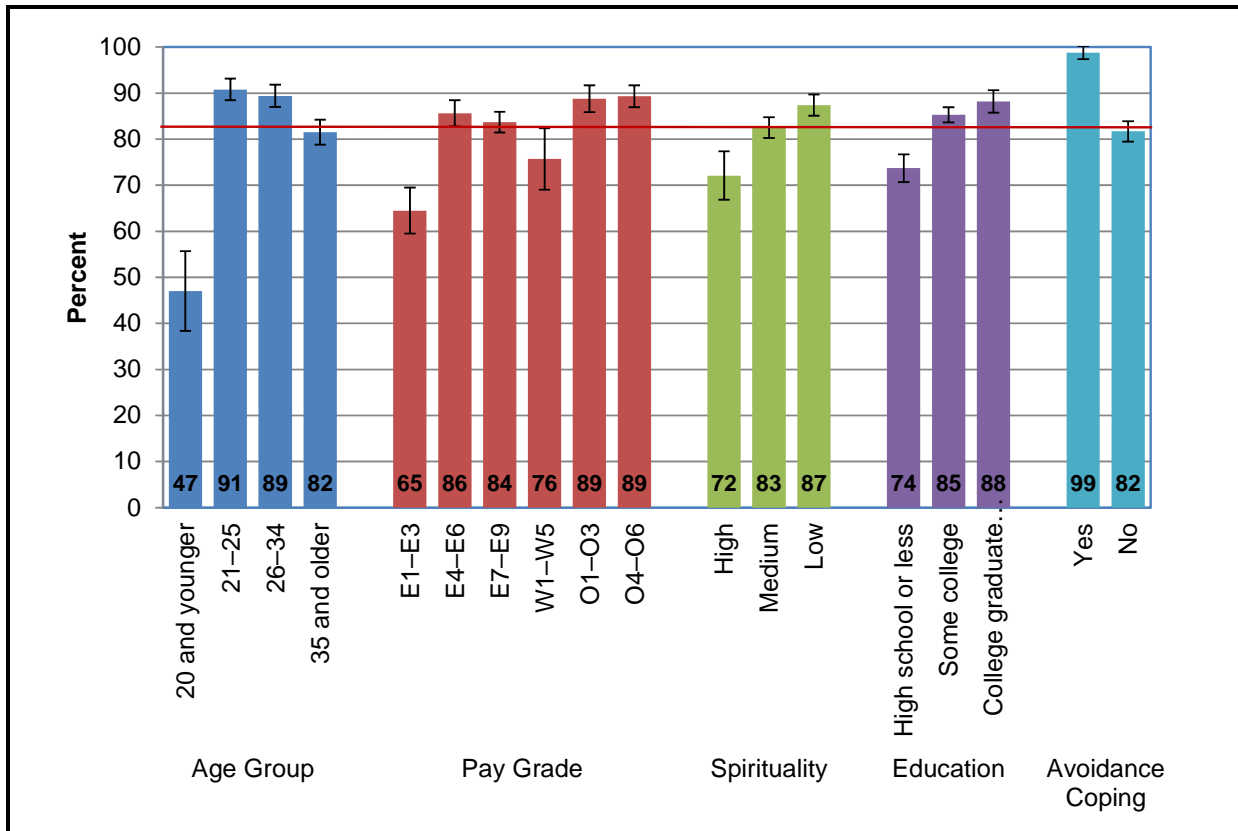
Figure 3-1.   Any Alcohol Use

- Personnel aged 21 and older, those in higher pay grades, and those with higher levels of education were more likely to use alcohol than those aged 20 and younger, those in lower pay grades, and those with lower levels of education.

- Lower levels of spirituality and the use of avoidance coping strategies also predicted alcohol use.

- Other statistically significant risk factors included male gender, CONUS assignment, cigarette use, stress from work or family, deployment in the past year, and illness in the past 12 months.

- In addition to the risk factors noted above, being unmarried also served as a significant, although not large, protective factor for any alcohol use.

3.1.2   Heavy Alcohol Use

The prevalence of heavy alcohol use (five or more drinks per typical drinking occasion at least once a week) was 18%. Figure 3-2 presents the top five variables most strongly associated with heavy alcohol use in the Coast Guard: age group, pay grade, spirituality, cigarette use, and avoidance coping.
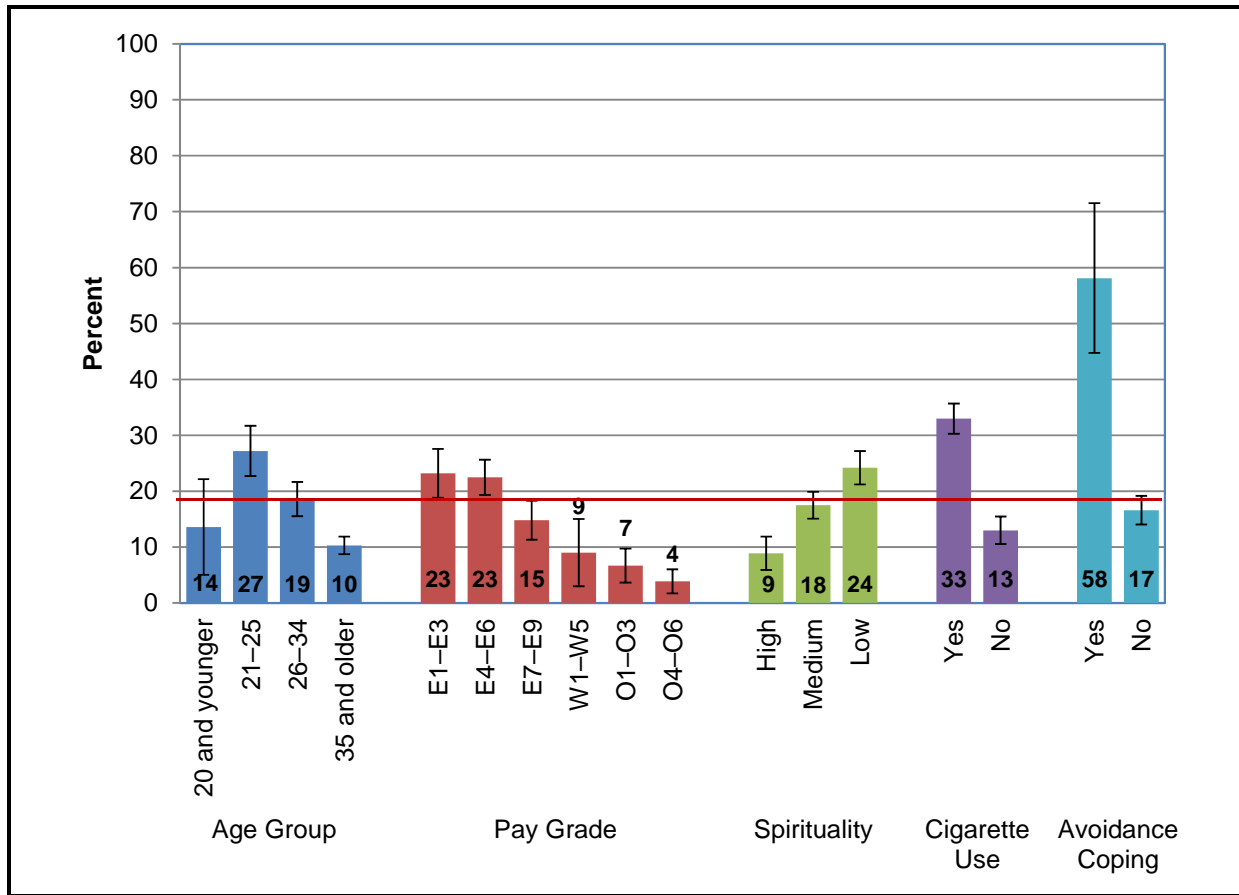
Figure 3-2. Heavy Alcohol Use

- Being aged 21 to 34, in lower pay grades, and smoking cigarettes were predictive of heavy alcohol use.

- Low levels of spirituality and endorsing the use of avoidance coping strategies were also associated with heavy alcohol use.

- Other significant risk factors were male gender, CONUS assignment, white non-Hispanic or Hispanic race/ethnicity, less than college graduate education level, being unmarried or married spouse not present, deployment in the past year, risk taking/impulsivity, illicit drug use, need for further depression evaluation, screening positive for PTSD, and suicidal ideation in the past year.

In addition to the risk factors noted above, a number of variables served as protective factors for heavy alcohol use. These included having children living with you, getting 7 or more average hours of sleep per night, regularly engaging in vigorous physical exercise, and using active coping strategies.

3.1.3 Harmful Alcohol Use

Using AUDIT scores of 8 or higher as a broad indicator of harmful alcohol use, 25% of Coast Guard members met this criterion. Figure 3-3 presents the top five variables most strongly associated with harmful alcohol use, which refers to alcohol consumption that results in social consequences or consequences to physical and mental health (Babor et al., 2001): age group, pay grade, heavy alcohol use, spirituality, and avoidance coping.
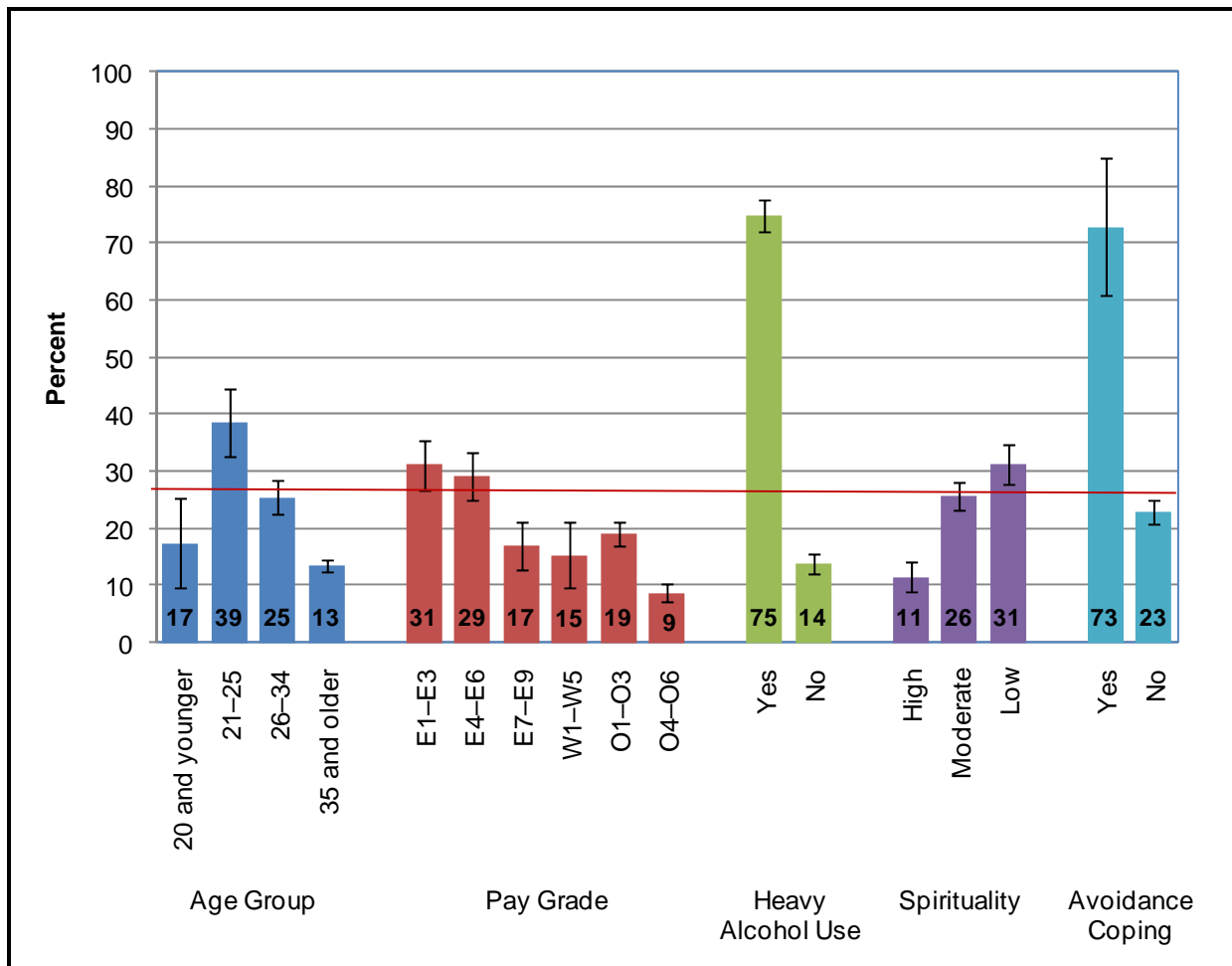
Figure 3-3.   Harmful Alcohol Use (AUDIT Score ≥ 8)

- Being aged 21 to 25 and in lower pay grades were associated with harmful alcohol use.

- Harmful alcohol use was also more likely to be reported by heavy drinkers, those reporting lower levels of spirituality, and those endorsing the use of avoidance coping strategies.

- Other significant risk factors for harmful alcohol use were male gender, CONUS assignment, white non-Hispanic race/ethnicity, less than college graduate education level, being unmarried, deployment in the past year, stress from family, risk taking/impulsivity, cigarette use, illicit drug use, need for further depression evaluation, generalized anxiety, screening positive for PTSD, serious psychological distress, and suicidal ideation in the past year.

- In addition to the risk factors noted above, variables that served as protective factors for harmful alcohol use were having children living with you, getting 5 or more hours of sleep per night, and using active coping strategies.

3.1.4 Serious Consequences of Alcohol Use

Approximately 7% of Coast Guard personnel reported experiencing serious consequences due to alcohol use. Figure 3-4 presents the top five variables most strongly associated with serious consequences due to alcohol use in the Coast Guard: pay grade, illicit drug use, heavy alcohol use, risk taking/impulsivity, and avoidance coping.
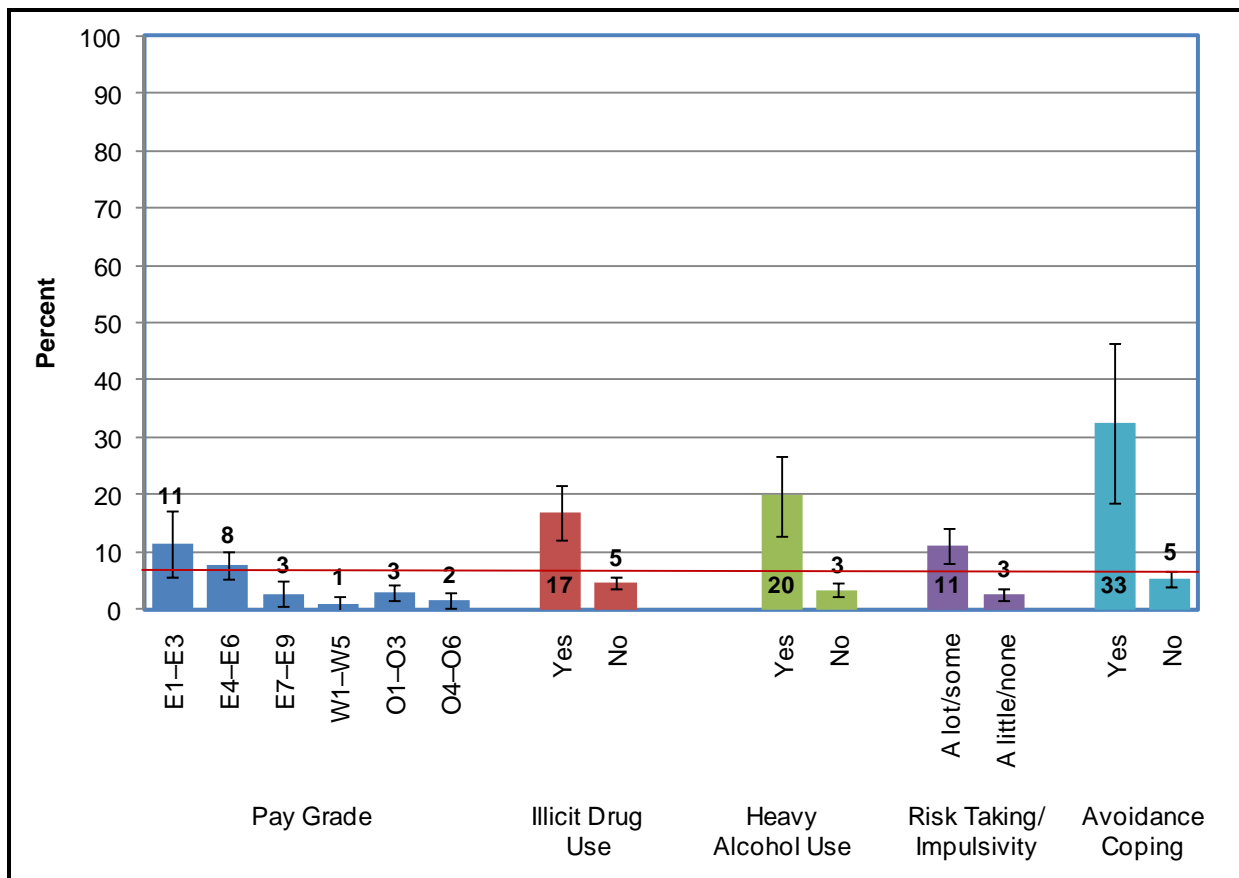
Figure 3-4.   Serious Consequences Due to Alcohol Use

- Participants who reported serious consequences as a result of alcohol use were also likely to report illicit drug use, heavy alcohol use, and the use of avoidance coping strategies.

- Being in lower pay grades and having higher levels of risk taking/impulsivity were also associated with experiencing serious consequences as a result of alcohol use.

- Other statistically significant risk factors included being aged 25 or younger, being single, having less than college graduate education level, history of physical or sexual abuse, illness or injury in the past 12 months, cigarette use, need for further depression evaluation, generalized anxiety, screening positive for PTSD, serious psychological distress, and suicidal ideation in the past year.

- In addition to the risk factors noted above, variables that served as protective factors for serious consequences due to alcohol use were having children living with you, getting 5 or more hours of sleep per night, having higher levels of spirituality, and regularly engaging in vigorous physical exercise.

3.1.5 Alcohol-Related Productivity Loss

Analyses showed that 14% of Coast Guard members reported productivity loss due to alcohol use. Figure 3-5 presents the top five variables most strongly associated with productivity loss due to alcohol use in the Coast Guard: age group, pay grade, heavy alcohol use, spirituality, and avoidance coping.
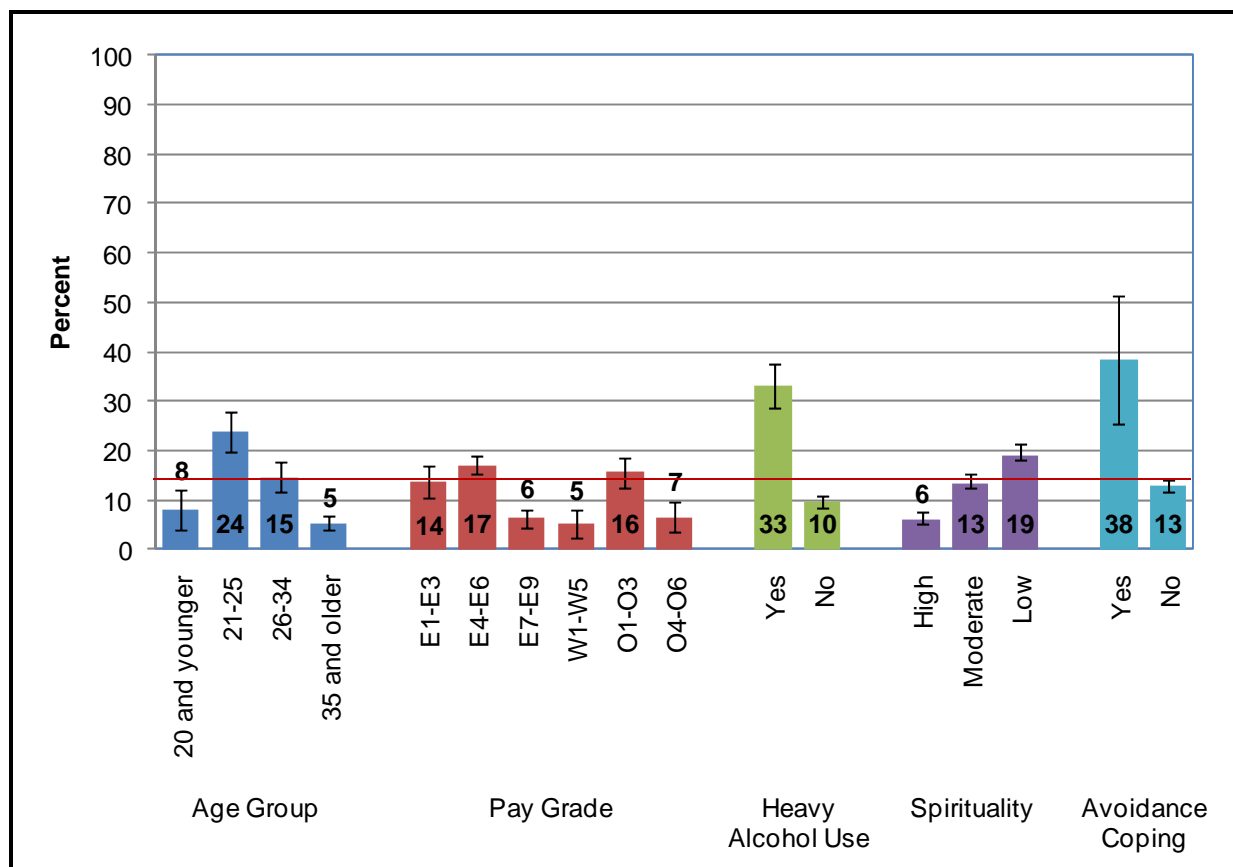
Figure 3-5. Productivity Loss Due to Alcohol Use

- Personnel engaging in heavy alcohol use and reporting lower levels of spirituality were more likely to report productivity loss due to alcohol use than personnel not reporting heavy alcohol use or having higher levels of spirituality.

- Productivity loss due to alcohol use was also associated with lower enlisted and officer pay grades, the use of avoidance coping strategies, and being aged 21 to 34.

- Other significant risk factors were being unmarried, having no children in the home, deployment in the past year, work stress, history of physical or sexual abuse, risk taking/impulsivity, injury in the past 12 months, illicit drug use, cigarette use, need for further depression evaluation, generalized anxiety, screening positive for PTSD, and serious psychological distress.

3.1.6   Summary and Recommendations

The prevalence of any alcohol use was high among Coast Guard personnel; 82% overall reporting drinking in the past 30 days. Although some alcohol use is to be expected, heavier levels of use are of concern because they are likely to be associated with alcohol-related problems. In the Coast Guard, rates of heavy drinking and harmful drinking (based on AUDIT scores ≥ 8) were 18% and 25%, respectively. Serious consequences of alcohol use had a prevalence of 7% in this population. Overall, 14% of personnel acknowledged productivity loss due to alcohol use. However, the prevalence rate for productivity loss among personnel who reported the use of avoidance coping strategies was 38%. The most consistent and significant predictors of alcohol-related consequences were age, pay grade, heavy alcohol use, spirituality, and use of avoidance coping strategies, suggesting that Coast Guard personnel aged 21 to 34 who may not have the coping resources are at highest risk for alcohol-related problems. Alcohol interventions that focus on developing protective behavioral resources (such as drink refusal skills, spacing drinks, and setting drink limits) and alternative coping mechanisms (such as increasing spirituality, getting enough sleep, and talking with others) may serve to decrease use in this more vulnerable population. In addition, a range of behavioral health issues (such as PTSD and serious psychological distress) were found to be associated with problematic alcohol use and may also need to be the focus of interventions.

The working group developed several distinct intervention recommendations focused on the development of positive coping skills, protective behavioral strategies, and harm reduction strategies:

- Ensure that the current Substance Abuse Free Environment (SAFE) training curricula reflect state of the science.

- Increase focus on overall prevention/intervention efforts on younger at-risk drinkers.

- Develop unit-level alcohol awareness initiatives that focus on lowering high-risk drinking behavior and early prevention.

- Shift paradigms to a more integrated and consistent coordinated approach to alcohol screening, education, treatment/prevention/case management, to include a system requiring monitoring of members with incidents. (Work-Life Information Systems meet this recommendation.)

- Develop additional training for Coast Guard health care providers that focuses on identifying high-risk individuals and providing them with appropriate resources. (The Addiction Orientation for Health Care Providers [AOHCP] meets this recommendation.)

- Change Coast Guard personnel policy with respect to alcohol self-referral. (CG-111 is currently reviewing and rewriting the alcohol abuse prevention and education sections of COMDTINST M6200.1A to reflect these changes.)

- Review all alcohol awareness training curricula (including General Mandated Trainings, Leadership Development Courses, Enlisted Specialty Schools, and Prime for Life Training) to ensure alignment with state-of-the-science preventive practices and Commandant Policy.

3.2 Illicit Drug Use

This section reports results of analyses of illicit drug use among Coast Guard members. Reported outcomes include illicit drug use in the past year (including and excluding prescription drug misuse) as well as prescription drug misuse in the past year.

3.2.1 Past 12 Month Illicit Drug Use, Including Prescription Drug Misuse

The prevalence of past 12 month drug use, including prescription misuse, was 15% for the Coast Guard. Figure 3-6 presents the five variables most strongly associated with this drug use: education, pay grade, screened positive for PTSD, heavy alcohol use, and avoidance coping.
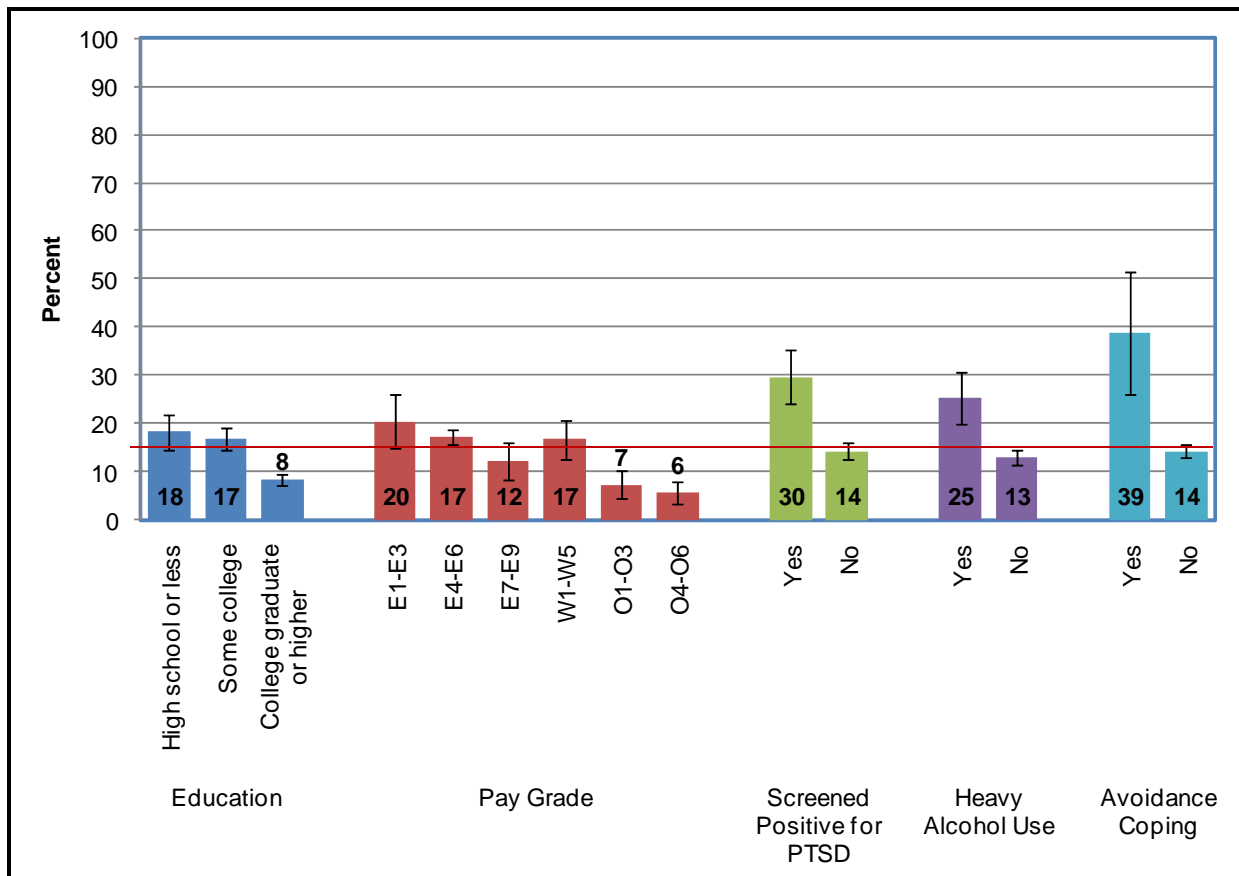
Figure 3-6.   Illicit Drug Use, Including Prescription Drug Misuse

- Personnel with a positive screening for PTSD and those who reported heavy alcohol use were more likely to report illicit drug use, including prescription drug misuse, in the past 12 months. All categories of enlisted personnel and Chief Warrant Officers were more likely to report illicit drug use, including prescription drug misuse, than officers.

- Illicit drug use, including prescription drug misuse, was also associated with lower levels of education and the use of avoidance coping strategies.

- Other significant risk factors for illicit drug use were being aged 21 to 34, Hispanic race/ethnicity, being unmarried, history of physical or sexual abuse, risk taking/impulsivity, illness or injury in the past 12 months, cigarette use, need for further depression evaluation, generalized anxiety, serious psychological distress, and suicidal ideation.

- In addition to the risk factors noted above, a number of variables served as protective factors for illicit drug use, including prescription drug misuse, in the past 12 months. These included getting 5 or more hours of nightly sleep per night, having high spirituality, and using active coping strategies.

3.2.2   Past 12 Month Illicit Drug Use, Excluding Prescription Drug Misuse

Nearly 4% of Coast Guard personnel reported use of drugs in the past year when prescription drugs were omitted. Figure 3-7 presents the five variables most strongly associated with past 12 month illicit drug use, excluding prescription drug misuse: age group, pay grade, education, family status, and risk taking/impulsivity.
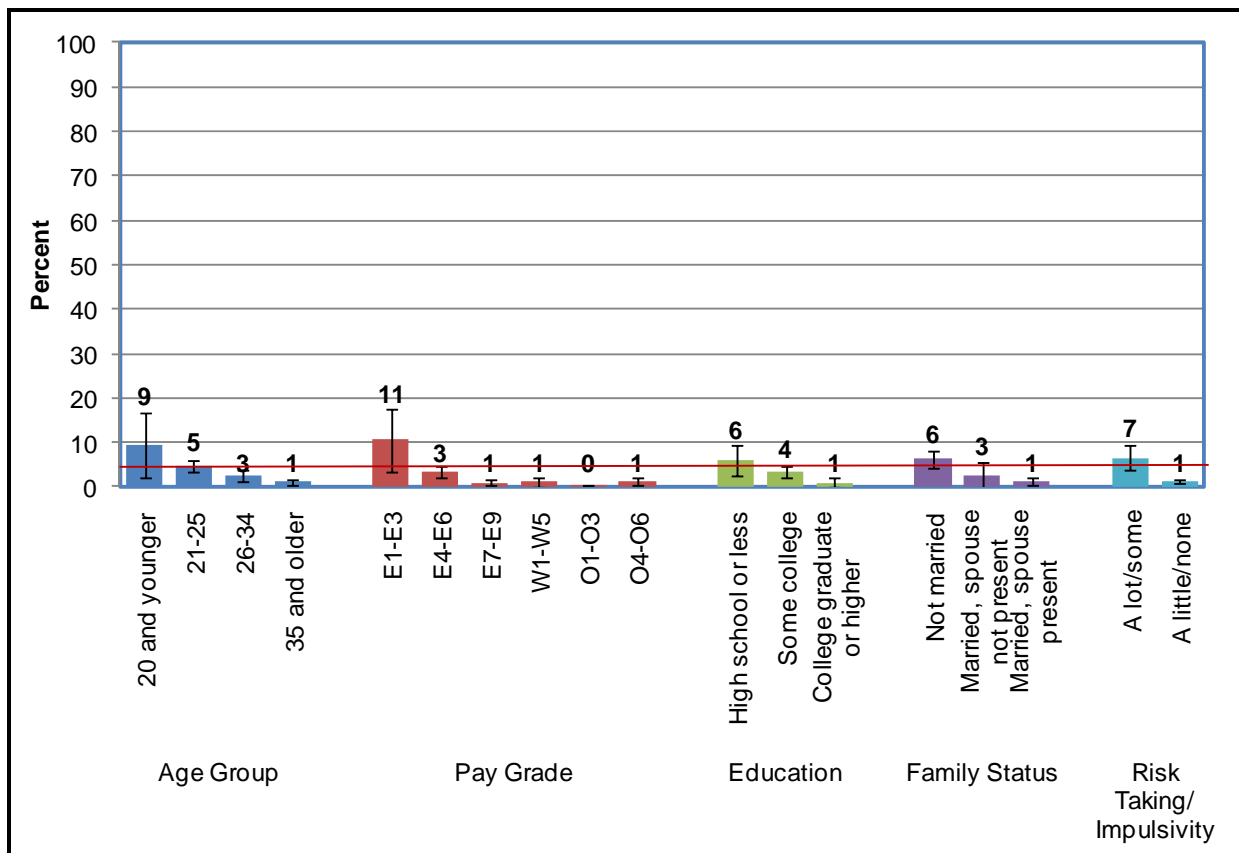
Figure 3-7.   Illicit Drug Use, Excluding Prescription Drug Misuse

- Personnel who were unmarried, younger, and in lower pay grades, and those with lower levels of education were more likely to report higher illicit drug use, excluding prescription drug misuse, in the past 12 months.

- Risk taking/impulsivity was also associated with illicit drug use, excluding prescription drug misuse, in the past 12 months.

- Other significant risk factors were Hispanic race/ethnicity, history of physical or sexual abuse, heavy alcohol use, cigarette use, need for further depression evaluation, positive screening for PTSD, serious psychological distress, and suicidal ideation.

- In addition to the risk factors noted above, a number of variables served as protective factors for illicit drug use, excluding prescription drug misuse, in the past 12 months. These included having children living with you, getting 7 or more hours of nightly sleep, having higher spirituality, regularly engaging in vigorous physical exercise, and using active coping strategies.

3.2.3 Past 12 Month Prescription Drug Misuse

Approximately 14% of Coast Guard personnel reported misusing prescription drugs in the past year. Figure 3-8 presents the five variables most strongly associated with past 12 month prescription drug misuse: pay grade, suicidal ideation, screened positive for PTSD, education, and avoidance coping.
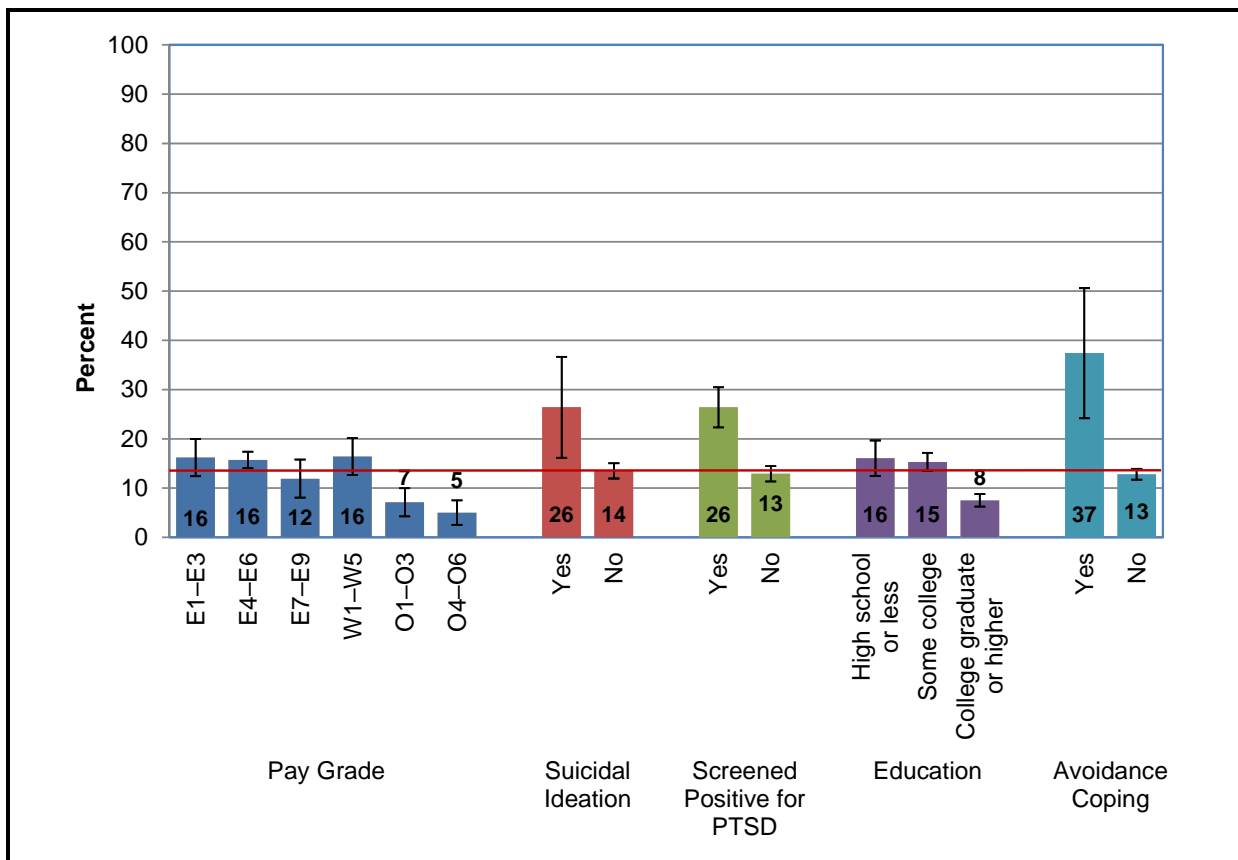
Figure 3-8.   Prescription Drug Misuse

- The presence of psychological problems, including PTSD and suicidal ideation, were strong predictors of prescription drug misuse.

- Personnel who reported the misuse of prescription drugs were also likely to be in pay grades E1 to E6 and W1 to W5, to have lower levels of education, and to use avoidance coping strategies.

- Other significant risk factors were being aged 21 to 25, Hispanic race/ethnicity, history of physical or sexual abuse, illness or injury in the past 12 months, heavy alcohol use, cigarette use, need for further depression evaluation, generalized anxiety, and serious psychological distress.

- In addition to the risk factors noted above, variables that served as protective factors for past 12 month prescription drug misuse included getting 5 or more hours of nightly sleep, having high spirituality, and using active coping strategies.

3.2.4 Summary and Recommendations

The prevalence of any illicit drug use in the past year, including prescription drug misuse, was 15% among Coast Guard personnel. Prescription drug misuse was reported by 14% of personnel, which suggests that prescription drug misuse accounts for a large proportion of overall illicit drug use. Prescription drug misuse prevalence was significantly higher for a number of risk groups, including those screening positive for PTSD (26%), suicidal ideation (26%), or serious psychological distress (24%). Pay grades E1to E9 and W1toW5, lower levels of education, and the use of avoidance coping strategies were consistent predictors of illicit drug use among Coast Guard personnel. Individuals evidencing behavioral health problems should be screened for illicit drug use, and strategies to reduce the risk for drug use should focus on those populations who are most vulnerable to drug use. A strong sense of spirituality, more hours of nightly sleep, and the use of active coping strategies were all protective against illicit drug use.

The working group developed several distinct intervention recommendations focused on the development of positive coping skills, safeguards against prescription drug misuse, and strategies for early identification and diagnosis of misuse and/or dependency:

- Develop initiatives that focus on positive coping skills education and the self-management of chronic conditions.

- Evaluate safeguards for reducing "doctor shopping" for prescription drugs in areas where services are provided by contract physicians.

- Implement a team approach for diagnoses involving alcohol and drug dependency, as well as chronic pain, with a heavy focus on appropriately managing these conditions. (This is currently being explored as the Coast Guard looks into implementing patient-centered medical home [PCMH] interventions across the service.)

- Develop a training program for Coast Guard health care providers and a command cadre that focuses on early identification of drug use/misuse.

3.3 Tobacco Use

This section reports results of analyses of tobacco use among Coast Guard members. Reported outcomes include cigarette and smokeless tobacco use in the past month as well as past year cessation/attempts to quit smoking.

3.3.1 Past 30 Day Cigarette Use

Nearly 27% of Coast Guard members smoked cigarettes in the past 30 days. Figure 3-9 presents the top five variables most strongly associated with past 30 day cigarette use: age group, pay grade, heavy alcohol use, education, and avoidance coping.
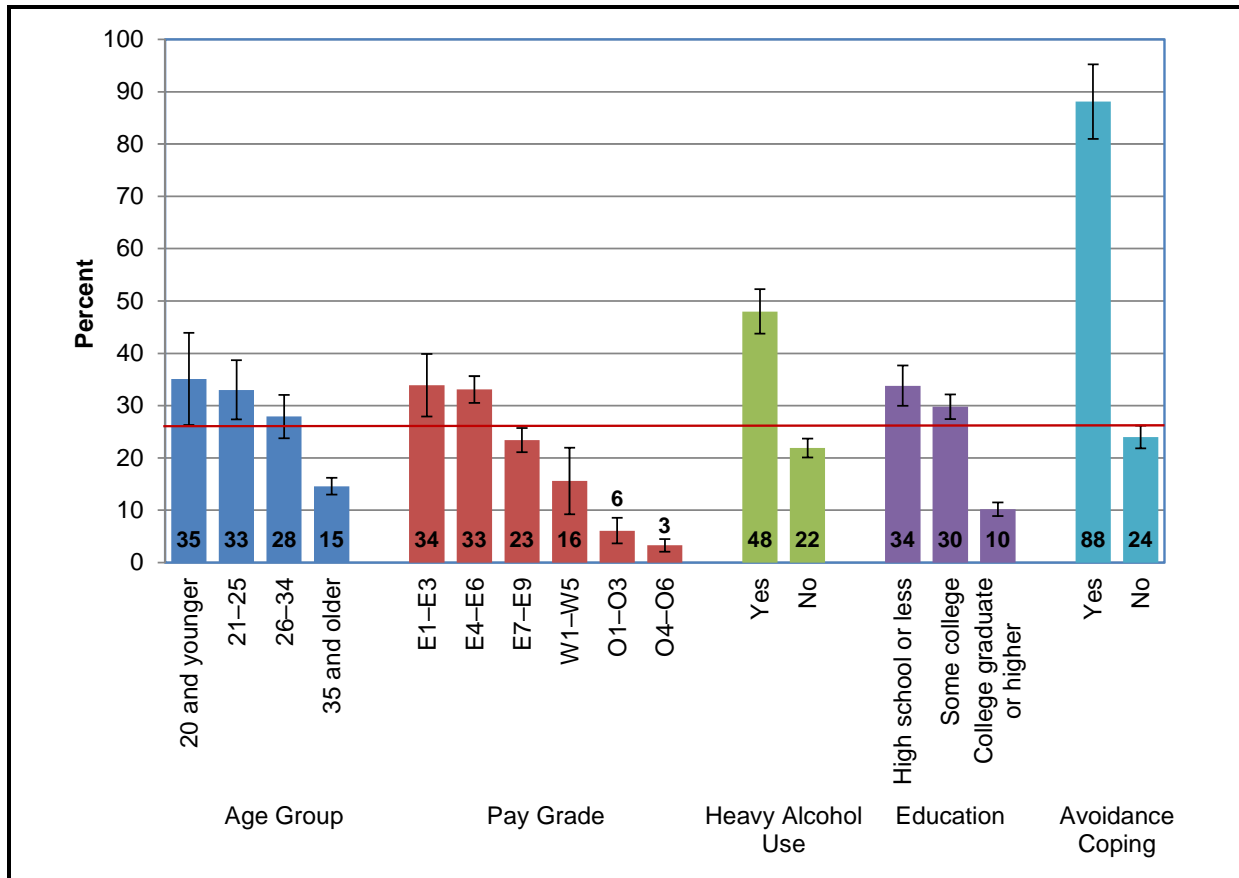
Figure 3-9.   Past 30 Day Cigarette Use

- Cigarette use was more common among persons who were ages 20 to 34, those who were heavy alcohol users, those who had less than a college education, and those who engaged in avoidance coping strategies.

- Cigarette use was highest for enlisted pay grades E1 to E6 and then declined as pay grade increased.

- Other significant risk factors were male gender, being unmarried or married with spouse not present, history of physical or sexual abuse, risk taking/impulsivity, illicit drug use, depression, anxiety, PTSD, psychological distress, and suicidal ideation.

- In addition to the risk factors noted above, a number of variables served as protective factors for past 30 day cigarette use. These included African American race/ethnicity, having children living with you, having higher average hours of nightly sleep, having high spirituality, regularly engaging in vigorous exercise, and using active coping strategies.

3.3.2 Past 30 Day Smokeless Tobacco Use

Just over 12% of Coast Guard personnel used smokeless tobacco in the past 30 days. Figure 3-10 presents the top five variables most strongly associated with this past 30 day smokeless tobacco use: gender, pay grade, race/ethnicity, cigarette use, and education.
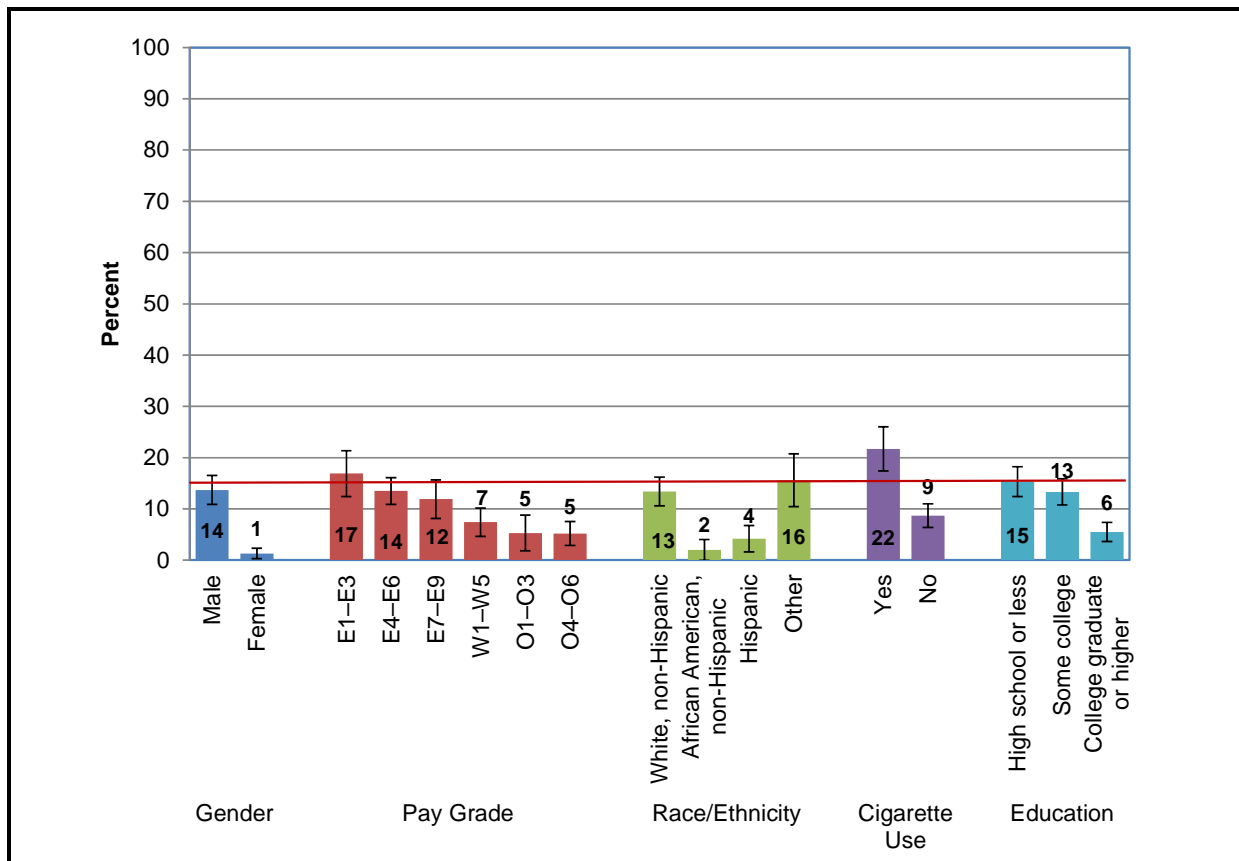
Figure 3-10. Past 30 Day Smokeless Tobacco Use

- Smokeless tobacco use is predominately a male behavior.

