

Health and Health-Related Behaviors Minnesota Postsecondary Student Veterans



Minnesota state colleges & universities College Student Health Survey Report

Health and Health-Related Behaviors

Minnesota Postsecondary Student Veterans

| Introduction | iii |
|---|-----|
| | |
| Survey | v |
| Methodology | v |
| Analysis Summary | vi |
| | |
| Results | 1 |
| Health Insurance and Health Care Utilization | 1 |
| Mental Health | 7 |
| Tobacco Use | 15 |
| Alcohol Use and Other Drug Use | 21 |
| Personal Safety and Financial Health | 29 |
| Nutrition and Physical Activity | 37 |
| Sexual Health | 43 |
| | |
| Implications | 47 |
| Annendiana | 10 |
| Appendices | 49 |
| Appendix 1 Colleges and Universities Participating in the 2011 College Student Health Survey | 49 |
| Appendix 2 | |
| 2011 College Student Health Survey Demographics Based on Student Response | 50 |
| Glossary | 51 |
| | |
| References | 53 |

Introduction

Q: What do the following health conditions and health-related behaviors have in common?

- Health Insurance and Health Care Utilization
- Mental Health
- Tobacco Use
- Alcohol and Other Drug Use
- Personal Safety and Financial Health
- Nutrition and Physical Activity
- Sexual Health
- A: They all affect the health and academic achievement of students, including military veterans returning to college.

In August 2009, when the Post-9/11 Veterans Educational Assistance Act of 2008 took effect, more than 2 million veterans gained access to affordable college education benefits.¹ The bill's passage and subsequent influx of military veterans on college campuses present both a challenge and an opportunity for educational institutions to serve veterans in their transition from service member to student.

For educational institutions to meet the needs of student veterans, issues unique to student veterans must be identified. In spring 2011, Boynton Health Service, in partnership with Minnesota State Colleges and Universities, conducted a comprehensive survey of a randomly selected group of students attending seventeen colleges and universities in Minnesota. To gather information specific to veterans attending college, all veterans enrolled at and identified by the seventeen postsecondary institutions in Minnesota (2,276 veterans) were also invited to complete the survey.

This report presents the health and health-related behavior data collected from veterans attending the seventeen Minnesota colleges and universities that participated in the spring 2011 College Student Health Survey. Boynton Health Service and Minnesota State Colleges and Universities administrators hope the information in this report will help college and university leaders develop programs and policies addressing the unique needs of student veterans enrolled in their schools.

This report presents data collected from veterans, not Boynton Health Service's interpretation of the data. In many instances, comparison data based on the aggregate student population that also completed the 2011 College Student Health Survey is included. The general student data are included solely for comparison; the student data have been adjusted to account for the gender and age differences between the veterans and the student population. For unadjusted prevalence rates for the aggregate student population, please refer to the 2011 College Student Health Survey Report: *Health and Health-related Behaviors, Minnesota Postsecondary Students*.²

The information in this report highlights the health and health-related behaviors of veterans currently enrolled in a Minnesota college or university. Data presented in this report should not be extrapolated to veterans not currently enrolled in a postsecondary institution. Veterans enrolled in a college or university may be at very different points in their transition back to civilian life and therefore may have health and health-behavior rates that are not comparable to veterans not currently enrolled in a postsecondary institution. Additional data analysis to examine whether veteran health profiles differ from those of the general student population is ongoing.

Survey

Methodology

Over 12,000 undergraduate and graduate students enrolled in 17 postsecondary institutions in Minnesota completed the 2011 College Student Health Survey, developed by Boynton Health Service. As an incentive, all students who responded to the survey were entered into a drawing for gift certificates valued at \$3,000 (one), \$1,000 (one), and \$500 (one) at a variety of stores. In addition, all students who responded to the survey were entered into five separate drawings for an iPad[™] and one drawing for an iPad[™] that included just students from their school.

Randomly selected students were contacted through multiple mailings and e-mails:

- Invitation postcard
- Invitation e-mail
- Reminder postcard and multiple reminder e-mails

A total of 31,899 undergraduate and graduate students from 17 colleges and universities in Minnesota were invited to participate in the 2011 College Student Health Survey (see Appendix 1 for a list of participating schools).

In addition to the 31,899 randomly selected students, an oversample of 2,276 students who attended one of these 17 Minnesota schools and were identified as veterans of the United States Armed Forces were also invited to participate in the survey. The survey results for the oversample of veterans will be treated as a separate report.

This report is based on the 2,276 identified veterans from the seventeen participating colleges and universities in the state of Minnesota.