- Enlisted personnel, especially those in pay grades E1 to E6, were most likely to use smokeless tobacco.

- African American and Hispanic personnel were least likely to use smokeless tobacco.

- Cigarette users and those who did not have a college degree were more likely to use smokeless tobacco than non-cigarette users and those who had a college degree.

- Other significant risk factors were being aged 25 or younger, being unmarried, risk taking/impulsivity, heavy alcohol use, and using avoidance coping.

- In addition to the risk factors noted above, a number of variables served as protective factors for past 30 day smokeless tobacco use. These included CONUS assignment, having children living with you, getting more hours of nightly sleep, having high spirituality, and illness in past 12 months.

3.3.3   Quit or Tried to Quit Smoking in Past Year

Among past year Coast Guard smokers, 68% indicated that they had quit or tried to quit during the past year. Figure 3-11 presents the top four variables most strongly associated with quitting or trying to quit smoking: average hours of nightly sleep, spirituality, vigorous physical exercise, and avoidance coping.
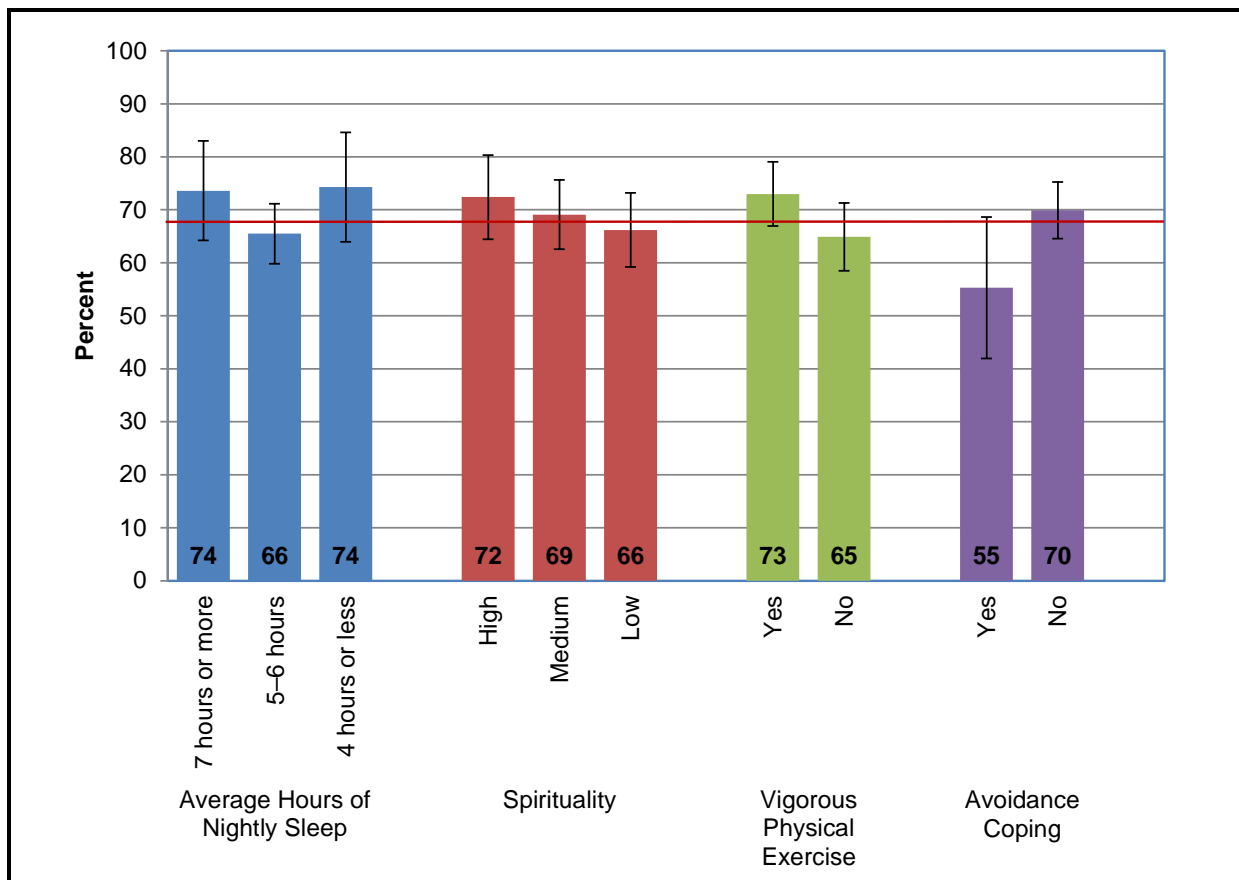
Figure 3-11.   Quit/Tried to Quit Smoking in Past Year

- Those who got only 5 to 6 hours of nightly sleep were less likely to have quit or tried to quit than their counterparts who got more or less sleep.

- Those with high levels of spirituality, those who got more vigorous physical exercise, and those who did not engage in avoidance coping strategies were all more likely to have quit or tried to quit than their counterparts.

- There were no additional significant predictors of quitting or trying to quit smoking.

3.3.4 Summary and Recommendations

The prevalence of past month cigarette smoking (27%) was more than twice the rate of smokeless tobacco use (12%). The common predictors of cigarette use and smokeless tobacco use were gender, age, race/ethnicity, education, family status, pay grade, average hours of nightly sleep, heavy alcohol use, and use of avoidance coping strategies. Having children living with you was the only common protective factor against cigarette and smokeless tobacco use. The highest rates of smoking occurred among heavy alcohol users, persons who screened positive for PTSD, and those who reported thinking about suicide (41% to 48%). The highest rates of smokeless tobacco use were for heavy alcohol users, cigarette smokers, those who used avoidance coping strategies, and those who got 4 hours or less of nightly sleep on average (20% to 23%). These data show an overlap of tobacco types with behavioral health issues and heavy alcohol use and suggest that those with psychological issues may turn to substance use as a way of coping with these challenges.

The working group developed several recommendations focused on tobacco cessation programs and incentives, as well as diagnostic and educational tools, to raise awareness of tobacco-related issues and promote effective cessation programs:

- Use incentive programs to promote tobacco cessation and continued abstinence.

- Promote current successful programs more heavily (e.g., the "Quit Tobacco, Make Everyone Proud" program).

- Design a systematic global approach with targeted intervention strategies for tobacco cessation. (Currently there is not enough of a coordinated effort in this arena.)

- Primary care providers should conduct a brief tobacco use screening during the periodic health assessment (PHA) review as a follow-up to the PHA survey question on tobacco use.

- Implement a phased approach to making all Coast Guard work environments 100% tobacco-free, including incentivizing units to initiate local reforms. (Sector Jacksonville is currently implementing such a policy. This model should be reviewed to determine its application across the service.)

- Train and require unit health promotion coordinators (UHPCs) to conduct a brief tobacco use screening as part of each member's unit check-in process. (UHPCs are currently required by policy to brief every new unit member on the Coast Guard Health Promotion Program.)

- Conduct pilot studies to identify the most effective tobacco cessation programs in Coast Guard work and health care settings.

- Utilize Coast Guard HRB tobacco use data to develop targeted education, awareness, and intervention strategies.

SECTION 4
STRESS AND MENTAL HEALTH

The 2008 HRB Survey included items geared toward characterizing the mental health and stress issues, as well as history of abuse, faced by Coast Guard service members. This chapter presents findings regarding significant predictors of stress, depression, PTSD, serious psychological distress, generalized anxiety, and history of physical or sexual abuse. A total of 27 predictor variables were examined; the figures in this chapter present the prevalence of the 5 variables with the strongest association to each outcome of interest. Each figure also presents the overall prevalence rate for each outcome variable displayed as a red horizontal line. Related tables appear in Appendix B. Following each figure, we present information regarding other significant predictors. At the end of the chapter, we have included a brief summary of findings as well as the recommendations set forth by the Coast Guard working group. A striking finding in this chapter is the high rate of co-occurrence (i.e., co-morbidity) among the mental health indicators (e.g., those who were depressed were also likely to screen positive for PTSD, anxiety, and the like).

4.1   Work or Family Stress

Some 34% of Coast Guard personnel indicated experiencing "a lot" of stress from their work or their family responsibilities. Figure 4-1 presents the prevalence of the five variables most strongly associated with work or family stress: generalized anxiety, past month; serious psychological distress; need for further depression evaluation; screened positive for PTSD; and suicidal ideation, past year.
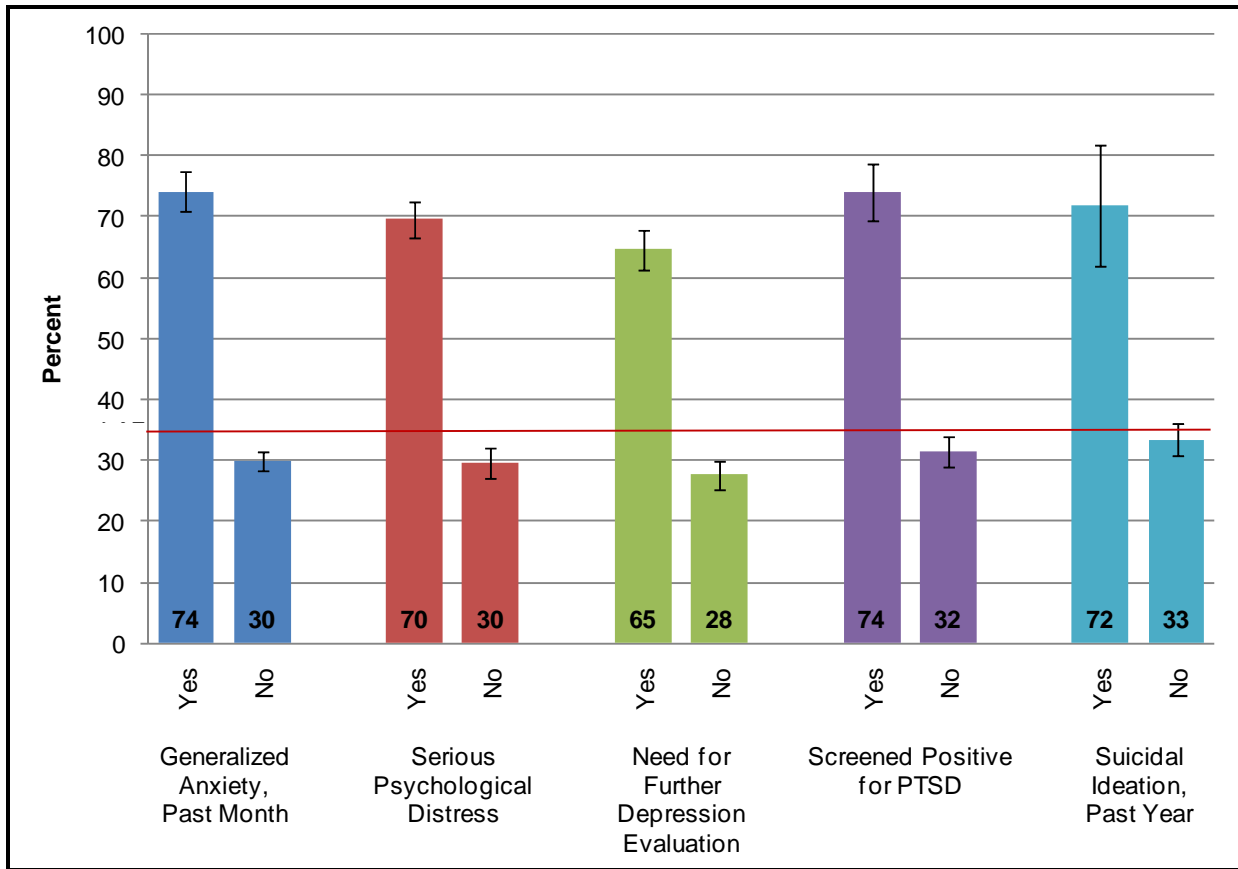
Figure 4-1. Work or Family Stress

- Coast Guard personnel experiencing psychological problems, such as generalized anxiety, serious psychological distress, or the need for further depression evaluation, were more likely to report stress from work or family than Coast Guard personnel who did not experience these problems.

- Meeting screening criteria for PTSD and reporting past year suicidal ideation were also associated with work or family stress.

- Other significant risk factors for work or family stress included being aged 26 to 34, being married with a spouse not present, having children living in the home, having a deployment in the past year, having a history of physical or sexual abuse, reporting a lot or some risk taking/impulsivity, illness in the past 12 months, cigarette use in the past 30 days, and use of avoidance coping strategies.

- In addition to the risk factors noted above, two variables served as protective factors for work or family stress: male gender and getting 5 or more hours of nightly sleep.

4.2 Depression

An estimated 18% of Coast Guard personnel indicated a need for further depression evaluation. Figure 4-2 presents the prevalence of the five variables most strongly associated with this need: screened positive screen for PTSD; serious psychological distress; generalized anxiety, past month; suicidal ideation, past year; and avoidance coping.
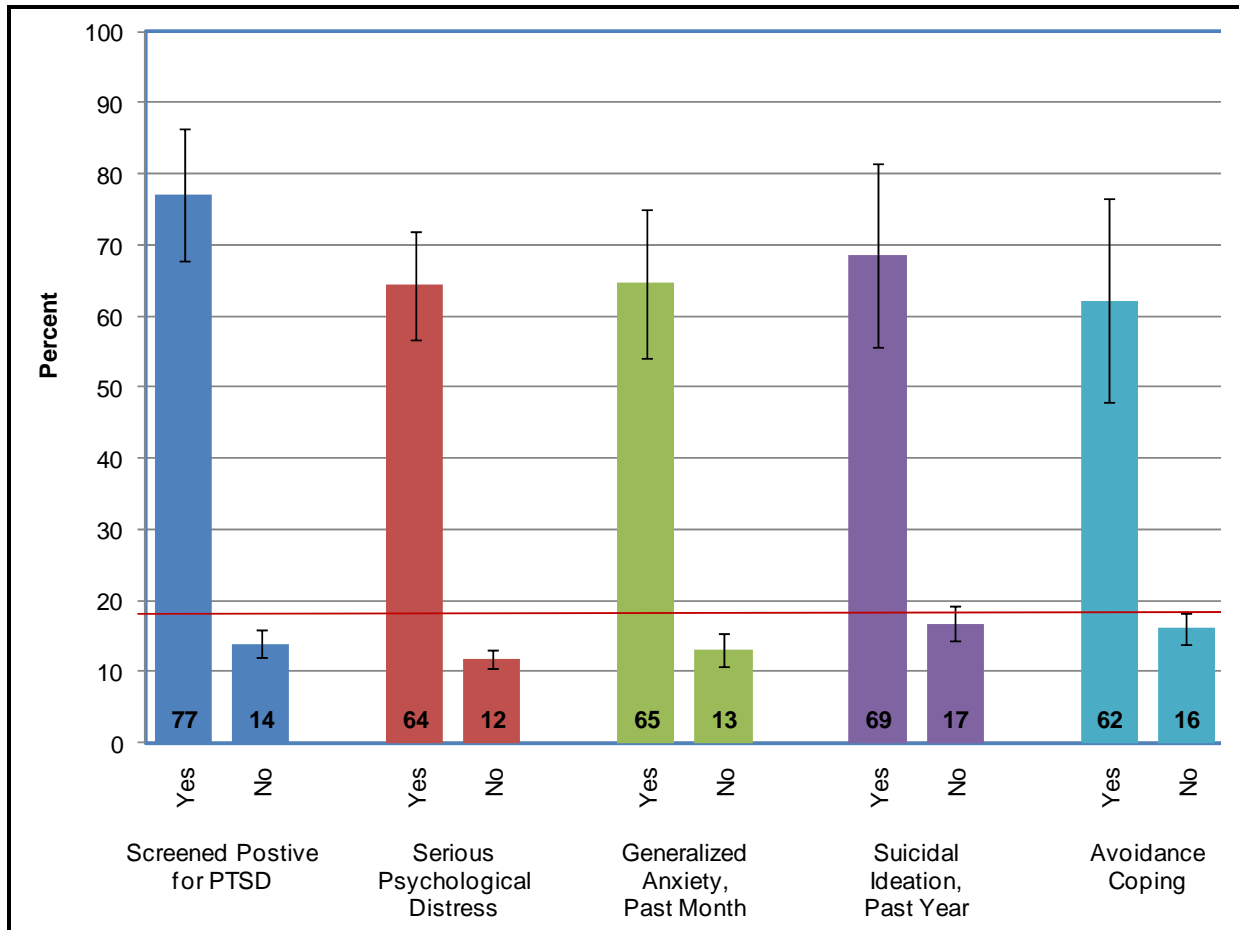
Figure 4-2.   Need for Further Depression Evaluation

- The presence of other psychological problems, including meeting screening criteria for PTSD, serious psychological distress, and generalized anxiety, were associated with the need for further depression evaluation.

- Suicidal ideation and use of avoidance coping strategies were also strongly associated with the need for further depression evaluation.

- Other significant risk factors were being under age 35, less than college graduate education level, being unmarried or married with spouse not present, being in pay grades E1 to E3, stress from work or family in the past 12 months, history of

physical or sexual abuse, risk taking/impulsivity, illness or injury in the past 12 months, illicit drug use in the past 12 months, and heavy alcohol use.

- In addition to the risk factors noted above, a number of variables served as protective factors for the need for further depression evaluation. These included male gender, CONUS assignment, African American race/ethnicity, having children living in the home, getting 5 or more hours of nightly sleep, high spirituality, regularly engaging in vigorous physical exercise, cigarette use in the past 30 days, and use of active coping strategies.

4.3   Posttraumatic Stress Disorder (PTSD)

Among Coast Guard personnel, about 7% met criteria for a positive screening for PTSD. Figure 4-3 presents the prevalence estimates for the five variables most strongly associated with PTSD in the Coast Guard: serious psychological distress; need for further depression evaluation; generalized anxiety, past month; average hours of nightly sleep; and avoidance coping.
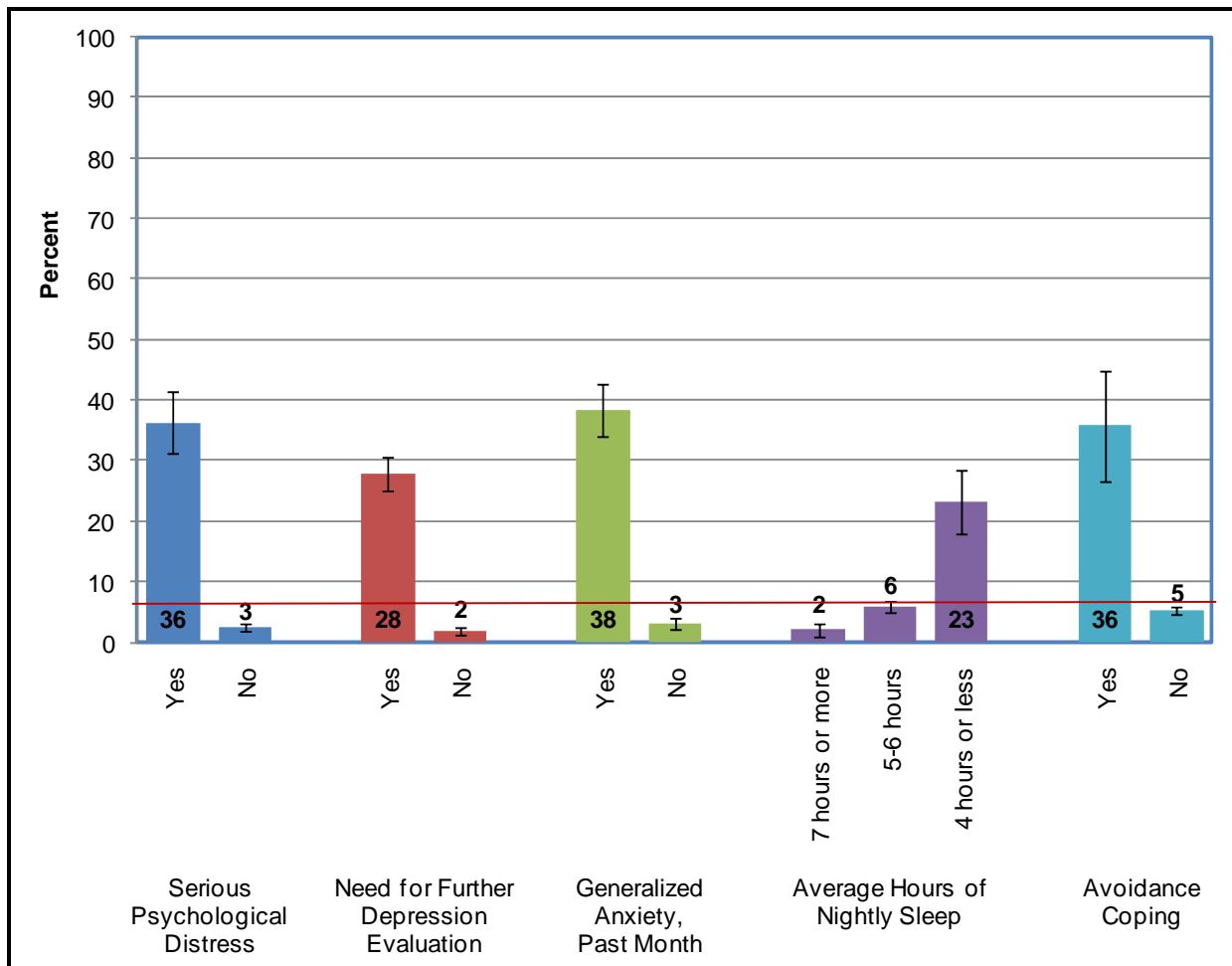
Figure 4-3.   Positive Screening for PTSD

- Participants reporting 5 or more hours of nightly sleep were less likely to screen positive for symptoms of PTSD than those reporting 4 hours or less hours of nightly sleep.

- Those reporting serious psychological distress, a need for further depression evaluation, avoidance coping, and generalized anxiety were more likely to screen positive for PTSD. These findings show a high rate of co-morbidity among the mental health measures.

- Other statistically significant risk factors for a positive PTSD screening were being aged 25 or younger, white non-Hispanic race/ethnicity, less than college graduate education level, being unmarried or married with spouse not present, being in an enlisted pay grade, experiencing stress from work or family in the past 12 months, having a history of physical or sexual abuse, engaging in risk taking/impulsivity, having significant illness or injury in the past 12 months, engaging in illicit drugs use in the past 12 months, heavy alcohol use, cigarette use in the past 30 days, and suicidal ideation in the past year.

- In addition to the risk factors noted above, a number of variables served as protective factors for a positive PTSD screening. These included male gender, CONUS assignment, non-Hispanic race/ethnicity, and use of active coping strategies.

4.4 Serious Psychological Distress

Nearly 12% of Coast Guard personnel indicated serious psychological distress. Figure 4-4 presents the prevalence estimates for the five variables most strongly associated with this outcome in the Coast Guard: screened positive for PTSD; generalized anxiety, past month; need for further depression evaluation; suicidal ideation, past year; and avoidance coping.
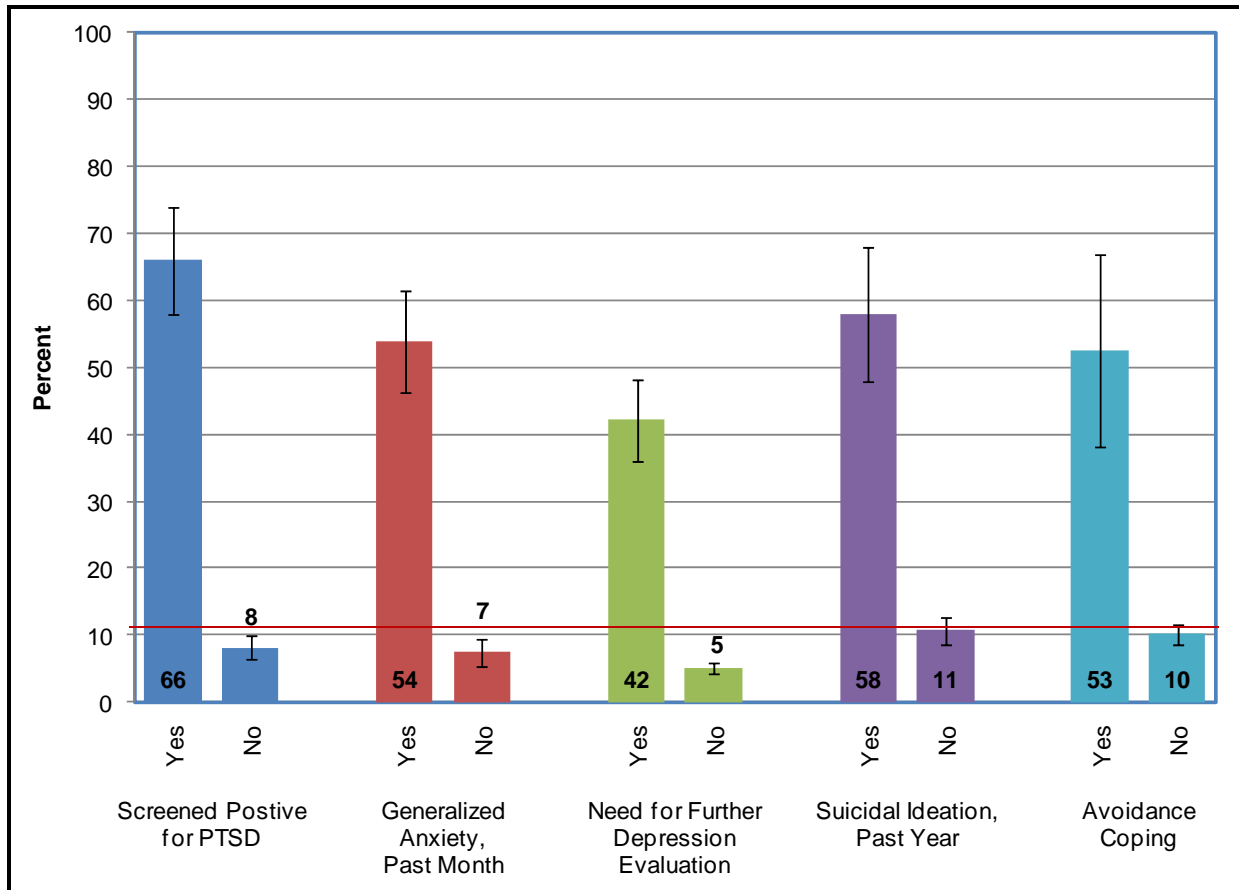
Figure 4-4.   Serious Psychological Distress

- Coast Guard personnel who indicated a positive screening for PTSD, generalized anxiety, or a need for further depression evaluation were more likely to experience serious psychological distress than those without those characteristics. These results highlight the overlap among the mental health measures.

- Suicidal ideation and the use of avoidance coping strategies were also highly associated with serious psychological distress.

- Other risk factors that were significantly associated with serious psychological distress were being under 35 years of age, having a high school education or less, being unmarried or married with spouse not present, being in page grades E1 to E6, stress from work or family in the past 12 months, history of physical or sexual

abuse, risk taking/impulsivity, illness or injury in the past 12 months, illicit drug use in the past 12 months, and cigarette use in the past 30 days.

- In addition to the risk factors noted above, a number of variables served as protective factors for serious psychological distress. These included male gender, getting 5 or more hours of nightly sleep, high spirituality, regularly engaging in vigorous physical exercise in the past 30 days, and use of active coping strategies.

4.5   Generalized Anxiety

Among Coast Guard members, nearly 1 in 10 indicated generalized anxiety. Figure 4-5 presents the prevalence of the five variables most strongly associated with generalized anxiety in the Coast Guard: screened positive for PTSD, serious psychological distress, need for further depression evaluation, average hours of nightly sleep, and avoidance coping.
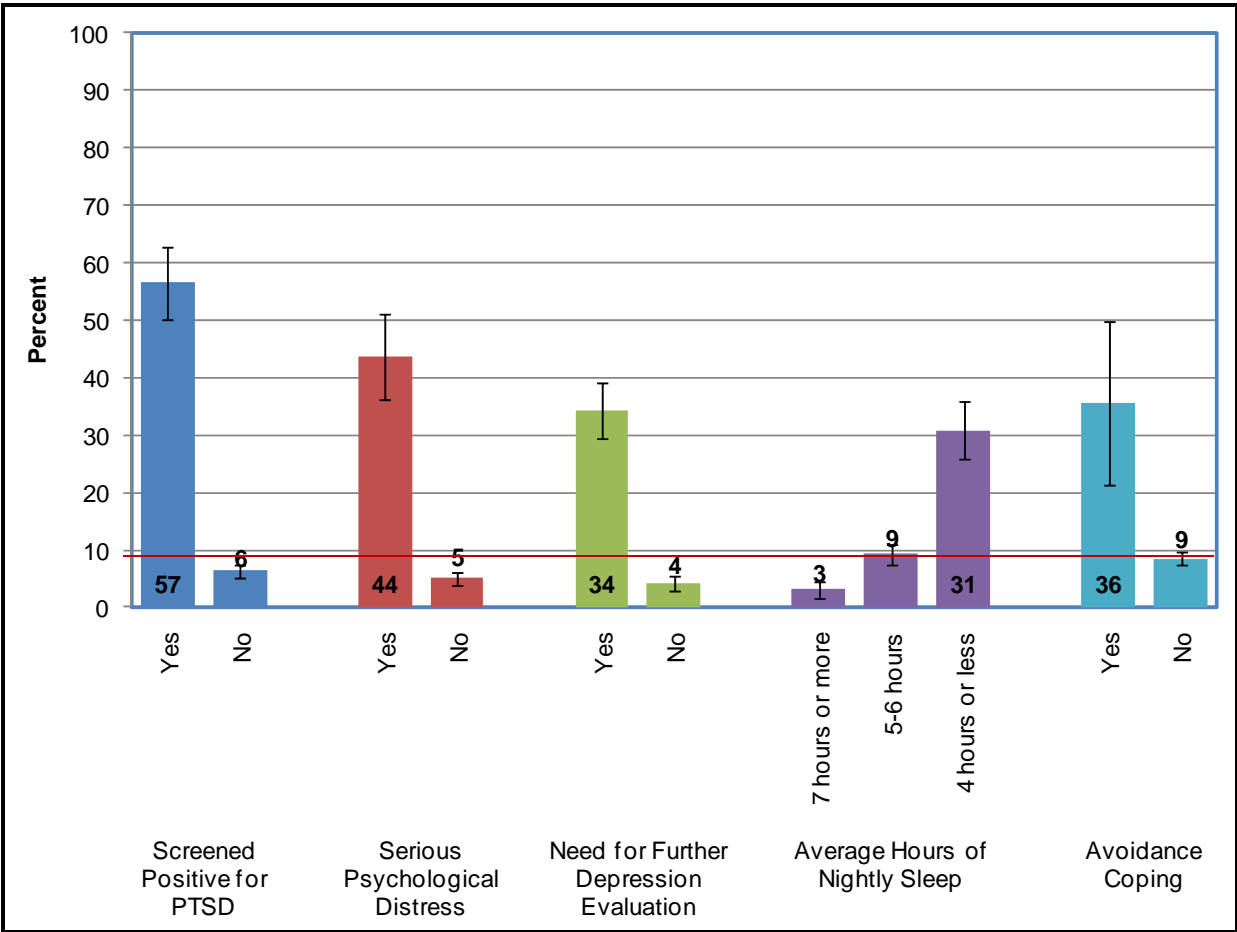
Figure 4-5.   Generalized Anxiety (Past Month)

- Those who indicated getting 5 or more hours of nightly sleep were less likely to report generalized anxiety in the past month compared to those who indicated getting 4 hours or less of nightly sleep.

- Past month generalized anxiety was also more likely to be reported by those who indicated a positive screening for PTSD, serious psychological distress, the need for further depression evaluation, and use of avoidance coping strategies. As noted above, these results show the overlap among mental health indicators.

- Other risk factors that were significantly associated with past month generalized anxiety were being aged 25 or younger, having some college education, being unmarried, being in pay grades E1 to E6, stress from work or family in the past 12 months, history of physical or sexual abuse, risk taking/impulsivity, illness or injury in the past 12 months, illicit drug use in the past 12 months, cigarette use in the past 30 days, and suicidal ideation in the past year.

- In addition to the risk factors noted above, a number of variables served as protective factors for past month generalized anxiety. These included male gender, CONUS assignment, and regularly engaging in vigorous physical exercise.

4.6 History of Lifetime Physical or Sexual Abuse

Approximately 41% of Coast Guard personnel indicated a history of lifetime physical or sexual abuse. Figure 4-6 presents the prevalence estimates for the five variables most strongly associated with this history: serious psychological distress; screened positive screen for PTSD; avoidance coping; suicidal ideation, past year; and average hours of nightly sleep.

- Coast Guard personnel who reported getting 5 or more hours of nightly sleep were less likely to report a history of physical or sexual abuse than Coast Guard members who reported getting 4 hours or less of nightly sleep.

- In addition, use of avoidance coping strategies, serious psychological distress, meeting screening criteria for PTSD, and past year suicidal ideation were associated with a history of physical or sexual abuse.

- Other risk factors that were significantly associated with a history of physical or sexual abuse were white non-Hispanic race/ethnicity, some college education, having children living in the home, stress from work or family in the past 12 months, illness or injury in the past 12 months, illicit drug use in the past 12 months, cigarette use in the past 30 days, need for further depression evaluation, generalized anxiety in the past month, and use of active coping strategies.

- In addition to the risk factors noted above, a number of variables served as protective factors for a history of physical or sexual abuse. These included male gender, CONUS assignment, being aged 20 or younger, and non-Hispanic race/ethnicity.
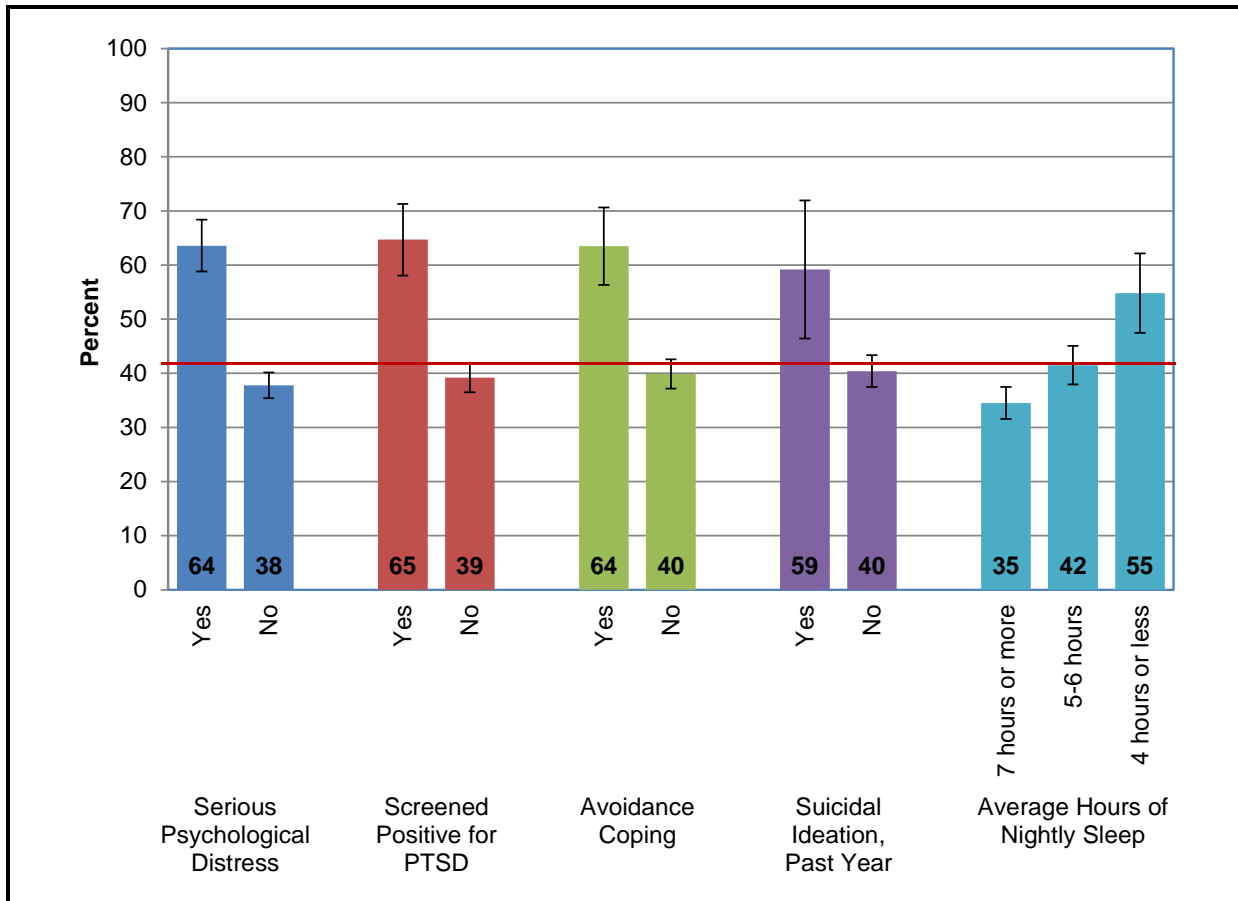
Figure 4-6.   History of Lifetime Physical or Sexual Abuse

4.7   Summary and Recommendations

4.7.1 Stress and Mental Health

Coast Guard personnel reported a number of stress and mental health issues. Overall, the prevalence for work or family stress was 34%, but this was considerably higher for those with additional behavioral health problems. An estimated 18% of Coast Guard personnel screened positive for depression, about 7% had a positive screening for PTSD, nearly 12% indicated serious psychological distress, and about 10% met criteria for generalized anxiety. These behavioral health issues were highly interrelated, with a large number of overlapping variables serving as predictors for psychological problems. Demonstrating PTSD symptoms, for example, was associated with work or family stress, serious psychological distress, generalized anxiety, the need for depression evaluation, and a history of physical or sexual abuse. Likewise, prevalence rates for anxiety and depression were much higher among personnel demonstrating other behavioral health problems. These findings highlight the need for a comprehensive

assessment of functioning when considering an intervention plan for personnel demonstrating any of a number of behavioral health problems.

The working group developed several recommendations focused on stress and mental health:

- Embed active duty mental health providers within Coast Guard clinics and primary care settings to focus on short-term, preventative interventions.

- Develop and implement a pilot program to deploy "behavioral health coordinators" to underserved geographical areas with the ultimate goal of providing services and coordination to all members in need of mental health intervention at all levels across the Coast Guard.

- Collect data that would support better decision making within the behavioral health arena (e.g., family advocacy, suicide prevention, sexual assault).

- Develop a campaign for reducing stigma associated with seeking mental health services.

- Implement a leadership/command-focused "Operational Stress Control" program in coordination with other Coast Guard operational programs.

- Use a team approach to better manage patients with multiple and/or chronic behavioral health issues. (The implementation of PCMH addresses this recommendation.)

- Address stress management through the development of enhanced resilience training for all Coast Guard personnel, with an emphasis on the importance of adaptive coping skills.

- Charter a working group that addresses "operational stress management" issues and the implementation of an integrated leadership program.

The authors propose that exercise, in any form, be added to the list of recommendations for the Coast Guard. Vigorous exercise was a significant protective factor for a number of mental health issues.

4.7.2 Physical or Sexual Abuse

Approximately 41% of Coast Guard personnel indicated a history of lifetime physical or sexual abuse, although most of that occurred prior to joining the Coast Guard. As with the other behavioral health issues, the HRB data showed that a history of lifetime physical or sexual assault tends to be highly correlated with other psychological problems. Demonstrating PTSD symptoms, serious psychological distress, and thinking about suicide were predictive of a history

of physical or sexual abuse. A history of physical or sexual abuse was more prevalent among those with shorter sleeping patterns and among those who rely on avoidance coping strategies.

The working group developed several recommendations focused on physical or sexual abuse:

- Prioritize work-life specialists to place more emphasis on education, prevention, and surveillance of physical or sexual assault.

- Develop education programs that focus on leadership's awareness and knowledge of stress characteristics and detection of signs of physical or sexual abuse to increase sensitivity to this issue and promote early detection.

- Educate primary care physicians about the connection between physical/sexual abuse and alcohol/drug abuse.

- Evaluate Coast Guard policies and procedures for reporting a history of physical or sexual abuse to determine whether changes are needed to ensure that effective processes are in place for victims wishing to disclose this information.

- Develop trend analyses to drive strategic programmatic direction for physical/sexual abuse awareness and prevention.

SECTION 5
OTHER HEALTH-RELATED BEHAVIORS AND JOB SATISFACTION

The 2008 HRB Survey included items for assessing a host of other health-related behaviors pertaining to the well-being of the force. These included overweight and exercise, blood pressure and cholesterol, and achievement of selected *Healthy People 2010* objectives for health promotion. In addition, the survey included items geared toward characterizing overall job satisfaction among service members, including the likelihood that they would choose to remain on active duty if given the choice and the likelihood that they would choose to serve for at least 20 years. This chapter presents findings regarding significant predictors of these outcomes; related tables appear in Appendix C. At the end of this chapter, we present a brief summary of findings as well as the recommendations from the Coast Guard working group.

5.1   Overweight and Exercise

An estimated 62% of Coast Guard personnel were classified as overweight. Figure 5-1 presents the prevalence of the five variables most strongly associated with overweight in the Coast Guard: gender, children living with you, age group, pay grade, and family status.
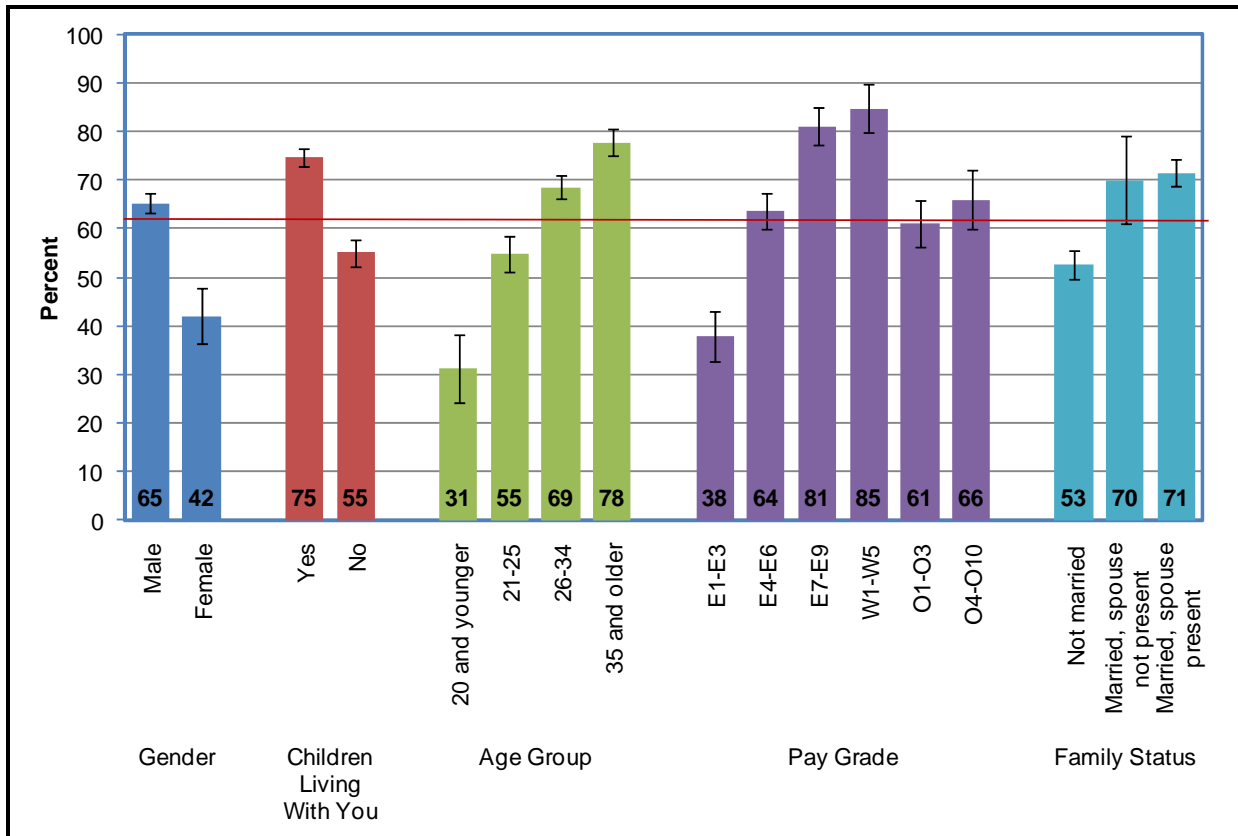
Figure 5-1.   Overweight

- Those under age 35, those who were unmarried, and those in pay grades E1 to E3 were significantly less likely to be overweight than their counterparts.

- Coast Guard participants who reported being male, having children living with them, and being in pay grades E7 to E9 or W1 to W5 were more likely to be overweight.

- Other significant risk factors included medium spirituality (as opposed to low or high) and injury in the past 12 months.

- In addition to the risk factors noted above, a number of variables served as protective factors for overweight. These included CONUS assignment, high school education or less, risk taking/impulsivity, heavy alcohol use, cigarette use, need for further depression evaluation, and use of avoidance coping strategies. Despite their protective effect, many of these are not positive behaviors.

Nearly half (48%) of Coast Guard members reported that they engaged in regular vigorous exercise during the past 30 days. Figure 5-2 presents the five variables with the strongest association with past 30 day vigorous exercise among Coast Guard personnel: active coping; age group; generalized anxiety, past month; suicidal ideation, past year; and avoidance coping.
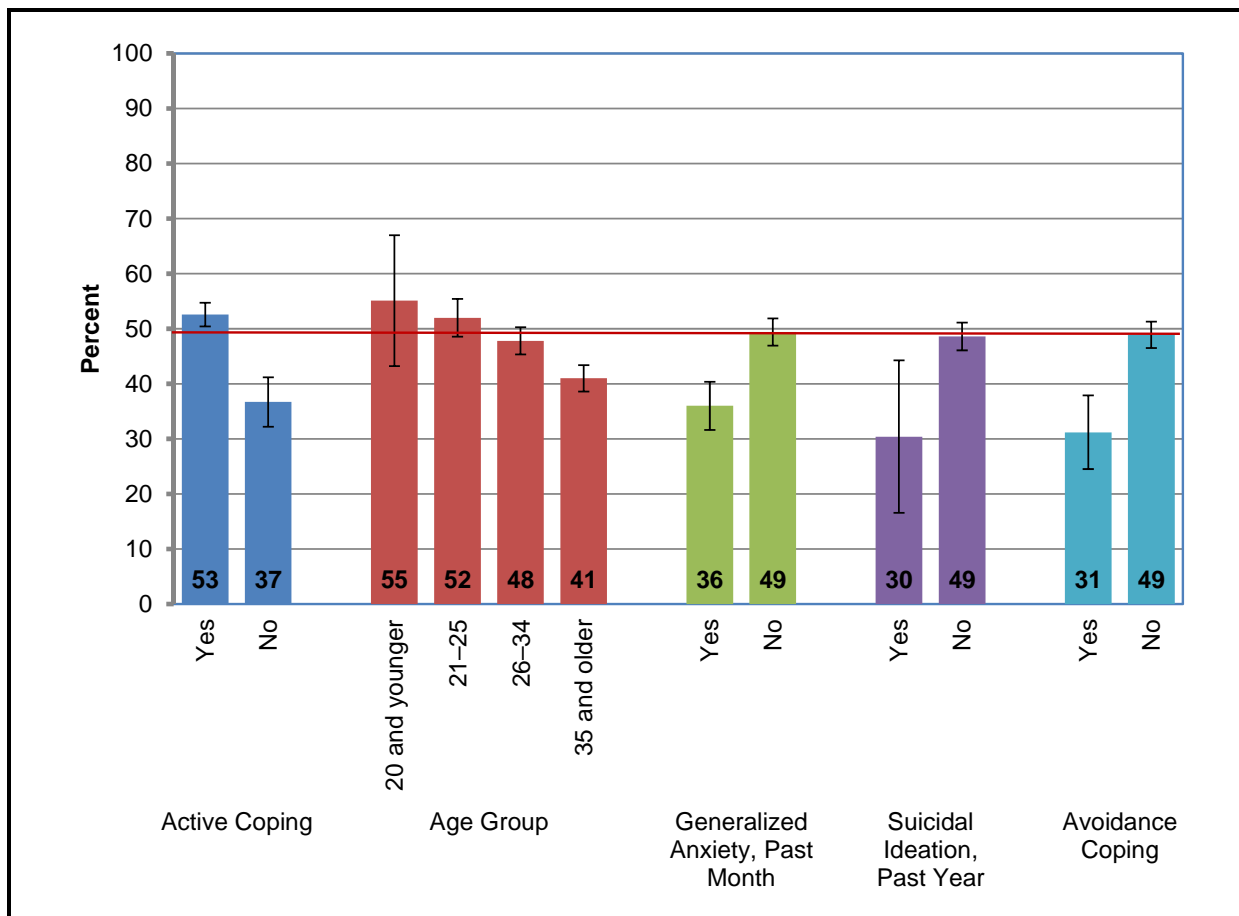
Figure 5-2.   Past 30 Day Vigorous Physical Exercise

▪ Age group was the only sociodemographic variable that was among the top five significant associations with vigorous physical exercise in the past 30 days: those aged 34 or younger were more likely to report this activity.

▪ Active coping was positively associated with vigorous physical exercise (i.e., those who use active coping strategies were more likely to indicate vigorous physical exercise in the past 30 days), whereas avoidance coping was negatively associated with vigorous physical exercise.

▪ Personnel with generalized anxiety in the past month were less likely to report vigorous physical exercise, as were those who indicated suicidal ideation.

▪ Other factors positively associated with past 30 day vigorous physical exercise were male gender, 7 or more average hours of nightly sleep, risk taking/impulsivity, and medium or high spirituality.

▪ A number of factors were associated with lower rates of past 30 day vigorous physical exercise. These included having children living with you, being in pay grades E7 to E9 or W1 to W5, stress from family in the past 12 months, heavy alcohol use, cigarette use in the past 30 days, need for further depression evaluation, and serious psychological distress.

5.2   Blood Pressure and Cholesterol

Among Coast Guard members, an estimated 15% have been told by a health care practitioner that they have high blood pressure. Figure 5-3 presents the five variables most strongly associated with high blood pressure among Coast Guard personnel: gender, age group, children living with you, family status, and pay grade.
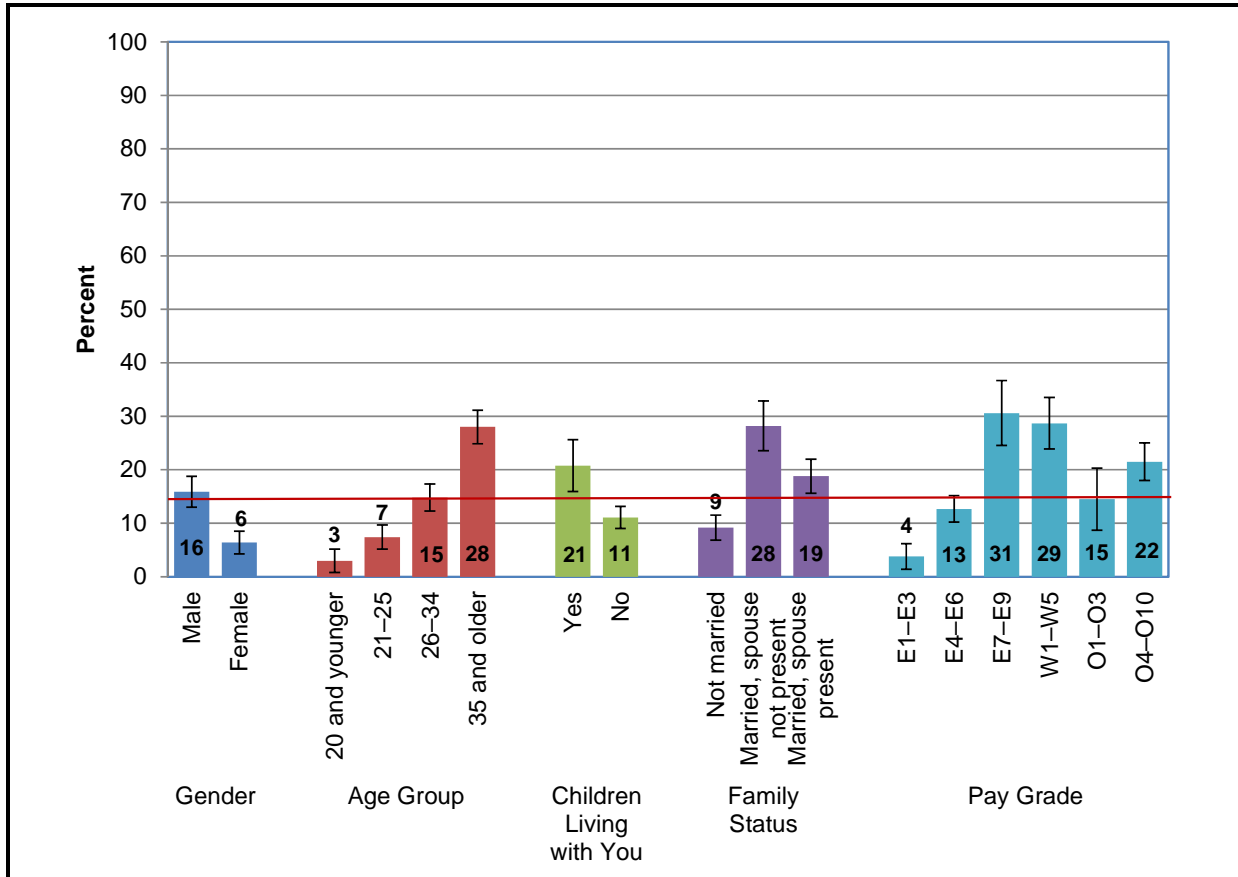
Figure 5-3.   High Blood Pressure

- Those who were male, those who were married without spouse present, those who had children living with them, and those in pay grades E7 to E9 or W1 to W5 were more likely to indicate having high blood pressure since entering the Coast Guard.

- Coast Guard participants who were under 35 years of age, unmarried, and in pay grades E1 to E6 were significantly less likely to indicate having high blood pressure.

- Other significant risk factors included African American/non-Hispanic race/ethnicity, high stress from work or family in the past 12 months, history of physical or sexual abuse, illness or injury in the past 12 months, heavy alcohol use, need for further

depression evaluation, positive screening for PTSD, and use of active or avoidance coping strategies.

- In addition to the risk factors noted above, a number of variables served as protective factors for high blood pressure. These included high school education or less, 7 or more hours of nightly sleep, risk taking/impulsivity, and past 30 day vigorous physical exercise.

Approximately 16% of Coast Guard personnel has been told by a health care professional that they have high cholesterol. Figure 5-4 presents the five variables showing the greatest associations with high cholesterol in the Coast Guard: children living with you, age group, pay grade, education, and family status.
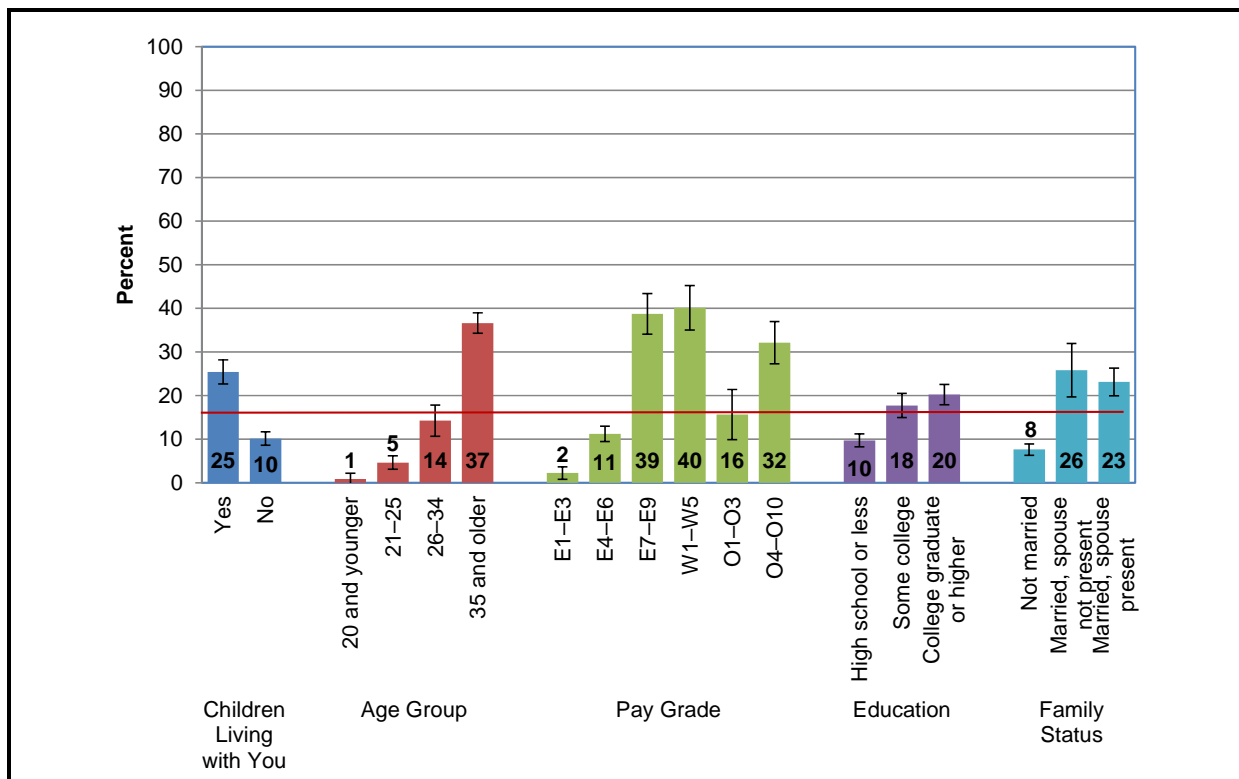
Figure 5-4.   High Cholesterol

- Those who were under 35 years of age, those without a college degree, those who were unmarried, and those in pay grades E1 to E6 or O1 to O3 were less likely to report having high cholesterol since entering the Coast Guard.

- Respondents who had children living with them were more likely to report high cholesterol.

- Other significant risk factors were male gender, stress from work or family in the past 12 months, history of physical or sexual abuse, high spirituality, injury in the past 12 months, and positive screening for PTSD.

- In addition to the risk factors noted above, a number of variables served as protective factors for high cholesterol. These included risk taking/impulsivity, past 30 day vigorous physical exercise, heavy alcohol use, and past 30 day cigarette use.

5.3   Achievement of Selected *Healthy People 2010* Objectives

Figures 5-5 through 5-7 present benchmark data comparing Coast Guard personnel to civilians with regard to selected *Healthy People 2010* (*HP 2010*) objectives. Objectives measured in the 2008 HRB Survey include substance use, physical health, and safety indicators. Civilian benchmark data were drawn from civilian sources noted in *HP 2010.* These measures are not strictly comparable with military data since the civilian demographic characteristics were different from the military characteristics (e.g., the civilian population is older and has more females).

5.3.1 Substance Use

Figure 5-5 presents Coast Guard and civilian data regarding four substance use indicators: any cigarette use, smokeless tobacco use, binge drinking, and any illicit drug use.
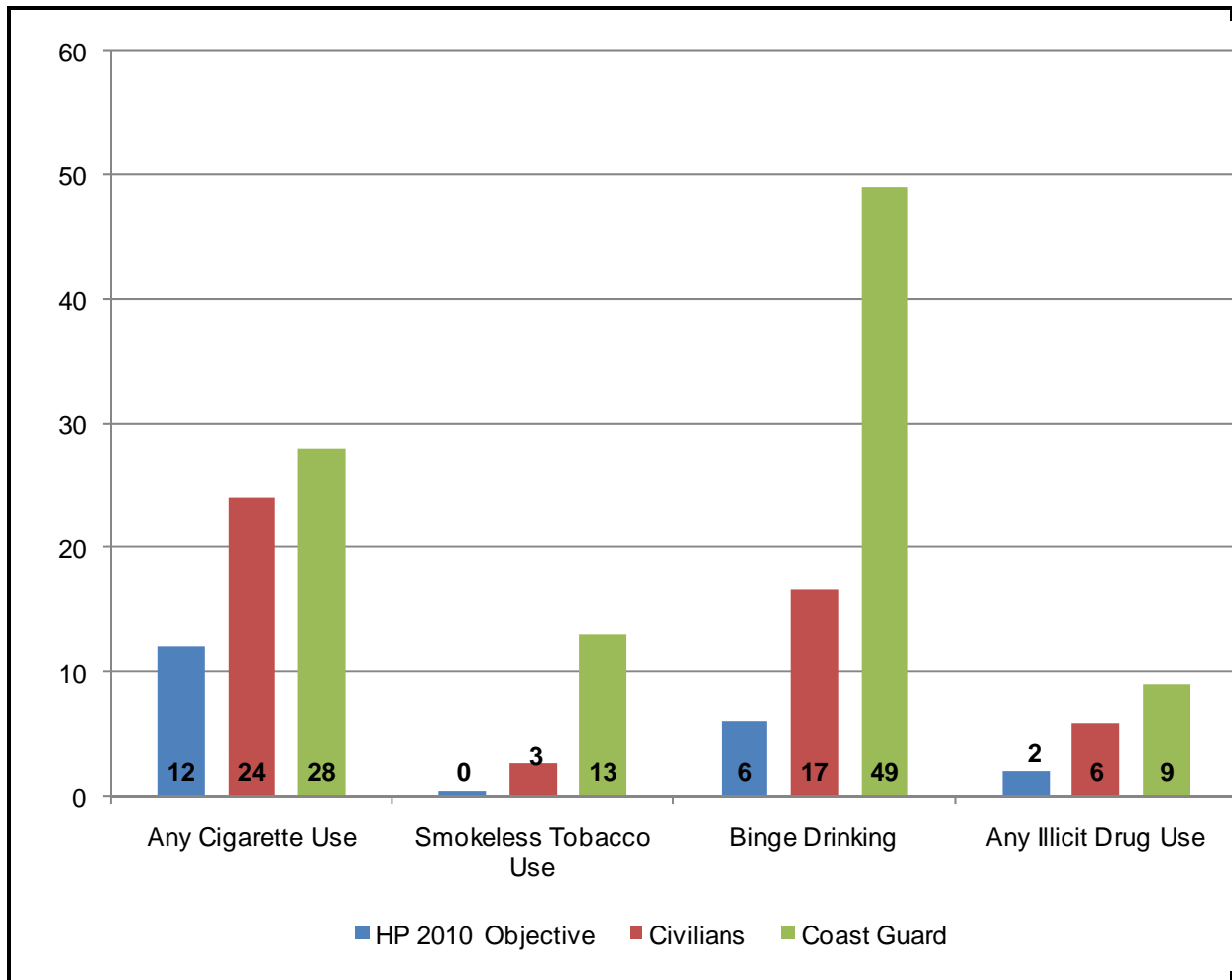
Figure 5-5. *Healthy People 2010* **Objectives: Substance Use**

Note: All measures are for the past 30 days.

- Coast Guard personnel had higher prevalence rates than civilians for all forms of substance use measured as part of the *HP 2010* objectives.

- Percentages of Coast Guard personnel engaging in each form of substance use exceeded the benchmarks set under the *HP 2010* objectives.

- The largest discrepancies between Coast Guard and civilian substance use prevalences and the *HP 2010* objectives were with regard to binge drinking (49% vs. 17% vs. 6%, respectively).

5.3.2 *Physical Health*

Figure 5-6 presents Coast Guard and civilian data regarding five indicators of physical health: obesity, healthy weight, vigorous physical activity, fruit intake, and vegetable intake.
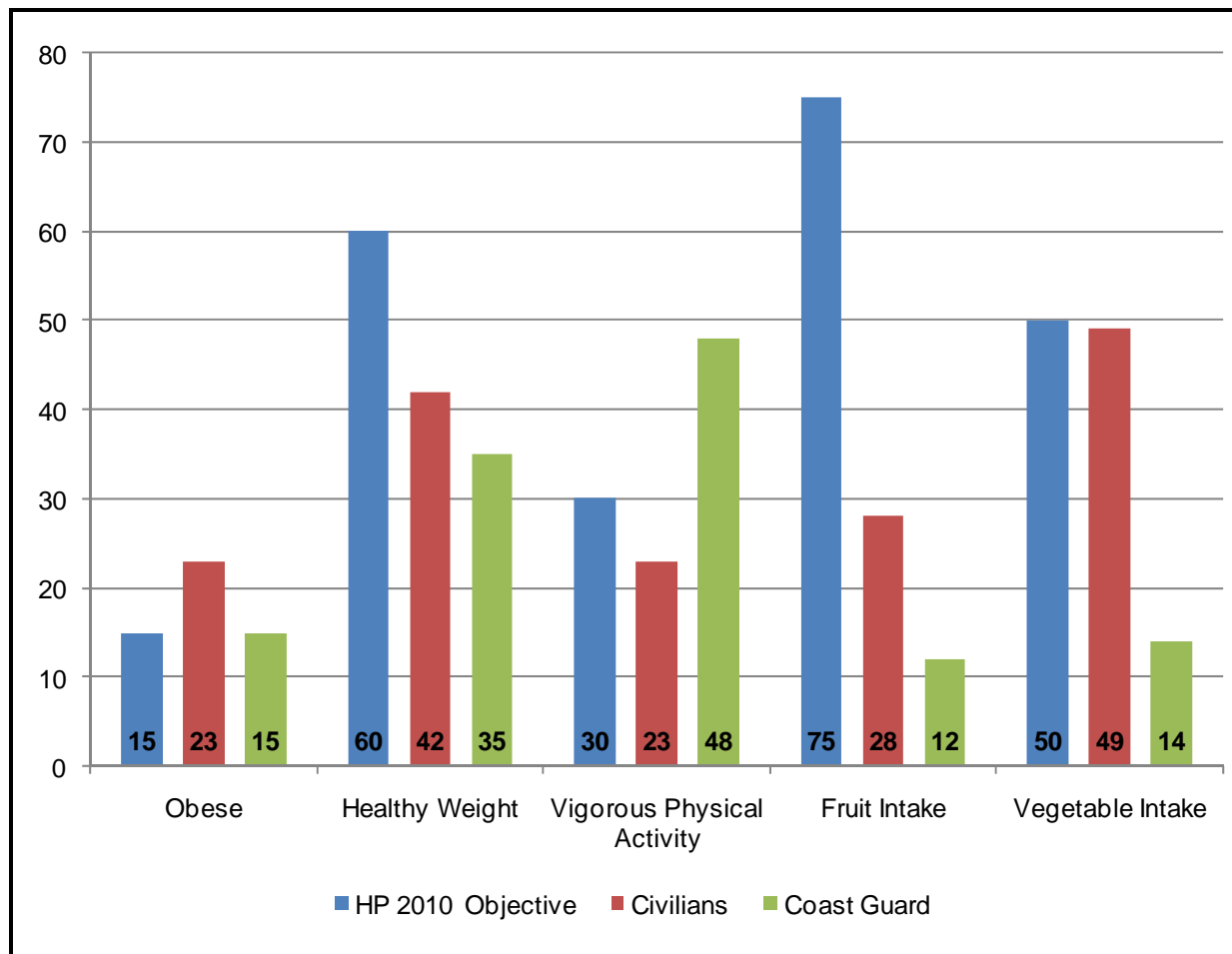
Figure 5-6. *Healthy People 2010* **Objectives: Physical Health**

Note: Healthy weight is among individuals aged 20 or older. Vigorous physical activity is within the past 30 days. Fruit and vegetable intake indicates consumption 3 or more times per day.

- Coast Guard personnel had lower obesity rates than civilians, and met the *HP 2010* objective for this metric.

- Coast Guard personnel exceeded the *HP 2010* objective for regularly engaging in vigorous physical activity.

- Coast Guard personnel had lower rates of fruit and vegetable intake than civilians and fell below the *HP 2010* standards for these metrics.

5.3.3 Safety

Figure 5-7 presents Coast Guard and civilian data regarding three safety indicators: seat belt use, motorcycle helmet use, and condom use at last sexual encounter.
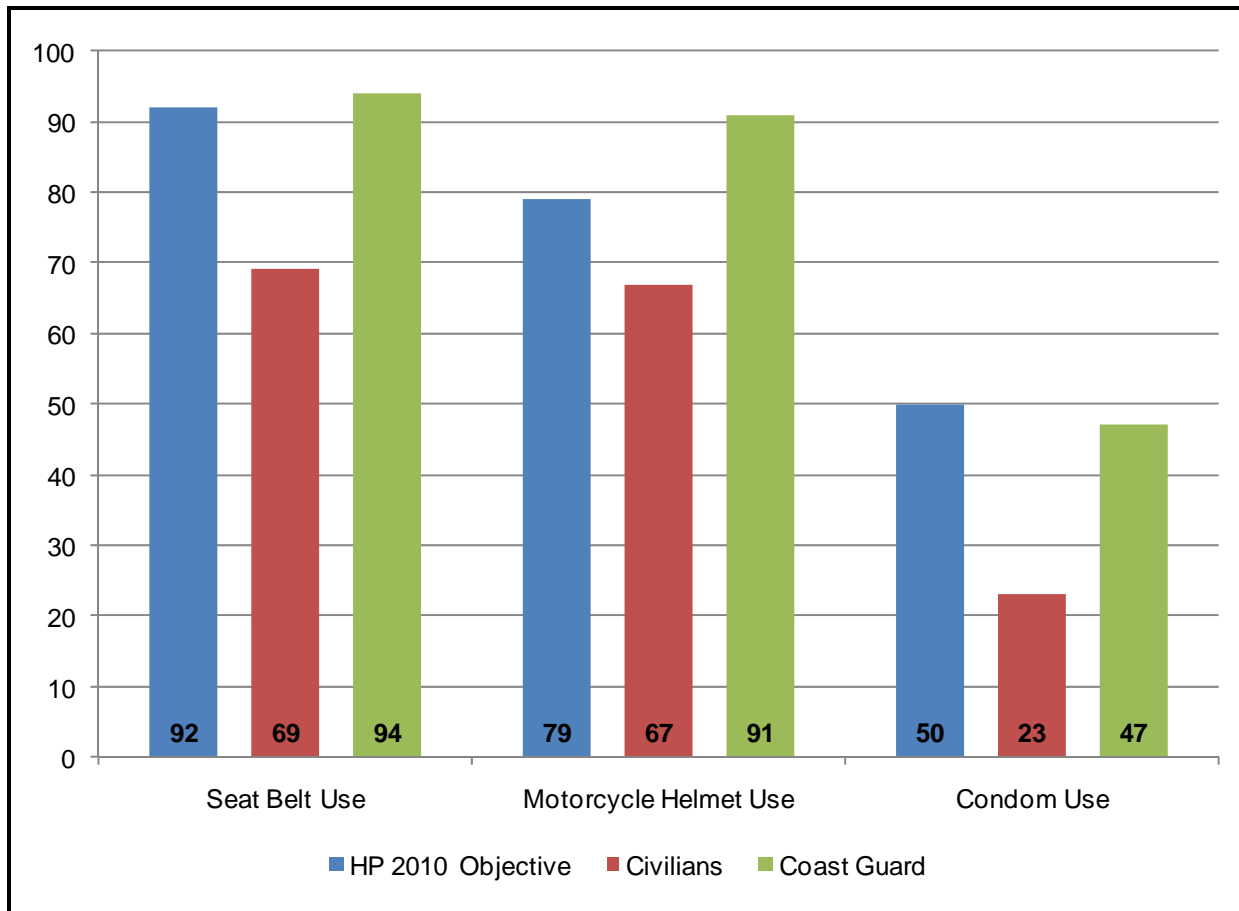
Figure 5-7.   *Healthy People 2010* **Objectives: Safety**

Note: Motorcycle helmet use is for the past 12 months. Condom use is subset to personnel who were sexually active and unmarried; measure is from last sexual encounter.

- Coast Guard personnel had higher rates of seat belt use and motorcycle helmet use than civilians, and they exceeded the *HP 2010* objectives for these metrics.

- Coast Guard personnel had higher rates of condom use at last sexual encounter than civilians, but they fell slightly short of the *HP 2010* objective for this metric.

5.4   Job Satisfaction

More than three out of every four members of the Coast Guard (76%) indicated being "satisfied" or "very satisfied" with their job. Figure 5-8 presents the five variables most

associated with overall job satisfaction in the Coast Guard: average hours of nightly sleep; pay grade; avoidance coping; generalized anxiety, past month; and screened positive for PTSD.
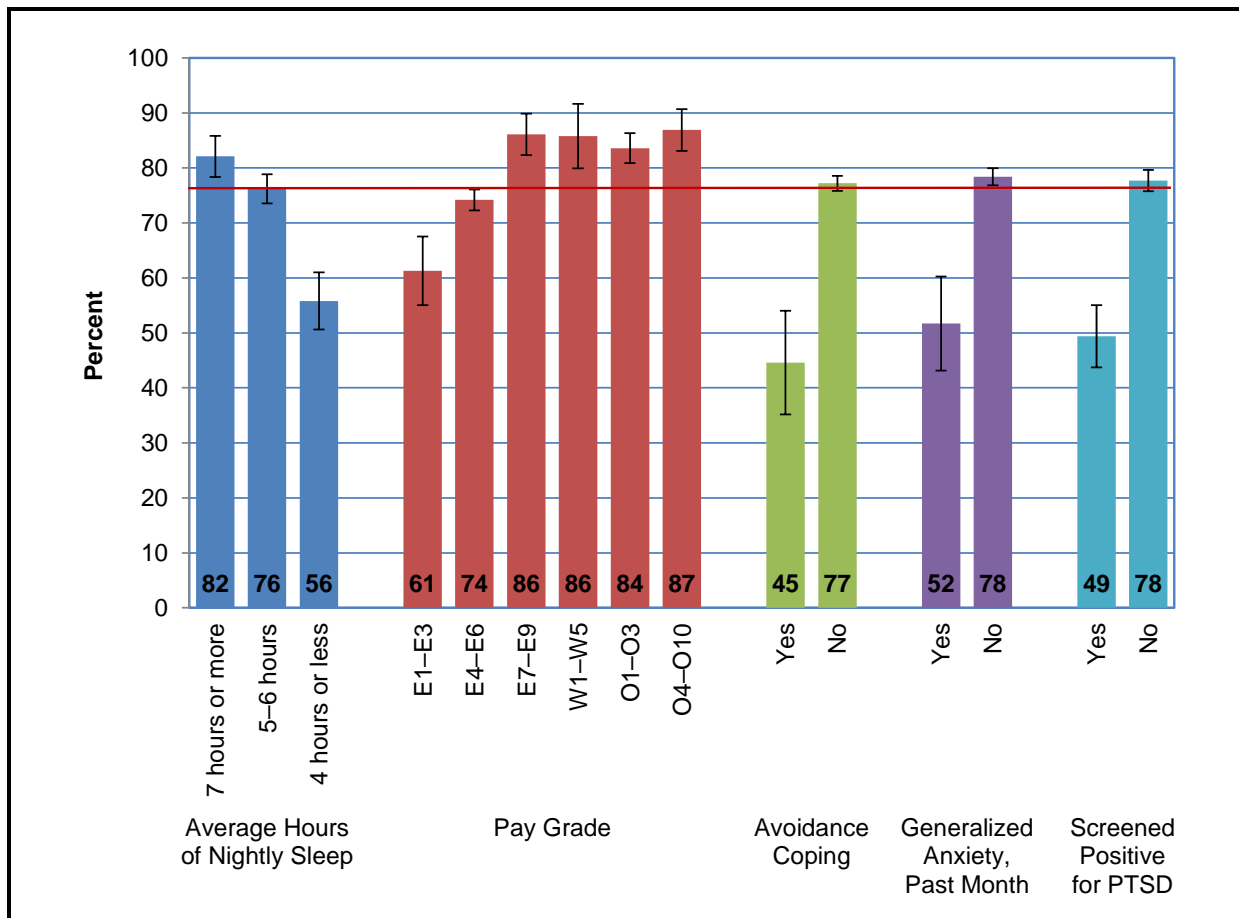
Figure 5-8.   Job Satisfaction

- Coast Guard personnel who reported getting an average of 5 or more hours of nightly sleep were more likely to indicate satisfaction with their jobs than their counterparts.

- Those in pay grades E1 to E6 and those who reported generalized anxiety in the past month, a positive screening for PTSD, and using avoidance coping strategies were less likely to indicate high job satisfaction.

- Other factors that were significantly associated with job satisfaction were children living with you, medium or high spirituality, and use of active coping strategies.

- A number of variables were negatively related to job satisfaction: being 34 years of age or younger, less than college graduate education, unmarried family status, stress from work in the past 12 months, history of physical or sexual abuse, high risk taking/impulsivity, illness or injury in the past 12 months, illicit drug use in the past

12 months, heavy alcohol use, cigarette use in the past 30 days, need for further depression evaluation, serious psychological distress, and suicidal ideation in the past year.

When asked how likely they would be to stay on active duty if given the choice, 67% of Coast Guard members responded "likely" or "very likely." Figure 5-9 shows the top five variables associated with the likelihood of staying on active duty among Coast Guard participants: avoidance coping; age group; pay grade; need for further depression evaluation; and suicidal ideation, past year.
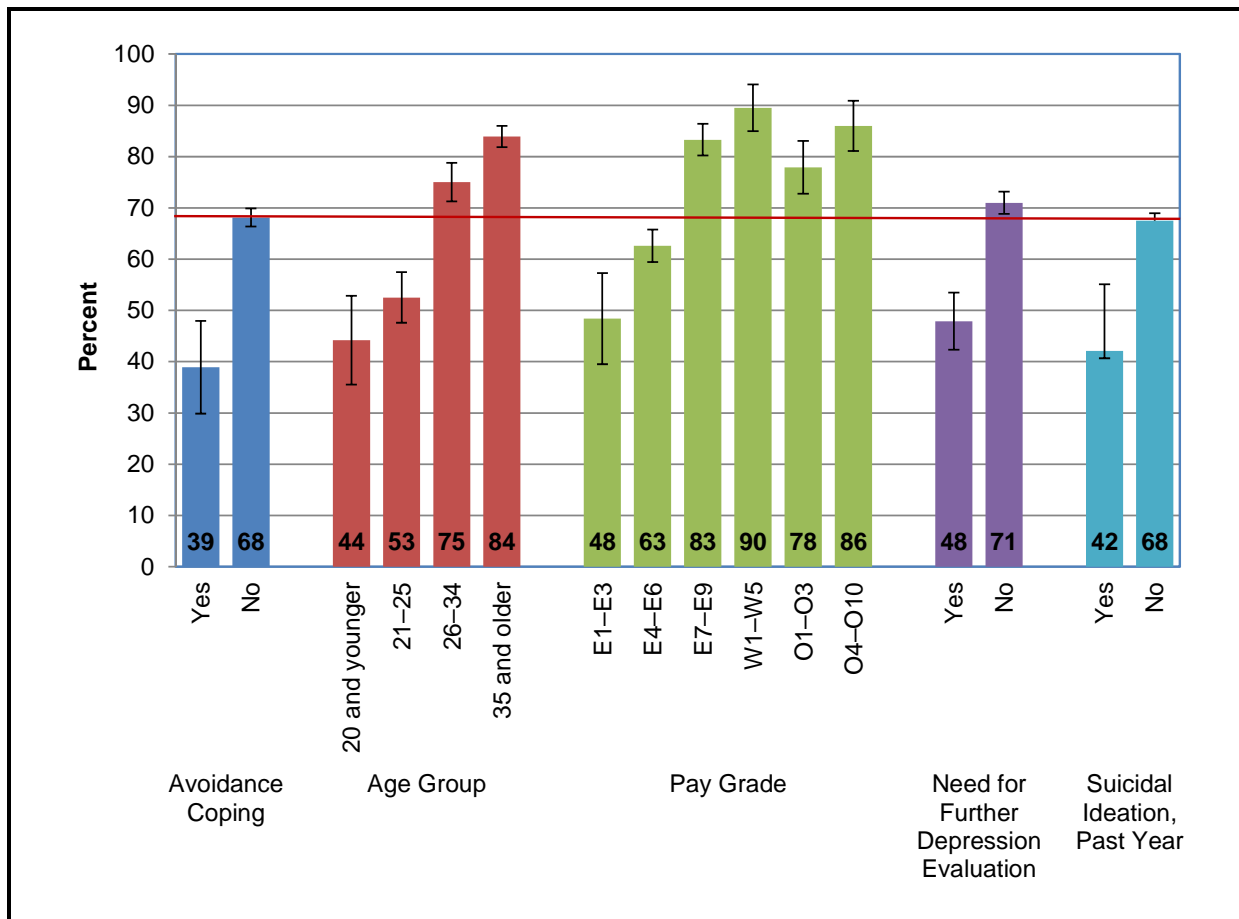
Figure 5-9. **Likelihood of Staying on Active Duty**

- Coast Guard personnel who indicated using avoidance coping strategies, those who reported suicidal ideation in the past year, those with a need for further depression evaluation, those aged 34 or younger, and those in pay grades E1 to E6 or O1 to O3 indicated less likelihood of staying on active duty.

- Other significant factors positively associated with the likelihood of staying on active duty included male gender, children living with you, 5 or more hours of nightly sleep, high spirituality, and use of active coping strategies.

- In addition to the factors noted above, a number of variables were negatively related to the likelihood of staying on active duty. These included CONUS assignment, less than college graduate education, being unmarried or married with spouse not present, stress from work in the past 12 months, high risk taking/impulsivity, illness in the past 12 months, illicit drug use in the past 12 months, heavy alcohol use, cigarette use, generalized anxiety, screening positive for PTSD, and serious psychological distress.

When asked how likely they would be to serve in the Coast Guard for 20 years or more, 66% of members responded "likely" or "very likely." Figure 5-10 presents the five variables showing the greatest association with the likelihood of serving for at least 20 years in the Coast Guard: age group; pay grade; children living with you; avoidance coping; and suicidal ideation, past year.
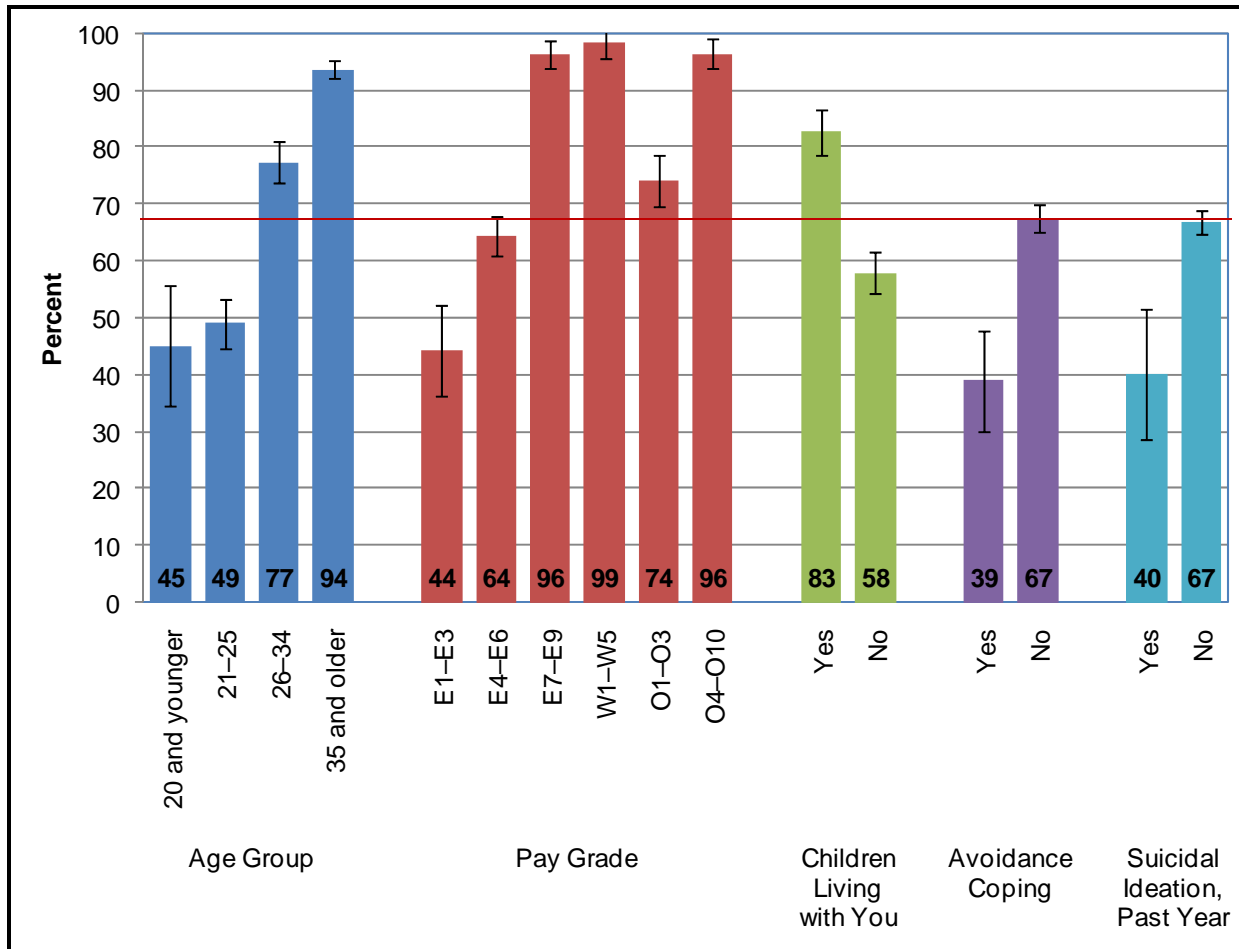
Figure 5-10. Likelihood of Serving at Least 20 Years

- Coast Guard personnel who indicated that they had children living with them were more likely to also indicate a high likelihood of serving for at least 20 years.

- Those who were under age 35, those in pay grades E1 to E6 or O1 to O3, those who reported suicidal ideation in the past year, and those who indicated using avoidance coping strategies were more likely to indicate a lower likelihood of serving at least 20 years.

- Other significant factors that were positively associated with the likelihood of serving at least 20 years included male gender and getting 5 or more hours of nightly sleep.

- In addition to the factors noted above, a number of variables were negatively related to the likelihood of serving at least 20 years. These included CONUS assignment, less than college graduate education, being unmarried, high risk taking/impulsivity, illicit drug use in the past 12 months, heavy alcohol use, need for further depression evaluation, generalized anxiety, positive screening for PTSD, and serious psychological distress.

5.5   Summary and Recommendations

5.5.1 Other Health Behaviors

A variety of other health behaviors were examined, including overweight, exercise, blood pressure, cholesterol, and achievement of *Healthy People 2010* objectives. The prevalence of overweight (defined as body mass index of 25 or greater) in the Coast Guard was 62%. Nearly half (48%) of Coast Guard members reported that they engaged in regular vigorous activity during the past 30 days. An estimated 15% indicated that they had been told by a health care practitioner that they had high blood pressure, and 16% that they had high cholesterol. The Coast Guard met or exceeded four *HP 2010* objectives (obesity, vigorous physical activity, seat belt use, motorcycle helmet use) of 12 objectives examined. Objectives that they did not meet were past month cigarette use, past month smokeless tobacco use, past month binge drinking, past month any illicit drug use, healthy weight, fruit intake, vegetable intake, and condom use. However, condom use was very close to the goal (within 2 percentage points).

Sociodemographic variables, such as gender, the presence of children living with you, age group, pay grade, education, and family status were the most significant predictors of chronic conditions, including overweight, high blood pressure, and high cholesterol. These findings are reflective of commonly acknowledged risk factors for these conditions, such as older age (and therefore, generally, higher pay grade) and male gender. Conversely, vigorous physical activity during the past 30 days was largely associated with positive psychological and coping characteristics; those indicating generalized anxiety, suicidal ideation, and use of avoidance coping strategies were less likely to report vigorous physical activity.

The recommendations of the Coast Guard working group are as follows:

- Provide telephone and online coaching services to reduce risk behaviors and promote healthy behavior change surrounding weight management, physical fitness, substance use, healthy eating, and stress management. (The Mind and Body weight management program currently addresses this issue in part.)

- Integrate the relationship between personal readiness (e.g., healthy weight and regular physical activity) and unit readiness through the requirement of annual command PHA reviews and unit health promotion program planning in consultation with regional health promotion managers.

- Target behavioral health interventions to specific high-risk populations (e.g., high blood pressure, high cholesterol).

- Increase compliance with the Commandant's physical activity requirements and adherence to healthy food intake norms as established by the U.S. Department of Agriculture and the U.S. Centers for Disease Control and Prevention.

5.5.2 *Job Satisfaction*

Overall job satisfaction was high. More than three out of every four members of the Coast Guard (76%) indicated being "satisfied" or "very satisfied" with their job. Senior enlisted personnel (E7 to E9) and officers reported the highest rates of job satisfaction (80% or higher). Positive mental health and coping strategies were also positively associated with job satisfaction (including the likelihood of staying on active duty and the likelihood of serving at least 20 years). Those who reported no generalized anxiety, no positive screening for PTSD, and no suicidal ideation were more likely to indicate higher job satisfaction than their counterparts. These findings highlight the impact that mental health can have on longer-term intentions, such as the likelihood of staying on active duty and the likelihood of serving at least 20 years.

The Coast Guard working group made no specific recommendations regarding job satisfaction.