2011 College Student Health Survey Methodology Highlights

- **31,899** students from 17 Minnesota colleges and universities were selected to participate in this survey.
- 12,263 completed the survey.
- 38.4% of the students responded.

Veterans Methodology Highlights

- 2,276 veterans attending 17 Minnesota colleges and universities were identified to participate in this survey.
- 943 completed the survey.
- 41.4% of the veterans responded.

| o Good. | YOU have been selected by your college to participate in the 2011 College Student Health Survey. Boynton Health Service University of Minnesota 410 Church Street SE Minnespolic, MN 55455 NONPROFIT ORG. U.S. POSTAGE PAID |
|--|--|
| Fill out an online survey from for a chance to win Gift Gards and an iPad "! | Just for completing the survey, you will be entered into a grand prize drawing. Three Lucky students will win gift careful sources and source a |
| and the second se | February 21 March 7 1 student will win an iPad"! 1 student will win an iPad"! |
| A REAL PROPERTY OF A READ REAL PROPERTY OF A REAL P | February 28 1 student will win an iPad"! 3 students will win grand prizes and 1 student from every school will win an iPad"! |
| | Boood To learn more or to begin, go to www.bhs.um.aduhealthsurvey and enter the username and password you see on the right hand side and enter the username and password you see on the right hand side of this card. Upon entering you will be aked to change your password survey must be completed by noon, March 15, 2011. Complete the second secon |

2011 College Student Health Survey Postcard

Survey

Analysis Summary

The information presented in this report documents the prevalence of various diseases, health conditions, and health-related behaviors across seven areas:

- Health Insurance and Health Care Utilization
- Mental Health
- Tobacco Use
- Alcohol and Other Drug Use
- Personal Safety and Financial Health
- Nutrition and Physical Activity
- Sexual Health

The prevalence of a disease, health condition, or health-related behavior is defined as the total number of occurrences in a population (in this case, college students and veterans attending college) at a given time, or the total number of occurrences in the population divided by the number of individuals in that population.

Prevalence is useful because it is a measure of the commonality of a disease, health condition, or health-related behavior. For example, the College Student Health Survey asked students if they had ever been diagnosed with depression within their lifetime. For the purpose of illustration, if 100 students completed the survey and 10 of them reported they had been diagnosed with depression within their lifetime, then the lifetime prevalence of depression among this population of students is 10.0% (10/100).

This report presents the actual rates reported among the veterans who participated in the survey. Comparison data collected from the general student population have been adjusted to correct for the differences in age and gender between veterans and the student population. The veteran survey sample comprises approximately 25.9% females and 73.9% males, with an average age of 32.6 years. The aggregate student survey sample comprises approximately 64.1% females and 35.4% males, with an average age of 26.9 years. This adjustment creates a more accurate comparison group for viewing the veteran data.

Unadjusted prevalence rates for the student population can be found in the 2011 College Student Health Survey Report: *Health and Health-related Behaviors, Minnesota Postsecondary Students*.²

Results

Health Insurance and Health Care Utilization

This section examines the areas of health insurance, health services utilization, and preventive care. Recent research indicates that most young adults in the United States, ages 18 to 24, report good health. The majority of young adults in Minnesota (95.5%) and nationwide (92.0%) report excellent, very good, or good health.³ At the same time, young adults have relatively low rates of health insurance and preventive care utilization. Among individuals under age 65, 18- to 24-year-olds report the lowest rate of health insurance coverage: in Minnesota 80.3% report some kind of health care insurance, and nationwide the number is 74.1%.^{3,4} More young males (38.2%) than young females (26.9%) lack health insurance coverage.⁴ Among all age groups, young adults (70.6%) are least likely to identify a usual place for medical care.⁴

Information related to health care access among veterans is severely limited. Himmelstein et al. published a study in 2007 documenting that in 2004, 1,768,377 United States veterans had no health insurance and were not being cared for within the Veterans Administration.⁵ According to this study, 12.7% of working-age veterans lack health coverage.⁵ Among these uninsured veterans, 51.4% had no regular source of care (compared to 8.9% of insured veterans) and 26.5% reported failing to get needed care because of the cost (compared to 4.3% of insured veterans).⁵

Veterans who completed the 2011 College Student Health Survey report an overall uninsured rate of **23.0%**, which is higher though not statistically significantly different rate than the uninsured rate obtained from the adjusted aggregate data from all students who completed the survey (**20.6%**).

Veterans who obtain health care through the Veterans Administration system may not consider themselves as having health insurance.