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APPENDIX A:

SUBSTANCE ABUSE TABLES

Table A.1. Any Alcohol Use in Past 30 Days

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,204	82.38	(1.09)	1.00		82.38	(1.09)	4.19[*]	(1.22,14.33)
Gender									
Male	2,462	83.30	(1.10)[2]	1.57[*]	(1.22,2.03)	83.01	(1.11)[2]	1.51[*]	(1.07,2.14)
Female	742	76.00	(2.43)[1]	1.00		78.03	(2.35)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,843	83.11	(1.03)[2]	1.49[*]	(1.28,1.72)	83.19	(0.97)[2]	1.80[*]	(1.57,2.06)
OCONUS	361	76.77	(0.08)[1]	1.00		75.93	(0.94)[1]	1.00	(1.00,1.00)
Age Group									
20 and younger	198	47.00	(4.42)[234]	0.20[*]	(0.14,0.29)	49.30	(4.14)[234]	0.17[*]	(0.09,0.30)
21–25	771	90.76	(1.20)[14]	2.23[*]	(1.50,3.31)	90.56	(1.58)[14]	2.26[*]	(1.12,4.55)
26–34	1,048	89.45	(1.23)[14]	1.92[*]	(1.53,2.42)	88.81	(1.08)[14]	1.84[*]	(1.13,2.99)
35 and older	1,187	81.52	(1.38)[123]	1.00		81.99	(2.58)[123]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,447	83.34	(1.08)[2]	1.10	(0.72,1.66)	82.67	(1.09)	1.07	(0.71,1.61)
African American, non-Hispanic	182	73.47	(4.20)[1]	0.61	(0.29,1.27)	78.73	(2.80)[3]	0.77	(0.38,1.55)
Hispanic	349	80.38	(2.17)	0.90	(0.56,1.44)	83.17	(1.74)[2]	1.12	(0.69,1.82)
Other	226	82.00	(3.11)	1.00		81.88	(2.59)	1.00	(1.00,1.00)
Education									
High school or less	760	73.75	(1.53)[23]	0.38[*]	(0.29,0.48)	79.33	(1.78)[2]	0.68	(0.42,1.10)
Some college	1,508	85.30	(0.85)[13]	0.78[*]	(0.65,0.93)	83.87	(1.16)[1]	1.00	(0.74,1.34)
College graduate or higher	936	88.20	(1.24)[12]	1.00		83.87	(2.06)	1.00	(1.00,1.00)
Family Status									
Not married	1,351	80.97	(1.30)[3]	0.81[*]	(0.67,0.98)	84.80	(1.16)[23]	1.54[*]	(1.19,2.00)
Married, spouse not present	195	81.23	(3.39)	0.83	(0.52,1.32)	78.34	(3.51)[1]	0.87	(0.48,1.57)
Married, spouse present	1,658	83.96	(1.20)[1]	1.00		80.11	(1.43)[1]	1.00	(1.00,1.00)
Children Living With You									
Yes	1,350	83.68	(1.35)	1.16	(0.87,1.53)	82.36	(1.62)	1.00	(0.70,1.43)
No	1,854	81.62	(1.51)	1.00		82.40	(1.36)	1.00	(1.00,1.00)

(continued)

Table A.1. Any Alcohol Use in Past 30 Days (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Pay Grade									
E1–E3	403	64.54	(2.54)[2,3,4,5,6]	0.22*	(0.16,0.30)	74.28	(2.48)[2,3,5,6]	0.22*	(0.12,0.41)
E4–E6	1,382	85.65	(1.45)[1,4,6]	0.72*	(0.52,0.99)	82.28	(1.46)[1,5,6]	0.40*	(0.24,0.66)
E7–E9	423	83.71	(1.14)[1,4,5,6]	0.62*	(0.48,0.79)	85.16	(1.98)[1,6]	0.51*	(0.35,0.75)
W1–W5	248	75.74	(3.41)[1,2,3,5,6]	0.37*	(0.24,0.59)	80.60	(2.91)[6]	0.34*	(0.21,0.56)
O1–O3	404	88.82	(1.49)[1,3,4]	0.95	(0.65,1.39)	85.93	(1.52)[1,2,6]	0.55*	(0.36,0.85)
O4–O10	344	89.30	(1.22)[1,2,3,4]	1.00		90.97	(1.45)[1,2,3,4,5]	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,215	86.96	(1.34)[2]	1.74*	(1.33,2.26)	85.75	(1.33)[2]	1.65*	(1.27,2.13)
No	1,989	79.33	(1.50)[1]	1.00		80.31	(1.34)[1]	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	953	83.12	(1.99)	0.96	(0.62,1.49)	83.82	(1.68)	1.12	(0.67,1.86)
5–6 hours	1,963	81.86	(1.28)	0.88	(0.56,1.38)	81.69	(1.32)	0.92	(0.54,1.57)
4 hours or less	288	83.72	(2.19)	1.00		82.63	(1.93)	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,983	84.47	(1.29)	1.43*	(1.00,2.04)	83.41	(1.22)	1.24	(0.84,1.84)
Little/none	1,221	79.20	(2.26)	1.00		80.95	(1.94)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,313	84.64	(1.44)[2]	1.30*	(1.04,1.63)	83.38	(1.37)	1.16	(0.97,1.38)
Little/none	1,891	80.87	(1.20)[1]	1.00		81.77	(1.02)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,372	82.05	(1.38)	0.96	(0.77,1.21)	80.13	(1.40)[2]	0.72*	(0.53,0.98)
No	1,832	82.61	(1.34)	1.00		83.83	(1.37)[1]	1.00	(1.00,1.00)
Risk Taking/Impulsivity									
A lot/some	1,235	83.41	(0.91)	1.14	(0.98,1.33)	83.69	(0.93)[2]	1.23*	(1.02,1.49)
Little/none	1,969	81.51	(1.47)	1.00		81.37	(1.42)[1]	1.00	(1.00,1.00)

Table A.1. Any Alcohol Use in Past 30 Days (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Spirituality									
High	629	72.15	(2.69)[2,3]	0.37[*]	(0.27,0.51)	73.53	(2.17)[2,3]	0.30[*]	(0.21,0.41)
Medium	1,543	82.50	(1.14)[1,3]	0.68[*]	(0.56,0.82)	82.24	(1.21)[1,3]	0.57[*]	(0.44,0.74)
Low	1,032	87.41	(1.17)[1,2]	1.00		87.70	(1.21)[1,2]	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,486	82.11	(1.62)	0.96	(0.76,1.22)	83.20	(1.17)	1.16	(0.96,1.40)
No	1,718	82.63	(1.11)	1.00		81.59	(1.28)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	407	86.09	(1.56)[2]	1.37[*]	(1.06,1.77)	83.84	(1.57)	1.16	(0.91,1.49)
No	2,797	81.86	(1.14)[1]	1.00		82.19	(1.10)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,179	82.56	(1.10)	1.02	(0.85,1.23)	81.40	(1.42)	0.87	(0.67,1.14)
No	2,025	82.28	(1.35)	1.00		82.92	(1.23)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	471	83.72	(2.26)	1.12	(0.86,1.45)	82.41	(2.21)	1.00	(0.75,1.34)
No	2,733	82.14	(0.97)	1.00		82.38	(0.98)	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	729	88.95	(1.84)[2]	2.01[*]	(1.23,3.31)	87.89	(1.50)[2]	2.03[*]	(1.27,3.25)
No	2,475	79.99	(1.69)[1]	1.00		80.70	(1.49)[1]	1.00	(1.00,1.00)
Need for Further Depression Evaluation									
Yes	552	83.47	(2.52)	1.10	(0.72,1.67)	82.00	(2.39)	0.96	(0.60,1.55)
No	2,652	82.14	(1.26)	1.00		82.45	(1.22)	1.00	(1.00,1.00)
Generalized Anxiety, Past Month									
Yes	316	82.15	(2.74)	0.98	(0.71,1.36)	81.50	(2.63)	0.92	(0.60,1.41)
No	2,888	82.40	(1.03)	1.00		82.46	(1.08)	1.00	(1.00,1.00)

(continued)

Table A.1.   Any Alcohol Use in Past 30 Days (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Screened Positive for PTSD									
Yes	192	81.61	(2.51)	0.95	(0.72,1.25)	78.83	(2.36)	0.73	(0.52,1.02)
No	3,012	82.43	(1.06)	1.00		82.58	(1.09)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	377	85.51	(2.97)	1.30	(0.82,2.05)	86.42	(2.05)[2]	1.56[*]	(1.07,2.26)
No	2,827	81.96	(1.03)	1.00		81.86	(1.05)[1]	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	79.41	(5.14)	0.82	(0.44,1.52)	73.69	(3.51)[2]	0.50[*]	(0.33,0.77)
No	3,133	82.45	(1.08)	1.00		82.53	(1.08)[1]	1.00	(1.00,1.00)
Active Coping									
Yes	2,401	82.51	(1.53)	1.03	(0.81,1.31)	82.60	(1.33)	1.08	(0.88,1.32)
No	803	82.05	(0.58)	1.00		81.77	(0.76)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	107	98.84	(0.71)[2]	19.04[*]	(5.71,63.51)	98.90	(0.76)[2]	32.98[*]	(7.30,149.01)
No	3,097	81.67	(1.13)[1]	1.00		81.67	(1.12)[1]	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported any use of alcohol in the past 30 days. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
   [1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
   [2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
   [3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
   [4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
   [5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
   [6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.
Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table A.2. Heavy Alcohol Use

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,204	18.33	(1.18)	1.00		18.33	(1.18)	0.01[*]	(0.00,0.02)
Gender									
Male	2,462	19.69	(1.31)[2]	2.54[*]	(1.84,3.49)	19.36	(1.25)[2]	2.47[*]	(1.91,3.20)
Female	742	8.82	(1.02)[1]	1.00		10.01	(0.93)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,843	19.11	(1.30)[2]	1.69[*]	(1.43,2.01)	19.24	(1.32)[2]	2.04[*]	(1.68,2.49)
OCONUS	361	12.24	(0.11)[1]	1.00		11.53	(0.43)[1]	1.00	(1.00,1.00)
Age Group									
20 and younger	198	13.64	(4.36)[2]	1.37	(0.61,3.05)	8.57	(2.26)[2,3,4]	0.42[*]	(0.19,0.95)
21–25	771	27.23	(2.29)[1,3,4]	3.24[*]	(2.71,3.88)	22.47	(2.07)[1,4]	1.60[*]	(1.17,2.17)
26–34	1,048	18.64	(1.56)[2,4]	1.98[*]	(1.62,2.43)	20.40	(1.46)[1,4]	1.38[*]	(1.15,1.65)
35 and older	1,187	10.35	(0.80)[2,3]	1.00		16.39	(1.72)[1,2,3]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,447	19.56	(1.13)[2,4]	1.99[*]	(1.13,3.52)	19.28	(1.08)[2,4]	2.06[*]	(1.24,3.42)
African American, non-Hispanic	182	10.43	(1.90)[1,3]	0.95	(0.54,1.68)	14.08	(2.30)[1,3]	1.32	(0.75,2.31)
Hispanic	349	22.18	(2.24)[2,4]	2.33[*]	(1.33,4.08)	21.34	(2.05)[2,4]	2.40[*]	(1.37,4.20)
Other	226	10.89	(2.94)[1,3]	1.00		11.46	(2.53)[1,3]	1.00	(1.00,1.00)
Education									
High school or less	760	20.82	(2.65)[3]	2.49[*]	(1.71,3.63)	17.47	(2.05)	0.89	(0.56,1.42)
Some college	1,508	20.85	(1.26)[3]	2.50[*]	(2.12,2.94)	18.77	(1.34)	0.99	(0.75,1.31)
College graduate or higher	936	9.54	(0.97)[1,2]	1.00		18.88	(2.26)	1.00	(1.00,1.00)
Family Status									
Not married	1,351	23.37	(1.75)[2,3]	2.00[*]	(1.59,2.51)	20.48	(1.12)[3]	1.48[*]	(1.34,1.64)
Married, spouse not present	195	17.37	(2.40)[1]	1.38[*]	(1.02,1.87)	18.21	(2.96)	1.24	(0.82,1.88)
Married, spouse present	1,658	13.23	(1.10)[1]	1.00		15.62	(1.21)[1]	1.00	(1.00,1.00)

(continued)

Table A.2.   Heavy Alcohol Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,350	12.15	(1.55)[2]	0.49*	(0.34,0.71)	16.48	(1.64)	0.81	(0.55,1.17)
No	1,854	21.94	(1.75)[1]	1.00		19.12	(1.57)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	403	23.20	(2.22)[3,4,5,6]	7.41*	(4.05,13.59)	21.21	(2.82)[5,6]	3.05*	(1.59,5.87)
E4–E6	1,382	22.50	(1.61)[3,4,5,6]	7.13*	(4.22,12.03)	19.31	(1.43)[5,6]	2.66*	(1.79,3.93)
E7–E9	423	14.79	(1.78)[1,2,5,6]	4.26*	(2.06,8.79)	19.72	(2.46)[5,6]	2.74*	(1.62,4.64)
W1–W5	248	9.04	(3.07)[1,2]	2.44	(0.98,6.05)	14.69	(4.21)	1.81	(0.70,4.67)
O1–O3	404	6.67	(1.54)[1,2,3]	1.75	(0.68,4.52)	9.87	(2.71)[1,2,3]	1.08	(0.46,2.54)
O4–O10	344	3.91	(1.10)[1,2,3]	1.00		9.31	(1.75)[1,2,3]	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,215	21.18	(1.60)[2]	1.37*	(1.08,1.73)	20.04	(1.59)	1.26	(0.97,1.65)
No	1,989	16.43	(1.54)[1]	1.00		17.09	(1.46)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	953	16.29	(1.97)[3]	0.63*	(0.44,0.90)	19.57	(1.76)	0.98	(0.66,1.46)
5–6 hours	1,963	18.41	(1.18)	0.73	(0.48,1.10)	17.63	(1.08)	0.84	(0.54,1.31)
4 hours or less	288	23.68	(3.50)[1]	1.00		19.81	(3.06)	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,983	18.01	(1.37)	0.95	(0.73,1.24)	18.29	(1.39)	0.99	(0.73,1.34)
Little/none	1,221	18.80	(1.73)	1.00		18.38	(1.63)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,313	18.48	(1.33)	1.02	(0.85,1.22)	18.04	(1.23)	0.96	(0.78,1.18)
Little/none	1,891	18.23	(1.37)	1.00		18.52	(1.39)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,372	19.78	(1.33)	1.18	(0.97,1.43)	19.06	(1.33)	1.11	(0.89,1.37)
No	1,832	17.32	(1.44)	1.00		17.81	(1.38)	1.00	(1.00,1.00)

(continued)

Table A.2. Heavy Alcohol Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,235	25.08	(1.45)[2]	2.31*	(1.88,2.84)	21.15	(1.47)[2]	1.59*	(1.27,1.98)
Little/none	1,969	12.66	(1.24)[1]	1.00		15.34	(1.27)[1]	1.00	(1.00,1.00)
Spirituality									
High	629	8.90	(1.51)[2,3]	0.31*	(0.23,0.41)	13.62	(2.64)[3]	0.56*	(0.35,0.89)
Medium	1,543	17.55	(1.22)[1,3]	0.67*	(0.56,0.79)	17.89	(1.32)	0.82	(0.66,1.01)
Low	1,032	24.24	(1.52)[1,2]	1.00		20.51	(1.24)[1]	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,486	16.83	(1.18)[2]	0.82*	(0.73,0.93)	17.83	(0.98)	0.93	(0.78,1.11)
No	1,718	19.72	(1.36)[1]	1.00		18.76	(1.55)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	407	21.32	(3.09)	1.24	(0.77,2.01)	18.83	(1.75)	1.05	(0.76,1.45)
No	2,797	17.91	(1.44)	1.00		18.25	(1.29)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,179	19.45	(1.46)	1.12	(0.91,1.38)	19.06	(1.34)	1.10	(0.87,1.39)
No	2,025	17.70	(1.35)	1.00		17.91	(1.38)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	471	30.15	(2.75)[2]	2.24*	(1.57,3.18)	23.94	(2.41)[2]	1.65*	(1.17,2.34)
No	2,733	16.18	(1.34)[1]	1.00		17.14	(1.23)[1]	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	729	32.99	(1.38)[2]	3.30*	(2.71,4.00)	24.29	(1.43)[2]	1.93*	(1.56,2.38)
No	2,475	12.99	(1.25)[1]	1.00		15.43	(1.32)[1]	1.00	(1.00,1.00)
Need for Further Depression Evaluation									
Yes	552	23.79	(3.04)[2]	1.51*	(1.04,2.20)	19.44	(2.35)	1.12	(0.83,1.50)
No	2,652	17.12	(1.31)[1]	1.00		18.06	(1.07)	1.00	(1.00,1.00)

(continued)

Table A.2. Heavy Alcohol Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Generalized Anxiety, Past Month									
Yes	316	18.38	(3.49)	1.00	(0.63,1.60)	12.58	(3.13)[2]	0.55	(0.28,1.10)
No	2,888	18.32	(1.18)	1.00		19.04	(1.13)[1]	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	192	29.01	(2.87)[2]	1.91*	(1.36,2.69)	22.58	(3.91)	1.41	(0.81,2.44)
No	3,012	17.58	(1.30)[1]	1.00		18.01	(1.22)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	377	22.03	(3.53)	1.30	(0.77,2.19)	14.73	(1.93)	0.70	(0.46,1.07)
No	2,827	17.83	(1.46)	1.00		18.89	(1.31)	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	29.82	(6.16)	1.93*	(1.05,3.55)	21.82	(5.54)	1.31	(0.60,2.90)
No	3,133	18.05	(1.22)	1.00		18.23	(1.19)	1.00	(1.00,1.00)
Active Coping									
Yes	2,401	15.82	(1.10)[2]	0.57*	(0.45,0.72)	17.19	(1.11)	0.76	(0.57,1.00)
No	803	24.73	(2.33)[1]	1.00		20.75	(2.10)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	107	58.15	(6.83)[2]	6.97*	(3.68,13.21)	41.95	(4.66)[2]	4.51*	(2.67,7.63)
No	3,097	16.62	(1.32)[1]	1.00		17.08	(1.29)[1]	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported heavy alcohol use during the past 30 days. Heavy alcohol use is defined as consumption of five or more drinks on the same occasion at least once a week in the past 30 days. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table A.3.   Harmful Alcohol Use (AUDIT Score ≥ 8)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,165	25.09	(1.17)	1.00		25.09	(1.17)	0.01[*]	(0.00,0.03)
Gender									
Male	2,441	27.10	(1.33)[2]	3.01[*]	(2.14,4.24)	26.54	(1.28)[2]	3.57[*]	(2.39,5.32)
Female	724	10.98	(1.32)[1]	1.00		14.01	(1.23)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,807	25.91	(1.25)[2]	1.51[*]	(1.32,1.73)	25.74	(1.11)[2]	1.68[*]	(1.40,2.01)
OCONUS	358	18.77	(0.17)[1]	1.00		20.12	(1.06)[1]	1.00	(1.00,1.00)
Age Group									
20 and younger	192	17.47	(4.07)[23]	1.36	(0.76,2.43)	15.38	(1.90)[234]	0.54[*]	(0.35,0.82)
21–25	760	38.55	(2.98)[134]	4.03[*]	(3.07,5.28)	30.75	(2.53)[14]	2.14[*]	(1.34,3.41)
26–34	1,036	25.45	(1.55)[124]	2.19[*]	(1.88,2.55)	26.49	(1.52)[14]	1.56[*]	(1.12,2.16)
35 and older	1,177	13.49	(0.57)[23]	1.00		21.34	(1.36)[123]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,420	27.18	(0.89)[24]	1.49[*]	(1.03,2.17)	26.29	(0.93)	1.30	(0.86,1.99)
African American, non-Hispanic	180	14.33	(2.46)[14]	0.67[*]	(0.46,0.98)	21.94	(3.19)	0.89	(0.50,1.57)
Hispanic	342	21.37	(4.33)	1.09	(0.68,1.74)	20.03	(3.59)	0.74	(0.37,1.48)
Other	223	20.00	(3.39)[12]	1.00		23.23	(2.76)	1.00	(1.00,1.00)
Education									
High school or less	748	26.93	(3.06)[3]	1.56[*]	(1.08,2.25)	23.70	(1.51)[3]	0.69[*]	(0.49,0.98)
Some college	1,488	26.73	(1.75)[3]	1.55[*]	(1.21,1.97)	24.88	(1.64)	0.77	(0.47,1.25)
College graduate or higher	929	19.09	(1.26)[12]	1.00		28.06	(2.42)[1]	1.00	(1.00,1.00)
Family Status									
Not married	1,334	32.76	(1.66)[23]	2.28[*]	(1.97,2.65)	28.38	(1.41)[23]	1.75[*]	(1.20,2.56)
Married, spouse not present	191	21.24	(2.39)[1]	1.26	(0.94,1.70)	22.74	(2.63)[1]	1.09	(0.72,1.66)
Married, spouse present	1,640	17.59	(1.06)[1]	1.00		21.76	(1.70)[1]	1.00	(1.00,1.00)

(continued)

Table A.3.   Harmful Alcohol Use (AUDIT Score ≥ 8) (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,331	16.59	$(1.14)^2$	0.46*	(0.37,0.58)	24.84	(1.83)	0.97	(0.62,1.51)
No	1,834	30.07	$(1.77)^1$	1.00		25.20	(1.59)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	389	31.37	$(2.25)^{3456}$	4.58*	(3.28,6.41)	26.91	(1.76)	1.38	(0.79,2.40)
E4–E6	1,368	28.98	$(2.16)^{3456}$	4.09*	(2.87,5.84)	24.35	(1.69)	1.11	(0.68,1.80)
E7–E9	420	16.85	$(2.06)^{126}$	2.03*	(1.29,3.21)	24.94	(2.39)	1.17	(0.58,2.35)
W1–W5	245	14.32	$(2.93)^{12}$	1.68*	(1.03,2.73)	27.35	(3.89)	1.43	(0.79,2.59)
O1–O3	401	19.31	$(1.14)^{126}$	2.40*	(1.84,3.12)	26.98	(1.40)	1.38	(0.86,2.23)
O4–O10	342	9.07	$(0.88)^{1235}$	1.00		23.21	(2.47)	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,201	28.72	$(0.87)^2$	1.37*	(1.12,1.69)	25.98	(0.81)	1.14	(0.87,1.50)
No	1,964	22.67	$(1.92)^1$	1.00		24.43	(1.75)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	940	22.48	$(1.48)^3$	0.59*	(0.48,0.72)	26.01	(1.25)	0.93	(0.61,1.41)
5–6 hours	1,938	25.02	$(1.18)^3$	0.68*	(0.52,0.88)	24.45	(1.31)	0.81	(0.54,1.21)
4 hours or less	287	33.06	$(3.28)^{12}$	1.00		26.92	(2.64)	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,962	25.62	(1.05)	1.07	(0.92,1.25)	25.09	(1.16)	1.00	(0.75,1.33)
Little/none	1,203	24.28	(1.73)	1.00		25.09	(1.77)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,300	27.11	$(1.62)^2$	1.20*	(1.05,1.36)	25.90	(1.51)	1.13	(0.93,1.37)
Little/none	1,865	23.73	$(1.07)^1$	1.00		24.51	(1.14)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,361	26.54	(1.75)	1.14	(0.91,1.42)	25.17	(1.53)	1.01	(0.81,1.27)
No	1,804	24.09	(1.41)	1.00		25.03	(1.19)	1.00	(1.00,1.00)

(continued)

Table A.3.   Harmful Alcohol Use (AUDIT Score ≥ 8) (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,225	35.19	$(1.74)^2$	2.73*	(2.36,3.15)	28.35	$(1.30)^2$	1.73*	(1.50,2.01)
Little/none	1,940	16.59	$(1.03)^1$	1.00		21.80	$(1.20)^1$	1.00	(1.00,1.00)
Spirituality									
High	616	11.48	$(1.29)^{23}$	0.29*	(0.22,0.36)	19.51	$(1.65)^{23}$	0.56*	(0.36,0.85)
Medium	1,526	25.64	$(1.27)^{13}$	0.76*	(0.63,0.91)	26.03	$(1.21)^1$	1.01	(0.81,1.26)
Low	1,023	31.18	$(1.82)^{12}$	1.00		25.91	$(1.65)^1$	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,467	24.34	(1.76)	0.93	(0.77,1.11)	25.30	(1.81)	1.04	(0.77,1.39)
No	1,698	25.79	(1.07)	1.00		24.90	(0.99)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	400	27.08	(3.96)	1.13	(0.69,1.83)	24.47	(2.28)	0.94	(0.61,1.46)
No	2,765	24.81	(1.45)	1.00		25.17	(1.26)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,169	25.92	(1.40)	1.07	(0.89,1.28)	25.21	(1.21)	1.02	(0.80,1.29)
No	1,996	24.62	(1.43)	1.00		25.02	(1.42)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	465	36.25	$(2.01)^2$	1.90*	(1.64,2.20)	26.90	(2.03)	1.20	(0.92,1.56)
No	2,700	23.06	$(1.13)^1$	1.00		24.75	(1.13)	1.00	(1.00,1.00)
Heavy Alcohol Use, Past 30 Days									
Yes	512	74.79	$(1.43)^2$	18.49*	(15.75,21.72)	62.27	$(1.21)^2$	13.32*	(10.75,16.51)
No	2,653	13.83	$(0.83)^1$	1.00		16.05	$(1.16)^1$	1.00	(1.00,1.00)
Cigarette Use, Past 30 Days									
Yes	723	42.52	$(2.75)^2$	3.21*	(2.47,4.18)	29.47	$(2.76)^2$	1.66*	(1.04,2.63)
No	2,442	18.72	$(1.14)^1$	1.00		23.21	$(1.20)^1$	1.00	(1.00,1.00)

(continued)

Table A.3.   Harmful Alcohol Use (AUDIT Score ≥ 8) (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Need for Further Depression Evaluation									
Yes	548	35.51	$(3.26)^2$	1.87*	(1.30,2.68)	26.99	(1.45)	1.22	(0.92,1.63)
No	2,617	22.79	$(1.44)^1$	1.00		24.62	(1.35)	1.00	(1.00,1.00)
Generalized Anxiety, Past Month									
Yes	313	32.01	$(2.88)^2$	1.46*	(1.15,1.86)	25.84	(1.89)	1.07	(0.80,1.44)
No	2,852	24.35	$(1.14)^1$	1.00		25.00	(1.20)	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	190	40.33	$(5.61)^2$	2.14*	(1.33,3.44)	24.25	(4.21)	0.92	(0.43,1.99)
No	2,975	24.03	$(1.19)^1$	1.00		25.16	(1.20)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	375	36.97	$(5.36)^2$	1.91*	(1.11,3.29)	28.89	(3.50)	1.43	(0.80,2.56)
No	2,790	23.48	$(1.42)^1$	1.00		24.54	(1.23)	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	44.40	$(5.29)^2$	2.45*	(1.58,3.79)	29.24	(2.70)	1.41	(0.86,2.33)
No	3,094	24.62	$(1.20)^1$	1.00		24.99	(1.22)	1.00	(1.00,1.00)
Active Coping									
Yes	2,371	22.79	$(1.06)^2$	0.66*	(0.60,0.72)	24.87	(1.33)	0.94	(0.79,1.11)
No	794	30.97	$(1.73)^1$	1.00		25.61	(1.08)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	107	72.84	$(6.14)^2$	8.97*	(4.89,16.46)	42.75	$(5.05)^2$	3.59*	(2.17,5.95)
No	3,058	23.02	$(1.06)^1$	1.00		24.35	$(1.09)^1$	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported hazardous, harmful, or dependent alcohol use as defined by an AUDIT score of 8 or higher. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table A.4. Serious Consequences of Alcohol Use

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,157	6.51	(0.83)	1.00		6.51	(0.83)	0.01[*]	(0.00,0.02)
Gender									
Male	2,429	6.84	(0.94)[2]	1.70	(0.98,2.93)	6.88	(0.89)[2]	2.01[*]	(1.39,2.90)
Female	728	4.15	(0.88)[1]	1.00		4.00	(0.56)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,801	6.48	(0.93)	0.96	(0.70,1.31)	6.48	(0.92)	0.95	(0.63,1.44)
OCONUS	356	6.73	(0.06)	1.00		6.72	(0.57)	1.00	(1.00,1.00)
Age Group									
20 and younger	190	9.90	(4.62)	3.93[*]	(1.34,11.48)	5.52	(1.79)	0.66	(0.20,2.13)
21–25	760	10.70	(1.67)[34]	4.28[*]	(2.63,6.98)	7.21	(1.26)	0.94	(0.52,1.69)
26-34	1,032	4.42	(0.70)[2]	1.65	(0.92,2.97)	5.59	(0.97)	0.67	(0.36,1.26)
35 and older	1,175	2.72	(0.55)[2]	1.00		7.54	(1.32)	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,418	6.43	(0.84)	0.89	(0.63,1.26)	6.15	(0.74)	0.71	(0.41,1.23)
African American, non-Hispanic	180	4.43	(1.77)	0.60	(0.24,1.51)	7.62	(2.53)	0.94	(0.33,2.72)
Hispanic	339	7.39	(0.89)	1.03	(0.66,1.63)	7.20	(0.92)	0.87	(0.41,1.86)
Other	220	7.17	(1.71)	1.00		7.95	(2.06)	1.00	(1.00,1.00)
Education									
High school or less	745	9.54	(2.68)[3]	3.62[*]	(1.99,6.61)	7.48	(1.63)	1.43	(0.61,3.37)
Some college	1,483	6.27	(0.81)[3]	2.30[*]	(1.35,3.92)	5.96	(0.56)	1.06	(0.52,2.15)
College graduate or higher	929	2.83	(0.46)[12]	1.00		5.70	(1.43)	1.00	(1.00,1.00)
Family Status									
Not married	1,328	10.40	(1.62)[23]	4.12[*]	(2.47,6.88)	7.90	(1.08)[3]	2.23[*]	(1.40,3.55)
Married, spouse not present	193	4.36	(1.70)[1]	1.62	(0.65,4.04)	5.17	(1.98)	1.29	(0.48,3.45)
Married, spouse present	1,636	2.74	(0.44)[1]	1.00		4.19	(0.66)[1]	1.00	(1.00,1.00)

(continued)

Table A.4.   Serious Consequences of Alcohol Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,329	2.90	(0.69)[2]	0.32[*]	(0.18,0.56)	6.03	(1.28)	0.88	(0.55,1.40)
No	1,828	8.61	(1.28)[1]	1.00		6.63	(0.82)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	391	11.46	(2.94)[3456]	8.13[*]	(3.43,19.25)	7.42	(1.39)[4]	1.31	(0.42,4.11)
E4–E6	1,359	7.63	(1.20)[3456]	5.18[*]	(2.10,12.81)	6.58	(0.83)[4]	1.12	(0.29,4.31)
E7–E9	420	2.72	(1.09)[12]	1.75	(0.73,4.22)	4.37	(2.07)	0.66	(0.16,2.68)
W1–W5	244	0.81	(0.72)[125]	0.51	(0.05,5.28)	1.91	(1.31)[125]	0.25	(0.01,4.21)
O1–O3	400	2.99	(0.64)[1246]	1.94	(0.91,4.10)	7.26	(2.07)[4]	1.28	(0.37,4.38)
O4–O10	343	1.57	(0.64)[125]	1.00		6.03	(3.25)	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,195	7.14	(1.01)	1.19	(0.72,1.96)	6.51	(0.90)	1.00	(0.67,1.50)
No	1,962	6.09	(1.18)	1.00		6.51	(1.01)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	937	4.32	(0.73)[3]	0.29[*]	(0.17,0.50)	6.22	(1.05)	0.69	(0.34,1.39)
5–6 hours	1,941	6.43	(1.02)[3]	0.44[*]	(0.28,0.70)	6.24	(0.86)	0.70	(0.36,1.33)
4 hours or less	279	13.52	(2.88)[12]	1.00		8.20	(1.97)	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,953	7.47	(1.21)	1.52	(0.99,2.34)	7.02	(0.97)	1.33	(0.88,2.00)
Little/none	1,204	5.04	(0.74)	1.00		5.66	(0.91)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,290	7.39	(1.02)	1.27	(0.85,1.88)	6.53	(0.61)	1.01	(0.72,1.42)
Little/none	1,867	5.93	(1.00)	1.00		6.49	(1.12)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,351	8.81	(1.46)[2]	1.87[*]	(1.24,2.80)	7.26	(1.03)	1.32	(0.96,1.83)
No	1,806	4.92	(0.65)[1]	1.00		5.87	(0.82)	1.00	(1.00,1.00)

(continued)

Table A.4. Serious Consequences of Alcohol Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,211	11.04	$(1.52)^2$	4.44[*]	(3.09,6.37)	8.10	$(0.92)^2$	2.32[*]	(1.50,3.61)
Little/none	1,946	2.72	$(0.49)^1$	1.00		4.15	$(0.94)^1$	1.00	(1.00,1.00)
Spirituality									
High	616	3.13	$(0.73)^{23}$	0.36[*]	(0.23,0.59)	5.60	(1.68)	0.84	(0.38,1.84)
Medium	1,524	6.54	$(1.26)^1$	0.79	(0.49,1.27)	6.81	(1.18)	1.09	(0.83,1.44)
Low	1,017	8.16	$(1.26)^1$	1.00		6.38	(0.65)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,463	4.95	$(0.87)^2$	0.60[*]	(0.37,0.97)	5.52	(1.00)	0.68	(0.45,1.04)
No	1,694	7.96	$(1.26)^1$	1.00		7.38	(0.90)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	399	10.63	(3.98)	1.89	(0.78,4.54)	7.40	(1.86)	1.23	(0.65,2.30)
No	2,758	5.94	(0.75)	1.00		6.35	(0.80)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,162	8.12	$(1.31)^2$	1.49[*]	(1.07,2.07)	6.85	(0.88)	1.12	(0.80,1.57)
No	1,995	5.61	$(0.76)^1$	1.00		6.28	(0.95)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	460	16.93	$(2.49)^2$	4.18[*]	(3.30,5.28)	10.43	$(1.46)^2$	2.34[*]	(1.60,3.44)
No	2,697	4.65	$(0.57)^1$	1.00		5.41	$(0.81)^1$	1.00	(1.00,1.00)
Heavy Alcohol Use, Past 30 Days									
Yes	512	19.80	$(3.53)^2$	6.86[*]	(4.18,11.26)	12.38	$(1.82)^2$	3.76[*]	(2.45,5.78)
No	2,645	3.47	$(0.56)^1$	1.00		4.26	$(0.67)^1$	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	723	13.17	$(2.48)^2$	3.59[*]	(2.49,5.16)	7.72	(1.45)	1.50	(0.92,2.44)
No	2,434	4.06	$(0.37)^1$	1.00		5.64	(0.70)	1.00	(1.00,1.00)

(continued)

Table A.4. Serious Consequences of Alcohol Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Need for Further Depression Evaluation									
Yes	539	13.52	$(3.49)^2$	2.98[*]	(1.57,5.66)	7.41	(2.04)	1.27	(0.57,2.85)
No	2,618	4.99	$(0.50)^1$	1.00		6.17	(0.81)	1.00	(1.00,1.00)
Generalized Anxiety, Past Month									
Yes	309	12.98	$(3.13)^2$	2.41[*]	(1.37,4.23)	7.57	(1.70)	1.27	(0.71,2.27)
No	2,848	5.83	$(0.76)^1$	1.00		6.32	(0.82)	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	184	15.94	$(4.06)^2$	3.04[*]	(1.59,5.79)	5.04	(1.61)	0.68	(0.23,2.01)
No	2,973	5.87	$(0.78)^1$	1.00		6.78	(1.08)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	369	16.24	$(4.41)^2$	3.52[*]	(1.88,6.61)	8.11	(2.02)	1.45	(0.78,2.68)
No	2,788	5.22	$(0.46)^1$	1.00		6.14	(0.67)	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	69	20.94	$(5.06)^2$	4.03[*]	(2.55,6.37)	8.45	(1.91)	1.45	(0.88,2.38)
No	3,088	6.16	$(0.74)^1$	1.00		6.42	(0.80)	1.00	(1.00,1.00)
Active Coping									
Yes	2,368	5.52	(0.68)	0.59[*]	(0.36,0.95)	6.68	(1.05)	1.10	(0.71,1.72)
No	789	9.06	(1.94)	1.00		6.20	(0.84)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	106	32.50	$(7.05)^2$	8.46[*]	(4.31,16.63)	9.12	(2.45)	1.67	(0.71,3.94)
No	3,051	5.38	$(0.63)^1$	1.00		6.20	(0.89)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported serious consequences due to alcohol use. Serious consequences of alcohol use refers to the occurrence of one or more of the following problems in the past 12 months: (a) being passed over for promotion because of drinking, (b) receiving a lower score on a performance rating because of drinking, (c) loss of 1 week or more from duty because of a drinking-related illness, (d) Uniform Code of Military Justice (UCMJ) punishment because of drinking, (e) arrest for driving under the influence of alcohol (DUI), (f) alcohol-related arrest other than DUI, (g) alcohol-related incarceration, (h) alcohol-related injury to service person, (i) alcohol-related accident resulting in someone else's injury or property damage, (j) physical fights while drinking, (k) spouse threatened to leave or left because of drinking, or (l) spouse asked service person to leave or the person did leave. The standard error of each estimate is presented in parentheses.

Table A.5.   Productivity Loss due to Alcohol Use

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,098	14.09	(0.52)	1.00		14.09	(0.52)	0.03[*]	(0.02,0.07)
Gender									
Male	2,384	14.17	(0.58)	1.06	(0.79,1.42)	14.03	(0.59)	0.95	(0.68,1.33)
Female	714	13.52	(1.55)	1.00		14.56	(1.50)	1.00	(1.00,1.00)
Region									
CONUS	2,748	14.21	(0.60)	1.09	(0.98,1.21)	14.19	(0.57)	1.10	(0.90,1.33)
OCONUS	350	13.20	(0.13)	1.00		13.30	(0.84)	1.00	(1.00,1.00)
Age Group									
20 and younger	178	7.95	(2.03)[23]	1.51	(0.83,2.74)	7.78	(2.23)[23]	0.99	(0.50,1.95)
21–25	745	23.86	(2.11)[134]	5.49[*]	(3.76,8.02)	19.50	(2.01)[14]	3.30[*]	(2.10,5.18)
26–34	1,020	14.70	(1.49)[124]	3.02[*]	(2.06,4.42)	14.69	(1.41)[14]	2.22[*]	(1.39,3.53)
35 and older	1,155	5.40	(0.75)[23]	1.00		7.85	(0.99)[23]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,372	15.36	(0.84)[2]	1.68	(0.85,3.28)	14.76	(0.84)[2]	1.47	(0.68,3.18)
African American, non-Hispanic	177	6.36	(1.60)[1]	0.63	(0.23,1.70)	10.34	(1.97)[1]	0.91	(0.32,2.63)
Hispanic	331	13.95	(2.98)	1.50	(0.92,2.42)	13.75	(2.86)	1.33	(0.74,2.40)
Other	218	9.78	(2.67)	1.00		11.11	(2.89)	1.00	(1.00,1.00)
Education									
High school or less	723	14.86	(1.17)	1.27	(0.85,1.90)	13.97	(1.24)	1.01	(0.52,1.95)
Some college	1,463	14.57	(1.19)	1.24	(0.96,1.61)	14.27	(1.06)	1.04	(0.65,1.67)
College graduate or higher	912	12.07	(1.26)	1.00		13.88	(2.19)	1.00	(1.00,1.00)
Family Status									
Not married	1,298	18.43	(0.72)[23]	2.04[*]	(1.61,2.58)	14.46	(0.59)	1.07	(0.78,1.46)
Married, spouse not present	191	11.39	(2.85)[1]	1.16	(0.61,2.20)	12.15	(3.15)	0.84	(0.39,1.80)
Married, spouse present	1,609	9.97	(0.91)[1]	1.00		13.77	(1.27)	1.00	(1.00,1.00)

(continued)

Table A.5.   Productivity Loss due to Alcohol Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,310	7.07	(0.82)[2]	0.34*	(0.25,0.46)	9.37	(1.49)[2]	0.48*	(0.29,0.80)
No	1,788	18.24	(0.72)[1]	1.00		16.20	(0.85)[1]	1.00	(1.00,1.00)
Pay Grade									
E1–E3	377	13.66	(1.69)[346]	2.25*	(1.35,3.73)	10.52	(1.60)[25]	0.38	(0.14,1.03)
E4–E6	1,337	17.13	(0.88)[346]	2.94*	(1.76,4.88)	13.99	(0.79)[15]	0.57	(0.22,1.47)
E7–E9	412	6.30	(0.91)[125]	0.96	(0.68,1.35)	13.33	(1.50)[5]	0.53*	(0.29,0.97)
W1–W5	238	5.30	(1.41)[125]	0.80	(0.42,1.50)	15.27	(3.88)	0.64	(0.33,1.26)
O1–O3	394	15.65	(1.54)[346]	2.64*	(1.51,4.61)	19.74	(2.13)[123]	0.95	(0.43,2.07)
O4–O10	340	6.58	(1.51)[125]	1.00		20.43	(5.38)	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,173	18.48	(1.12)[2]	1.80*	(1.48,2.18)	16.76	(0.93)[2]	1.58*	(1.25,1.99)
No	1,925	11.19	(0.39)[1]	1.00		12.09	(0.56)[1]	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	921	11.19	(1.78)	0.75	(0.50,1.12)	12.63	(1.88)	1.11	(0.57,2.14)
5–6 hours	1,902	15.32	(0.73)	1.08	(0.81,1.43)	15.08	(0.51)[3]	1.42*	(1.01,2.00)
4 hours or less	275	14.40	(1.22)	1.00		11.72	(1.40)[2]	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,920	15.83	(0.65)[2]	1.46*	(1.23,1.74)	15.01	(0.63)[2]	1.29*	(1.03,1.60)
Little/none	1,178	11.42	(0.76)[1]	1.00		12.52	(0.86)[1]	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,271	15.52	(1.35)	1.21	(0.88,1.67)	14.34	(1.22)	1.04	(0.74,1.47)
Little/none	1,827	13.14	(0.86)	1.00		13.91	(0.79)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,329	16.35	(1.05)[2]	1.36*	(1.09,1.70)	15.26	(1.11)	1.22	(0.93,1.60)
No	1,769	12.54	(0.69)[1]	1.00		13.23	(0.62)	1.00	(1.00,1.00)

(continued)

Table A.5.   Productivity Loss due to Alcohol Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,197	18.82	(0.96)[2]	2.07*	(1.79,2.39)	15.27	(0.80)[2]	1.29*	(1.09,1.51)
Little/none	1,901	10.09	(0.48)[1]	1.00		12.74	(0.54)[1]	1.00	(1.00,1.00)
Spirituality									
High	603	6.00	(0.79)[23]	0.27*	(0.19,0.37)	8.82	(1.22)[23]	0.42*	(0.26,0.67)
Medium	1,495	13.46	(1.05)[13]	0.66*	(0.50,0.86)	13.40	(0.86)[13]	0.72*	(0.55,0.94)
Low	1,000	19.12	(1.09)[12]	1.00		16.91	(1.07)[12]	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,438	12.34	(1.13)	0.75	(0.55,1.03)	12.59	(1.12)	0.75	(0.52,1.07)
No	1,660	15.72	(0.94)	1.00		15.49	(0.94)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	386	14.94	(1.99)	1.08	(0.79,1.47)	12.51	(1.68)	0.83	(0.58,1.18)
No	2,712	13.98	(0.46)	1.00		14.35	(0.46)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,133	16.28	(0.75)[2]	1.32*	(1.16,1.50)	15.45	(0.85)	1.23	(0.91,1.68)
No	1,965	12.88	(0.59)[1]	1.00		13.30	(0.94)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	448	25.84	(3.78)[2]	2.55*	(1.64,3.97)	20.16	(2.71)[2]	1.91*	(1.22,3.00)
No	2,650	12.02	(0.45)[1]	1.00		12.79	(0.47)[1]	1.00	(1.00,1.00)
Heavy Alcohol Use, Past 30 Days									
Yes	504	33.11	(2.28)[2]	4.60*	(3.60,5.86)	24.08	(2.59)[2]	2.96*	(1.99,4.40)
No	2,594	9.72	(0.56)[1]	1.00		10.94	(0.74)[1]	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	711	21.86	(1.49)[2]	2.21*	(1.68,2.92)	15.56	(1.30)	1.24	(0.85,1.81)
No	2,387	11.23	(0.77)[1]	1.00		13.33	(0.94)	1.00	(1.00,1.00)

(continued)

Table A.5. Productivity Loss due to Alcohol Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Need for Further Depression Evaluation									
Yes	532	19.55	$(1.50)^2$	1.64[*]	(1.28,2.10)	14.50	(1.40)	1.05	(0.77,1.43)
No	2,566	12.90	$(0.64)^1$	1.00		13.98	(0.58)	1.00	(1.00,1.00)
Generalized Anxiety, Past Month									
Yes	303	20.29	$(1.79)^2$	1.64[*]	(1.31,2.06)	15.94	(2.41)	1.22	(0.78,1.90)
No	2,795	13.44	$(0.53)^1$	1.00		13.86	(0.49)	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	181	24.34	$(4.28)^2$	2.08[*]	(1.22,3.55)	15.06	(3.85)	1.11	(0.48,2.56)
No	2,917	13.41	$(0.65)^1$	1.00		14.01	(0.72)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	363	20.09	$(2.31)^2$	1.64[*]	(1.18,2.27)	13.31	(1.96)	0.91	(0.57,1.45)
No	2,735	13.30	$(0.58)^1$	1.00		14.23	(0.62)	1.00	(1.00,1.00)
Active Coping									
Yes	2,319	13.86	(0.73)	0.93	(0.77,1.14)	14.87	(0.68)	1.29	(0.95,1.75)
No	779	14.69	(0.81)	1.00		12.40	(1.06)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	107	38.29	$(6.58)^2$	4.15[*]	(2.27,7.58)	20.07	(4.83)	1.75	(0.79,3.84)
No	2,991	13.02	$(0.60)^1$	1.00		13.68	(0.57)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported productivity loss due to alcohol use. Productivity loss due to alcohol use refers to the occurrence of one more of the following problems in the past 12 months: (a) being hurt in an on-the-job accident because of drinking; (b) being late for work or leaving early because of drinking, a hangover, or an illness caused by drinking; (c) not coming to work because of an illness or a personal accident caused by drinking; (d) performing below a normal level of performance caused by drinking; (e) being drunk while working; or (f) being called in during off-duty hours and reporting feeling drunk. Measures include (1) one or more factors of productivity loss, defined as 1 or more days in the past 12 months in which any of the above behaviors occurred; or (2) two or more factors of productivity loss, defined as either 2 or more days in the past 12 months in which any one of the above behaviors occurred or the occurrence of two or more factors on 1 or more days. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1] Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2] Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3] Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4] Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5] Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6] Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table A.6. Past 12 Month Illicit Drug Use, Including Prescription Drug Misuse

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,204	15.34	(0.74)	1.00		15.34	(0.74)	0.04[*]	(0.01,0.15)
Gender									
Male	2,462	14.99	(1.15)	0.82	(0.49,1.37)	14.95	(1.09)	0.78	(0.48,1.27)
Female	742	17.75	(2.53)	1.00		18.11	(2.22)	1.00	(1.00,1.00)
Region									
CONUS	2,843	15.22	(0.82)	0.92	(0.81,1.05)	15.20	(0.82)	0.91	(0.77,1.08)
OCONUS	361	16.25	(0.03)	1.00		16.35	(0.48)	1.00	(1.00,1.00)
Age Group									
20 and younger	198	16.70	(3.36)	1.38	(0.86,2.19)	11.73	(1.43)[2,3]	0.57	(0.33,1.00)
21–25	771	18.21	(1.08)[3,4]	1.53[*]	(1.20,1.94)	15.02	(1.00)[1]	0.78	(0.50,1.22)
26–34	1,048	14.30	(0.63)[2,4]	1.15[*]	(1.04,1.26)	15.68	(1.10)[1]	0.82	(0.57,1.19)
35 and older	1,187	12.72	(0.83)[2,3]	1.00		18.22	(2.55)	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,447	14.91	(0.75)[3]	1.33	(0.83,2.13)	14.89	(0.81)[3]	1.31	(0.76,2.27)
African American, non-Hispanic	182	19.19	(4.05)	1.80	(0.85,3.84)	20.94	(5.16)	2.05	(0.90,4.68)
Hispanic	349	20.92	(1.99)[1,4]	2.01[*]	(1.06,3.80)	19.71	(1.74)[1,4]	1.89	(0.99,3.61)
Other	226	11.63	(2.55)[3]	1.00		11.93	(2.72)[3]	1.00	(1.00,1.00)
Education									
High school or less	760	18.18	(1.81)[3]	2.50[*]	(1.79,3.51)	16.96	(1.52)	1.54	(0.95,2.48)
Some college	1,508	16.87	(1.20)[3]	2.29[*]	(1.76,2.96)	15.36	(1.25)	1.35	(0.93,1.97)
College graduate or higher	936	8.15	(0.57)[1,2]	1.00		12.01	(1.40)	1.00	(1.00,1.00)
Family Status									
Not married	1,351	17.70	(1.51)[3]	1.47[*]	(1.04,2.06)	16.64	(1.57)	1.27	(0.80,2.03)
Married, spouse not present	195	16.46	(3.15)	1.35	(0.73,2.48)	15.97	(2.56)	1.21	(0.63,2.30)
Married, spouse present	1,658	12.78	(1.18)[1]	1.00		13.76	(1.64)	1.00	(1.00,1.00)

(continued)

Table A.6.   Past 12 Month Illicit Drug Use, Including Prescription Drug Misuse (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,350	13.87	(0.92)	0.83	(0.68,1.01)	16.22	(1.64)	1.11	(0.81,1.53)
No	1,854	16.20	(0.99)	1.00		14.90	(0.87)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	403	20.40	(2.83)[3,5,6]	4.15[*]	(2.52,6.85)	20.14	(2.35)[2,3,5,6]	2.80[*]	(1.23,6.39)
E4–E6	1,382	17.19	(0.88)[3,5,6]	3.37[*]	(2.11,5.37)	15.87	(0.99)[1,5,6]	2.06	(0.93,4.56)
E7–E9	423	12.33	(2.00)[1,2,6]	2.28[*]	(1.33,3.91)	11.58	(2.64)[1]	1.40	(0.84,2.33)
W1–W5	248	16.82	(2.07)[5,6]	3.28[*]	(2.48,4.34)	16.84	(2.95)[6]	2.22[*]	(1.44,3.42)
O1–O3	404	7.24	(1.48)[1,2,4]	1.27	(0.58,2.76)	10.84	(2.10)[1,2]	1.29	(0.48,3.47)
O4–O10	344	5.81	(1.17)[1,2,3,4]	1.00		8.67	(2.74)[1,2,4]	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,215	16.29	(0.99)	1.13	(0.98,1.31)	15.94	(0.87)	1.09	(0.98,1.20)
No	1,989	14.70	(0.84)	1.00		14.92	(0.78)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	953	12.48	(1.05)[2,3]	0.53[*]	(0.37,0.77)	14.74	(1.06)	0.95	(0.64,1.42)
5–6 hours	1,963	15.71	(1.21)[1,3]	0.70[*]	(0.49,0.99)	15.56	(0.95)	1.02	(0.72,1.43)
4 hours or less	288	21.14	(2.02)[1,2]	1.00		15.36	(1.77)	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,983	15.81	(0.80)	1.10	(0.91,1.32)	15.26	(0.85)	0.98	(0.78,1.24)
Little/none	1,221	14.60	(1.10)	1.00		15.45	(1.22)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,313	16.73	(0.87)	1.19	(0.92,1.54)	15.65	(1.20)	1.05	(0.76,1.43)
Little/none	1,891	14.40	(1.21)	1.00		15.11	(1.20)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,372	18.28	(1.07)[2]	1.46[*]	(1.19,1.79)	16.31	(1.03)	1.15	(0.94,1.41)
No	1,832	13.30	(0.93)[1]	1.00		14.57	(0.92)	1.00	(1.00,1.00)

(continued)

Table A.6.   Past 12 Month Illicit Drug Use, Including Prescription Drug Misuse (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,235	18.25	(1.88)[2]	1.51[*]	(1.04,2.19)	16.29	(1.47)	1.17	(0.83,1.66)
Little/none	1,969	12.89	(0.97)[1]	1.00		14.40	(1.05)	1.00	(1.00,1.00)
Spirituality									
High	629	11.05	(1.76)[2,3]	0.64[*]	(0.47,0.87)	12.52	(2.18)	0.79	(0.52,1.21)
Medium	1,543	16.24	(1.08)[1]	1.00	(0.78,1.28)	16.39	(1.09)	1.11	(0.81,1.51)
Low	1,032	16.21	(1.10)[1]	1.00		15.13	(1.15)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,486	13.73	(0.98)	0.79	(0.61,1.02)	14.55	(1.06)	0.89	(0.69,1.14)
No	1,718	16.82	(1.21)	1.00		16.01	(1.03)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	407	23.22	(2.63)[2]	1.82[*]	(1.35,2.46)	17.62	(1.81)	1.24	(0.99,1.54)
No	2,797	14.23	(0.66)[1]	1.00		14.94	(0.64)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,179	20.32	(0.80)[2]	1.78[*]	(1.57,2.01)	18.99	(0.99)[2]	1.59[*]	(1.25,2.03)
No	2,025	12.55	(0.80)[1]	1.00		13.14	(1.02)[1]	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	513	25.24	(2.78)[2]	2.24[*]	(1.57,3.18)	20.83	(2.03)[2]	1.68[*]	(1.19,2.38)
No	2,691	13.11	(0.76)[1]	1.00		13.86	(0.88)[1]	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	729	20.20	(2.01)[2]	1.61[*]	(1.25,2.09)	15.78	(1.66)	1.05	(0.75,1.48)
No	2,475	13.57	(0.65)[1]	1.00		15.13	(0.93)	1.00	(1.00,1.00)
Need for Further Depression Evaluation									
Yes	552	21.79	(2.50)[2]	1.72[*]	(1.24,2.39)	15.15	(2.12)	0.98	(0.67,1.44)
No	2,652	13.92	(0.71)[1]	1.00		15.39	(0.75)	1.00	(1.00,1.00)

Table A.6. Past 12 Month Illicit Drug Use, Including Prescription Drug Misuse (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Generalized Anxiety, Past Month									
Yes	316	25.29	$(1.85)^2$	2.03[*]	(1.66,2.49)	18.09	(2.40)	1.28	(0.91,1.78)
No	2,888	14.28	$(0.76)^1$	1.00		14.96	(0.70)	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	192	29.73	$(2.79)^2$	2.53[*]	(1.77,3.62)	18.39	(2.76)	1.30	(0.79,2.13)
No	3,012	14.34	$(0.86)^1$	1.00		15.03	(0.93)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	377	25.19	$(2.71)^2$	2.07[*]	(1.50,2.85)	16.83	(2.18)	1.15	(0.82,1.61)
No	2,827	14.02	$(0.73)^1$	1.00		15.06	(0.70)	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	26.58	(5.26)	2.04[*]	(1.05,3.96)	16.77	(4.34)	1.13	(0.51,2.50)
No	3,133	15.06	(0.88)	1.00		15.29	(0.88)	1.00	(1.00,1.00)
Active Coping									
Yes	2,401	14.43	$(0.69)^2$	0.79[*]	(0.65,0.95)	15.20	(0.92)	0.96	(0.74,1.26)
No	803	17.65	$(1.45)^1$	1.00		15.64	(1.29)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	107	38.91	$(6.45)^2$	3.81[*]	(2.21,6.57)	23.13	(4.51)	1.79[*]	(1.06,3.02)
No	3,097	14.32	$(0.60)^1$	1.00		14.85	(0.62)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported illicit drug use (including prescription drug misuse, marijuana or hashish, cocaine [including "crack"], LSD, PCP, MDMA, other hallucinogens, methamphetamine, heroin, GHB/GBL, and inhalants) in the past 12 months. Excludes anabolic steroids and erectile dysfunction drug misuse. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table A.7. Past 12 Month Illicit Drug Use, Excluding Prescription Drug Misuse

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,204	3.64	(0.66)	1.00		3.64	(0.66)	0.00[*]	(0.00,0.03)
Gender									
Male	2,462	3.61	(0.80)	0.94	(0.42,2.09)	3.61	(0.73)	0.93	(0.46,1.86)
Female	742	3.85	(0.93)	1.00		3.83	(0.83)	1.00	(1.00,1.00)
Region									
CONUS	2,843	3.57	(0.74)	0.84	(0.54,1.30)	3.61	(0.74)	0.91	(0.56,1.48)
OCONUS	361	4.22	(0.04)	1.00		3.88	(0.39)	1.00	(1.00,1.00)
Age Group									
20 and younger	198	9.37	(3.73)[3,4]	9.22[*]	(3.36,25.28)	4.08	(0.86)	1.35	(0.69,2.67)
21–25	771	4.74	(0.57)[3,4]	4.44[*]	(2.70,7.28)	3.51	(0.56)	1.12	(0.63,2.00)
26–34	1,048	2.47	(0.70)[1,2]	2.26[*]	(1.03,4.97)	3.64	(1.41)	1.17	(0.42,3.28)
35 and older	1,187	1.11	(0.32)[1,2]	1.00		3.20	(0.88)	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,447	3.89	(0.85)	2.74	(0.93,8.09)	3.61	(0.73)	2.01	(0.74,5.45)
African American, non-Hispanic	182	4.95	(2.68)	3.53	(0.63,19.70)	8.61	(4.84)	6.37	(0.86,47.32)
Hispanic	349	3.79	(1.28)[4]	2.67[*]	(1.28,5.58)	3.89	(1.25)	2.21[*]	(1.03,4.76)
Other	226	1.45	(0.47)[3]	1.00		2.05	(0.46)	1.00	(1.00,1.00)
Education									
High school or less	760	5.80	(1.74)[3]	5.90[*]	(1.65,21.07)	3.96	(0.85)	1.39	(0.33,5.81)
Some college	1,508	3.45	(0.63)[3]	3.43[*]	(1.46,8.04)	3.48	(0.83)	1.18	(0.41,3.36)
College graduate or higher	936	1.03	(0.48)[1,2]	1.00		3.05	(1.38)	1.00	(1.00,1.00)
Family Status									
Not married	1,351	6.23	(1.04)[2,3]	6.10[*]	(3.64,10.23)	4.44	(0.71)[3]	2.69[*]	(1.09,6.67)
Married, spouse not present	195	2.62	(1.50)[1]	2.47	(0.61,9.93)	3.60	(1.71)	2.08	(0.50,8.68)
Married, spouse present	1,658	1.08	(0.42)[1]	1.00		1.95	(1.00)[1]	1.00	(1.00,1.00)

Table A.7. Past 12 Month Illicit Drug Use, Excluding Prescription Drug Misuse (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,350	1.45	(0.52)[2]	0.28*	(0.18,0.44)	4.18	(1.65)	1.24	(0.49,3.09)
No	1,854	4.92	(0.81)[1]	1.00		3.55	(0.58)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	403	10.49	(3.58)[2,3,4,5,6]	10.14*	(3.56,28.92)	5.96	(2.00)[5]	1.20	(0.58,2.49)
E4–E6	1,382	3.41	(0.56)[1,3,4,5,6]	3.05*	(1.63,5.73)	3.10	(0.59)[3,5,6]	0.54*	(0.32,0.89)
E7–E9	423	0.87	(0.33)[1,2]	0.76	(0.43,1.35)	1.76	(0.69)[2,6]	0.28*	(0.12,0.64)
W1–W5	248	1.06	(0.60)[1,2]	0.93	(0.27,3.14)	2.57	(1.23)	0.43	(0.11,1.66)
O1–O3	404	0.16	(0.16)[1,2,6]	0.14	(0.02,1.12)	0.52	(0.55)[1,2,6]	0.07	(0.00,1.25)
O4–O10	344	1.14	(0.43)[1,2,5]	1.00		5.16	(1.38)[2,3,5]	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,215	3.89	(0.64)	1.13	(0.60,2.11)	3.95	(0.64)	1.20	(0.77,1.88)
No	1,989	3.47	(0.97)	1.00		3.42	(0.81)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	953	2.11	(0.73)[3]	0.38*	(0.15,0.99)	3.12	(1.11)	0.90	(0.37,2.19)
5–6 hours	1,963	4.05	(0.92)	0.75	(0.39,1.44)	3.86	(0.62)	1.18	(0.73,1.91)
4 hours or less	288	5.33	(1.35)[1]	1.00		3.39	(0.98)	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,983	3.55	(0.88)	0.94	(0.60,1.48)	3.44	(0.73)	0.84	(0.54,1.32)
Little/none	1,221	3.77	(0.54)	1.00		3.93	(0.75)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,313	2.71	(0.28)	0.62	(0.38,1.02)	2.58	(0.43)[2]	0.50*	(0.30,0.83)
Little/none	1,891	4.27	(1.05)	1.00		4.48	(0.99)[1]	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,372	5.67	(1.17)[2]	2.62*	(1.80,3.82)	4.77	(0.84)[2]	2.00*	(1.39,2.88)
No	1,832	2.24	(0.39)[1]	1.00		2.71	(0.62)[1]	1.00	(1.00,1.00)

(continued)

Table A.7. Past 12 Month Illicit Drug Use, Excluding Prescription Drug Misuse (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,235	6.51	(1.43)[2]	5.58[*]	(3.29,9.48)	4.75	(1.07)[2]	2.90[*]	(1.54,5.45)
Little/none	1,969	1.23	(0.20)[1]	1.00		1.96	(0.38)[1]	1.00	(1.00,1.00)
Spirituality									
High	629	2.14	(0.83)[3]	0.37[*]	(0.14,0.96)	3.63	(1.36)	0.81	(0.30,2.21)
Medium	1,543	2.80	(0.68)[3]	0.48[*]	(0.30,0.79)	3.09	(0.89)	0.67	(0.40,1.12)
Low	1,032	5.61	(1.24)[1,2]	1.00		4.28	(0.61)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,486	2.56	(0.35)[2]	0.54[*]	(0.33,0.88)	2.93	(0.65)	0.63	(0.38,1.03)
No	1,718	4.64	(1.11)[1]	1.00		4.26	(0.81)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	407	6.23	(3.16)	1.96	(0.78,4.95)	3.64	(1.17)	1.00	(0.55,1.81)
No	2,797	3.28	(0.35)	1.00		3.64	(0.62)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,179	4.45	(1.05)	1.41	(0.86,2.32)	3.97	(0.76)	1.19	(0.44,3.23)
No	2,025	3.19	(0.64)	1.00		3.45	(1.05)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	513	10.45	(3.25)[2]	5.41[*]	(2.66,11.01)	6.29	(1.78)[2]	2.92[*]	(1.34,6.39)
No	2,691	2.11	(0.33)[1]	1.00		2.61	(0.52)[1]	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	729	7.75	(1.83)[2]	3.83[*]	(2.74,5.35)	4.40	(0.71)[2]	1.56[*]	(1.09,2.25)
No	2,475	2.15	(0.32)[1]	1.00		3.07	(0.73)[1]	1.00	(1.00,1.00)
Need for Further Depression Evaluation									
Yes	552	8.84	(2.67)[2]	3.79[*]	(2.14,6.70)	5.37	(1.83)	2.03	(0.90,4.58)
No	2,652	2.50	(0.19)[1]	1.00		3.03	(0.41)	1.00	(1.00,1.00)

(continued)

Table A.7.   Past 12 Month Illicit Drug Use, Excluding Prescription Drug Misuse (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Generalized Anxiety, Past Month									
Yes	316	5.30	(1.06)	1.56	(0.82,2.97)	2.55	(0.64)	0.59	(0.29,1.18)
No	2,888	3.47	(0.73)	1.00		3.91	(0.76)	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	192	10.99	$(2.25)^2$	3.82^*	(2.06,7.07)	4.48	(1.41)	1.37	(0.46,4.13)
No	3,012	3.13	$(0.66)^1$	1.00		3.49	(0.81)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	377	10.69	$(3.41)^2$	4.32^*	(2.45,7.61)	5.62	$(1.54)^2$	2.04^*	(1.18,3.53)
No	2,827	2.70	$(0.23)^1$	1.00		3.18	$(0.50)^1$	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	7.79	(2.57)	2.30^*	(1.01,5.25)	3.44	(1.12)	0.93	(0.34,2.50)
No	3,133	3.54	(0.68)	1.00		3.65	(0.70)	1.00	(1.00,1.00)
Active Coping									
Yes	2,401	2.80	$(0.29)^2$	0.47^*	(0.29,0.77)	3.67	(0.66)	1.03	(0.59,1.78)
No	803	5.78	$(1.73)^1$	1.00		3.60	(0.90)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported illicit drug use (including marijuana or hashish, cocaine (including "crack"), LSD, PCP, MDMA, other hallucinogens, methamphetamine, heroin, GHB/GBL, and inhalants) in the past 12 months. Excludes prescription drug misuse, anabolic steroids and erectile dysfunction drug misuse. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table A.8. Past 12 Month Prescription Drug Misuse

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,201	13.78	(0.63)	1.00		13.78	(0.63)	0.03[*]	(0.01,0.15)
Gender									
Male	2,460	13.40	(1.00)	0.79	(0.48,1.28)	13.39	(0.95)	0.76	(0.48,1.22)
Female	741	16.44	(2.27)	1.00		16.59	(2.03)	1.00	(1.00,1.00)
Region									
CONUS	2,840	13.66	(0.69)	0.92	(0.81,1.03)	13.63	(0.69)	0.89	(0.76,1.04)
OCONUS	361	14.73	(0.04)	1.00		14.97	(0.47)	1.00	(1.00,1.00)
Age Group									
20 and younger	198	13.76	(3.19)	1.16	(0.69,1.96)	10.37	(1.78)	0.57	(0.30,1.05)
21–25	770	16.16	(1.29)[3,4]	1.40[*]	(1.09,1.81)	13.54	(1.18)	0.78	(0.51,1.20)
26–34	1,047	12.98	(0.56)[2]	1.08	(0.95,1.24)	13.94	(0.83)	0.81	(0.57,1.17)
35 and older	1,186	12.09	(0.84)[2]	1.00		16.42	(2.19)	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,445	13.43	(0.72)[3]	1.32	(0.76,2.29)	13.46	(0.75)[3]	1.31	(0.69,2.49)
African American, non-Hispanic	182	14.89	(3.21)	1.49	(0.62,3.58)	15.84	(3.67)	1.61	(0.64,4.01)
Hispanic	349	19.66	(1.96)[1,4]	2.08[*]	(1.02,4.22)	18.50	(1.71)[1,4]	1.97	(0.96,4.05)
Other	225	10.53	(2.68)[3]	1.00		10.75	(2.89)[3]	1.00	(1.00,1.00)
Education									
High school or less	759	16.09	(1.86)[3]	2.38[*]	(1.64,3.45)	15.30	(1.48)	1.55	(0.97,2.47)
Some college	1,506	15.26	(0.94)[3]	2.23[*]	(1.73,2.87)	13.85	(0.99)[3]	1.37[*]	(1.01,1.85)
College graduate or higher	936	7.47	(0.65)[1,2]	1.00		10.67	(1.13)[2]	1.00	(1.00,1.00)
Family Status									
Not married	1,348	15.35	(1.64)	1.32	(0.86,2.03)	14.87	(1.81)	1.23	(0.70,2.17)
Married, spouse not present	195	14.70	(2.91)	1.26	(0.69,2.30)	13.85	(2.51)	1.12	(0.59,2.16)
Married, spouse present	1,658	12.07	(1.19)	1.00		12.59	(1.58)	1.00	(1.00,1.00)

(continued)

Table A.8.   Past 12 Month Prescription Drug Misuse (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,349	13.07	(0.70)	0.91	(0.74,1.12)	14.67	(1.54)	1.13	(0.80,1.59)
No	1,852	14.20	(0.95)	1.00		13.33	(0.82)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	403	16.18	(1.93)[3,5,6]	3.65[*]	(2.02,6.61)	16.31	(1.50)[5,6]	2.63[*]	(1.08,6.37)
E4–E6	1,379	15.71	(0.86)[3,5,6]	3.52[*]	(2.01,6.18)	14.52	(0.97)[5,6]	2.27	(1.00,5.17)
E7–E9	423	11.95	(1.98)[1,2,6]	2.57[*]	(1.30,5.06)	11.01	(2.61)[4]	1.62	(0.89,2.95)
W1–W5	248	16.45	(1.91)[5,6]	3.72[*]	(2.74,5.06)	16.22	(2.70)[3,6]	2.61[*]	(1.70,3.99)
O1–O3	404	7.14	(1.45)[1,2,4]	1.45	(0.64,3.31)	10.60	(2.04)[1,2]	1.55	(0.59,4.05)
O4–O10	344	5.02	(1.27)[1,2,3,4]	1.00		7.23	(2.44)[1,2,4]	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,214	14.59	(0.94)	1.12	(0.94,1.34)	14.19	(0.77)	1.06	(0.93,1.22)
No	1,987	13.24	(0.77)	1.00		13.50	(0.71)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	953	11.25	(0.86)[2,3]	0.53[*]	(0.39,0.72)	13.25	(0.69)	0.95	(0.69,1.29)
5–6 hours	1,960	14.06	(1.05)[1,3]	0.69[*]	(0.49,0.95)	13.97	(0.86)	1.01	(0.73,1.40)
4 hours or less	288	19.27	(1.58)[1,2]	1.00		13.86	(1.42)	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,982	14.53	(0.63)	1.18	(0.94,1.47)	13.83	(0.63)	1.01	(0.79,1.30)
Little/none	1,219	12.64	(1.15)	1.00		13.70	(1.26)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,311	15.75	(0.90)[2]	1.31	(0.99,1.73)	14.70	(1.22)	1.15	(0.83,1.59)
Little/none	1,890	12.47	(1.07)[1]	1.00		13.12	(1.00)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,371	16.51	(1.08)[2]	1.46[*]	(1.17,1.83)	14.48	(0.99)	1.12	(0.92,1.37)
No	1,830	11.89	(0.80)[1]	1.00		13.21	(0.72)	1.00	(1.00,1.00)

(continued)

Table A.8. Past 12 Month Prescription Drug Misuse (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,233	15.72	(1.44)	1.35	(0.96,1.90)	14.03	(0.95)	1.04	(0.79,1.39)
Little/none	1,968	12.15	(0.96)	1.00		13.54	(1.04)	1.00	(1.00,1.00)
Spirituality									
High	628	10.24	(1.69)[2,3]	0.70*	(0.54,0.92)	11.68	(2.20)	0.88	(0.59,1.33)
Medium	1,541	14.89	(0.84)[1]	1.08	(0.85,1.36)	15.07	(0.82)	1.21	(0.92,1.58)
Low	1,032	13.99	(1.05)[1]	1.00		12.95	(0.97)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,486	12.35	(1.01)	0.79	(0.59,1.05)	13.26	(1.05)	0.92	(0.69,1.21)
No	1,715	15.12	(1.10)	1.00		14.22	(0.92)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	407	21.59	(2.67)[2]	1.89*	(1.34,2.68)	16.00	(1.59)	1.25	(1.00,1.57)
No	2,794	12.69	(0.60)[1]	1.00		13.38	(0.56)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,177	18.99	(1.13)[2]	1.92*	(1.64,2.26)	17.64	(1.23)[2]	1.71*	(1.33,2.19)
No	2,024	10.88	(0.53)[1]	1.00		11.43	(0.70)[1]	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	512	22.51	(2.46)[2]	2.17*	(1.54,3.04)	18.77	(1.97)[2]	1.67*	(1.17,2.38)
No	2,689	11.83	(0.63)[1]	1.00		12.45	(0.74)[1]	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	727	18.23	(2.07)[2]	1.61*	(1.16,2.24)	14.34	(1.57)	1.08	(0.76,1.52)
No	2,474	12.17	(0.66)[1]	1.00		13.52	(0.79)	1.00	(1.00,1.00)
Need for Further Depression Evaluation									
Yes	549	18.73	(2.22)[2]	1.58*	(1.14,2.21)	12.18	(1.71)	0.82	(0.57,1.17)
No	2,652	12.70	(0.65)[1]	1.00		14.29	(0.60)	1.00	(1.00,1.00)

(continued)

Table A.8.   Past 12 Month Prescription Drug Misuse (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Generalized Anxiety, Past Month									
Yes	315	23.45	(1.59)[2]	2.09[*]	(1.76,2.49)	16.67	(2.47)	1.32	(0.93,1.87)
No	2,886	12.76	(0.64)[1]	1.00		13.38	(0.53)	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	192	26.43	(2.08)[2]	2.43[*]	(1.72,3.43)	15.71	(2.96)	1.20	(0.65,2.21)
No	3,009	12.90	(0.80)[1]	1.00		13.58	(0.90)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	375	23.53	(2.53)[2]	2.16[*]	(1.51,3.07)	16.27	(2.00)	1.28	(0.91,1.81)
No	2,826	12.49	(0.73)[1]	1.00		13.34	(0.67)	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	26.45	(5.24)[2]	2.31[*]	(1.18,4.51)	16.78	(4.06)	1.29	(0.61,2.76)
No	3,130	13.47	(0.79)[1]	1.00		13.68	(0.77)	1.00	(1.00,1.00)
Active Coping									
Yes	2,398	12.92	(0.53)[2]	0.78[*]	(0.63,0.97)	13.42	(0.68)	0.90	(0.69,1.17)
No	803	15.99	(1.50)[1]	1.00		14.60	(1.36)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	106	37.43	(6.75)[2]	4.08[*]	(2.23,7.47)	23.04	(4.99)[2]	2.05[*]	(1.13,3.74)
No	3,095	12.78	(0.56)[1]	1.00		13.21	(0.54)[1]	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported prescription drug misuse in the past 12 months. Prescription drug misuse is defined as non-medical use of prescription drugs, including stimulants other than methamphetamine, tranquilizers or muscle relaxers, sedatives or barbiturates, and pain relievers. "Nonmedical use" is defined as any use of these drugs "on your own," that is, either without a doctor's prescription or in greater amounts or more often than prescribed, or for any reasons other than as prescribed, such as for the feelings they caused. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table A.9. Past 30 Day Cigarette Use

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,204	26.66	(0.93)	1.00		26.66	(0.93)	0.02[*]	(0.01,0.04)
Gender									
Male	2,462	27.39	(0.89)[2]	1.37[*]	(1.05,1.79)	27.25	(0.99)[2]	1.39[*]	(1.05,1.84)
Female	742	21.59	(2.38)[1]	1.00		22.34	(1.81)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,843	26.77	(1.06)	1.05	(0.94,1.17)	26.95	(1.06)[2]	1.17[*]	(1.02,1.35)
OCONUS	361	25.83	(0.15)	1.00		24.50	(0.71)[1]	1.00	(1.00,1.00)
Age Group									
20 and younger	198	35.15	(4.49)[4]	3.17[*]	(2.01,5.00)	30.03	(2.72)[4]	2.12[*]	(1.50,2.99)
21–25	771	32.75	(2.89)[4]	2.84[*]	(2.14,3.79)	28.04	(2.46)[4]	1.88[*]	(1.36,2.61)
26–34	1,048	27.95	(2.11)[4]	2.27[*]	(1.90,2.71)	29.76	(1.94)[4]	2.08[*]	(1.62,2.69)
35 and older	1,187	14.62	(0.82)[1,2,3]	1.00		18.93	(1.02)[1,2,3]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,447	27.95	(1.17)[2,3]	0.97	(0.63,1.51)	27.98	(1.03)[2,3]	0.93	(0.60,1.45)
African American, non-Hispanic	182	14.41	(2.96)[1,3,4]	0.42[*]	(0.23,0.78)	18.05	(3.22)[1,4]	0.46[*]	(0.23,0.93)
Hispanic	349	21.36	(2.01)[1,2]	0.68	(0.41,1.14)	19.03	(1.48)[1,4]	0.50[*]	(0.30,0.83)
Other	226	28.48	(3.90)[2]	1.00		29.12	(3.25)[2,3]	1.00	(1.00,1.00)
Education									
High school or less	760	33.82	(1.97)[3]	4.51[*]	(3.47,5.86)	26.28	(1.23)	1.19	(0.83,1.70)
Some college	1,508	29.78	(1.21)[3]	3.74[*]	(3.11,4.51)	27.62	(1.09)[3]	1.29[*]	(1.01,1.65)
College graduate or higher	936	10.18	(0.66)[1,2]	1.00		23.72	(2.06)[2]	1.00	(1.00,1.00)
Family Status									
Not married	1,351	33.01	(1.29)[3]	1.97[*]	(1.52,2.55)	29.45	(1.30)[3]	1.54[*]	(1.29,1.83)
Married, spouse not present	195	27.51	(3.37)[3]	1.52[*]	(1.08,2.13)	31.79	(2.89)[3]	1.76[*]	(1.27,2.45)
Married, spouse present	1,658	20.03	(1.62)[1,2]	1.00		22.78	(1.00)[1,2]	1.00	(1.00,1.00)

(continued)

Table A.9. Past 30 Day Cigarette Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,350	21.60	$(2.12)^2$	0.65^*	(0.49,0.87)	29.44	(2.20)	1.29	(0.96,1.72)
No	1,854	29.63	$(0.96)^1$	1.00		25.44	(0.87)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	403	33.95	$(3.04)^{3,4,5,6}$	14.84^*	(8.75,25.18)	26.99	$(2.72)^{5,6}$	4.31^*	(1.96,9.48)
E4–E6	1,382	33.14	$(1.31)^{3,4,5,6}$	14.32^*	(9.62,21.31)	29.13	$(1.17)^{5,6}$	4.90^*	(2.69,8.93)
E7–E9	423	23.44	$(1.18)^{1,2,5,6}$	8.84^*	(5.58,14.01)	30.98	$(1.94)^{5,6}$	5.44^*	(2.59,11.42)
W1–W5	248	15.59	$(3.25)^{1,2,5,6}$	5.33^*	(3.04,9.36)	26.38	$(5.13)^{5,6}$	4.15^*	(2.31,7.46)
O1–O3	404	6.08	$(1.25)^{1,2,3,4,6}$	1.87^*	(1.16,3.01)	11.05	$(2.61)^{1,2,3,4}$	1.14	(0.64,2.04)
O4–O10	344	3.35	$(0.62)^{1,2,3,4,5}$	1.00		10.04	$(2.07)^{1,2,3,4}$	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,215	28.65	(1.35)	1.18	(0.98,1.42)	27.42	(1.46)	1.09	(0.87,1.35)
No	1,989	25.34	(1.28)	1.00		26.13	(1.10)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	953	19.73	$(1.86)^{2,3}$	0.44^*	(0.28,0.67)	24.00	$(1.74)^2$	0.71	(0.47,1.07)
5–6 hours	1,963	28.28	$(0.91)^1$	0.70	(0.45,1.09)	27.28	$(1.02)^1$	0.88	(0.55,1.40)
4 hours or less	288	36.04	$(4.64)^1$	1.00		29.36	(3.39)	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,983	27.58	(1.17)	1.13	(0.94,1.35)	27.22	(1.22)	1.09	(0.87,1.37)
Little/none	1,221	25.27	(1.37)	1.00		25.86	(1.32)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,313	28.57	(2.35)	1.18	(0.88,1.57)	26.95	(1.79)	1.03	(0.81,1.31)
Little/none	1,891	25.39	(1.05)	1.00		26.47	(0.84)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,372	31.56	$(1.82)^2$	1.52^*	(1.23,1.88)	30.52	$(1.64)^2$	1.50^*	(1.20,1.88)
No	1,832	23.28	$(1.07)^1$	1.00		24.07	$(0.99)^1$	1.00	(1.00,1.00)

(continued)

Table A.9. Past 30 Day Cigarette Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,235	34.70	(1.40)[2]	2.14[*]	(1.61,2.83)	29.43	(1.11)[2]	1.42[*]	(1.08,1.87)
Little/none	1,969	19.92	(1.62)[1]	1.00		23.88	(1.56)[1]	1.00	(1.00,1.00)
Spirituality									
High	629	13.78	(1.55)[2,3]	0.33[*]	(0.25,0.42)	20.60	(1.82)[2,3]	0.60[*]	(0.45,0.79)
Medium	1,543	26.84	(1.54)[1,3]	0.75[*]	(0.58,0.97)	27.19	(1.54)[1]	0.94	(0.68,1.28)
Low	1,032	32.96	(1.72)[1,2]	1.00		28.28	(1.60)[1]	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,486	21.51	(1.45)[2]	0.60[*]	(0.50,0.71)	22.81	(1.18)[2]	0.62[*]	(0.54,0.72)
No	1,718	31.45	(1.04)[1]	1.00		30.23	(1.03)[1]	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	407	26.65	(1.82)	1.00	(0.80,1.24)	24.11	(2.48)	0.83	(0.59,1.16)
No	2,797	26.67	(1.04)	1.00		27.01	(0.92)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,179	25.95	(1.64)	0.94	(0.77,1.16)	25.37	(1.85)	0.88	(0.63,1.22)
No	2,025	27.06	(1.12)	1.00		27.37	(1.29)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	471	35.12	(2.18)[2]	1.61[*]	(1.25,2.09)	27.56	(2.56)	1.07	(0.76,1.51)
No	2,733	25.13	(1.18)[1]	1.00		26.49	(0.99)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	513	48.00	(2.18)[2]	3.30[*]	(2.71,4.00)	35.77	(2.13)[2]	1.95[*]	(1.58,2.42)
No	2,691	21.88	(0.93)[1]	1.00		24.34	(0.86)[1]	1.00	(1.00,1.00)
Need for Further Depression Evaluation									
Yes	552	35.58	(1.32)[2]	1.68[*]	(1.40,2.02)	25.27	(2.59)	0.89	(0.59,1.36)
No	2,652	24.70	(1.18)[1]	1.00		26.99	(1.16)	1.00	(1.00,1.00)

(continued)

Table A.9. Past 30 Day Cigarette Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Generalized Anxiety, Past Month									
Yes	316	37.71	$(3.83)^2$	1.77*	(1.24,2.52)	29.26	(3.47)	1.20	(0.80,1.78)
No	2,888	25.49	$(0.96)^1$	1.00		26.39	(0.84)	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	192	40.63	$(4.37)^2$	1.98*	(1.31,3.00)	23.36	(3.88)	0.79	(0.41,1.52)
No	3,012	25.69	$(1.06)^1$	1.00		26.91	(1.16)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	377	37.92	$(3.27)^2$	1.82*	(1.28,2.57)	25.37	(2.91)	0.91	(0.60,1.37)
No	2,827	25.16	$(1.20)^1$	1.00		26.84	(0.98)	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	40.81	$(5.28)^2$	1.93*	(1.29,2.89)	25.31	(6.92)	0.91	(0.37,2.26)
No	3,133	26.32	$(0.88)^1$	1.00		26.70	(0.89)	1.00	(1.00,1.00)
Active Coping									
Yes	2,401	23.36	$(1.48)^2$	0.56*	(0.40,0.79)	25.82	(1.08)	0.85	(0.66,1.08)
No	803	35.10	$(2.53)^1$	1.00		28.48	(1.72)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	107	88.15	$(3.64)^2$	23.51*	(12.26,45.10)	75.39	$(5.83)^2$	15.90*	(7.41,34.11)
No	3,097	24.03	$(1.10)^1$	1.00		24.67	$(0.97)^1$	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported any cigarette use in the past 30 days. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
  [1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
  [2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
  [3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
  [4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
  [5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
  [6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table A.10. Past 30 Day Smokeless Tobacco Use

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,196	12.16	(1.32)	1.00		12.16	(1.32)	0.02[*]	(0.01,0.05)
Gender									
Male	2,454	13.73	(1.44)[2]	11.73[*]	(5.56,24.79)	13.53	(1.48)[2]	11.29[*]	(4.94,25.79)
Female	742	1.34	(0.51)[1]	1.00		1.52	(0.62)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,835	11.53	(1.28)[2]	0.63[*]	(0.49,0.82)	11.46	(1.25)[2]	0.57[*]	(0.44,0.73)
OCONUS	361	17.04	(0.16)[1]	1.00		17.59	(0.60)[1]	1.00	(1.00,1.00)
Age Group									
20 and younger	198	17.08	(2.99)[3,4]	2.35[*]	(1.24,4.46)	15.39	(3.53)	1.88	(0.78,4.52)
21–25	770	14.60	(1.70)[4]	1.95[*]	(1.17,3.26)	13.04	(1.52)	1.52	(0.79,2.89)
26–34	1,044	11.40	(1.77)[1]	1.47	(0.88,2.46)	12.05	(1.64)	1.37	(0.73,2.59)
35 and older	1,184	8.05	(1.64)[1,2]	1.00		9.31	(2.27)	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,442	13.40	(1.44)[2,3]	0.84	(0.61,1.14)	13.11	(1.50)[2,3]	0.73	(0.52,1.04)
African American, non-Hispanic	182	2.01	(1.04)[1,4]	0.11[*]	(0.04,0.35)	2.84	(1.47)[1,4]	0.13[*]	(0.04,0.47)
Hispanic	347	4.15	(1.32)[1,4]	0.23[*]	(0.12,0.47)	3.92	(1.14)[1,4]	0.18[*]	(0.10,0.33)
Other	225	15.60	(2.63)[2,3]	1.00		16.63	(2.44)[2,3]	1.00	(1.00,1.00)
Education									
High school or less	760	15.31	(1.48)[3]	3.12[*]	(2.44,3.99)	12.90	(1.43)[3]	1.82[*]	(1.18,2.83)
Some college	1,502	13.26	(1.30)[3]	2.64[*]	(2.00,3.48)	13.13	(1.42)[3]	1.87[*]	(1.07,3.25)
College graduate or higher	934	5.48	(0.96)[1,2]	1.00		7.86	(1.79)[1,2]	1.00	(1.00,1.00)
Family Status									
Not married	1,349	14.26	(1.55)[2,3]	1.45[*]	(1.05,2.00)	11.94	(1.26)	0.92	(0.58,1.47)
Married, spouse not present	194	9.19	(2.03)[1]	0.88	(0.64,1.21)	10.27	(2.20)	0.77	(0.46,1.27)
Married, spouse present	1,653	10.31	(1.53)[1]	1.00		12.69	(2.22)	1.00	(1.00,1.00)

Table A.10. Past 30 Day Smokeless Tobacco Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,344	10.14	(1.54)[2]	0.73*	(0.54,0.99)	12.25	(1.39)	1.01	(0.75,1.37)
No	1,852	13.34	(1.48)[1]	1.00		12.12	(1.51)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	402	16.91	(2.28)[4,5,6]	3.74*	(1.98,7.05)	13.37	(2.37)	1.04	(0.47,2.32)
E4–E6	1,378	13.46	(1.33)[4,5,6]	2.86*	(1.66,4.92)	11.60	(1.47)	0.87	(0.42,1.81)
E7–E9	421	11.90	(1.92)[5,6]	2.48*	(1.46,4.20)	13.71	(2.34)	1.08	(0.48,2.40)
W1–W5	248	7.39	(1.41)[1,2]	1.47	(0.74,2.92)	11.12	(2.79)	0.83	(0.30,2.26)
O1–O3	404	5.30	(1.77)[1,2,3]	1.03	(0.49,2.16)	11.51	(3.74)	0.86	(0.39,1.93)
O4–O10	343	5.17	(1.18)[1,2,3]	1.00		12.93	(2.85)	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,213	13.17	(1.50)	1.17	(0.82,1.67)	11.68	(1.28)	0.91	(0.68,1.22)
No	1,983	11.49	(1.66)	1.00		12.54	(1.65)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	950	10.82	(1.41)[3]	0.49*	(0.37,0.63)	11.91	(1.60)[3]	0.50*	(0.33,0.76)
5–6 hours	1,958	11.57	(1.17)[3]	0.52*	(0.39,0.70)	11.14	(1.15)[3]	0.46*	(0.31,0.69)
4 hours or less	288	19.99	(3.46)[1,2]	1.00		19.83	(3.70)[1,2]	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,977	12.67	(1.53)	1.13	(0.85,1.51)	12.70	(1.71)	1.15	(0.76,1.75)
Little/none	1,219	11.39	(1.48)	1.00		11.34	(1.50)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,306	12.83	(1.75)	1.11	(0.86,1.42)	12.62	(1.53)	1.08	(0.80,1.47)
Little/none	1,890	11.72	(1.27)	1.00		11.85	(1.48)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,369	11.49	(2.04)	0.90	(0.62,1.31)	11.27	(1.94)	0.85	(0.60,1.21)
No	1,827	12.63	(1.26)	1.00		12.78	(1.16)	1.00	(1.00,1.00)

(continued)

Table A.10. Past 30 Day Smokeless Tobacco Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,234	15.04	(1.74)[2]	1.64[*]	(1.32,2.05)	12.08	(1.53)	0.98	(0.75,1.28)
Little/none	1,962	9.73	(1.12)[1]	1.00		12.26	(1.37)	1.00	(1.00,1.00)
Spirituality									
High	627	6.41	(1.69)[2,3]	0.44[*]	(0.29,0.69)	9.23	(2.32)[2]	0.76	(0.49,1.16)
Medium	1,539	13.35	(1.45)[1]	1.00	(0.83,1.21)	13.38	(1.45)[1]	1.20	(0.98,1.47)
Low	1,030	13.37	(1.34)[1]	1.00		11.60	(1.22)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,482	11.81	(1.50)	0.94	(0.69,1.28)	12.17	(1.66)	1.00	(0.64,1.56)
No	1,714	12.49	(1.62)	1.00		12.15	(1.72)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	406	9.76	(1.45)[2]	0.76[*]	(0.58,0.99)	9.87	(1.79)	0.75	(0.51,1.09)
No	2,790	12.50	(1.36)[1]	1.00		12.47	(1.33)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,174	11.92	(1.63)	0.96	(0.78,1.20)	12.51	(1.77)	1.06	(0.79,1.42)
No	2,022	12.30	(1.30)	1.00		11.98	(1.31)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	470	14.06	(2.17)	1.22	(0.94,1.58)	12.49	(2.15)	1.04	(0.77,1.40)
No	2,726	11.82	(1.26)	1.00		12.10	(1.23)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	510	22.88	(2.36)[2]	2.74[*]	(2.20,3.41)	18.84	(2.15)[2]	2.18[*]	(1.73,2.76)
No	2,686	9.76	(1.17)[1]	1.00		10.28	(1.20)[1]	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	725	21.72	(2.20)[2]	2.91[*]	(2.17,3.90)	17.41	(2.02)[2]	2.10[*]	(1.56,2.83)
No	2,471	8.70	(1.18)[1]	1.00		9.65	(1.25)[1]	1.00	(1.00,1.00)

(continued)

Table A.10. Past 30 Day Smokeless Tobacco Use (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Need for Further Depression Evaluation									
Yes	549	14.71	(2.65)	1.31	(0.94,1.84)	12.59	(2.24)	1.06	(0.75,1.48)
No	2,647	11.60	(1.19)	1.00		12.05	(1.21)	1.00	(1.00,1.00)
Generalized Anxiety, Past Month									
Yes	314	12.11	(2.54)	0.99	(0.60,1.65)	9.41	(1.56)	0.70	(0.40,1.22)
No	2,882	12.17	(1.39)	1.00		12.51	(1.52)	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	190	14.84	(3.60)	1.28	(0.76,2.15)	11.64	(2.65)	0.94	(0.56,1.59)
No	3,006	11.98	(1.29)	1.00		12.21	(1.32)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	375	15.45	(2.48)	1.38	(0.99,1.91)	15.59	(3.26)	1.45	(0.80,2.64)
No	2,821	11.72	(1.31)	1.00		11.71	(1.38)	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	70	12.19	(3.70)	1.00	(0.55,1.82)	6.93	(1.89)[2]	0.50[*]	(0.25,0.98)
No	3,126	12.16	(1.30)	1.00		12.33	(1.37)[1]	1.00	(1.00,1.00)
Active Coping									
Yes	2,396	11.18	(1.07)	0.73	(0.50,1.08)	12.32	(1.15)	1.05	(0.62,1.79)
No	800	14.68	(2.74)	1.00		11.84	(2.57)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	106	20.20	(4.16)[2]	1.89[*]	(1.24,2.87)	9.72	(2.30)	0.74	(0.45,1.22)
No	3,090	11.82	(1.26)[1]	1.00		12.35	(1.31)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported any smokeless tobacco use in the past 30 days. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table A.11. Quit/Tried to Quit Smoking in Past Year Among Past Year Smokers

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	880	68.30	(2.71)	1.00		68.30	(2.71)	1.60	(0.86,2.97)
Gender									
Male	720	68.09	(2.91)	0.91	(0.59,1.42)	68.05	(2.85)	0.89	(0.56,1.40)
Female	160	70.08	(4.13)	1.00		70.47	(4.20)	1.00	(1.00,1.00)
Region									
CONUS	771	68.55	(3.07)	1.10	(0.82,1.47)	68.67	(3.11)	1.16	(0.81,1.67)
OCONUS	109	66.47	(0.17)	1.00		65.51	(1.18)	1.00	(1.00,1.00)
Age Group									
25 and younger	339	68.91	(3.07)	1.22	(0.81,1.84)	71.36	(3.19)[3]	1.67[*]	(1.00,2.80)
26–34	349	69.20	(3.72)	1.24	(0.84,1.82)	66.98	(4.11)	1.34	(0.90,2.00)
35 and older	192	64.46	(3.07)	1.00		60.64	(3.51)[1]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	699	69.53	(2.18)	1.25	(0.67,2.33)	69.97	(2.13)[2]	1.42	(0.66,3.04)
African American, non-Hispanic	31	58.00	(6.78)	0.76	(0.36,1.60)	53.75	(6.99)[1,3]	0.67	(0.32,1.43)
Hispanic	92	65.98	(6.44)	1.06	(0.70,1.61)	65.70	(6.14)[2]	1.15	(0.65,2.05)
Other	58	64.60	(7.68)	1.00		62.67	(8.76)	1.00	(1.00,1.00)
Education									
High school or less	270	66.27	(3.54)	0.82	(0.52,1.30)	66.11	(3.61)	0.76	(0.34,1.70)
Some college	501	69.35	(2.86)	0.95	(0.61,1.47)	69.20	(2.89)	0.88	(0.40,1.94)
College graduate or higher	109	70.45	(4.24)	1.00		71.73	(6.58)	1.00	(1.00,1.00)
Family Status									
Not married	461	66.56	(3.08)	0.84	(0.68,1.04)	66.34	(2.58)[2]	0.83	(0.58,1.19)
Married, spouse not present	51	72.80	(4.31)	1.13	(0.66,1.94)	76.38	(3.55)[1]	1.40	(0.74,2.66)
Married, spouse present	368	70.31	(2.96)	1.00		70.19	(4.14)	1.00	(1.00,1.00)

Table A.11. Quit/Tried to Quit Smoking in Past Year Among Past Year Smokers (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	305	70.49	(2.78)	1.16	(0.84,1.61)	71.16	(3.59)	1.23	(0.70,2.16)
No	575	67.31	(3.27)	1.00		67.03	(3.78)	1.00	(1.00,1.00)
Enlisted/Officer									
Enlisted	785	68.11	(2.85)	0.88	(0.49,1.61)	68.16	(2.71)	0.91	(0.46,1.79)
Officer	95	70.74	(5.70)	1.00		70.07	(6.92)	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	379	70.67	(4.17)	1.22	(0.78,1.91)	70.84	(4.09)	1.26	(0.82,1.94)
No	501	66.38	(2.94)	1.00		66.22	(2.67)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	199	73.57	(4.79)	0.96	(0.45,2.04)	72.82	(4.90)	0.89	(0.50,1.61)
5–6 hours	574	65.55	(2.88)[3]	0.66[*]	(0.46,0.94)	65.71	(3.06)[3]	0.63[*]	(0.49,0.80)
4 hours or less	107	74.35	(5.28)[2]	1.00		74.87	(3.85)[2]	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	558	69.28	(2.53)	1.13	(0.82,1.55)	69.02	(2.59)	1.10	(0.74,1.64)
Little/none	322	66.66	(4.03)	1.00		67.11	(4.31)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	387	67.80	(3.11)	0.96	(0.69,1.33)	67.81	(3.01)	0.96	(0.67,1.36)
Little/none	493	68.68	(3.32)	1.00		68.67	(3.39)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	431	68.39	(4.31)	1.01	(0.65,1.57)	68.34	(4.12)	1.00	(0.64,1.57)
No	449	68.21	(2.81)	1.00		68.26	(2.89)	1.00	(1.00,1.00)
Risk Taking/Impulsivity									
A lot/some	448	67.50	(3.57)	0.92	(0.69,1.21)	67.11	(3.69)	0.87	(0.63,1.20)
Little/none	432	69.37	(2.30)	1.00		69.88	(2.22)	1.00	(1.00,1.00)

(continued)

Table A.11. Quit/Tried to Quit Smoking in Past Year Among Past Year Smokers (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Spirituality									
High	101	72.44	(4.06)[3]	1.34[*]	(1.01,1.78)	71.51	(4.88)	1.24	(0.82,1.88)
Medium	430	69.14	(3.34)	1.14	(0.79,1.65)	68.57	(3.38)	1.07	(0.74,1.54)
Low	349	66.25	(3.56)[1]	1.00		67.22	(3.25)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	353	73.04	(3.08)[2]	1.47[*]	(1.07,2.01)	72.64	(2.99)[2]	1.45	(1.00,2.09)
No	527	64.89	(3.27)[1]	1.00		65.22	(3.55)[1]	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	108	63.43	(6.62)	0.78	(0.48,1.29)	57.29	(7.80)	0.57	(0.31,1.05)
No	772	68.86	(2.53)	1.00		69.45	(2.44)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	303	73.99	(2.94)[2]	1.51	(0.99,2.28)	76.21	(2.85)[2]	1.86[*]	(1.10,3.15)
No	577	65.39	(3.51)[1]	1.00		64.03	(3.88)[1]	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	168	71.24	(3.12)	1.19	(0.87,1.62)	72.45	(3.40)	1.30	(0.83,2.03)
No	712	67.63	(2.95)	1.00		67.33	(3.13)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	259	65.40	(4.04)	0.83	(0.59,1.16)	66.49	(3.85)	0.88	(0.62,1.25)
No	621	69.58	(2.75)	1.00		69.11	(2.82)	1.00	(1.00,1.00)
Need for Further Depression Evaluation									
Yes	199	64.51	(4.96)	0.80	(0.53,1.21)	61.10	(6.49)	0.65	(0.35,1.18)
No	681	69.43	(2.72)	1.00		70.30	(2.74)	1.00	(1.00,1.00)
Generalized Anxiety, Past Month									
Yes	124	73.81	(5.54)	1.36	(0.76,2.44)	74.70	(5.05)	1.47	(0.86,2.54)
No	756	67.37	(2.77)	1.00		67.22	(2.72)	1.00	(1.00,1.00)

(continued)

Table A.11. Quit/Tried to Quit Smoking in Past Year Among Past Year Smokers (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Serious Psychological Distress									
Yes	143	69.34	(6.64)	1.06	(0.56,2.01)	73.50	(6.86)	1.38	(0.60,3.18)
No	737	68.11	(2.77)	1.00		67.30	(3.05)	1.00	(1.00,1.00)
Active Coping									
Yes	609	69.02	(3.33)	1.10	(0.76,1.59)	67.96	(3.41)	0.96	(0.69,1.32)
No	271	66.97	(3.28)	1.00		68.88	(2.58)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	95	55.35	(6.81)[2]	0.53*	(0.32,0.89)	54.40	(5.25)[2]	0.49*	(0.33,0.73)
No	785	69.87	(2.73)[1]	1.00		69.94	(2.77)[1]	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported quitting or making a serious attempt to quit smoking cigarettes in the past year. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

APPENDIX B:

STRESS AND MENTAL HEALTH TABLES

Table B.1. Work or Family Stress

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,207	34.27	(0.81)	1.00		34.27	(0.81)	0.53	(0.19,1.46)
Gender									
Male	2,464	33.09	(0.80)[2]	0.67*	(0.59,0.76)	33.57	(0.80)[2]	0.75*	(0.63,0.88)
Female	743	42.45	(1.81)[1]	1.00		39.26	(1.81)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,845	34.12	(0.91)	0.94	(0.87,1.03)	34.56	(0.99)	1.14	(0.97,1.35)
OCONUS	362	35.43	(0.26)	1.00		32.08	(1.11)	1.00	(1.00,1.00)
Age Group									
20 and younger	198	28.93	(4.20)	0.85	(0.52,1.39)	32.13	(6.22)	1.02	(0.44,2.40)
21–25	772	34.75	(1.45)[3]	1.11	(0.96,1.29)	35.51	(1.60)	1.23	(0.96,1.57)
26–34	1,050	37.70	(1.43)[24]	1.27*	(1.07,1.50)	36.21	(2.09)[4]	1.27*	(1.09,1.48)
35 and older	1,187	32.34	(1.55)[3]	1.00		31.74	(1.65)[3]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,449	34.60	(0.63)	0.87	(0.67,1.12)	34.87	(0.63)	0.95	(0.67,1.33)
African American, non-Hispanic	182	28.09	(6.66)	0.64	(0.36,1.15)	28.62	(6.64)	0.67	(0.33,1.36)
Hispanic	350	30.60	(2.36)	0.72	(0.49,1.07)	30.95	(2.30)	0.76	(0.50,1.17)
Other	226	37.94	(3.20)	1.00		35.92	(3.33)	1.00	(1.00,1.00)
Education									
High school or less	761	31.83	(1.53)	0.92	(0.73,1.17)	34.09	(1.81)	1.19	(0.85,1.66)
Some college	1,510	36.21	(1.29)[3]	1.12	(1.00,1.27)	36.15	(1.09)[3]	1.33*	(1.06,1.66)
College graduate or higher	936	33.56	(1.63)[2]	1.00		30.92	(1.98)[2]	1.00	(1.00,1.00)
Family Status									
Not married	1,353	32.35	(1.53)[2]	0.90	(0.74,1.10)	32.47	(2.15)[2]	0.89	(0.61,1.28)
Married, spouse not present	195	48.49	(4.62)[13]	1.77*	(1.15,2.73)	47.79	(4.43)[13]	1.90*	(1.14,3.17)
Married, spouse present	1,659	34.72	(1.16)[2]	1.00		34.68	(1.49)[2]	1.00	(1.00,1.00)

Table B.1. Work or Family Stress (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,350	36.69	$(1.43)^2$	1.18^*	(1.04,1.35)	36.42	(1.85)	1.20	(0.99,1.45)
No	1,857	32.86	$(0.78)^1$	1.00		32.99	(0.51)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	403	27.99	$(1.88)^2$	0.65	(0.41,1.01)	28.43	$(3.28)^6$	0.42^*	(0.25,0.69)
E4–E6	1,385	36.33	$(1.49)^1$	0.95	(0.64,1.40)	33.92	$(1.55)^6$	0.57^*	(0.41,0.79)
E7–E9	423	31.05	(2.13)	0.75	(0.45,1.23)	32.67	$(1.98)^6$	0.53^*	(0.33,0.86)
W1–W5	248	30.47	(3.65)	0.73	(0.47,1.12)	31.54	$(2.96)^6$	0.50^*	(0.34,0.73)
O1–O3	404	35.68	(4.17)	0.92	(0.44,1.94)	40.32	(5.85)	0.79	(0.34,1.84)
O4–O10	344	37.60	(5.11)	1.00		45.22	$(3.99)^{1234}$	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,217	38.88	$(1.43)^2$	1.40^*	(1.16,1.70)	38.52	$(1.50)^2$	1.45^*	(1.12,1.89)
No	1,990	31.19	$(1.46)^1$	1.00		31.41	$(1.61)^1$	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	954	24.62	$(2.11)^{23}$	0.28^*	(0.17,0.44)	28.44	$(1.99)^{23}$	0.49^*	(0.29,0.85)
5–6 hours	1,964	35.48	$(1.19)^{13}$	0.46^*	(0.35,0.62)	35.72	$(0.90)^1$	0.74	(0.50,1.07)
4 hours or less	289	54.20	$(3.89)^{12}$	1.00		41.95	$(4.12)^1$	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,373	40.31	$(1.78)^2$	1.57^*	(1.21,2.03)	35.60	(1.48)	1.13	(0.88,1.45)
No	1,834	30.10	$(1.51)^1$	1.00		33.32	(1.34)	1.00	(1.00,1.00)
Risk Taking/Impulsivity									
A lot/some	1,238	36.33	$(1.06)^2$	1.18^*	(1.03,1.37)	34.72	(0.94)	1.04	(0.87,1.25)
Little/none	1,969	32.54	$(1.19)^1$	1.00		33.91	(1.31)	1.00	(1.00,1.00)
Spirituality									
High	629	35.25	(1.35)	1.02	(0.84,1.24)	35.25	(1.86)	0.99	(0.72,1.36)
Medium	1,546	33.61	(1.65)	0.95	(0.76,1.19)	33.11	(1.43)	0.88	(0.74,1.05)
Low	1,032	34.72	(1.58)	1.00		35.46	(1.51)	1.00	(1.00,1.00)

(continued)

Table B.1.   Work or Family Stress (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Vigorous Physical Exercise, Past 30 Days									
Yes	1,488	32.46	(1.24)	0.86	(0.70,1.05)	34.34	(1.01)	1.01	(0.87,1.17)
No	1,719	35.95	(1.54)	1.00		34.20	(1.12)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	409	40.98	(2.84)[2]	1.39[*]	(1.05,1.84)	34.67	(2.75)	1.02	(0.73,1.44)
No	2,798	33.33	(1.00)[1]	1.00		34.21	(0.96)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,181	38.27	(2.48)	1.32	(0.97,1.78)	34.73	(1.97)	1.04	(0.77,1.39)
No	2,026	32.03	(1.39)	1.00		34.01	(1.25)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	472	37.36	(2.31)	1.17	(0.95,1.45)	33.37	(1.98)	0.94	(0.75,1.19)
No	2,735	33.71	(0.85)	1.00		34.43	(0.88)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	514	33.45	(2.03)	0.96	(0.81,1.13)	31.77	(2.03)	0.85	(0.67,1.06)
No	2,693	34.45	(0.72)	1.00		34.83	(0.83)	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	730	38.76	(1.75)[2]	1.31[*]	(1.10,1.55)	36.33	(1.71)	1.16	(0.94,1.42)
No	2,477	32.64	(0.89)[1]	1.00		33.54	(0.91)	1.00	(1.00,1.00)
Need for Further Depression Evaluation									
Yes	553	64.56	(2.46)[2]	4.78[*]	(3.80,6.00)	51.20	(1.93)[2]	2.62[*]	(2.16,3.17)
No	2,654	27.60	(0.87)[1]	1.00		30.80	(0.90)[1]	1.00	(1.00,1.00)
Generalized Anxiety, Past Month									
Yes	317	74.09	(1.63)[2]	6.66[*]	(5.55,7.98)	52.18	(3.19)[2]	2.53[*]	(1.92,3.33)
No	2,890	30.04	(0.78)[1]	1.00		32.60	(0.83)[1]	1.00	(1.00,1.00)

(continued)

Table B.1. Work or Family Stress (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Screened Positive for PTSD									
Yes	194	73.86	$(3.70)^2$	6.15^*	(4.35,8.69)	41.33	(5.31)	1.46	(0.90,2.36)
No	3,013	31.49	$(0.67)^1$	1.00		33.86	(0.69)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	378	69.51	$(4.07)^2$	5.44^*	(3.61,8.18)	48.93	$(3.90)^2$	2.20^*	(1.49,3.24)
No	2,829	29.54	$(0.77)^1$	1.00		32.51	$(0.90)^1$	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	71.73	$(5.15)^2$	5.07^*	(3.03,8.46)	48.58	$(5.89)^2$	2.05^*	(1.16,3.62)
No	3,136	33.36	$(0.86)^1$	1.00		33.99	$(0.85)^1$	1.00	(1.00,1.00)
Active Coping									
Yes	2,404	34.94	(0.78)	1.11	(0.91,1.36)	35.46	$(0.84)^2$	1.27	(0.98,1.63)
No	803	32.54	(2.03)	1.00		31.11	$(2.01)^1$	1.00	(1.00,1.00)
Avoidance Coping									
Yes	108	54.38	$(5.01)^2$	2.38^*	(1.56,3.63)	30.05	(2.87)	0.78	(0.56,1.10)
No	3,099	33.40	$(0.82)^1$	1.00		34.45	(0.83)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported experiencing "a lot" of or "some" stress at work or while carrying out their military duties (work stress), or in their family life or in a relationship with their spouse, live-in fiancé, boyfriend or girlfriend, or the person they dated seriously (family stress). The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1] Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2] Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3] Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4] Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5] Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6] Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table B.2. Need for Further Depression Evaluation

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,204	18.01	(1.41)	1.00		18.01	(1.41)	0.10[*]	(0.03,0.31)
Gender									
Male	2,462	17.38	(1.52)[2]	0.73[*]	(0.60,0.89)	18.37	(1.49)	1.31	(0.88,1.96)
Female	742	22.39	(1.47)[1]	1.00		15.87	(1.83)	1.00	(1.00,1.00)
Region									
CONUS	2,843	17.16	(1.35)[2]	0.63[*]	(0.52,0.77)	17.39	(1.29)[2]	0.60[*]	(0.52,0.69)
OCONUS	361	24.61	(0.44)[1]	1.00		22.92	(0.86)[1]	1.00	(1.00,1.00)
Age Group									
20 and younger	198	23.11	(4.25)[4]	1.89[*]	(1.35,2.63)	15.71	(2.34)[3]	0.72	(0.35,1.49)
21–25	771	19.01	(2.21)[4]	1.47[*]	(1.15,1.89)	15.67	(1.34)[3]	0.72	(0.43,1.21)
26–34	1,048	18.76	(1.65)[4]	1.45[*]	(1.09,1.94)	21.20	(1.79)[1,2]	1.26	(0.88,1.80)
35 and older	1,187	13.73	(1.42)[1,2,3]	1.00		18.74	(2.50)	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,447	18.29	(1.63)[2]	0.89	(0.61,1.29)	18.24	(1.50)[2]	0.89	(0.72,1.10)
African American, non-Hispanic	182	11.02	(2.68)[1,4]	0.49[*]	(0.33,0.73)	12.84	(2.11)[1,4]	0.47[*]	(0.27,0.81)
Hispanic	349	16.99	(3.42)	0.81	(0.44,1.48)	17.11	(2.81)	0.79	(0.39,1.60)
Other	226	20.16	(2.93)[2]	1.00		19.45	(2.07)[2]	1.00	(1.00,1.00)
Education									
High school or less	760	19.41	(2.51)[3]	1.44[*]	(1.06,1.96)	16.94	(1.42)	0.69	(0.40,1.18)
Some college	1,508	18.85	(1.45)[3]	1.39[*]	(1.14,1.69)	17.72	(1.88)	0.75	(0.42,1.33)
College graduate or higher	936	14.33	(1.13)[1,2]	1.00		20.68	(2.44)	1.00	(1.00,1.00)
Family Status									
Not married	1,351	21.25	(2.05)[3]	1.67[*]	(1.46,1.91)	20.55	(2.10)[3]	1.79[*]	(1.19,2.69)
Married, spouse not present	195	25.17	(3.06)[3]	2.08[*]	(1.45,2.98)	21.86	(2.39)[3]	2.00[*]	(1.02,3.93)
Married, spouse present	1,658	13.90	(0.93)[1,2]	1.00		14.92	(1.47)[1,2]	1.00	(1.00,1.00)

Table B.2. Need for Further Depression Evaluation (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,350	15.54	(1.30)[2]	0.76[*]	(0.59,0.98)	17.84	(1.64)	0.97	(0.63,1.50)
No	1,854	19.46	(1.87)[1]	1.00		18.10	(1.77)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	403	23.89	(3.75)[3,4,5,6]	2.14[*]	(1.44,3.17)	23.71	(2.98)[2,3,5]	1.96	(0.74,5.21)
E4–E6	1,382	19.30	(1.90)[3,4,5,6]	1.63	(0.95,2.78)	17.99	(1.83)[1,5]	1.17	(0.42,3.27)
E7–E9	423	13.67	(1.96)[1,2]	1.08	(0.72,1.62)	16.11	(1.47)[1]	0.96	(0.42,2.19)
W1–W5	248	14.80	(1.63)[1,2]	1.18	(0.70,1.99)	18.24	(2.47)	1.20	(0.57,2.56)
O1–O3	404	11.95	(1.52)[1,2]	0.92	(0.48,1.76)	13.58	(1.30)[1,2]	0.71	(0.36,1.40)
O4–O10	344	12.82	(2.86)[1,2]	1.00		16.47	(4.21)	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,215	18.57	(1.52)	1.06	(0.78,1.45)	17.74	(1.47)	0.95	(0.69,1.33)
No	1,989	17.64	(1.96)	1.00		18.21	(1.72)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	953	8.72	(1.13)[2,3]	0.14[*]	(0.09,0.22)	14.18	(1.46)[2,3]	0.47[*]	(0.34,0.65)
5–6 hours	1,963	18.74	(1.54)[1,3]	0.34[*]	(0.28,0.42)	18.76	(1.57)[1]	0.77	(0.53,1.13)
4 hours or less	288	40.23	(3.59)[1,2]	1.00		21.65	(2.02)[1]	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,983	23.40	(1.78)[2]	2.82[*]	(2.09,3.80)	19.45	(1.55)[2]	1.54[*]	(1.09,2.19)
Little/none	1,221	9.79	(1.37)[1]	1.00		15.28	(1.77)[1]	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,313	28.07	(1.96)[2]	3.06[*]	(2.62,3.58)	22.02	(1.76)[2]	2.02[*]	(1.70,2.40)
Little/none	1,891	11.30	(1.14)[1]	1.00		14.83	(1.22)[1]	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,372	24.71	(1.68)[2]	2.12[*]	(1.86,2.43)	19.45	(1.44)[2]	1.29[*]	(1.05,1.59)
No	1,832	13.39	(1.14)[1]	1.00		16.88	(1.52)[1]	1.00	(1.00,1.00)

(continued)

Table B.2. Need for Further Depression Evaluation (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,235	22.83	(2.04)[2]	1.82[*]	(1.50,2.21)	18.61	(1.37)	1.13	(0.81,1.57)
Little/none	1,969	13.97	(1.17)[1]	1.00		17.44	(1.85)	1.00	(1.00,1.00)
Spirituality									
High	629	15.27	(2.35)[3]	0.71[*]	(0.54,0.94)	18.29	(2.66)	0.93	(0.61,1.43)
Medium	1,543	17.50	(1.68)	0.84	(0.62,1.13)	17.25	(1.57)	0.84	(0.63,1.12)
Low	1,032	20.14	(1.96)[1]	1.00		18.98	(1.42)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,486	15.22	(1.10)[2]	0.69[*]	(0.52,0.92)	17.37	(1.52)	0.88	(0.65,1.20)
No	1,718	20.60	(2.22)[1]	1.00		18.57	(1.65)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	407	27.69	(4.15)[2]	1.92[*]	(1.39,2.65)	19.78	(2.59)	1.22	(0.81,1.84)
No	2,797	16.66	(1.16)[1]	1.00		17.74	(1.39)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,179	22.47	(1.76)[2]	1.58[*]	(1.33,1.88)	18.95	(1.56)	1.17	(0.87,1.56)
No	2,025	15.52	(1.42)[1]	1.00		17.42	(1.60)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	471	25.59	(3.96)[2]	1.72[*]	(1.24,2.39)	17.64	(2.69)	0.95	(0.66,1.38)
No	2,733	16.64	(1.05)[1]	1.00		18.09	(1.20)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	513	23.39	(3.71)	1.51[*]	(1.04,2.20)	18.95	(1.79)	1.12	(0.85,1.49)
No	2,691	16.81	(1.26)	1.00		17.78	(1.47)	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	729	24.04	(1.98)[2]	1.68[*]	(1.40,2.02)	17.33	(1.12)	0.90	(0.58,1.41)
No	2,475	15.82	(1.41)[1]	1.00		18.31	(1.93)	1.00	(1.00,1.00)

(continued)

Table B.2. Need for Further Depression Evaluation (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Generalized Anxiety, Past Month									
Yes	316	64.61	$(5.31)^2$	12.13[*]	(7.38,19.94)	33.84	$(4.91)^2$	3.76[*]	(1.96,7.19)
No	2,888	13.08	$(1.18)^1$	1.00		16.00	$(1.51)^1$	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	192	77.13	$(4.71)^2$	20.87[*]	(13.13,33.18)	36.29	$(4.55)^2$	4.13[*]	(2.69,6.34)
No	3,012	13.91	$(1.00)^1$	1.00		16.61	$(1.26)^1$	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	377	64.34	$(3.85)^2$	13.47[*]	(10.30,17.62)	34.31	$(3.96)^2$	3.98[*]	(2.75,5.75)
No	2,827	11.81	$(0.67)^1$	1.00		15.36	$(1.18)^1$	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	68.46	$(6.58)^2$	10.76[*]	(6.27,18.45)	35.56	$(6.34)^2$	3.83[*]	(1.74,8.43)
No	3,133	16.79	$(1.26)^1$	1.00		17.59	$(1.39)^1$	1.00	(1.00,1.00)
Active Coping									
Yes	2,401	16.26	$(0.98)^2$	0.67[*]	(0.52,0.87)	17.51	(1.34)	0.84	(0.70,1.01)
No	803	22.51	$(2.89)^1$	1.00		19.25	(1.73)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	107	62.24	$(7.27)^2$	8.58[*]	(4.77,15.41)	28.82	$(5.55)^2$	2.52[*]	(1.30,4.90)
No	3,097	16.12	$(1.09)^1$	1.00		17.51	$(1.31)^1$	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who are considered in need of further depression evaluation. Defined as needing further evaluation or assessment if (a) felt sad, blue, or depressed for 2 weeks or more in the past 12 months or (b) reported 2 or more years in their lifetime of feeling depressed and felt depressed "much of the time" in the past 12 months; and (c) felt depressed on 1 or more days in the past week. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table B.3.   Positive Screen for PTSD[a]

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,204	6.49	(0.48)	1.00		6.49	(0.48)	0.00[*]	(0.00,0.01)
Gender									
Male	2,462	6.03	(0.58)[2]	0.60[*]	(0.41,0.88)	6.47	(0.54)	0.98	(0.51,1.85)
Female	742	9.68	(1.18)[1]	1.00		6.56	(1.03)	1.00	(1.00,1.00)
Region									
CONUS	2,843	6.21	(0.47)[2]	0.70[*]	(0.60,0.83)	6.52	(0.48)	1.06	(0.89,1.26)
OCONUS	361	8.60	(0.01)[1]	1.00		6.29	(0.60)	1.00	(1.00,1.00)
Age Group									
20 and younger	198	9.39	(0.96)[3,4]	2.35[*]	(1.45,3.80)	5.99	(1.09)	0.61	(0.21,1.82)
21–25	771	8.65	(1.14)[3,4]	2.14[*]	(1.51,3.05)	6.73	(0.99)	0.75	(0.34,1.67)
26–34	1,048	5.19	(0.39)[1,2]	1.24	(0.87,1.77)	5.72	(0.80)	0.57	(0.30,1.07)
35 and older	1,187	4.23	(0.71)[1,2]	1.00		7.88	(1.36)	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,447	6.12	(0.42)[4]	0.78[*]	(0.62,0.99)	6.25	(0.40)	1.02	(0.63,1.67)
African American, non-Hispanic	182	5.41	(2.10)	0.69	(0.31,1.50)	7.13	(2.15)	1.29	(0.59,2.85)
Hispanic	349	8.30	(1.60)	1.09	(0.77,1.54)	8.31	(1.49)	1.71[*]	(1.03,2.82)
Other	226	7.68	(0.83)[1]	1.00		6.17	(0.87)	1.00	(1.00,1.00)
Education									
High school or less	760	6.98	(1.37)[3]	2.59[*]	(1.44,4.65)	5.95	(1.04)	1.26	(0.43,3.69)
Some college	1,508	7.90	(0.62)[3]	2.96[*]	(1.87,4.67)	7.25	(0.51)	1.77	(0.82,3.86)
College graduate or higher	936	2.82	(0.63)[1,2]	1.00		5.19	(1.16)	1.00	(1.00,1.00)
Family Status									
Not married	1,351	7.33	(0.68)[3]	1.39[*]	(1.03,1.88)	6.35	(0.66)	0.96	(0.48,1.89)
Married, spouse not present	195	8.69	(1.87)	1.67[*]	(1.09,2.57)	7.67	(1.73)	1.34	(0.65,2.74)
Married, spouse present	1,658	5.38	(0.54)[1]	1.00		6.51	(0.89)	1.00	(1.00,1.00)

(continued)

Table B.3. Positive Screen for PTSD[a] (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,350	5.77	(0.68)	0.82	(0.60,1.14)	6.80	(0.79)	1.13	(0.68,1.88)
No	1,854	6.91	(0.65)	1.00		6.33	(0.56)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	403	9.69	(1.65)[3,4,5,6]	5.03[*]	(2.25,11.25)	8.35	(2.14)	3.02	(0.76,12.07)
E4–E6	1,382	7.53	(0.81)[3,4,5,6]	3.82[*]	(2.37,6.13)	6.65	(0.57)[4]	2.01	(0.82,4.92)
E7–E9	423	3.99	(1.53)[1,2]	1.95[*]	(1.03,3.66)	4.50	(1.86)	1.04	(0.32,3.39)
W1–W5	248	3.89	(1.28)[1,2]	1.90	(0.69,5.21)	3.53	(1.23)[2]	0.71	(0.26,1.93)
O1–O3	404	2.90	(0.86)[1,2]	1.40	(0.60,3.25)	6.15	(1.96)	1.76	(0.53,5.81)
O4–O10	344	2.09	(0.62)[1,2]	1.00		4.39	(1.33)	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,215	7.48	(0.61)[2]	1.31	(0.99,1.73)	7.31	(0.60)	1.45	(0.97,2.15)
No	1,989	5.82	(0.62)[1]	1.00		5.93	(0.59)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	953	2.14	(0.54)[2,3]	0.07[*]	(0.04,0.15)	4.83	(1.09)[3]	0.35[*]	(0.16,0.75)
5–6 hours	1,963	5.88	(0.43)[1,3]	0.21[*]	(0.15,0.29)	6.14	(0.51)	0.51	(0.25,1.04)
4 hours or less	288	23.20	(2.75)[1,2]	1.00		9.02	(1.58)[1]	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,983	9.19	(0.65)[2]	4.17[*]	(3.07,5.66)	6.77	(0.49)	1.42	(0.90,2.22)
Little/none	1,221	2.37	(0.36)[1]	1.00		5.52	(0.78)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,313	11.13	(0.61)[2]	3.58[*]	(2.85,4.50)	7.36	(0.44)[2]	1.69[*]	(1.12,2.57)
Little/none	1,891	3.38	(0.45)[1]	1.00		5.40	(0.72)[1]	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,372	10.27	(0.85)[2]	2.84[*]	(2.14,3.78)	7.02	(0.67)	1.37	(0.92,2.05)
No	1,832	3.87	(0.36)[1]	1.00		5.84	(0.48)	1.00	(1.00,1.00)

Table B.3. Positive Screen for PTSD[a] (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,235	10.00	(0.99)[2]	3.04[*]	(2.14,4.31)	7.46	(0.53)[2]	1.84[*]	(1.27,2.67)
Little/none	1,969	3.53	(0.42)[1]	1.00		5.20	(0.55)[1]	1.00	(1.00,1.00)
Spirituality									
High	629	6.67	(0.85)	0.99	(0.73,1.34)	8.87	(0.85)[3]	2.04[*]	(1.13,3.65)
Medium	1,543	6.25	(0.83)	0.92	(0.62,1.38)	6.18	(0.72)	1.06	(0.72,1.54)
Low	1,032	6.73	(0.86)	1.00		5.99	(0.64)[1]	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,486	5.65	(0.37)	0.77	(0.52,1.12)	6.70	(0.38)	1.11	(0.78,1.57)
No	1,718	7.26	(1.00)	1.00		6.33	(0.68)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	407	11.71	(2.91)[2]	2.17[*]	(1.24,3.82)	6.00	(1.49)	0.84	(0.34,2.08)
No	2,797	5.76	(0.32)[1]	1.00		6.61	(0.45)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,179	8.78	(0.62)[2]	1.75[*]	(1.38,2.23)	6.56	(0.48)	1.04	(0.70,1.53)
No	2,025	5.20	(0.57)[1]	1.00		6.43	(0.68)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	471	12.57	(2.01)[2]	2.53[*]	(1.77,3.62)	7.33	(0.92)	1.33	(0.78,2.24)
No	2,733	5.38	(0.34)[1]	1.00		6.24	(0.53)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	513	10.27	(1.76)[2]	1.91[*]	(1.36,2.69)	7.57	(1.02)	1.44	(0.83,2.50)
No	2,691	5.64	(0.34)[1]	1.00		6.16	(0.53)	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	729	9.88	(1.72)[2]	1.98[*]	(1.31,3.00)	6.09	(1.06)	0.84	(0.42,1.66)
No	2,475	5.25	(0.28)[1]	1.00		6.73	(0.45)	1.00	(1.00,1.00)

(continued)

Table B.3.   Positive Screen for PTSD[a] (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Need for Further Depression Evaluation									
Yes	552	27.77	$(1.40)^2$	20.87[*]	(13.13,33.18)	10.75	$(1.14)^2$	4.90[*]	(3.35,7.16)
No	2,652	1.81	$(0.31)^1$	1.00		3.53	$(0.34)^1$	1.00	(1.00,1.00)
Generalized Anxiety, Past Month									
Yes	316	38.26	$(2.16)^2$	19.24[*]	(12.80,28.93)	11.60	$(0.91)^2$	4.09[*]	(2.59,6.43)
No	2,888	3.12	$(0.44)^1$	1.00		4.66	$(0.59)^1$	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	377	36.25	$(2.64)^2$	22.18[*]	(14.19,34.67)	11.59	$(0.99)^2$	4.49[*]	(2.51,8.04)
No	2,827	2.50	$(0.32)^1$	1.00		4.17	$(0.55)^1$	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	36.82	$(4.64)^2$	9.55[*]	(6.51,14.00)	7.78	(1.12)	1.42	(0.88,2.30)
No	3,133	5.75	$(0.36)^1$	1.00		6.38	(0.47)	1.00	(1.00,1.00)
Active Coping									
Yes	2,401	5.61	$(0.34)^2$	0.62[*]	(0.42,0.91)	6.31	(0.50)	0.86	(0.65,1.14)
No	803	8.73	$(1.42)^1$	1.00		6.88	(0.55)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	107	35.83	$(4.63)^2$	10.12[*]	(6.70,15.29)	8.29	(1.43)	1.65	(0.76,3.58)
No	3,097	5.23	$(0.33)^1$	1.00		6.23	(0.52)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who screened positive for PTSD symptoms. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.
[a]PTSD is posttraumatic stress disorder. Meeting screening criteria suggests a need for further evaluation; it is not a clinical diagnosis. Positive screen for PTSD based on PCL-C score of 50 or greater.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table B.4. Serious Psychological Distress[a]

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,204	11.81	(1.10)	1.00		11.81	(1.10)	0.01*	(0.00,0.05)
Gender									
Male	2,462	10.34	(1.22)[2]	0.41*	(0.29,0.57)	11.09	(1.09)[2]	0.52*	(0.33,0.81)
Female	742	22.02	(1.99)[1]	1.00		15.85	(2.15)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,843	11.51	(1.23)[2]	0.79	(0.61,1.01)	11.97	(1.20)	1.21	(0.96,1.52)
OCONUS	361	14.17	(0.36)[1]	1.00		10.80	(0.70)	1.00	(1.00,1.00)
Age Group									
20 and younger	198	17.73	(3.28)[3,4]	2.61*	(2.00,3.41)	14.49	(1.86)[3,4]	1.93*	(1.43,2.59)
21–25	771	14.08	(1.91)[4]	1.99*	(1.48,2.67)	12.02	(1.39)	1.37	(0.96,1.95)
26–34	1,048	10.91	(1.35)[1,4]	1.48*	(1.03,2.14)	11.66	(1.00)[1]	1.29	(0.83,2.01)
35 and older	1,187	7.62	(1.07)[1,2,3]	1.00		10.12	(1.50)[1]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,447	12.13	(1.29)	0.90	(0.57,1.40)	12.48	(1.16)	1.19	(0.69,2.07)
African American, non-Hispanic	182	8.23	(2.11)	0.58	(0.31,1.09)	9.60	(1.67)	0.73	(0.35,1.54)
Hispanic	349	9.49	(2.60)	0.68	(0.41,1.14)	8.97	(1.57)	0.65	(0.37,1.15)
Other	226	13.35	(2.58)	1.00		11.35	(2.06)	1.00	(1.00,1.00)
Education									
High school or less	760	13.52	(2.39)[3]	1.72*	(1.26,2.34)	11.44	(1.40)	0.75	(0.43,1.31)
Some college	1,508	12.33	(1.03)[3]	1.55	(0.98,2.45)	11.55	(1.04)	0.77	(0.31,1.87)
College graduate or higher	936	8.34	(1.59)[1,2]	1.00		13.30	(2.76)	1.00	(1.00,1.00)
Family Status									
Not married	1,351	14.24	(1.54)[3]	1.65*	(1.39,1.96)	12.57	(1.27)	1.33	(0.77,2.30)
Married, spouse not present	195	13.54	(1.91)[3]	1.56*	(1.23,1.98)	12.16	(0.82)	1.25	(0.73,2.14)
Married, spouse present	1,658	9.12	(0.83)[1,2]	1.00		10.77	(1.59)	1.00	(1.00,1.00)

(continued)

Table B.4. Serious Psychological Distress[a] (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,350	9.94	(1.40)[2]	0.74	(0.55,1.01)	12.04	(1.88)	1.05	(0.62,1.80)
No	1,854	12.91	(1.26)[1]	1.00		11.71	(1.03)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	403	16.02	(2.53)[3,4,5,6]	2.95[*]	(1.95,4.45)	11.59	(1.40)	1.23	(0.43,3.49)
E4–E6	1,382	13.15	(1.56)[3,4,5,6]	2.34[*]	(1.27,4.31)	12.30	(1.40)[5]	1.37	(0.48,3.92)
E7–E9	423	7.86	(1.81)[1,2]	1.32	(0.72,2.42)	12.09	(1.91)	1.33	(0.49,3.57)
W1–W5	248	8.47	(2.13)[1,2]	1.43	(0.56,3.64)	12.35	(2.73)	1.38	(0.40,4.77)
O1–O3	404	7.90	(2.00)[1,2]	1.33	(0.59,2.96)	10.08	(1.58)[2]	0.95	(0.38,2.40)
O4–O10	344	6.08	(1.64)[1,2]	1.00		10.35	(2.49)	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,215	12.16	(0.91)	1.06	(0.82,1.37)	12.04	(0.96)	1.06	(0.85,1.33)
No	1,989	11.58	(1.47)	1.00		11.66	(1.27)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	953	6.43	(0.82)[2,3]	0.16[*]	(0.10,0.28)	11.67	(1.28)	0.86	(0.44,1.66)
5–6 hours	1,963	11.47	(1.17)[1,3]	0.31[*]	(0.23,0.40)	11.66	(1.01)	0.85	(0.52,1.41)
4 hours or less	288	29.75	(4.02)[1,2]	1.00		12.70	(2.40)	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,983	15.77	(1.27)[2]	3.06[*]	(2.41,3.87)	12.18	(0.94)	1.22	(0.87,1.70)
Little/none	1,221	5.77	(0.92)[1]	1.00		10.93	(1.64)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,313	18.85	(1.68)[2]	3.03[*]	(2.32,3.96)	13.44	(1.36)[2]	1.63[*]	(1.23,2.17)
Little/none	1,891	7.11	(0.91)[1]	1.00		10.26	(0.99)[1]	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,372	18.39	(1.71)[2]	2.87[*]	(2.39,3.45)	13.94	(1.53)[2]	1.85[*]	(1.40,2.45)
No	1,832	7.27	(0.59)[1]	1.00		9.88	(0.77)[1]	1.00	(1.00,1.00)

(continued)

Table B.4. Serious Psychological Distress[a] (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,235	16.17	(1.93)[2]	2.17*	(1.65,2.86)	12.89	(1.30)	1.40	(0.98,2.00)
Little/none	1,969	8.15	(0.78)[1]	1.00		10.73	(1.20)	1.00	(1.00,1.00)
Spirituality									
High	629	8.94	(1.24)[2,3]	0.72*	(0.55,0.95)	10.60	(1.39)	0.98	(0.64,1.49)
Medium	1,543	12.70	(1.24)[1]	1.07	(0.76,1.50)	13.02	(1.45)[3]	1.43	(0.99,2.06)
Low	1,032	11.99	(1.66)[1]	1.00		10.73	(0.99)[2]	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,486	9.98	(0.68)[2]	0.71*	(0.52,0.96)	11.62	(1.03)	0.95	(0.73,1.24)
No	1,718	13.51	(1.79)[1]	1.00		11.96	(1.27)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	407	24.61	(3.73)[2]	2.93*	(2.19,3.93)	18.37	(2.07)[2]	2.67*	(1.93,3.71)
No	2,797	10.02	(0.80)[1]	1.00		10.73	(1.05)[1]	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,179	15.22	(1.65)[2]	1.63*	(1.28,2.08)	11.28	(1.36)	0.86	(0.58,1.27)
No	2,025	9.91	(1.05)[1]	1.00		12.23	(1.15)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	471	19.40	(3.05)[2]	2.07*	(1.50,2.85)	12.62	(1.44)	1.16	(0.87,1.57)
No	2,733	10.44	(0.86)[1]	1.00		11.62	(1.09)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	513	14.20	(3.69)	1.30	(0.77,2.19)	10.13	(1.63)[2]	0.70	(0.49,1.01)
No	2,691	11.28	(0.63)	1.00		12.28	(1.01)[1]	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	729	16.80	(2.99)[2]	1.82*	(1.28,2.57)	11.21	(1.80)	0.87	(0.58,1.30)
No	2,475	10.00	(0.51)[1]	1.00		12.11	(0.81)	1.00	(1.00,1.00)

(continued)

Table B.4. Serious Psychological Distress[a] (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Need for Further Depression Evaluation									
Yes	552	42.19	$(3.11)^2$	13.47^*	(10.30,17.62)	20.68	$(2.66)^2$	4.18^*	(2.91,5.99)
No	2,652	5.14	$(0.37)^1$	1.00		8.30	$(0.50)^1$	1.00	(1.00,1.00)
Generalized Anxiety, Past Month									
Yes	316	53.88	$(3.92)^2$	14.71^*	(9.27,23.35)	23.06	$(2.69)^2$	4.25^*	(2.32,7.81)
No	2,888	7.36	$(1.00)^1$	1.00		9.74	$(1.23)^1$	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	192	66.01	$(4.05)^2$	22.18^*	(14.19,34.67)	23.29	$(2.88)^2$	4.02^*	(2.36,6.82)
No	3,012	8.05	$(0.91)^1$	1.00		10.34	$(1.18)^1$	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	57.95	$(5.14)^2$	11.51^*	(7.76,17.07)	23.89	$(4.04)^2$	3.97^*	(1.81,8.72)
No	3,133	10.69	$(1.01)^1$	1.00		11.39	$(1.13)^1$	1.00	(1.00,1.00)
Active Coping									
Yes	2,401	10.85	(0.67)	0.73^*	(0.54,0.99)	11.91	(1.10)	1.05	(0.85,1.30)
No	803	14.26	(2.41)	1.00		11.59	(1.25)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	107	52.52	$(7.33)^2$	9.88^*	(6.07,16.08)	20.17	$(4.54)^2$	2.90^*	(1.26,6.71)
No	3,097	10.07	$(0.71)^1$	1.00		11.24	$(0.95)^1$	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who are considered to be in serious psychological distress. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

[a]Positive screen for serious psychological distress based on K–6 score of 13 or greater.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table B.5.   Generalized Anxiety, Past Month

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,204	9.58	(0.63)	1.00		9.58	(0.63)	0.03[*]	(0.01,0.09)
Gender									
Male	2,462	8.37	(0.62)[2]	0.42[*]	(0.35,0.50)	8.83	(0.59)[2]	0.46[*]	(0.35,0.61)
Female	742	17.94	(1.34)[1]	1.00		13.84	(1.34)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,843	9.26	(0.70)[2]	0.75[*]	(0.62,0.90)	9.61	(0.66)	1.04	(0.85,1.27)
OCONUS	361	12.01	(0.38)[1]	1.00		9.38	(0.66)	1.00	(1.00,1.00)
Age Group									
20 and younger	198	12.20	(2.27)[4]	1.83[*]	(1.19,2.80)	12.35	(1.36)[4]	2.26[*]	(1.54,3.31)
21–25	771	11.11	(1.41)[4]	1.64[*]	(1.12,2.42)	10.62	(1.24)[4]	1.74[*]	(1.15,2.65)
26–34	1,048	9.25	(1.30)	1.34	(0.82,2.20)	9.24	(1.03)	1.38	(0.94,2.01)
35 and older	1,187	7.06	(0.94)[1,2]	1.00		7.62	(0.64)[1,2]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,447	9.50	(0.77)	0.90	(0.54,1.51)	9.78	(0.82)	1.43	(0.77,2.63)
African American, non-Hispanic	182	8.24	(2.19)	0.77	(0.36,1.64)	9.80	(2.03)	1.43	(0.61,3.35)
Hispanic	349	9.84	(0.92)	0.94	(0.52,1.69)	10.41	(1.09)	1.59	(0.69,3.66)
Other	226	10.43	(2.12)	1.00		7.93	(1.30)	1.00	(1.00,1.00)
Education									
High school or less	760	10.14	(1.67)	1.52	(0.99,2.34)	8.72	(1.14)	0.67	(0.42,1.09)
Some college	1,508	10.48	(0.94)[3]	1.58[*]	(1.14,2.18)	9.71	(0.78)	0.81	(0.55,1.19)
College graduate or higher	936	6.90	(0.89)[2]	1.00		10.95	(0.85)	1.00	(1.00,1.00)
Family Status									
Not married	1,351	10.02	(0.85)[3]	1.18[*]	(1.01,1.38)	8.89	(0.61)	0.82	(0.63,1.06)
Married, spouse not present	195	14.24	(5.42)	1.76	(0.71,4.37)	13.26	(4.95)	1.64	(0.41,6.55)
Married, spouse present	1,658	8.63	(0.59)[1]	1.00		10.00	(0.88)	1.00	(1.00,1.00)

(continued)

Table B.5. Generalized Anxiety, Past Month (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,350	9.83	(1.10)	1.05	(0.76,1.44)	10.57	(0.70)	1.31	(0.90,1.90)
No	1,854	9.43	(0.80)	1.00		9.04	(0.83)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	403	10.18	(2.13)[6]	1.77[*]	(1.05,2.98)	7.94	(1.77)[4]	0.98	(0.38,2.47)
E4–E6	1,382	11.12	(1.09)[3,5,6]	1.96[*]	(1.28,2.98)	10.36	(0.84)	1.53	(0.75,3.14)
E7–E9	423	6.59	(1.65)[2]	1.10	(0.60,2.03)	9.44	(1.02)	1.30	(0.54,3.15)
W1–W5	248	9.33	(2.13)	1.61	(0.96,2.70)	11.34	(2.16)[1]	1.79	(0.86,3.73)
O1–O3	404	6.42	(1.75)[2]	1.07	(0.58,1.97)	8.50	(2.22)	1.09	(0.60,1.98)
O4–O10	344	6.01	(1.19)[1,2]	1.00		8.06	(1.71)	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,215	9.43	(0.68)	0.97	(0.77,1.23)	9.09	(0.66)	0.86	(0.68,1.10)
No	1,989	9.67	(0.86)	1.00		9.92	(0.73)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	953	3.08	(0.77)[2,3]	0.07[*]	(0.04,0.14)	5.60	(0.90)[2,3]	0.16[*]	(0.09,0.30)
5–6 hours	1,963	9.23	(0.94)[1,3]	0.23[*]	(0.16,0.32)	9.13	(0.82)[1,3]	0.34[*]	(0.23,0.50)
4 hours or less	288	30.83	(2.57)[1,2]	1.00		17.47	(1.55)[1,2]	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,983	14.05	(1.11)[2]	5.76[*]	(3.41,9.74)	11.29	(0.86)[2]	3.36[*]	(1.98,5.70)
Little/none	1,221	2.76	(0.51)[1]	1.00		5.21	(0.69)[1]	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,313	14.85	(1.08)[2]	2.70[*]	(2.05,3.57)	9.56	(0.88)	0.99	(0.72,1.38)
Little/none	1,891	6.06	(0.69)[1]	1.00		9.60	(0.61)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,372	13.26	(0.79)[2]	2.02[*]	(1.69,2.42)	9.00	(0.78)[2]	0.80	(0.64,1.00)
No	1,832	7.03	(0.58)[1]	1.00		10.22	(0.58)[1]	1.00	(1.00,1.00)

(continued)

Table B.5. Generalized Anxiety, Past Month (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,235	12.18	(1.01)[2]	1.74[*]	(1.42,2.13)	9.96	(0.65)	1.14	(0.87,1.50)
Little/none	1,969	7.39	(0.53)[1]	1.00		9.20	(0.79)	1.00	(1.00,1.00)
Spirituality									
High	629	9.39	(1.20)	1.03	(0.81,1.30)	10.20	(1.24)	1.31	(0.89,1.93)
Medium	1,543	9.92	(0.69)	1.09	(0.79,1.50)	9.99	(0.66)	1.26	(0.92,1.75)
Low	1,032	9.18	(1.09)	1.00		8.71	(0.79)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,486	7.16	(0.47)[2]	0.57[*]	(0.47,0.70)	8.20	(0.85)[2]	0.64[*]	(0.44,0.93)
No	1,718	11.83	(0.96)[1]	1.00		10.68	(0.75)[1]	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	407	14.31	(1.90)[2]	1.71[*]	(1.27,2.29)	7.21	(0.68)[2]	0.56[*]	(0.45,0.70)
No	2,797	8.92	(0.60)[1]	1.00		10.10	(0.65)[1]	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,179	13.44	(1.20)[2]	1.94[*]	(1.50,2.50)	11.48	(0.99)[2]	1.73[*]	(1.17,2.55)
No	2,025	7.42	(0.64)[1]	1.00		8.31	(0.74)[1]	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	471	15.80	(1.51)[2]	2.03[*]	(1.66,2.49)	10.79	(0.97)	1.29	(0.97,1.71)
No	2,733	8.45	(0.57)[1]	1.00		9.29	(0.65)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	513	9.61	(1.57)	1.00	(0.63,1.60)	7.77	(1.03)	0.64	(0.33,1.27)
No	2,691	9.57	(0.82)	1.00		10.07	(0.92)	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	729	13.55	(1.73)[2]	1.77[*]	(1.24,2.52)	9.97	(1.20)	1.11	(0.72,1.69)
No	2,475	8.14	(0.61)[1]	1.00		9.39	(0.60)	1.00	(1.00,1.00)

(continued)

Table B.5.   Generalized Anxiety, Past Month (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Need for Further Depression Evaluation									
Yes	552	34.35	$(2.48)^2$	12.13^*	(7.38,19.94)	16.37	$(2.05)^2$	3.90^*	(2.08,7.33)
No	2,652	4.14	$(0.66)^1$	1.00		6.47	$(0.92)^1$	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	192	56.50	$(3.23)^2$	19.24^*	(12.80,28.93)	18.41	$(2.31)^2$	3.70^*	(2.22,6.16)
No	3,012	6.32	$(0.60)^1$	1.00		8.08	$(0.75)^1$	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	377	43.69	$(3.79)^2$	14.71^*	(9.27,23.35)	18.19	$(2.78)^2$	4.14^*	(2.18,7.85)
No	2,827	5.01	$(0.53)^1$	1.00		7.07	$(0.73)^1$	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	32.32	$(4.12)^2$	4.81^*	(3.31,7.01)	6.61	$(1.38)^2$	0.51^*	(0.27,0.99)
No	3,133	9.03	$(0.57)^1$	1.00		9.80	$(0.64)^1$	1.00	(1.00,1.00)
Active Coping									
Yes	2,401	8.82	(0.61)	0.74	(0.53,1.05)	9.56	(0.63)	0.99	(0.71,1.38)
No	803	11.52	(1.58)	1.00		9.61	(0.97)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	107	35.63	$(7.22)^2$	5.99^*	(2.95,12.14)	10.59	(2.90)	1.21	(0.43,3.40)
No	3,097	8.46	$(0.63)^1$	1.00		9.47	(0.70)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who indicated a need for further anxiety evaluation in the past 30 days. Positive screen for generalized anxiety based on report of (1) feeling nervous, anxious, or on edge, or worry a lot about different things (the first questions in the set) for several days or more, and (2) report of experiencing three or more symptoms on more than half of the days in the past 30 days. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table B.6.   History of Lifetime Physical/Sexual Abuse

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,204	40.85	(1.49)	1.00		40.85	(1.49)	1.17	(0.70,1.94)
Gender									
Male	2,462	38.56	(1.82)[2]	0.48[*]	(0.36,0.64)	38.75	(1.81)[2]	0.47[*]	(0.34,0.65)
Female	742	56.77	(2.18)[1]	1.00		55.81	(2.40)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,843	40.10	(1.60)[2]	0.77[*]	(0.67,0.88)	40.08	(1.53)[2]	0.74[*]	(0.66,0.83)
OCONUS	361	46.65	(0.14)[1]	1.00		46.87	(0.88)[1]	1.00	(1.00,1.00)
Age Group									
20 and younger	198	32.14	(3.97)[2,3,4]	0.62[*]	(0.43,0.87)	28.73	(2.78)[2,3,4]	0.39[*]	(0.27,0.56)
21–25	771	41.24	(1.55)[1]	0.91	(0.76,1.11)	38.30	(1.14)[1,4]	0.63[*]	(0.48,0.83)
26–34	1,048	41.75	(2.44)[1]	0.93	(0.70,1.24)	41.77	(2.59)[1,4]	0.74[*]	(0.55,0.99)
35 and older	1,187	43.43	(2.11)[1]	1.00		48.51	(3.00)[1,2,3]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,447	38.71	(1.47)[3,4]	0.67[*]	(0.58,0.79)	38.67	(1.53)[2,3,4]	0.68[*]	(0.58,0.80)
African American, non-Hispanic	182	44.10	(3.04)	0.84	(0.65,1.09)	45.07	(2.57)[1]	0.91	(0.69,1.21)
Hispanic	349	45.81	(2.17)[1]	0.90	(0.71,1.14)	47.33	(1.53)[1]	1.01	(0.76,1.34)
Other	226	48.39	(2.75)[1]	1.00		47.16	(2.95)[1]	1.00	(1.00,1.00)
Education									
High school or less	760	39.92	(2.58)	1.09	(0.83,1.42)	42.62	(2.37)	1.25	(0.92,1.70)
Some college	1,508	42.88	(1.64)[3]	1.23[*]	(1.05,1.44)	41.24	(1.77)	1.18	(0.96,1.45)
College graduate or higher	936	37.89	(1.51)[2]	1.00		37.76	(1.94)	1.00	(1.00,1.00)
Family Status									
Not married	1,351	41.11	(1.51)	1.03	(0.89,1.19)	42.84	(1.31)	1.19	(0.97,1.46)
Married, spouse not present	195	43.02	(5.56)	1.12	(0.75,1.66)	39.98	(5.14)	1.05	(0.73,1.51)
Married, spouse present	1,658	40.36	(1.72)	1.00		39.01	(2.06)	1.00	(1.00,1.00)

(continued)

Table B.6. History of Lifetime Physical/Sexual Abuse (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,350	43.89	(1.75)[2]	1.22[*]	(1.09,1.37)	43.26	(1.54)[2]	1.19[*]	(1.09,1.30)
No	1,854	39.08	(1.54)[1]	1.00		39.42	(1.57)[1]	1.00	(1.00,1.00)
Pay Grade									
E1–E3	403	36.79	(4.73)	1.02	(0.55,1.87)	42.10	(5.63)	1.22	(0.53,2.83)
E4–E6	1,382	42.30	(1.85)	1.28	(0.94,1.74)	41.12	(1.90)	1.17	(0.74,1.86)
E7–E9	423	42.84	(3.75)	1.31	(0.87,1.98)	38.59	(2.34)	1.04	(0.61,1.76)
W1–W5	248	43.06	(3.84)	1.32	(0.81,2.16)	39.71	(4.69)	1.10	(0.61,1.96)
O1–O3	404	39.60	(3.18)	1.14	(0.70,1.87)	42.74	(2.57)	1.26	(0.68,2.34)
O4–O10	344	36.41	(3.14)	1.00		37.75	(4.42)	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,215	41.16	(2.43)	1.02	(0.75,1.39)	40.79	(2.13)	0.99	(0.76,1.29)
No	1,989	40.65	(2.26)	1.00		40.90	(1.98)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	953	34.51	(1.50)[2,3]	0.44[*]	(0.33,0.57)	36.69	(1.50)[2,3]	0.63[*]	(0.47,0.86)
5–6 hours	1,963	41.53	(1.82)[1,3]	0.59[*]	(0.44,0.78)	41.80	(1.75)[1]	0.80	(0.60,1.08)
4 hours or less	288	54.78	(3.75)[1,2]	1.00		46.69	(3.86)[1]	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,983	45.13	(1.51)[2]	1.57[*]	(1.39,1.78)	42.64	(1.58)[2]	1.23[*]	(1.11,1.37)
Little/none	1,221	34.34	(1.78)[1]	1.00		38.06	(1.62)[1]	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,313	46.76	(1.57)[2]	1.50[*]	(1.33,1.69)	42.52	(1.62)[2]	1.14[*]	(1.02,1.27)
Little/none	1,891	36.91	(1.61)[1]	1.00		39.73	(1.57)[1]	1.00	(1.00,1.00)
Risk Taking/Impulsivity									
A lot/some	1,235	42.13	(2.00)	1.10	(0.96,1.26)	41.59	(1.50)	1.06	(0.89,1.26)
Little/none	1,969	39.78	(1.40)	1.00		40.25	(1.93)	1.00	(1.00,1.00)

Table B.6. History of Lifetime Physical/Sexual Abuse (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Spirituality									
High	629	42.76	(2.86)	1.12	(0.86,1.45)	41.41	(3.21)	1.00	(0.70,1.44)
Medium	1,543	40.75	(1.43)	1.03	(0.84,1.26)	40.29	(1.24)	0.95	(0.79,1.15)
Low	1,032	40.03	(2.46)	1.00		41.38	(2.45)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,486	39.10	(2.19)	0.87	(0.73,1.04)	40.74	(2.49)	0.99	(0.79,1.25)
No	1,718	42.48	(1.33)	1.00		40.96	(1.22)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	407	49.81	$(3.57)^2$	1.51*	(1.12,2.05)	40.92	(3.21)	1.00	(0.75,1.34)
No	2,797	39.60	$(1.59)^1$	1.00		40.85	(1.51)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,179	49.75	$(1.23)^2$	1.77*	(1.45,2.16)	47.06	$(1.21)^2$	1.55*	(1.28,1.87)
No	2,025	35.89	$(2.17)^1$	1.00		37.33	$(2.09)^1$	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	471	48.70	$(2.12)^2$	1.46*	(1.19,1.79)	43.51	(1.87)	1.15	(0.93,1.43)
No	2,733	39.43	$(1.66)^1$	1.00		40.37	(1.69)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	513	44.11	(2.80)	1.18	(0.97,1.43)	42.38	(2.60)	1.09	(0.88,1.36)
No	2,691	40.13	(1.45)	1.00		40.51	(1.52)	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	729	48.36	$(2.75)^2$	1.52*	(1.23,1.88)	47.52	$(2.45)^2$	1.50*	(1.20,1.89)
No	2,475	38.13	$(1.47)^1$	1.00		38.48	$(1.62)^1$	1.00	(1.00,1.00)
Need for Further Depression Evaluation									
Yes	552	56.04	$(1.54)^2$	2.12*	(1.86,2.43)	46.09	$(1.91)^2$	1.33*	(1.07,1.65)
No	2,652	37.52	$(1.37)^1$	1.00		39.73	$(1.63)^1$	1.00	(1.00,1.00)

(continued)

Table B.6.   History of Lifetime Physical/Sexual Abuse (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Generalized Anxiety, Past Month									
Yes	316	56.56	$(2.24)^2$	2.02*	(1.69,2.42)	37.36	(2.32)	0.83	(0.68,1.02)
No	2,888	39.19	$(1.45)^1$	1.00		41.23	(1.53)	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	192	64.70	$(3.38)^2$	2.84*	(2.14,3.78)	46.53	(4.03)	1.31	(0.91,1.90)
No	3,012	39.20	$(1.38)^1$	1.00		40.48	(1.51)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	377	63.59	$(2.45)^2$	2.87*	(2.39,3.45)	53.48	$(3.69)^2$	1.87*	(1.39,2.53)
No	2,827	37.81	$(1.22)^1$	1.00		39.20	$(1.33)^1$	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	59.22	$(6.50)^2$	2.14*	(1.20,3.83)	42.22	(6.89)	1.07	(0.54,2.09)
No	3,133	40.41	$(1.50)^1$	1.00		40.82	(1.54)	1.00	(1.00,1.00)
Active Coping									
Yes	2,401	42.44	$(1.31)^2$	1.27*	(1.10,1.46)	42.69	$(1.60)^2$	1.36*	(1.16,1.59)
No	803	36.81	$(2.36)^1$	1.00		36.14	$(1.90)^1$	1.00	(1.00,1.00)
Avoidance Coping									
Yes	107	63.50	$(3.65)^2$	2.62*	(1.98,3.47)	45.28	(4.73)	1.23	(0.83,1.83)
No	3,097	39.88	$(1.38)^1$	1.00		40.67	(1.45)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported a history of physical and/or sexual abuse (any abuse experience in their lifetime). The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

APPENDIX C:

OTHER HEALTH-RELATED BEHAVIORS AND JOB SATISFACTION TABLES

Table C.1. Overweight

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,171	62.27	(0.95)	1.00		62.27	(0.95)	1.31	(0.63,2.74)
Gender									
Male	2,437	65.20	(1.01)[2]	2.58[*]	(1.99,3.36)	64.82	(1.01)[2]	2.53[*]	(1.89,3.37)
Female	734	42.02	(2.96)[1]	1.00		45.04	(2.74)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,813	61.94	(1.04)[2]	0.88[*]	(0.81,0.96)	61.65	(1.07)[2]	0.76[*]	(0.68,0.86)
OCONUS	358	64.83	(0.03)[1]	1.00		66.92	(0.77)[1]	1.00	(1.00,1.00)
Age Group									
20 and younger	195	31.30	(3.57)[2,3,4]	0.13[*]	(0.09,0.18)	38.82	(4.19)[2,3,4]	0.21[*]	(0.13,0.33)
21–25	765	54.81	(1.93)[1,3,4]	0.35[*]	(0.28,0.43)	58.03	(1.93)[1,3,4]	0.48[*]	(0.35,0.66)
26–34	1,038	68.46	(1.24)[1,2,4]	0.62[*]	(0.49,0.79)	67.39	(1.13)[1,2,4]	0.74[*]	(0.58,0.95)
35 and older	1,173	77.78	(1.39)[1,2,3]	1.00		73.14	(1.97)[1,2,3]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,425	60.37	(1.17)[2,3]	0.93	(0.61,1.41)	60.35	(1.20)[2,3]	0.87	(0.57,1.35)
African American, non-Hispanic	179	76.57	(3.99)[1]	1.99	(0.90,4.42)	72.68	(3.45)[1]	1.67	(0.75,3.70)
Hispanic	343	69.14	(3.23)[1]	1.36	(0.74,2.52)	70.38	(3.24)[1]	1.47	(0.71,3.04)
Other	224	62.14	(5.10)	1.00		63.06	(4.53)	1.00	(1.00,1.00)
Education									
High school or less	750	55.37	(1.93)[2,3]	0.69[*]	(0.55,0.85)	62.53	(1.06)	1.01	(0.73,1.41)
Some college	1,490	65.79	(1.21)[1]	1.06	(0.84,1.34)	62.09	(1.02)	0.99	(0.75,1.31)
College graduate or higher	931	64.37	(2.25)[1]	1.00		62.28	(2.93)	1.00	(1.00,1.00)
Family Status									
Not married	1,333	52.52	(1.51)[2,3]	0.44[*]	(0.36,0.54)	61.41	(1.25)	0.92	(0.74,1.15)
Married, spouse not present	192	70.04	(4.55)[1]	0.93	(0.57,1.52)	63.80	(5.38)	1.03	(0.56,1.90)
Married, spouse present	1,646	71.44	(1.42)[1]	1.00		63.12	(1.67)	1.00	(1.00,1.00)

(continued)

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Table C.1. Overweight (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,337	74.67	$(0.96)^{2}$	2.41*	(2.07,2.82)	66.42	$(1.18)^{2}$	1.36*	(1.19,1.56)
No	1,834	54.99	$(1.41)^{1}$	1.00		60.13	$(1.16)^{1}$	1.00	(1.00,1.00)
Pay Grade									
E1–E3	399	37.92	$(2.67)^{2,3,4,5,6}$	0.31*	(0.24,0.41)	55.70	$(2.50)^{2,3,4}$	1.18	(0.83,1.67)
E4–E6	1,366	63.69	$(1.92)^{1,3,4}$	0.90	(0.63,1.30)	64.44	$(2.24)^{1,6}$	1.79*	(1.12,2.84)
E7–E9	418	81.11	$(1.98)^{1,2,5,6}$	2.21*	(1.51,3.24)	68.96	$(2.88)^{1,5,6}$	2.25*	(1.61,3.16)
W1–W5	245	84.66	$(2.51)^{1,2,5,6}$	2.84*	(2.09,3.86)	71.79	$(3.92)^{1,5,6}$	2.63*	(1.95,3.55)
O1–O3	402	60.96	$(2.47)^{1,3,4}$	0.80	(0.60,1.08)	58.68	$(2.54)^{3,4}$	1.35	(0.97,1.88)
O4–O10	341	66.04	$(3.16)^{1,3,4}$	1.00		52.13	$(3.12)^{2,3,4}$	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,206	63.59	(1.20)	1.10	(0.89,1.35)	62.66	(1.04)	1.03	(0.84,1.27)
No	1,965	61.39	(1.67)	1.00		62.01	(1.56)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	946	59.68	(2.64)	0.85	(0.59,1.23)	59.40	$(1.96)^{3}$	0.75*	(0.56,0.99)
5–6 hours	1,943	63.23	(1.11)	0.99	(0.70,1.41)	63.09	(0.98)	0.89	(0.62,1.30)
4 hours or less	282	63.41	(3.91)	1.00		65.28	$(3.38)^{1}$	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,962	61.94	(1.24)	0.97	(0.88,1.06)	61.70	(1.17)	0.93	(0.82,1.05)
Little/none	1,209	62.76	(0.86)	1.00		63.15	(1.06)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,300	61.69	(1.45)	0.96	(0.83,1.12)	61.38	(1.33)	0.93	(0.79,1.10)
Little/none	1,871	62.65	(1.16)	1.00		62.86	(1.21)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,359	62.96	(0.24)	1.05	(0.93,1.19)	62.35	(0.65)	1.01	(0.88,1.16)
No	1,812	61.79	(1.53)	1.00		62.22	(1.41)	1.00	(1.00,1.00)

Table C.1. Overweight (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,223	57.62	(2.43)[2]	0.69[*]	(0.53,0.91)	61.27	(2.11)	0.91	(0.70,1.19)
Little/none	1,948	66.18	(1.11)[1]	1.00		63.17	(1.06)	1.00	(1.00,1.00)
Spirituality									
High	619	61.77	(2.61)	1.10	(0.94,1.30)	57.42	(2.69)[2]	0.81	(0.62,1.04)
Medium	1,527	64.41	(0.91)[3]	1.23[*]	(1.03,1.47)	64.20	(1.29)[1]	1.13	(0.88,1.44)
Low	1,025	59.45	(1.64)[2]	1.00		61.83	(1.69)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,474	60.17	(2.42)	0.84	(0.61,1.16)	61.26	(1.83)	0.91	(0.67,1.22)
No	1,697	64.23	(1.75)	1.00		63.24	(1.70)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	401	66.20	(3.24)	1.21	(0.83,1.79)	64.43	(3.18)	1.13	(0.72,1.77)
No	2,770	61.72	(1.38)	1.00		61.98	(1.38)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,167	66.05	(1.59)[2]	1.29[*]	(1.08,1.54)	64.58	(1.84)	1.19	(0.98,1.46)
No	2,004	60.16	(1.25)[1]	1.00		61.02	(0.96)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	464	59.55	(2.07)	0.87	(0.70,1.10)	60.16	(2.18)	0.88	(0.70,1.12)
No	2,707	62.76	(1.19)	1.00		62.64	(1.03)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	505	58.34	(1.55)[2]	0.82[*]	(0.70,0.96)	60.02	(1.16)[2]	0.87[*]	(0.77,0.99)
No	2,666	63.15	(1.08)[1]	1.00		62.81	(1.04)[1]	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	716	57.12	(1.43)[2]	0.75[*]	(0.64,0.87)	59.86	(0.86)	0.85	(0.72,1.01)
No	2,455	64.13	(1.16)[1]	1.00		63.17	(1.32)	1.00	(1.00,1.00)

(continued)

Table C.1. Overweight (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Need for Further Depression Evaluation									
Yes	546	54.60	$(4.03)^2$	0.68*	(0.47,0.98)	55.37	$(3.60)^2$	0.66*	(0.45,0.98)
No	2,625	63.95	$(1.14)^1$	1.00		63.77	$(1.17)^1$	1.00	(1.00,1.00)
Generalized Anxiety, Past Month									
Yes	311	57.45	(3.32)	0.80	(0.61,1.04)	61.19	(2.31)	0.94	(0.74,1.19)
No	2,860	62.78	(0.92)	1.00		62.39	(0.98)	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	185	58.10	(3.50)	0.83	(0.64,1.08)	65.38	(3.05)	1.18	(0.86,1.62)
No	2,986	62.55	(0.89)	1.00		62.05	(0.95)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	369	57.72	(3.16)	0.81	(0.62,1.05)	65.87	(3.01)	1.23	(0.90,1.69)
No	2,802	62.87	(0.98)	1.00		61.77	(0.87)	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	68	58.88	(6.62)	0.86	(0.48,1.55)	63.76	(8.05)	1.08	(0.45,2.59)
No	3,103	62.35	(1.01)	1.00		62.23	(1.04)	1.00	(1.00,1.00)
Active Coping									
Yes	2,379	63.19	(1.02)	1.15	(0.92,1.44)	62.49	(0.89)	1.04	(0.83,1.31)
No	792	59.90	(2.37)	1.00		61.71	(2.23)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	103	51.62	$(4.75)^2$	0.63*	(0.43,0.93)	63.66	(2.53)	1.08	(0.88,1.31)
No	3,068	62.71	$(0.98)^1$	1.00		62.21	(0.89)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who are considered to be overweight as indicated by a body mass index (BMI) of 25.0 or greater. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table C.2.   Vigorous Physical Exercise in Past 30 Days

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,204	48.14	(1.24)	1.00		48.14	(1.24)	0.67	(0.36,1.25)
Gender									
Male	2,462	48.96	(1.16)[2]	1.30[*]	(1.04,1.62)	49.27	(1.15)[2]	1.48[*]	(1.13,1.94)
Female	742	42.48	(2.93)[1]	1.00		40.39	(3.20)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,843	47.83	(1.33)[2]	0.90	(0.81,1.00)	47.83	(1.28)[2]	0.89[*]	(0.81,0.98)
OCONUS	361	50.52	(0.17)[1]	1.00		50.50	(0.63)[1]	1.00	(1.00,1.00)
Age Group									
20 and younger	198	55.09	(6.07)[4]	1.76[*]	(1.07,2.91)	57.26	(4.85)[4]	2.23[*]	(1.37,3.62)
21–25	771	52.04	(1.75)[3,4]	1.56[*]	(1.33,1.84)	52.77	(1.99)[3,4]	1.83[*]	(1.27,2.65)
26–34	1,048	47.83	(1.27)[2,4]	1.32[*]	(1.15,1.51)	48.36	(1.64)[2,4]	1.52[*]	(1.12,2.05)
35 and older	1,187	41.01	(1.21)[1,2,3]	1.00		38.86	(2.41)[1,2,3]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,447	46.96	(1.50)	0.83	(0.55,1.24)	47.28	(1.53)	0.85	(0.55,1.31)
African American, non-Hispanic	182	48.61	(2.95)	0.88	(0.57,1.36)	47.96	(2.56)	0.87	(0.52,1.46)
Hispanic	349	52.26	(3.74)	1.02	(0.55,1.89)	50.96	(4.04)	0.99	(0.50,1.96)
Other	226	51.72	(4.70)	1.00		51.14	(4.75)	1.00	(1.00,1.00)
Education									
High school or less	760	47.86	(2.21)	0.80	(0.59,1.09)	46.43	(1.54)	0.77	(0.56,1.05)
Some college	1,508	45.82	(2.58)	0.74	(0.53,1.03)	47.12	(2.77)	0.79	(0.54,1.16)
College graduate or higher	936	53.42	(2.11)	1.00		52.55	(2.36)	1.00	(1.00,1.00)
Family Status									
Not married	1,351	50.86	(2.47)[2]	1.22	(0.94,1.58)	48.39	(2.14)	1.01	(0.82,1.26)
Married, spouse not present	195	42.61	(4.84)[1]	0.87	(0.58,1.32)	46.48	(4.89)	0.93	(0.60,1.44)
Married, spouse present	1,658	45.93	(1.15)	1.00		48.06	(0.95)	1.00	(1.00,1.00)

Table C.2. Vigorous Physical Exercise in Past 30 Days (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,350	42.88	(1.05)[2]	0.72[*]	(0.60,0.85)	45.51	(2.15)	0.83	(0.64,1.08)
No	1,854	51.22	(1.88)[1]	1.00		49.69	(1.75)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	403	53.31	(4.43)[3,4]	1.13	(0.73,1.74)	48.13	(2.36)	0.85	(0.52,1.39)
E4–E6	1,382	47.28	(1.64)[3,4,5]	0.89	(0.66,1.19)	47.31	(1.35)	0.82	(0.54,1.25)
E7–E9	423	39.01	(3.81)[1,2,5,6]	0.63[*]	(0.40,1.00)	47.98	(4.63)	0.84	(0.57,1.26)
W1–W5	248	40.09	(3.53)[1,2,5,6]	0.66[*]	(0.50,0.88)	50.41	(3.81)	0.94	(0.66,1.33)
O1–O3	404	55.75	(2.21)[2,3,4]	1.25	(0.93,1.68)	49.12	(1.57)	0.89	(0.60,1.32)
O4–O10	344	50.26	(3.06)[3,4]	1.00		51.86	(4.91)	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,215	48.83	(1.04)	1.05	(0.89,1.23)	47.85	(0.80)	0.98	(0.84,1.15)
No	1,989	47.68	(1.85)	1.00		48.33	(1.84)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	953	55.34	(1.20)[2,3]	1.42[*]	(1.18,1.73)	52.62	(1.44)[2]	1.05	(0.86,1.28)
5–6 hours	1,963	45.26	(1.18)[1]	0.95	(0.76,1.19)	45.69	(1.23)[1,3]	0.78	(0.60,1.00)
4 hours or less	288	46.51	(2.88)[1]	1.00		51.51	(2.88)[2]	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,983	46.34	(1.47)	0.83	(0.69,1.01)	47.35	(1.43)	0.92	(0.73,1.15)
Little/none	1,221	50.89	(2.00)	1.00		49.33	(2.15)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,313	45.35	(1.73)[2]	0.83[*]	(0.74,0.94)	47.11	(1.96)	0.93	(0.79,1.09)
Little/none	1,891	50.00	(1.16)[1]	1.00		48.82	(1.16)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,372	46.07	(1.22)	0.87	(0.73,1.04)	48.04	(1.50)	0.99	(0.79,1.25)
No	1,832	49.57	(1.84)	1.00		48.21	(1.98)	1.00	(1.00,1.00)

(continued)

Table C.2. Vigorous Physical Exercise in Past 30 Days (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,235	51.87	(2.21)[2]	1.32*	(1.06,1.64)	52.41	(1.99)[2]	1.40*	(1.10,1.78)
Little/none	1,969	45.01	(1.33)[1]	1.00		44.64	(1.62)[1]	1.00	(1.00,1.00)
Spirituality									
High	629	53.06	(3.79)[3]	1.42*	(1.03,1.96)	50.08	(4.12)	1.18	(0.79,1.75)
Medium	1,543	49.06	(1.51)[3]	1.21*	(1.01,1.45)	48.70	(1.51)	1.11	(0.91,1.35)
Low	1,032	44.32	(1.80)[1,2]	1.00		46.30	(1.57)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	407	41.90	(4.58)	0.75	(0.51,1.10)	44.08	(4.44)	0.82	(0.55,1.21)
No	2,797	49.01	(1.23)	1.00		48.70	(1.20)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,179	47.62	(1.39)	0.97	(0.85,1.10)	49.25	(1.39)	1.08	(0.95,1.22)
No	2,025	48.43	(1.49)	1.00		47.53	(1.42)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	471	43.11	(3.33)	0.79	(0.61,1.02)	45.74	(3.16)	0.88	(0.69,1.14)
No	2,733	49.05	(1.13)	1.00		48.57	(1.14)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	513	44.20	(2.05)[2]	0.82*	(0.73,0.93)	46.69	(1.96)	0.93	(0.78,1.09)
No	2,691	49.02	(1.19)[1]	1.00		48.46	(1.32)	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	729	38.84	(2.39)[2]	0.60*	(0.50,0.71)	40.29	(2.04)[2]	0.63*	(0.54,0.74)
No	2,475	51.52	(1.16)[1]	1.00		50.99	(1.25)[1]	1.00	(1.00,1.00)
Need for Further Depression Evaluation									
Yes	552	40.68	(3.11)[2]	0.69*	(0.52,0.92)	45.25	(3.09)	0.86	(0.64,1.15)
No	2,652	49.78	(1.30)[1]	1.00		48.75	(1.30)	1.00	(1.00,1.00)

Table C.2. Vigorous Physical Exercise in Past 30 Days (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Generalized Anxiety, Past Month									
Yes	316	35.97	$(2.24)^2$	0.57*	(0.47,0.70)	39.82	$(3.30)^2$	0.67*	(0.47,0.94)
No	2,888	49.43	$(1.26)^1$	1.00		48.98	$(1.39)^1$	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	192	41.97	(4.53)	0.77	(0.52,1.12)	52.77	(3.85)	1.24	(0.87,1.76)
No	3,012	48.57	(1.25)	1.00		47.84	(1.30)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	377	40.68	$(3.58)^2$	0.71*	(0.52,0.96)	47.63	(2.66)	0.98	(0.77,1.23)
No	2,827	49.14	$(1.20)^1$	1.00		48.20	(1.27)	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	30.40	$(7.07)^2$	0.46*	(0.23,0.94)	37.68	(7.38)	0.62	(0.30,1.28)
No	3,133	48.57	$(1.28)^1$	1.00		48.38	(1.29)	1.00	(1.00,1.00)
Active Coping									
Yes	2,401	52.64	$(1.10)^2$	1.92*	(1.60,2.31)	52.19	$(1.24)^2$	1.87*	(1.53,2.28)
No	803	36.65	$(2.30)^1$	1.00		37.75	$(2.22)^1$	1.00	(1.00,1.00)
Avoidance Coping									
Yes	107	31.19	$(3.42)^2$	0.47*	(0.35,0.64)	42.30	(3.66)	0.77	(0.55,1.06)
No	3,097	48.87	$(1.22)^1$	1.00		48.37	(1.26)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported vigorous physical exercise in the past 30 days, as defined as participating in vigorous physical exercise (jogging, swimming continuous laps, high-impact aerobics, etc.) for 20 or more minutes a day at least 3 days per week. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1] Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2] Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3] Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4] Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5] Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6] Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table C.3. High Blood Pressure since Entering the Coast Guard

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,175	14.67	(1.39)	1.00		14.67	(1.39)	0.07[*]	(0.03,0.14)
Gender									
Male	2,437	15.86	(1.47)[2]	2.74[*]	(2.21,3.40)	15.69	(1.51)[2]	2.68[*]	(2.04,3.52)
Female	738	6.44	(1.09)[1]	1.00		7.04	(1.13)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,816	14.86	(1.56)	1.15	(0.90,1.47)	14.76	(1.51)	1.08	(0.86,1.35)
OCONUS	359	13.19	(0.14)	1.00		13.96	(0.67)	1.00	(1.00,1.00)
Age Group									
20 and younger	195	2.96	(1.11)[2,3,4]	0.08[*]	(0.04,0.17)	4.37	(1.76)[2,3,4]	0.14[*]	(0.06,0.32)
21–25	766	7.40	(1.15)[1,3,4]	0.21[*]	(0.17,0.25)	8.16	(1.79)[1,3,4]	0.27[*]	(0.15,0.47)
26–34	1,037	14.81	(1.29)[1,2,4]	0.45[*]	(0.36,0.56)	14.53	(1.09)[1,2,4]	0.54[*]	(0.42,0.69)
35 and older	1,177	27.93	(1.61)[1,2,3]	1.00		23.27	(1.93)[1,2,3]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,427	14.77	(1.41)[2]	1.22	(0.91,1.64)	14.50	(1.38)[2]	1.13	(0.91,1.39)
African American, non-Hispanic	181	19.94	(2.60)[1,3,4]	1.75[*]	(1.20,2.55)	19.52	(2.68)[1,4]	1.70[*]	(1.37,2.10)
Hispanic	343	13.94	(2.22)[2]	1.14	(0.76,1.71)	15.03	(2.20)	1.18	(0.80,1.75)
Other	224	12.46	(1.74)[2]	1.00		13.24	(1.57)[2]	1.00	(1.00,1.00)
Education									
High school or less	752	11.93	(1.65)[3]	0.69[*]	(0.56,0.86)	16.27	(1.94)[3]	1.29[*]	(1.02,1.63)
Some college	1,488	15.67	(1.84)	0.95	(0.69,1.32)	14.61	(1.94)	1.12	(0.70,1.80)
College graduate or higher	935	16.35	(1.63)[1]	1.00		13.41	(1.69)[1]	1.00	(1.00,1.00)
Family Status									
Not married	1,337	9.20	(1.19)[2,3]	0.44[*]	(0.37,0.52)	13.29	(2.18)[2]	0.86	(0.59,1.25)
Married, spouse not present	194	28.17	(2.37)[1,3]	1.69[*]	(1.34,2.14)	19.55	(2.90)[1]	1.44	(0.88,2.36)
Married, spouse present	1,644	18.84	(1.62)[1,2]	1.00		14.95	(1.26)	1.00	(1.00,1.00)

(continued)

Table C.3. High Blood Pressure since Entering the Coast Guard (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,341	20.82	(2.47)[2]	2.12[*]	(1.62,2.77)	15.00	(2.80)	1.06	(0.58,1.95)
No	1,834	11.05	(1.06)[1]	1.00		14.35	(1.38)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	399	3.79	(1.22)[2,3,4,5,6]	0.14[*]	(0.08,0.26)	8.80	(2.82)	0.56	(0.26,1.19)
E4–E6	1,365	12.74	(1.26)[1,3,4,6]	0.53[*]	(0.38,0.75)	13.98	(1.60)	0.99	(0.62,1.57)
E7–E9	420	30.58	(3.09)[1,2,5,6]	1.61[*]	(1.10,2.34)	18.16	(2.91)	1.40	(0.98,2.00)
W1–W5	245	28.74	(2.46)[1,2,5,6]	1.47[*]	(1.11,1.94)	17.16	(2.39)	1.30	(0.91,1.85)
O1–O3	402	14.54	(2.95)[1,3,4]	0.62	(0.35,1.09)	15.87	(3.66)	1.17	(0.68,2.00)
O4–O10	344	21.52	(1.79)[1,2,3,4]	1.00		14.10	(1.91)	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,204	14.38	(1.34)	0.96	(0.77,1.21)	13.91	(1.46)	0.89	(0.71,1.11)
No	1,971	14.86	(1.68)	1.00		15.20	(1.54)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	950	12.90	(1.20)[3]	0.61[*]	(0.39,0.94)	13.91	(1.54)	0.66	(0.40,1.10)
5–6 hours	1,940	14.70	(1.76)	0.71	(0.46,1.07)	14.34	(1.81)	0.69	(0.44,1.09)
4 hours or less	285	19.62	(3.26)[1]	1.00		18.80	(2.77)	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,962	17.01	(1.63)[2]	1.64[*]	(1.46,1.84)	15.87	(1.59)[2]	1.36[*]	(1.15,1.61)
Little/none	1,213	11.11	(1.17)[1]	1.00		12.55	(1.28)[1]	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,298	18.04	(1.65)[2]	1.55[*]	(1.21,1.98)	15.88	(1.50)	1.21	(0.86,1.72)
Little/none	1,877	12.42	(1.48)[1]	1.00		13.71	(1.80)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,360	17.50	(2.03)[2]	1.46[*]	(1.11,1.91)	16.07	(1.84)	1.25	(0.96,1.63)
No	1,815	12.71	(1.29)[1]	1.00		13.58	(1.34)	1.00	(1.00,1.00)

(continued)

Table C.3. High Blood Pressure since Entering the Coast Guard (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,226	12.17	$(1.32)^2$	0.69[*]	(0.55,0.86)	13.81	(1.38)	0.88	(0.69,1.12)
Little/none	1,949	16.78	$(1.69)^1$	1.00		15.26	(1.63)	1.00	(1.00,1.00)
Spirituality									
High	625	15.53	(2.62)	1.17	(0.81,1.69)	13.45	(2.11)	0.91	(0.60,1.39)
Medium	1,526	15.15	(1.11)	1.14	(0.87,1.50)	15.31	(1.34)	1.08	(0.74,1.58)
Low	1,024	13.55	(1.88)	1.00		14.44	(2.09)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,475	12.36	$(1.25)^2$	0.70[*]	(0.61,0.80)	13.64	$(1.35)^2$	0.84[*]	(0.72,0.99)
No	1,700	16.82	$(1.58)^1$	1.00		15.51	$(1.55)^1$	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	400	18.95	$(2.75)^2$	1.43[*]	(1.08,1.88)	16.89	(3.19)	1.25	(0.79,1.97)
No	2,775	14.08	$(1.28)^1$	1.00		14.33	(1.30)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,169	18.12	$(1.69)^2$	1.52[*]	(1.13,2.04)	15.62	(1.55)	1.15	(0.82,1.61)
No	2,006	12.74	$(1.59)^1$	1.00		14.03	(1.73)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	464	15.62	(2.14)	1.09	(0.82,1.45)	14.92	(1.95)	1.03	(0.76,1.39)
No	2,711	14.50	(1.40)	1.00		14.62	(1.42)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	504	17.87	(2.57)	1.34[*]	(1.02,1.77)	19.19	$(3.01)^2$	1.58[*]	(1.09,2.28)
No	2,671	13.96	(1.31)	1.00		13.74	$(1.26)^1$	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	719	13.58	(1.45)	0.89	(0.70,1.11)	13.50	(1.12)	0.86	(0.71,1.05)
No	2,456	15.07	(1.53)	1.00		15.08	(1.56)	1.00	(1.00,1.00)

(continued)

Table C.3. High Blood Pressure since Entering the Coast Guard (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Need for Further Depression Evaluation									
Yes	548	19.40	(2.01)[2]	1.53[*]	(1.16,2.01)	17.35	(2.36)	1.33	(1.00,1.78)
No	2,627	13.63	(1.42)[1]	1.00		14.03	(1.31)	1.00	(1.00,1.00)
Generalized Anxiety, Past Month									
Yes	312	19.84	(3.80)	1.51	(0.96,2.36)	16.03	(3.05)	1.14	(0.69,1.90)
No	2,863	14.12	(1.34)	1.00		14.50	(1.41)	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	189	22.94	(3.22)[2]	1.81[*]	(1.36,2.42)	19.51	(3.22)	1.53[*]	(1.00,2.34)
No	2,986	14.10	(1.32)[1]	1.00		14.29	(1.35)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	374	16.92	(1.58)	1.21	(0.93,1.59)	13.63	(1.64)	0.89	(0.56,1.44)
No	2,801	14.37	(1.47)	1.00		14.83	(1.65)	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	71	13.78	(3.43)	0.93	(0.48,1.79)	9.06	(4.06)	0.54	(0.17,1.74)
No	3,104	14.69	(1.44)	1.00		14.85	(1.46)	1.00	(1.00,1.00)
Active Coping									
Yes	2,378	15.61	(1.51)[2]	1.32[*]	(1.07,1.63)	15.38	(1.47)[2]	1.28[*]	(1.04,1.58)
No	797	12.27	(1.50)[1]	1.00		12.74	(1.51)[1]	1.00	(1.00,1.00)
Avoidance Coping									
Yes	104	23.68	(3.29)[2]	1.86[*]	(1.42,2.45)	24.67	(5.00)[2]	2.18[*]	(1.41,3.38)
No	3,071	14.29	(1.32)[1]	1.00		14.27	(1.25)[1]	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported being told by a doctor or other health professional since they joined the Coast Guard that they had high blood pressure. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:

[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table C.4. High Cholesterol since Entering the Coast Guard

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,173	15.76	(1.01)	1.00		15.76	(1.01)	0.44[*]	(0.22,0.88)
Gender									
Male	2,435	16.80	(1.07)[2]	2.15[*]	(1.67,2.76)	16.39	(1.13)[2]	1.79[*]	(1.34,2.40)
Female	738	8.59	(1.16)[1]	1.00		10.64	(1.16)[1]	1.00	(1.00,1.00)
Region									
CONUS	2,816	15.64	(1.15)	0.93	(0.78,1.10)	15.53	(1.11)[2]	0.83[*]	(0.69,0.99)
OCONUS	357	16.69	(0.11)	1.00		17.71	(0.89)[1]	1.00	(1.00,1.00)
Age Group									
20 and younger	195	0.77	(0.69)[2,3,4]	0.01[*]	(0.00,0.08)	1.51	(1.50)[2,3,4]	0.04[*]	(0.00,0.29)
21–25	764	4.58	(0.79)[1,3,4]	0.08[*]	(0.06,0.12)	5.94	(1.28)[1,3,4]	0.16[*]	(0.10,0.26)
26–34	1,035	14.24	(1.83)[1,2,4]	0.29[*]	(0.20,0.40)	14.30	(2.00)[1,2,4]	0.43[*]	(0.30,0.62)
35 and older	1,179	36.62	(1.19)[1,2,3]	1.00		27.03	(1.35)[1,2,3]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,427	16.41	(1.12)[3]	1.12	(0.66,1.90)	16.09	(0.98)	1.03	(0.62,1.70)
African American, non-Hispanic	181	14.93	(2.82)	1.00	(0.48,2.06)	13.96	(3.55)	0.84	(0.35,2.00)
Hispanic	342	12.34	(1.78)[1]	0.80	(0.40,1.59)	14.16	(1.99)	0.86	(0.43,1.69)
Other	223	14.97	(2.93)	1.00		15.79	(2.43)	1.00	(1.00,1.00)
Education									
High school or less	751	9.67	(0.77)[2,3]	0.42[*]	(0.33,0.55)	14.99	(1.37)	1.04	(0.72,1.51)
Some college	1,492	17.65	(1.40)[1,3]	0.85[*]	(0.77,0.93)	16.86	(1.44)[3]	1.24[*]	(1.03,1.48)
College graduate or higher	930	20.20	(1.19)[1,2]	1.00		14.53	(1.15)[2]	1.00	(1.00,1.00)
Family Status									
Not married	1,336	7.63	(0.67)[2,3]	0.28[*]	(0.22,0.35)	13.26	(1.28)	0.71	(0.49,1.05)
Married, spouse not present	193	25.75	(3.12)[1]	1.16	(0.86,1.55)	16.77	(2.27)	0.99	(0.67,1.45)
Married, spouse present	1,644	23.06	(1.62)[1]	1.00		16.89	(1.53)	1.00	(1.00,1.00)

Table C.4. High Cholesterol since Entering the Coast Guard (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,339	25.44	(1.40)[2]	3.04[*]	(2.68,3.45)	16.07	(1.29)	1.06	(0.84,1.35)
No	1,834	10.09	(0.79)[1]	1.00		15.39	(1.10)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	397	2.22	(0.73)[2,3,4,5,6]	0.05[*]	(0.02,0.10)	9.31	(3.64)[3,4,6]	0.44	(0.16,1.18)
E4–E6	1,365	11.17	(0.90)[1,3,4,6]	0.27[*]	(0.20,0.35)	13.67	(0.86)[3,4,6]	0.71[*]	(0.55,0.92)
E7–E9	421	38.70	(2.38)[1,2,5]	1.34	(0.89,2.00)	20.59	(2.08)[1,2,5]	1.26	(0.76,2.08)
W1–W5	246	40.06	(2.59)[1,2,5]	1.42	(0.95,2.10)	19.20	(1.97)[1,2]	1.13	(0.72,1.78)
O1–O3	402	15.63	(2.93)[1,3,4,6]	0.39[*]	(0.22,0.70)	15.14	(2.71)[3]	0.81	(0.48,1.39)
O4–O10	342	32.08	(2.47)[1,2,5]	1.00		17.60	(2.11)[1,2]	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,205	14.55	(1.13)	0.86	(0.71,1.03)	14.64	(1.00)[2]	0.84[*]	(0.74,0.95)
No	1,968	16.57	(1.17)	1.00		16.51	(1.09)[1]	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	949	16.27	(1.20)	0.83	(0.57,1.22)	16.11	(1.58)	0.72	(0.46,1.13)
5–6 hours	1,939	15.07	(1.00)	0.76	(0.55,1.05)	15.01	(0.96)[3]	0.65[*]	(0.44,0.98)
4 hours or less	285	18.96	(2.74)	1.00		20.01	(2.62)[2]	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,966	16.92	(1.49)[2]	1.25[*]	(1.01,1.55)	15.78	(1.29)	1.00	(0.80,1.25)
Little/none	1,207	13.99	(0.73)[1]	1.00		15.73	(0.92)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,300	17.66	(1.83)	1.26[*]	(1.00,1.59)	16.39	(1.51)	1.10	(0.85,1.43)
Little/none	1,873	14.50	(0.75)	1.00		15.30	(0.98)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,356	18.20	(2.06)[2]	1.36[*]	(1.05,1.76)	17.34	(1.82)	1.28	(0.99,1.65)
No	1,817	14.09	(0.52)[1]	1.00		14.60	(0.54)	1.00	(1.00,1.00)

(continued)

Table C.4. High Cholesterol since Entering the Coast Guard (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,222	11.64	(1.14)[2]	0.55[*]	(0.43,0.71)	15.19	(1.19)	0.92	(0.72,1.18)
Little/none	1,951	19.22	(1.33)[1]	1.00		16.09	(1.21)	1.00	(1.00,1.00)
Spirituality									
High	624	19.89	(2.17)[3]	1.59[*]	(1.04,2.42)	16.35	(1.33)	1.18	(0.76,1.83)
Medium	1,528	15.86	(0.70)	1.21	(0.89,1.63)	16.33	(0.96)	1.18	(0.83,1.67)
Low	1,021	13.52	(1.95)[1]	1.00		14.54	(1.97)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,474	12.98	(0.82)[2]	0.66[*]	(0.57,0.78)	14.54	(0.89)	0.82	(0.66,1.01)
No	1,699	18.36	(1.41)[1]	1.00		16.74	(1.37)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	401	18.32	(1.95)	1.23	(0.89,1.70)	16.88	(2.67)	1.12	(0.65,1.93)
No	2,772	15.41	(1.12)	1.00		15.60	(1.17)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,166	18.97	(1.03)[2]	1.44[*]	(1.24,1.68)	16.70	(1.01)	1.15	(0.92,1.44)
No	2,007	13.97	(1.12)[1]	1.00		15.15	(1.27)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	462	14.23	(1.59)	0.87	(0.73,1.03)	15.37	(1.83)	0.96	(0.75,1.23)
No	2,711	16.04	(0.97)	1.00		15.83	(0.95)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	506	12.99	(1.34)[2]	0.76[*]	(0.63,0.92)	16.66	(1.67)	1.10	(0.86,1.41)
No	2,667	16.38	(1.03)[1]	1.00		15.60	(1.01)	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	719	11.73	(1.44)[2]	0.64[*]	(0.49,0.84)	14.68	(1.34)	0.88	(0.72,1.07)
No	2,454	17.22	(1.07)[1]	1.00		16.07	(1.02)	1.00	(1.00,1.00)

(continued)

Table C.4. High Cholesterol since Entering the Coast Guard (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Need for Further Depression Evaluation									
Yes	546	17.47	(2.14)	1.16	(0.89,1.52)	17.81	(2.35)	1.24	(0.88,1.75)
No	2,627	15.39	(0.94)	1.00		15.34	(0.89)	1.00	(1.00,1.00)
Generalized Anxiety, Past Month									
Yes	314	17.34	(2.89)	1.14	(0.78,1.64)	16.45	(2.91)	1.07	(0.61,1.88)
No	2,859	15.60	(0.96)	1.00		15.69	(1.09)	1.00	(1.00,1.00)
Screened Positive for PTSD									
Yes	187	20.44	(3.30)	1.41[*]	(1.01,1.95)	24.46	(5.27)	2.07	(0.95,4.53)
No	2,986	15.45	(0.91)	1.00		15.27	(0.99)	1.00	(1.00,1.00)
Serious Psychological Distress									
Yes	372	13.78	(1.91)	0.84	(0.62,1.13)	12.41	(1.80)	0.69	(0.43,1.10)
No	2,801	16.03	(1.04)	1.00		16.20	(1.18)	1.00	(1.00,1.00)
Suicidal Ideation, Past Year									
Yes	70	17.33	(2.72)	1.12	(0.76,1.67)	16.73	(3.10)	1.09	(0.58,2.06)
No	3,103	15.73	(1.03)	1.00		15.74	(1.06)	1.00	(1.00,1.00)
Active Coping									
Yes	2,377	16.35	(0.92)	1.17	(0.94,1.47)	15.62	(0.79)	0.95	(0.73,1.24)
No	796	14.27	(1.69)	1.00		16.19	(1.96)	1.00	(1.00,1.00)
Avoidance Coping									
Yes	105	11.67	(3.77)	0.70	(0.36,1.37)	15.66	(4.62)	0.99	(0.46,2.12)
No	3,068	15.94	(0.98)	1.00		15.77	(0.96)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported being told by a doctor or other health professional since they joined the Coast Guard that they had high cholesterol. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1] Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2] Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3] Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4] Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5] Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6] Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table C.5. Coast Guard Achievement of Selected *Healthy People 2010* Objectives

Characteristic/Group	2010 Objective	Civilian Estimates	DoD Services	Coast Guard
Any Cigarette Use, Past 30 Days	< 12.0%	24.0%	30.6 (1.2)	27.5 (1.0)
Smokeless Tobacco Use, Past 30 Days				
Males aged 18-24	NA	NA	19.0 (1.0)	18.5 (1.3)
All personnel	< 0.4%	2.6%	13.6 (0.6)	12.5 (1.2)
Binge Drinking, Past 30 Days	< 6.0%	16.6%	47.1 (1.2)	49.4 (1.3)
Any Illicit Drug Use, Including Prescription Drug Misuse				
Past 30 days	< 2.0%	5.8%	12.0 (0.4)	8.6 (0.4)
Overweight[b]				
Under age 20	NA	NA	34.8 (1.8)	28.7 (4.0)
Aged 20 or older	NA	NA	61.8 (0.6)	64.4 (1.0)
Total	NA	NA	60.1 (0.7)	62.9 (1.1)
Obese[c]				
Aged 20 or older	< 15%	23%	13.2 (0.3)[a]	14.6 (0.5)[a]
Healthy Weight[d]				
Aged 20 or older	> 60%	42%	37.1 (0.6)	34.9 (1.0)
Vigorous Physical Activity, Past 30 Days[e]				
All personnel	> 30%	23%	62.6 (0.9)[a]	47.6 (1.2)[a]
Food Intake—Fruits and Vegetables				
Fruits ≥ 3 times/day—All personnel	> 75%	28%	12.7 (0.5)	11.6 (0.7)
Vegetables ≥ 3 times/day—All personnel	> 50%	49%	14.2 (0.4)	13.7 (0.5)
Hospitalization for Injuries, Past 12 Months				
All personnel	NA	NA	3,890 (396)	2,901 (350)

(continued)

Table C.5.   Coast Guard Achievement of Selected *Healthy People 2010* Objectives (continued)

Characteristic/Group	2010 Objective	Civilian Estimates	DoD Services	Coast Guard
Seat Belt Use[f]				
All personnel	≥ 92%	69%	91.9 (0.6)	94.0 (0.7)[a]
Motorcycle Helmet Use, Past 12 Months[f]	≥ 79%	67%	86.9 (0.8)[a]	90.5 (1.4)[a]
Condom Use at Last Encounter				
Sexually active unmarried personnel[g]	≥ 50%	23%	43.6 (1.0)	47.2 (1.8)

Notes: The table displays percentages of Coast Guard personnel who reported the characteristic shown in each row of the table. The exceptions to this are the estimates for hospitalization for injuries, which is expressed per 100,000 personnel. The standard error of each estimate is presented in parentheses. Civilian benchmark data are drawn from civilian sources noted in *HP 2010*. These measures are not strictly comparable with military data since the civilian demographic characteristics were different from the military characteristics (e.g., civilian are older, have more females, and the like).

[a]Met or exceeded *Healthy People 2010* objective.
[b]Overweight is based on Body Mass Index (BMI) which is calculated from self-reported height and weight and is defined as BMI of 25.0 or higher.
[c]Obesity is based on BMI which is calculated from self-reported height and weight and is defined as BMI of 30.0 or higher.
[d]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.
[e]Defined as any of the following 3 or more times a week for 20 minutes or more: jogging, mowing lawn with push mower, chopping wood, high impact aerobic dancing, swimming continuous laps, or bicycling uphill.
[f]Reported wearing seat belts or helmets "always" or "nearly always." Objective on helmet use was subsetted to personnel who rode a motorcycle in the past 12 months.
[g]Defined as unmarried personnel who had one or more sexual partners in the past 12 months. For consistency with previous estimates, these estimates do not include personnel who are living as married.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table C.6. Job Satisfaction in the Coast Guard

Characteristic	Sample	Unadjusted Prevalence	Unadjusted Odds Ratio		Adjusted Prevalence	Adjusted Odds Ratio	
Total							
Total	3,131	75.84 (0.91)	1.00		75.84 (0.91)	3.73[*]	(1.10,12.65)
Gender							
Male	2,409	76.05 (0.94)	1.09	(0.84,1.43)	75.58 (0.81)	0.88	(0.67,1.16)
Female	722	74.40 (2.47)	1.00		77.61 (2.34)	1.00	(1.00,1.00)
Region							
CONUS	2,775	75.89 (1.02)	1.02	(0.91,1.14)	75.73 (1.08)	0.94	(0.77,1.14)
OCONUS	356	75.50 (0.04)	1.00		76.74 (0.84)	1.00	(1.00,1.00)
Age Group							
20 and younger	193	63.82 (4.83)[3,4]	0.35[*]	(0.23,0.54)	71.10 (4.43)	0.73	(0.41,1.27)
21–25	749	71.72 (0.69)[3,4]	0.51[*]	(0.44,0.59)	75.38 (0.93)	0.93	(0.74,1.18)
26–34	1,026	78.15 (1.24)[1,2,4]	0.72[*]	(0.60,0.86)	77.93 (1.45)	1.10	(0.95,1.26)
35 and older	1,163	83.25 (0.80)[1,2,3]	1.00		76.52 (1.44)	1.00	(1.00,1.00)
Race/Ethnicity							
White, non-Hispanic	2,395	76.66 (0.91)	1.20	(0.81,1.77)	76.48 (0.95)	1.20	(0.72,2.00)
African American, non-Hispanic	177	76.80 (2.16)	1.20	(0.76,1.91)	73.57 (2.64)	1.00	(0.51,1.96)
Hispanic	339	72.39 (2.98)	0.95	(0.63,1.45)	75.19 (2.33)	1.11	(0.67,1.83)
Other	220	73.32 (3.71)	1.00		73.50 (4.20)	1.00	(1.00,1.00)
Education							
High school or less	738	73.86 (1.20)[3]	0.62[*]	(0.50,0.77)	78.75 (1.20)	1.50	(0.95,2.38)
Some college	1,472	74.20 (1.86)[3]	0.63[*]	(0.50,0.81)	75.07 (1.72)	1.18	(0.86,1.62)
College graduate or higher	921	81.98 (0.94)[1,2]	1.00		72.29 (2.57)	1.00	(1.00,1.00)

(continued)

Table C.6. Job Satisfaction in the Coast Guard (continued)

Characteristic	Sample	Unadjusted Prevalence	Unadjusted Odds Ratio	Adjusted Prevalence	Adjusted Odds Ratio
Family Status					
Not married	1,318	73.30 (1.47)[2,3]	0.78[*] (0.64,0.95)	77.98 (1.16)[3]	1.39[*] (1.09,1.77)
Married, spouse not present	193	81.58 (3.08)[1]	1.26 (0.83,1.91)	78.55 (3.50)	1.44 (0.89,2.34)
Married, spouse present	1,620	77.84 (1.10)[1]	1.00	72.75 (1.47)[1]	1.00 (1.00,1.00)
Children Living With You					
Yes	1,320	79.88 (1.47)[2]	1.43[*] (1.09,1.88)	77.98 (1.89)	1.23 (0.86,1.77)
No	1,811	73.49 (1.49)[1]	1.00	74.67 (1.47)	1.00 (1.00,1.00)
Pay Grade					
E1–E3	390	61.34 (3.18)[2,3,4,5,6]	0.24[*] (0.14,0.40)	63.39 (3.43)[2,3,4,5,6]	0.23[*] (0.11,0.48)
E4–E6	1,347	74.20 (0.98)[1,3,4,5,6]	0.43[*] (0.30,0.63)	74.22 (1.33)[1,3,4,5,6]	0.40[*] (0.21,0.74)
E7–E9	416	86.07 (1.93)[1,2]	0.93 (0.59,1.47)	84.27 (2.45)[1,2]	0.79 (0.41,1.54)
W1–W5	242	85.82 (2.99)[1,2]	0.91 (0.53,1.56)	84.71 (2.98)[1,2]	0.82 (0.46,1.47)
O1–O3	397	83.60 (1.39)[1,2]	0.77 (0.49,1.21)	82.83 (1.72)[1,2]	0.71 (0.40,1.23)
O4–O10	339	86.92 (1.93)[1,2]	1.00	86.91 (2.56)[1,2]	1.00 (1.00,1.00)
Deployed In Past Year					
Yes	1,189	76.65 (2.09)	1.08 (0.82,1.41)	77.31 (1.92)	1.17 (0.90,1.51)
No	1,942	75.31 (0.87)	1.00	74.83 (0.62)	1.00 (1.00,1.00)
Average Hours of Nightly Sleep					
7+ hours	918	82.08 (1.90)[2,3]	3.62[*] (2.68,4.91)	78.46 (2.21)[3]	2.13[*] (1.39,3.26)
5–6 hours	1,932	76.16 (1.34)[1,3]	2.53[*] (1.89,3.38)	76.54 (1.22)[3]	1.88[*] (1.30,2.72)
4 hours or less	281	55.83 (2.65)[1,2]	1.00	65.07 (2.93)[1,2]	1.00 (1.00,1.00)
Stress from Work in Past 12 Months					
A lot/some	1,944	71.51 (1.71)[2]	0.53[*] (0.40,0.71)	71.76 (1.82)[2]	0.52[*] (0.36,0.74)
Little/none	1,187	82.50 (1.18)[1]	1.00	81.93 (1.27)[1]	1.00 (1.00,1.00)

(continued)

Table C.6.   Job Satisfaction in the Coast Guard (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Stress from Family in Past 12 Months									
A lot/some	1,288	74.80	(1.76)	0.91	(0.69,1.20)	78.24	(1.49)[2]	1.31	(0.98,1.74)
Little/none	1,843	76.55	(1.37)	1.00		74.03	(1.31)[1]	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,342	73.26	(1.31)[2]	0.79[*]	(0.69,0.91)	75.50	(1.29)	0.96	(0.81,1.15)
No	1,789	77.63	(0.99)[1]	1.00		76.09	(1.04)	1.00	(1.00,1.00)
Risk Taking/Impulsivity									
A lot/some	1,207	71.20	(0.99)[2]	0.63[*]	(0.54,0.73)	74.93	(0.82)	0.89	(0.73,1.09)
Little/none	1,924	79.76	(1.16)[1]	1.00		76.73	(1.49)	1.00	(1.00,1.00)
Spirituality									
High	617	78.76	(1.65)[3]	1.48[*]	(1.18,1.86)	76.81	(2.36)	1.26	(0.85,1.86)
Medium	1,500	77.89	(1.74)[3]	1.41[*]	(1.04,1.90)	77.52	(1.56)	1.32	(0.96,1.80)
Low	1,014	71.43	(1.53)[1,2]	1.00		73.06	(1.42)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,446	76.58	(1.20)	1.08	(0.93,1.26)	75.86	(1.45)	1.00	(0.83,1.21)
No	1,685	75.17	(1.09)	1.00		75.83	(0.88)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	401	64.87	(3.89)[2]	0.54[*]	(0.37,0.79)	69.55	(2.82)[2]	0.66[*]	(0.47,0.92)
No	2,730	77.39	(0.94)[1]	1.00		76.77	(0.95)[1]	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,162	72.67	(1.35)[2]	0.77[*]	(0.68,0.87)	75.13	(1.08)	0.93	(0.83,1.04)
No	1,969	77.64	(0.83)[1]	1.00		76.28	(0.96)	1.00	(1.00,1.00)

(continued)

Table C.6.   Job Satisfaction in the Coast Guard (continued)

Characteristic	Sample	Unadjusted Prevalence	Unadjusted Odds Ratio	Adjusted Prevalence	Adjusted Odds Ratio
Illicit Drug Use in Past 12 Months					
Yes	459	67.63 (1.90)[2]	0.61[*] (0.51,0.73)	73.18 (0.75)[2]	0.82[*] (0.75,0.91)
No	2,672	77.34 (0.87)[1]	1.00	76.36 (0.99)[1]	1.00 (1.00,1.00)
Heavy Alcohol Use					
Yes	501	69.59 (3.64)[2]	0.67[*] (0.47,0.96)	73.97 (2.74)	0.87 (0.63,1.19)
No	2,630	77.24 (0.64)[1]	1.00	76.30 (0.70)	1.00 (1.00,1.00)
Cigarette Use, 30 Days					
Yes	708	72.52 (1.66)[2]	0.79[*] (0.66,0.93)	78.07 (1.75)	1.22 (0.91,1.66)
No	2,423	77.04 (0.94)[1]	1.00	74.92 (1.16)	1.00 (1.00,1.00)
Need for Further Depression Evaluation					
Yes	542	57.17 (2.68)[2]	0.33[*] (0.27,0.41)	67.33 (2.15)[2]	0.55[*] (0.41,0.73)
No	2,589	79.96 (0.86)[1]	1.00	77.98 (1.14)[1]	1.00 (1.00,1.00)
Generalized Anxiety, Past Month					
Yes	311	51.74 (4.36)[2]	0.29[*] (0.21,0.41)	67.40 (3.70)[2]	0.58[*] (0.42,0.82)
No	2,820	78.43 (0.80)[1]	1.00	76.94 (0.77)[1]	1.00 (1.00,1.00)
Screened Positive for PTSD					
Yes	187	49.37 (2.88)[2]	0.28[*] (0.22,0.36)	73.33 (2.77)	0.85 (0.55,1.31)
No	2,944	77.69 (0.99)[1]	1.00	76.07 (1.16)	1.00 (1.00,1.00)
Serious Psychological Distress					
Yes	375	58.96 (3.70)[2]	0.40[*] (0.31,0.53)	77.25 (3.11)	1.11 (0.74,1.67)
No	2,756	78.16 (0.74)[1]	1.00	75.60 (0.80)	1.00 (1.00,1.00)

(continued)

Table C.6. Job Satisfaction in the Coast Guard (continued)

Characteristic	Sample	Unadjusted Prevalence	Unadjusted Odds Ratio	Adjusted Prevalence	Adjusted Odds Ratio
Suicidal Ideation, Past Year					
Yes	67	58.64 (7.05)[2]	0.44* (0.25,0.78)	77.66 (5.63)	1.13 (0.54,2.34)
No	3,064	76.25 (0.89)[1]	1.00	75.79 (0.87)	1.00 (1.00,1.00)
Active Coping					
Yes	2,348	78.03 (0.94)[2]	1.50* (1.37,1.64)	76.74 (0.79)[2]	1.21* (1.02,1.42)
No	783	70.26 (1.07)[1]	1.00	73.71 (1.66)[1]	1.00 (1.00,1.00)
Avoidance Coping					
Yes	102	44.58 (4.80)[2]	0.24* (0.17,0.33)	64.61 (4.75)[2]	0.52* (0.33,0.82)
No	3,029	77.15 (0.70)[1]	1.00	76.35 (0.84)[1]	1.00 (1.00,1.00)

Notes: Note: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported being "Satisfied" or "Very Satisfied" with their current primary Coast Guard Rating. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:

[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table C.7. Likelihood of Staying on Active Duty

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Total									
Total	3,148	66.88	(0.80)	1.00		66.88	(0.80)	4.36[*]	(1.93,9.84)
Gender									
Male	2,421	67.66	(0.87)[2]	1.31[*]	(1.00,1.72)	66.94	(0.93)	1.03	(0.84,1.26)
Female	727	61.47	(2.95)[1]	1.00		66.49	(1.50)	1.00	(1.00,1.00)
Region									
CONUS	2,790	66.64	(0.96)[2]	0.91[*]	(0.83,0.99)	66.36	(1.04)[2]	0.78[*]	(0.71,0.86)
OCONUS	358	68.74	(0.12)[1]	1.00		70.74	(0.71)[1]	1.00	(1.00,1.00)
Age Group									
20 and younger	197	44.19	(4.42)[2,3,4]	0.15[*]	(0.09,0.24)	47.74	(5.84)[3,4]	0.21[*]	(0.10,0.45)
21–25	752	52.52	(2.52)[1,3,4]	0.21[*]	(0.15,0.29)	57.18	(2.14)[3,4]	0.32[*]	(0.21,0.49)
26–34	1,031	75.03	(1.92)[1,2,4]	0.58[*]	(0.45,0.74)	75.54	(1.97)[1,2]	0.81	(0.59,1.11)
35 and older	1,168	83.93	(1.07)[1,2,3]	1.00		78.96	(2.05)[1,2]	1.00	(1.00,1.00)
Race/Ethnicity									
White, non-Hispanic	2,406	68.12	(0.78)	1.36	(0.97,1.92)	67.54	(0.85)	1.30	(0.88,1.92)
African American, non-Hispanic	180	71.54	(3.66)	1.60	(0.95,2.69)	68.06	(5.05)	1.34	(0.61,2.94)
Hispanic	342	62.42	(3.56)	1.06	(0.74,1.52)	66.78	(2.26)	1.25	(0.83,1.88)
Other	220	61.07	(3.84)	1.00		62.59	(3.79)	1.00	(1.00,1.00)
Education									
High school or less	746	61.68	(1.24)[2,3]	0.55[*]	(0.42,0.71)	71.75	(1.49)[3]	2.31[*]	(1.52,3.49)
Some college	1,478	66.63	(1.75)[1,3]	0.68[*]	(0.52,0.90)	66.93	(1.64)[3]	1.74[*]	(1.26,2.41)
College graduate or higher	924	74.59	(1.76)[1,2]	1.00		56.48	(3.16)[1,2]	1.00	(1.00,1.00)
Family Status									
Not married	1,326	56.93	(1.38)[2,3]	0.40[*]	(0.34,0.47)	65.89	(1.51)	0.87	(0.68,1.10)
Married, spouse not present	193	70.28	(2.17)[1,3]	0.71[*]	(0.58,0.88)	64.02	(3.14)	0.79	(0.56,1.10)
Married, spouse present	1,629	76.79	(0.84)[1,2]	1.00		68.57	(1.26)	1.00	(1.00,1.00)

(continued)

Table C.7. Likelihood of Staying on Active Duty (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	1,330	79.30	(1.35)[2]	2.60[*]	(2.12,3.18)	70.40	(2.17)[2]	1.32	(1.00,1.74)
No	1,818	59.59	(1.11)[1]	1.00		65.30	(0.88)[1]	1.00	(1.00,1.00)
Pay Grade									
E1–E3	396	48.44	(4.54)[2,3,4,5,6]	0.15[*]	(0.09,0.27)	63.34	(3.00)[4,5,6]	0.38[*]	(0.17,0.88)
E4–E6	1,350	62.55	(1.61)[1,3,4,5,6]	0.27[*]	(0.17,0.44)	63.13	(1.22)[3,4,5,6]	0.38[*]	(0.18,0.81)
E7–E9	417	83.34	(1.58)[1,2,4]	0.82	(0.48,1.38)	69.37	(2.79)[2,4]	0.52	(0.25,1.09)
W1–W5	244	89.45	(2.32)[1,2,3,5]	1.38	(0.81,2.35)	79.12	(3.55)[1,2,3]	0.94	(0.46,1.91)
O1–O3	401	77.93	(2.62)[1,2,4,6]	0.58[*]	(0.39,0.86)	78.72	(2.82)[1,2]	0.91	(0.52,1.60)
O4–O10	340	85.97	(2.51)[1,2,5]	1.00		80.01	(4.86)[1,2]	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,194	66.33	(1.27)	0.96	(0.82,1.12)	67.00	(0.96)	1.01	(0.88,1.16)
No	1,954	67.25	(1.04)	1.00		66.81	(1.04)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	928	70.76	(1.60)[3]	2.30[*]	(1.96,2.71)	67.34	(1.55)[3]	1.45[*]	(1.02,2.06)
5–6 hours	1,936	67.55	(0.98)[3]	1.98[*]	(1.61,2.43)	67.72	(1.18)	1.48	(0.98,2.24)
4 hours or less	284	51.25	(1.95)[1,2]	1.00		60.17	(3.23)[1]	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,948	65.58	(0.84)[2]	0.86[*]	(0.77,0.97)	65.86	(0.96)	0.87	(0.75,1.01)
Little/none	1,200	68.87	(1.28)[1]	1.00		68.38	(1.18)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,286	65.58	(1.30)	0.91	(0.76,1.08)	67.37	(1.35)	1.04	(0.83,1.31)
Little/none	1,862	67.75	(1.22)	1.00		66.56	(1.26)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,353	65.76	(0.93)	0.92	(0.81,1.03)	67.21	(1.16)	1.03	(0.88,1.20)
No	1,795	67.67	(1.10)	1.00		66.66	(0.98)	1.00	(1.00,1.00)

(continued)

Table C.7.   Likelihood of Staying on Active Duty (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,209	60.88	(1.13)[2]	0.61[*]	(0.53,0.70)	67.12	(0.73)	1.03	(0.90,1.17)
Little/none	1,939	71.92	(1.00)[1]	1.00		66.65	(1.21)	1.00	(1.00,1.00)
Spirituality									
High	619	71.10	(2.40)[3]	1.38[*]	(1.02,1.87)	66.07	(2.21)	1.01	(0.72,1.42)
Medium	1,514	67.32	(1.84)	1.15	(0.88,1.52)	67.86	(1.71)	1.11	(0.81,1.53)
Low	1,015	64.10	(1.79)[1]	1.00		65.86	(1.81)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,452	66.25	(1.91)	0.95	(0.76,1.18)	66.77	(1.62)	0.99	(0.79,1.24)
No	1,696	67.46	(0.87)	1.00		67.00	(0.92)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	402	59.83	(3.66)[2]	0.70[*]	(0.52,0.96)	63.16	(3.10)	0.80	(0.59,1.08)
No	2,746	67.88	(0.74)[1]	1.00		67.42	(0.60)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	1,164	65.14	(1.60)	0.89	(0.74,1.06)	65.68	(1.65)	0.90	(0.72,1.13)
No	1,984	67.86	(0.99)	1.00		67.55	(1.02)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	461	56.68	(2.24)[2]	0.60[*]	(0.47,0.75)	61.79	(1.65)[2]	0.73[*]	(0.60,0.89)
No	2,687	68.74	(1.00)[1]	1.00		67.84	(0.90)[1]	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	505	57.63	(3.56)[2]	0.61[*]	(0.43,0.87)	63.92	(2.09)	0.82	(0.66,1.03)
No	2,643	68.96	(1.04)[1]	1.00		67.60	(0.79)	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	713	61.35	(1.33)[2]	0.72[*]	(0.64,0.81)	68.52	(1.33)	1.13	(0.95,1.35)
No	2,435	68.88	(0.85)[1]	1.00		66.22	(0.94)	1.00	(1.00,1.00)

(continued)

Table C.7.   Likelihood of Staying on Active Duty (continued)

Characteristic	Sample	Unadjusted Prevalence	Unadjusted Odds Ratio		Adjusted Prevalence	Adjusted Odds Ratio	
Need for Further Depression Evaluation							
Yes	541	47.94 (2.84)[2]	0.38*	(0.28,0.50)	55.53 (1.69)[2]	0.49*	(0.40,0.62)
No	2,607	71.04 (1.10)[1]	1.00		69.47 (0.98)[1]	1.00	(1.00,1.00)
Generalized Anxiety, Past Month							
Yes	312	46.20 (3.24)[2]	0.38*	(0.30,0.50)	58.50 (4.15)[2]	0.62*	(0.40,0.97)
No	2,836	69.10 (0.82)[1]	1.00		67.83 (0.84)[1]	1.00	(1.00,1.00)
Screened Positive for PTSD							
Yes	186	49.09 (4.09)[2]	0.45*	(0.33,0.61)	74.26 (3.93)[2]	1.59	(1.00,2.53)
No	2,962	68.11 (0.72)[1]	1.00		66.28 (0.64)[1]	1.00	(1.00,1.00)
Serious Psychological Distress							
Yes	373	48.84 (3.49)[2]	0.42*	(0.31,0.59)	65.15 (4.44)	0.90	(0.52,1.57)
No	2,775	69.32 (1.04)[1]	1.00		67.13 (1.17)	1.00	(1.00,1.00)
Suicidal Ideation, Past Year							
Yes	68	42.10 (6.63)[2]	0.35*	(0.20,0.60)	57.17 (8.79)	0.60	(0.25,1.42)
No	3,080	67.47 (0.75)[1]	1.00		67.11 (0.73)	1.00	(1.00,1.00)
Active Coping							
Yes	2,359	68.81 (1.27)[2]	1.35*	(1.02,1.79)	67.34 (1.23)	1.09	(0.80,1.47)
No	789	61.98 (2.32)[1]	1.00		65.77 (2.03)	1.00	(1.00,1.00)
Avoidance Coping							
Yes	104	38.90 (4.61)[2]	0.30*	(0.19,0.46)	59.52 (6.69)	0.67	(0.33,1.36)
No	3,044	68.06 (0.90)[1]	1.00		67.20 (0.91)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported that they are "likely" or "very likely" to remain on active duty if given a choice. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:

[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

Table C.8.   Likelihood of Serving in the Coast Guard at Least 20 Years

Characteristic	Sample	Unadjusted Prevalence	Unadjusted Odds Ratio		Adjusted Prevalence	Adjusted Odds Ratio	
Total							
Total	2,595	66.14 (1.12)	1.00		66.14 (1.12)	27.87[*]	(6.62,117.35)
Gender							
Male	1,959	67.45 (1.45)[2]	1.52[*]	(1.08,2.14)	66.72 (1.45)	1.26	(0.87,1.83)
Female	636	57.62 (3.24)[1]	1.00		62.60 (2.42)	1.00	(1.00,1.00)
Region							
CONUS	2,284	65.78 (1.33)[2]	0.87[*]	(0.77,0.98)	65.54 (1.39)[2]	0.75[*]	(0.62,0.90)
OCONUS	311	68.85 (0.28)[1]	1.00		70.49 (0.97)[1]	1.00	(1.00,1.00)
Age Group							
20 and younger	196	44.98 (5.39)[3,4]	0.06[*]	(0.03,0.10)	53.46 (5.64)[3,4]	0.13[*]	(0.06,0.28)
21–25	755	49.02 (2.23)[3,4]	0.07[*]	(0.05,0.09)	55.31 (1.65)[3,4]	0.14[*]	(0.09,0.22)
26–34	1,025	77.31 (1.86)[1,2,4]	0.23[*]	(0.16,0.34)	76.39 (1.98)[1,2,4]	0.42[*]	(0.27,0.67)
35 and older	619	93.55 (0.76)[1,2,3]	1.00		87.71 (1.88)[1,2,3]	1.00	(1.00,1.00)
Race/Ethnicity							
White, non-Hispanic	1,951	66.96 (1.18)	1.16	(0.94,1.43)	66.46 (1.24)	1.11	(0.88,1.42)
African American, non-Hispanic	145	68.10 (2.83)	1.22	(0.91,1.64)	64.63 (3.15)	1.00	(0.61,1.66)
Hispanic	303	62.53 (3.63)	0.95	(0.77,1.19)	66.48 (2.28)	1.11	(0.82,1.52)
Other	196	63.61 (2.27)	1.00		64.57 (2.29)	1.00	(1.00,1.00)
Education							
High school or less	647	60.24 (1.90)[2,3]	0.49[*]	(0.34,0.70)	70.08 (0.94)[3]	1.95[*]	(1.29,2.97)
Some college	1,223	65.97 (2.14)[1,3]	0.62[*]	(0.44,0.88)	65.48 (2.32)	1.49	(0.89,2.49)
College graduate or higher	725	75.66 (2.22)[1,2]	1.00		58.45 (3.71)[1]	1.00	(1.00,1.00)
Family Status							
Not married	1,221	55.44 (1.94)[2,3]	0.35[*]	(0.28,0.44)	65.00 (1.70)	0.84	(0.64,1.12)
Married, spouse not present	132	73.54 (4.22)[1]	0.77	(0.48,1.24)	67.39 (3.91)	0.97	(0.63,1.48)
Married, spouse present	1,242	78.24 (1.11)[1]	1.00		68.01 (1.54)	1.00	(1.00,1.00)

(continued)

Table C.8.   Likelihood of Serving in the Coast Guard at Least 20 Years (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Children Living With You									
Yes	977	82.57	(2.02)[2]	3.45[*]	(2.41,4.93)	71.70	(3.24)	1.52	(0.97,2.39)
No	1,618	57.90	(1.82)[1]	1.00		64.30	(1.45)	1.00	(1.00,1.00)
Pay Grade									
E1–E3	397	44.38	(4.06)[2,3,4,5,6]	0.03[*]	(0.01,0.07)	59.98	(2.64)[3,4,5,6]	0.12[*]	(0.03,0.41)
E4–E6	1,327	64.25	(1.73)[1,3,4,5,6]	0.07[*]	(0.03,0.14)	64.26	(1.22)[3,4,5,6]	0.14[*]	(0.05,0.42)
E7–E9	241	96.36	(1.26)[1,2,5]	0.99	(0.28,3.54)	86.29	(4.16)[1,2]	0.62	(0.15,2.55)
W1–W5	66	98.48	(1.39)[1,2,5,6]	2.44	(0.72,8.26)	92.33	(6.89)[1,2,5]	1.26	(0.36,4.36)
O1–O3	356	74.04	(2.32)[1,2,3,4,6]	0.11[*]	(0.05,0.22)	74.98	(3.64)[1,2,4,6]	0.26[*]	(0.10,0.69)
O4–O10	208	96.38	(1.34)[1,2,4,5]	1.00		90.70	(4.34)[1,2,5]	1.00	(1.00,1.00)
Deployed In Past Year									
Yes	1,028	66.98	(1.29)	1.07	(0.96,1.18)	67.30	(1.13)	1.12	(0.92,1.36)
No	1,567	65.55	(1.23)	1.00		65.33	(1.58)	1.00	(1.00,1.00)
Average Hours of Nightly Sleep									
7+ hours	762	69.06	(2.72)[3]	1.91[*]	(1.35,2.71)	66.56	(2.96)	1.24	(0.68,2.27)
5–6 hours	1,601	66.72	(1.22)[3]	1.72[*]	(1.37,2.16)	66.50	(1.33)	1.24	(0.81,1.90)
4 hours or less	232	53.84	(2.51)[1,2]	1.00		62.71	(3.42)	1.00	(1.00,1.00)
Stress from Work in Past 12 Months									
A lot/some	1,616	65.31	(1.28)	0.91	(0.74,1.12)	64.90	(1.44)	0.84	(0.66,1.08)
Little/none	979	67.41	(1.95)	1.00		67.89	(1.70)	1.00	(1.00,1.00)
Stress from Family in Past 12 Months									
A lot/some	1,056	65.26	(1.30)	0.94	(0.80,1.10)	66.38	(1.31)	1.02	(0.91,1.15)
Little/none	1,539	66.72	(1.48)	1.00		65.98	(1.17)	1.00	(1.00,1.00)
History of Physical/Sexual Abuse									
Yes	1,095	67.98	(1.72)	1.15	(0.89,1.48)	69.70	(1.96)[2]	1.40[*]	(1.04,1.89)
No	1,500	64.89	(1.82)	1.00		63.79	(1.45)[1]	1.00	(1.00,1.00)

(continued)

Table C.8. Likelihood of Serving in the Coast Guard at Least 20 Years (continued)

Characteristic	Sample	Unadjusted Prevalence		Unadjusted Odds Ratio		Adjusted Prevalence		Adjusted Odds Ratio	
Risk Taking/Impulsivity									
A lot/some	1,081	61.77	(1.87)[2]	0.69[*]	(0.56,0.85)	67.73	(1.40)[2]	1.22[*]	(1.00,1.47)
Little/none	1,514	70.21	(1.36)[1]	1.00		64.32	(1.39)[1]	1.00	(1.00,1.00)
Spirituality									
High	475	67.90	(3.81)	1.15	(0.78,1.69)	62.96	(3.34)	0.85	(0.55,1.32)
Medium	1,246	66.46	(2.14)	1.07	(0.83,1.39)	67.26	(1.90)	1.08	(0.78,1.49)
Low	874	64.86	(1.50)	1.00		65.92	(1.60)	1.00	(1.00,1.00)
Vigorous Physical Exercise, Past 30 Days									
Yes	1,242	64.25	(2.71)	0.85	(0.61,1.17)	64.85	(2.24)	0.86	(0.64,1.17)
No	1,353	67.97	(1.31)	1.00		67.46	(0.94)	1.00	(1.00,1.00)
Illness in Past 12 Months									
Yes	338	62.58	(3.96)	0.84	(0.58,1.20)	65.06	(2.94)	0.93	(0.70,1.24)
No	2,257	66.65	(1.15)	1.00		66.29	(0.98)	1.00	(1.00,1.00)
Injury in Past 12 Months									
Yes	924	65.04	(1.99)	0.93	(0.73,1.19)	64.55	(2.07)	0.87	(0.64,1.18)
No	1,671	66.73	(1.56)	1.00		66.96	(1.46)	1.00	(1.00,1.00)
Illicit Drug Use in Past 12 Months									
Yes	395	56.79	(3.02)[2]	0.62[*]	(0.46,0.84)	62.07	(2.47)	0.76	(0.55,1.06)
No	2,200	67.89	(1.36)[1]	1.00		66.95	(1.29)	1.00	(1.00,1.00)
Heavy Alcohol Use									
Yes	458	57.70	(4.08)[2]	0.64[*]	(0.43,0.93)	63.13	(2.75)	0.81	(0.59,1.10)
No	2,137	68.17	(1.24)[1]	1.00		66.93	(1.09)	1.00	(1.00,1.00)
Cigarette Use, 30 Days									
Yes	641	63.07	(2.72)	0.83	(0.65,1.06)	68.97	(2.24)	1.26	(0.95,1.68)
No	1,954	67.33	(1.04)	1.00		64.89	(1.11)	1.00	(1.00,1.00)

(continued)

Table C.8. Likelihood of Serving in the Coast Guard at Least 20 Years (continued)

Characteristic	Sample	Unadjusted Prevalence	Unadjusted Odds Ratio		Adjusted Prevalence	Adjusted Odds Ratio	
Need for Further Depression Evaluation							
Yes	468	50.85 (4.03)[2]	0.45[*]	(0.30,0.69)	57.97 (2.73)[2]	0.57[*]	(0.39,0.84)
No	2,127	69.65 (1.61)[1]	1.00		68.10 (1.40)[1]	1.00	(1.00,1.00)
Generalized Anxiety, Past Month							
Yes	266	48.47 (3.41)[2]	0.44[*]	(0.33,0.58)	60.38 (4.58)	0.70	(0.43,1.14)
No	2,329	68.07 (1.20)[1]	1.00		66.81 (1.03)	1.00	(1.00,1.00)
Screened Positive for PTSD							
Yes	168	49.82 (4.54)[2]	0.48[*]	(0.33,0.71)	71.41 (4.33)	1.40	(0.83,2.37)
No	2,427	67.34 (1.17)[1]	1.00		65.70 (1.05)	1.00	(1.00,1.00)
Serious Psychological Distress							
Yes	335	47.94 (4.22)[2]	0.42[*]	(0.27,0.64)	60.22 (4.19)	0.69	(0.39,1.21)
No	2,260	68.78 (1.53)[1]	1.00		67.05 (1.57)	1.00	(1.00,1.00)
Suicidal Ideation, Past Year							
Yes	59	40.12 (5.90)[2]	0.33[*]	(0.21,0.54)	56.34 (7.00)	0.58	(0.28,1.18)
No	2,536	66.78 (1.11)[1]	1.00		66.38 (1.05)	1.00	(1.00,1.00)
Active Coping							
Yes	1,940	67.70 (1.35)	1.27	(0.94,1.72)	66.39 (1.28)	1.05	(0.77,1.43)
No	655	62.22 (2.84)	1.00		65.54 (2.34)	1.00	(1.00,1.00)
Avoidance Coping							
Yes	97	38.96 (4.52)[2]	0.31[*]	(0.20,0.47)	56.78 (5.65)	0.58	(0.30,1.13)
No	2,498	67.39 (1.23)[1]	1.00		66.59 (1.23)	1.00	(1.00,1.00)

Notes: Table displays the unadjusted and adjusted prevalence and odds ratios for specified groups among Coast Guard personnel who reported that they are "likely" or "very likely" to serve for at least 20 years. The standard error of each estimate is presented in parentheses.

A superscripted number beside an estimate indicates the estimate is significantly different from the estimate that appears in the row number. For example, for pay grade:
[1]Indicates estimate is significantly different from the estimate in row 1 (E1–E3) at the 95% confidence level.
[2]Indicates estimate is significantly different from the estimate in row 2 (E4–E6) at the 95% confidence level.
[3]Indicates estimate is significantly different from the estimate in row 3 (E7–E9) at the 95% confidence level.
[4]Indicates estimate is significantly different from the estimate in row 4 (W1–W5) at the 95% confidence level.
[5]Indicates estimate is significantly different from the estimate in row 5 (O1–O3) at the 95% confidence level.
[6]Indicates estimate is significantly different from the estimate in row 6 (O4–O10) at the 95% confidence level.

Source: Coast Guard data from the DoD Survey of Health Related Behaviors among Active Duty Personnel, 2008.

APPENDIX D:

**METHODOLOGY OF THE 2008 HEALTH RELATED BEHAVIOR SURVEY AMONG
ACTIVE DUTY COAST GUARD PERSONNEL**

D.1　Sampling Design Overview

The target population for the Coast Guard portion of the 2008 HRB Survey included all Coast Guard personnel who were on active duty at the time of data collection (May through July 2008), except recruits and personnel who were absent without leave (AWOL), incarcerated, or undergoing a permanent change of station (PCS). These personnel were excluded because they either were not on active duty long enough to typify the Coast Guard or were not accessible.

Although personnel with PCS status are typical of Coast Guard personnel, they were excluded from the target population because of the practical difficulties of obtaining data from them quickly enough to be of use to the study. It was assumed that the substance use and health behaviors for these individuals were similar to those of other personnel represented in the survey. Further, the current survey included information from an array of respondents broad enough (i.e., all pay grades, representative gender distribution, worldwide sample) to address substance use policy and program issues.

A primary objective of the sampling design was to facilitate the planned onsite group administration of the survey questionnaire to randomly selected personnel who would represent the Coast Guard as a whole. Because of the worldwide geographic distribution of personnel, a dual-mode sampling design was developed that called for the survey instrument to be group administered at large Coast Guard locations and mailed to persons in smaller locations where it was not practical to conduct onsite group sessions.

The dual-mode approach to data collection allowed cost-effective onsite data collection, while retaining complete coverage of the Coast Guard population. In addition, the design included stratification to control the sample distribution with respect to organizational and demographic characteristics. This approach allowed the sample to achieve cost efficiency while preserving inferential capability.

The first stage sampling frame was constructed from data provided by the U.S. Coast Guard. The frame was constructed around Congressional districts, each of which contained a number of Coast Guard facilities. A sample was drawn from all Coast Guard Congressional districts within each Major Command (East Coast and West Coast) with probability proportional to size (PPS); so that districts with a larger number of active duty personnel had a higher chance of being selected in the survey compared to districts with a smaller number of active duty personnel. For adequate representativeness, half of the districts were selected from each Major Command. A total of 10 districts were selected for the study. One challenge with working with

Congressional districts is that the geographic size can vary from a city region to a state's coastline.

As with all surveys, systematic nonresponse may introduce bias into the survey estimates. If health-related behaviors change when members are away from their duty station, the corresponding prevalence estimates of these measures may be biased because of the systematic exclusion of members who were away.

Due to the dynamic nature of the military, the issue of nonresponse is potentially more concerning than in surveys of other populations. Ideally, it would be most beneficial to administer the survey to individuals in the group setting when all active duty personnel selected for this study are present at any given location. But given the time lag between the sample and survey administration, a nontrivial number of selected sample members will no longer be at the selected location when data collectors arrive.

Therefore, the data collection methodology was adjusted to address this dynamic and shifting population. At the time the sample was selected, after the initial sample of personnel was selected from each location, a second shorter list of replacements personnel within 12 categories defined by gender and pay grade (E1–E3, E4–E6, E7–E9, W1–W5, O1–O3, O4–O10) was also selected. During data collection, if any of the original sample members happened to be TDY then a person of the same pay grade and gender was selected as a replacement. If the replacement list was exhausted (e.g., due to a high number of deployments), then the Installation Liaison Officer (ILO; described in Section D.2.1) provided an additional list of names from current personnel rosters. Replacements were never made for sample members that refused to answer the survey. This methodology was only employed for sample members that were generally inaccessible or unavailable. Replacements were mostly due to personnel being underway or deployed.

D.2   Data Collection Procedures

D.2.1 Onsite Data Collection

Data were collected via paper-and-pencil questionnaires. Coast Guard personnel completed the questionnaire either during group sessions conducted by field teams at the locations where they were stationed or by mail. Questionnaires were mailed to eligible personnel who were stationed in remote areas and thus could not attend the group data collection sessions. Approximately 93% of the completed survey questionnaires were obtained from the group sessions.

Group administration of the questionnaire took place from May through July 2008 within 10 Coast Guard districts located worldwide. A Service Liaison Officer (SLO) was appointed for the Coast Guard overall, and an ILO was appointed to coordinate survey activities at each participating location. The SLO performed a variety of tasks that were vital to a successful data collection effort. Specifically, the SLO did the following:

- informed the selected locations about the survey by sending a series of notifications to appropriate command levels

- obtained ILO names and addresses for the research team

- worked with RTI staff to coordinate survey scheduling and preparations at participating locations

ILOs were also integral to the data collection effort and before the team arrived were responsible for the following:

- storing the survey instruments

- receiving lists of the sampled personnel

- scrubbing personnel lists

- identifying replacement personnel as needed

- arranging rooms for the survey sessions

- notifying sampled personnel of their selection

- scheduling personnel into survey sessions

- distributing introductory handouts describing the study and detailing each participant's rights

During the field team visits, the ILOs were responsible for monitoring and encouraging attendance of selected personnel at the sessions and documenting the reasons for absence. The level of effort required by each ILO varied depending on the size of the sample of personnel selected at the ILO's location, the number of sample replacements to be made and by the turnout of participants in response to their initial notification. At those locations where turnout was high, the ILOs spent considerably less time than at those where turnout was low. In the latter case, the ILO duties were more time consuming, since a higher percentage of "no shows" had to be contacted and rescheduled into a new data collection session.

RTI staff members were trained as data collectors and assigned in two person data collection teams to conduct survey sessions in the 10 districts selected for the study. In general, arrangements were coordinated with ILOs for the data collection itinerary to permit personnel to be surveyed at a location during a 2- to 3-day visit, as schedules allowed. On these data collection days, team members typically started a group session every 90 minutes, usually holding five or six sessions a day as needed to survey all selected personnel. If necessary, the two-member teams split and worked alone to conduct concurrent sessions. Before data collection began, a 2-day training session were held to ensure that teams were familiar with all procedures to conduct the survey.

The field teams' major responsibilities were to

- establish itineraries consistent with ILO recommendations,

- coordinate preparations with the ILO at the location,

- conduct scheduled survey sessions,

- ship completed survey forms from locations for optical scanning, and

- report to RTI central staff on the completion of the survey at each site.

At the group sessions, field teams described the purpose of the study, assured participants of anonymity, informed participants of the voluntary nature of the survey, distributed introductory handouts, ensured that an ombudsperson was present for each group administration to attest that teams explained the voluntary nature of participation, and showed personnel the correct procedures for marking the questionnaire. Team members then distributed the optical-mark questionnaires to participants, who completed and returned them. On average, the questionnaire required about an hour to complete.

During the site visit, team members attempted to survey all individuals selected for the study. They used rosters on laptop computers to document attendance or reasons for absences. Selected personnel who failed to attend their scheduled session were contacted and asked to attend a subsequent one. At the completion of the site visit, field teams inventoried completed questionnaires, reconciled the inventory with documented counts from the lists of sampled personnel completing the survey, and packaged and shipped the questionnaires for optical-scan processing.

D.2.2 Remote Personnel Data Collection

A subset of Coast Guard personnel who were distant or remote from major locations was sent a questionnaire by mail. Approximately 20% of sampled personnel were classified as remote (1,200 individuals). The rationale was that because these personnel were far from major locations, they were unlikely to come to the bases for group sessions even if they were linked to the locations. Therefore, individuals classified as remote were identified as a separate stratum and were mailed a questionnaire packet.

These packets included a cover letter explaining the study, an introductory handout, a copy of the questionnaire, and a business reply envelope for the respondents to use to return their completed questionnaires. Questionnaires were preprinted with a common location number to identify them as part of the remote strata. Questionnaire responses were anonymous. Two mailings were made to personnel in remote sites. Because questionnaires were anonymous, it was not possible to remail only to those who had not returned a questionnaire. Consequently, a second packet of materials was sent to all remote personnel with instructions that if they had completed the first questionnaire, they should not answer it a second time.

D.3   Survey Performance Rates

Response rate information is useful for assessing the quality of survey field operations and for assessing nonresponse bias. The term *response rate* can be used for several performance rates, each important from a survey operational perspective or from a statistical perspective. In the simplest cases, the response rate can be calculated as the number of individuals in the population of inferential interest (i.e., those to whom you wish to generalize results) for whom information was obtained, divided by the total number of individuals in the population of inferential interest who were slated for data collection (i.e., the sample).

When the population surveyed and the population of inferential interest are not the same, or when only partial information is obtained for the population units in the sample, the definition becomes more complicated. For the 2008 HRB Survey, several performance rates were computed: onsite eligibility rate, onsite completion rate, and response rates among eligibles. These rates are defined and described below. Data for these rates are presented in Table D.1 along with the corresponding response data that were used to compute them.

D.3.1 Eligibility Rate

The eligibility rate is the percentage of individuals selected in the sample (for the onsite group sessions) who were still eligible several months later during data collection. Some individuals who were selected were ineligible because they left the Coast Guard or were

deployed, permanently changed station, temporary active duty/other temporary assignment, on leave, absent without leave, incarcerated, hospitalized, deceased, or otherwise unknown at the installation at the time of data collection. The replacement sampling strategy described in Section D.1 mitigated many of these cases by allowing personnel who would have been considered ineligible during previous survey iterations; however, a portion of sampled personnel were unable to be replaced due to last-minute changes in availability status or unavailability of adequate replacement personnel. The eligibility rate can be an important determinant of statistical efficiency because sampling variances are high when eligibility rates are low. If the eligibility status is not known for every case, some potential for bias due to missing data is introduced. As shown in Table D.1, the onsite eligibility rate for the Coast Guard was 62.7%.

D.3.2 Attendance Rate

The attendance rate is the percentage of identified eligible personnel who attended an onsite group survey administration session. The attendance rate affected data collection costs and schedules, and the missing data contributed to the potential for biases. The 84.8% attendance rate for onsite administration reflects the success of the field teams in working with ILOs to ensure that they contacted, scheduled, and followed up with eligible personnel who were available to be surveyed when the field teams were at the selected locations.

Table D.1. Survey Response Data and Performance Rates, 2008

Survey Response Data	Coast Guard
Onsite/Group Administration	
A1. Sample	4,800
A2. Replacements[a]	2,040
A3. Eligible for Study	4,289
A4. Not Eligible for Study	511
A5. Eligibility for Study Unknown	0
A6. Eligible but Did Not Complete Survey	720
A7. Eligible and Attended Survey Session	3,636
A8. Completed Surveys	3,569
A9. Eligibility Rate[b]	
$100*[1 - ((A2 + A4) / (A1 + A2 - A5))]$	62.7%
A10. Attendance Rate[c]	
$100*[A7 / (A3 + A9 * A5)]$	84.8%
A11. Response Rate[d]	
$100 * [A8 / (A3 + A9 * A5)]$	83.2%
Remote/Mailed Surveys	
B1. Sample	1,200
B2. Eligible for Study	928
B3. Not Eligible for Study	272
B4. Eligibility for Study Unknown	0
B5. Eligible but Did Not Complete Survey	641
B6. Completed Surveys	287
B7. Eligibility Rate[b]	
$100*[B2 / (B2 + B3)]$	77.3%
B8. Response Rate[d]	
$100 * [B6 / (B2 + B7 * B4)]$	30.9%
Total Sample	
C1. Sample	6,000
C2. Replacements[a]	2,040
C3. Eligible for Study	5,217
C4. Not Eligible for Study	783
C5. Eligibility for Study Unknown	0
C6. Eligible but Did Not Complete Survey	1,361
C7. Completed Surveys	3,856
C8. Eligibility Rate[b]	
$100*[1 - ((C2 + C4) / (C1 + C2 - C5))]$	64.9%
C9. Response Rate[d]	
$100 * [C7 / (C3 + C8 * C5)]$	73.9%

[a] Replacements refers to those personnel who were determined to be not eligible for the study prior to the visit by the Field Interviewer for the Onsite/Group Administration component of the study. These selected individuals were replaced with newly selected individuals prior to data collection in order to attain the desired number of completed surveys from the selected locations.

[b] Eligibility rates are shown as percentages of sampled personnel eligible (available) for the study (i.e., sampled personnel who were not deployed, separated, permanently changed station, temporary active duty/other temporary assignment, on leave, absent without leave, incarcerated, hospitalized, deceased, or otherwise unknown at the installation) at the time of data collection.

[c] Attendance rates are shown as percentages of sampled personnel eligible (available) for the study (see footnote b) who attended an onsite/group administration session. Attendance rates apply to onsite/group administration only.

[d] Response rates are shown as percentages of sampled personnel available for the study (see footnote b) who completed the survey.

Source: 2008 Health Related Behavior Survey among Active Duty Coast Guard Personnel.

D.4   Sample Participants

Table D.2 displays the distribution of survey respondents by region and pay grade. Overall, 3,856 usable questionnaires were obtained from sampled personnel. The pay grade distribution for shows that the largest number of participants were E4s to E6s (1,729), followed by E7s to E9s (504), E1s to E3s (485), O1s to O3s (461), O4s to O10s (382), and W1s to W5s (295). This pattern is fairly consistent among CONUS and OCONUS installations. It should be noted, however, that sampling was not uniform among these pay grades, so our finding that enlisted personnel had the greatest number of respondents makes sense, since they have the greatest numbers in the Coast Guard population.

Table D.2.   Distribution of Survey Respondents, by Region and Pay Grade, 2008

Region/Pay Grade	Coast Guard
CONUS[a]	
E1–E3	431
E4–E6	1,500
E7–E9	440
W1–W5	276
O1–O3	414
O4–O10	355
Total	3,416
OCONUS[b]	
E1–E3	54
E4–E6	229
E7–E9	64
W1–W5	19
O1–O3	47
O4–O10	27
Total	440
Total	
E1–E3	485
E4–E6	1,729
E7–E9	504
W1–W5	295
O1–O3	461
O4–O10	382
Total	3,856

Note: Table entries are the number of respondents who completed a usable questionnaire.

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

[b]   Refers to personnel who were stationed outside the continental United States or aboard afloat ships.

Source: 2008 Health Related Behavior Survey among Active Duty Coast Guard Personnel.

For the analyses, the data were weighted to reflect the proportional representation of respondents in the population. Table D.3 shows the distribution of survey respondents for sociodemographic subgroups. Because of high variation in cell size, it was not feasible to present sample sizes in all individual tables for the report. Thus, readers will need to refer to these tables for the approximate sample sizes used.

D.5   Strengths and Limitations of the Data

Self-reports in which respondents provide data about their behaviors rely on respondents' ability and veracity to provide correct information about observations and events. Surveys have been a major vehicle for obtaining self-reported data about a wide variety of behaviors, including substance use and health behaviors. A major strength of the 2008 Coast Guard HRB Survey is that it permitted the collection of a rich array of information from personnel around the world about the nature and extent of behaviors of interest, along with information about correlates of these behaviors. Other strengths of the survey include the use of sophisticated sampling techniques and widely used questionnaire items that allow for precise estimates of substance use and health behaviors for well-defined populations and will permit assessment of trends over time.

Despite these strengths, survey results are subject to the potential bias of self-reports and to the ambiguities caused by questions with varying interpretations. In addition, there are other potential problems with the validity of survey data, including issues of population coverage and response rates. If the population is not properly represented in the survey or if response rates are low, biases may be introduced that can invalidate the survey results. The design and field procedures of the 2008 Coast Guard HRB Survey are believed to have addressed these concerns to the extent possible using the most current survey methodology. A pretest was used to identify and eliminate ambiguities in question wording, the active-duty Coast Guard population was properly represented in the study, and the response rate was within an acceptable range. Further, a nonresponse adjustment was made to help compensate for the potential bias of nonsurveyed persons.

Many individuals question the validity of self-reported data on sensitive topics, such as alcohol and drug use, claiming that survey respondents will give socially desirable, rather than truthful, answers. In some situations, respondents may have strong motivations not to report drug use behavior honestly, and data may yield drug use estimates that are conservative. This issue was of concern for the 2008 HRB Survey because of the belief that members might not reveal anything about behaviors that could jeopardize their careers in the military.

Table D.3.   Distribution of Respondents, by Sociodemographic Characteristics

Sociodemographic Characteristic	Coast Guard
Gender	
Male	2,988
Female	868
Race/Ethnicity	
White, non-Hispanic	2,899
African American, non-Hispanic	241
Hispanic	448
Other	268
Education	
High school or less	933
Some college	1,853
College graduate or higher	1,070
Age	
20 or younger	231
21–25	952
26–34	1,279
35 or older	1,394
Family Status[a]	
Not married	1,651
Married, spouse not present	237
Married, spouse present	1,924
Pay Grade	
E1–E3	485
E4–E6	1,729
E7–E9	504
W1–W5	295
O1–O3	461
O4–O10	382
Number of Times Combat Deployed Since September 11, 2001	
1 time	311
2 times	86
3 or more times	139
Not combat deployed since Sept 11, 2001	3,223
Lifetime Combat Exposure	
Low	1,344
Medium	668
High	84
Never deployed	1,357
Total Personnel	3,856

Note: Table entries are the number of respondents who completed a usable questionnaire.

[a]   Estimates by family status after 1998 are not strictly comparable to those from previous survey years. Personnel who reported that they were living as married (after 1998) were classified as "not married." Before 1998, the marital status question did not distinguish between personnel who were married and those who were living as married.

Source: 2008 Health Related Behavior Survey among Active Duty Coast Guard Personnel.

These issues have been the topic of a number of empirical investigations demonstrating that, although self-reports may sometimes underestimate the extent of substance use, they generally provide useful and meaningful data. For example, in an examination of the validity of alcohol-problem measures among Air Force personnel, Polich and Orvis (1979) found little evidence of underreporting when comparing self-reported data on adverse effects with police records and supervisor reports. Air Force beverage sales data, however, suggested that self-reports may underestimate actual prevalence of alcohol use by as much as 20%.

The reliability and the validity of self-reported data among respondents from the U.S. civilian general population have been tested explicitly in relation to alcohol use (Lemmens, Tan, & Knibbe, 1992; Mayer & Filstead, 1979; Midanik, 1982; Smith, Remington, Williamson, & Anda, 1980) and drug use (Haberman, Josephson, Zanes, & Elinson, 1972; Harrison, 1995; Kandel & Logan, 1984; O'Malley, Bachman, & Johnston, 1983; Rouse, Kozel, & Richards, 1985). Overall, the various reviews of the literature are encouraging in suggesting that self-reports on alcohol use and drug use can be reasonably reliable and valid.

Additional information about the validity of self-reports on drug use has been addressed by Harrison et al. (2007), Harrison (1995), and Rouse, Kozel, and Richards (1985). A general conclusion emerging from these reviews is that most people appear to be truthful (within the bounds of capability) under the proper conditions. Such conditions include believing that the research has a legitimate purpose, having suitable privacy for providing answers, having assurances that answers will be kept confidential, and believing that those collecting the data can be trusted (Harrison, 1995; Johnston & O'Malley, 1985). When respondents believe that survey questions are reasonable and justified in terms of their purpose, and when they have confidence that their answers will not be used against them, self-reports can be sufficiently valid for research and policy purposes. When those conditions are not met, there may be substantial underreporting.

Support for the validity of data reported in the 2008 Coast Guard HRB Survey derives from this extensive body of research and the methodological rigor used to conduct the studies. A strong research design has been used, and rigorous procedures have been followed that encourage honest reporting. For example, participants have been anonymous, questionnaires have been answered privately, and neutral civilian teams have collected the data and assured participants of data confidentiality.