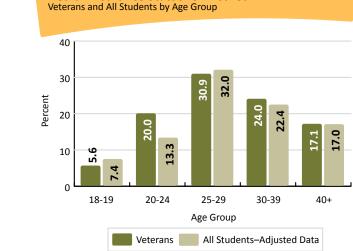
Veterans ages 25-29 report the highest uninsured

completed the 2011 College Student Health Survey

rate. The highest uninsured rate obtained from the adjusted aggregate data from all students who

also occurs among those ages 25-29.

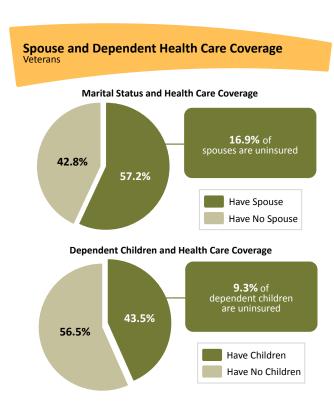
Health Insurance Status–Uninsured Veterans and All Students by Gender 25 24.3 23.0 22.9 20 20.6 19.0 Percent 15 14.0 10 5 0 Al Males Females Veterans All Students-Adjusted Data

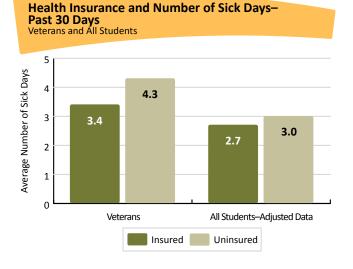


Health Insurance Status–Uninsured

Nearly three in five (**57.2%**) veterans report having a spouse, and **16.9%** of these veterans report that their spouse is uninsured. The adjusted aggregate data indicate that slightly more than one-half (**53.3%**) of all students report having a spouse, and **15.1%** of these students report that their spouse is uninsured.

More than two in five (43.5%) veterans who completed the survey report having dependent children. Of these dependent children, 9.3% lack health insurance. In comparison, the adjusted aggregate data show that 35.8% of all students report having dependent children, and 9.5% of these dependent children lack health insurance.





Health Care Service by Location Veterans (Includes Only Those Veterans Who Report Obtaining a Service in the Past 12 Months)

Ouestion asked:

Where do you obtain the following health care services while in school?

| Health Care Service (Percent of Veterans Who Obtained Service) | Percent Who Report Obtaining Service | | | | | | |
|--|--------------------------------------|-----|------|------|-----|------|--|
| Routine Doctor's Visit (87.9) | 2.7 | 0.4 | 28.6 | 38.5 | 8.6 | 24.4 | |
| Dental Care (82.5) | 1.5 | 0.1 | 8.7 | 27.1 | 5.0 | 58.4 | |
| Mental Health Service (38.9) | 2.2 | 4.9 | 32.4 | 22.6 | 6.0 | 33.8 | |
| Testing for Sexually Transmitted Infections (45.8) | 3.2 | 0.2 | 30.6 | 40.7 | 4.2 | 22.5 | |
| Treatment for Sexually Transmitted Infections (29.6) | 2.5 | 0.0 | 33.3 | 40.1 | 3.6 | 20.4 | |
| Testing for HIV (50.4) | 2.5 | 0.2 | 31.6 | 37.3 | 4.6 | 25.9 | |
| Emergency Care (84.3) | 0.3 | 0.0 | 84.9 | 10.8 | 3.0 | 6.2 | |
| School Health Service Hospital HMO Student Counseling Community Private Service Practice | | | | | | - | |

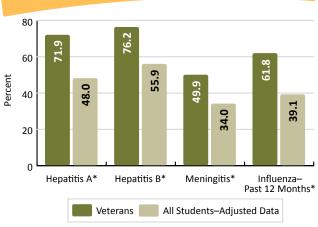
Number of sick days is a measure of health-related quality of life. Sick days reflect a personal sense of poor or impaired physical or mental health or the inability to react to factors in the physical and social environments.⁶

Among veterans who completed the survey, those without health insurance report on average **0.9** more sick days in the past 30 days than those with health insurance. The adjusted aggregate survey data obtained from all students show that those without health insurance report on average **0.3** more sick days in the past 30 days compared to those with health insurance.

Among veterans who completed the 2011 College Student Health Survey, the primary locations for obtaining many health care services appear to be a hospital, community clinic, and private practice.

Examination of the adjusted aggregate data shows that the primary locations for all students to obtain many health care services are a community clinic and private practice. Analysis of the adjusted aggregate data shows that, compared to all students who completed the 2011 College Student Health Survey, veterans who completed the survey report obtaining influenza vaccinations and immunizations for hepatitis A, hepatitis B, and meningitis at higher rates (p<0.001).

Vaccination Status Veterans and All Students



*Statistically significant.

Compared to male veterans who completed the 2011 College Student Health Survey, female veterans report more days of poor mental health. According to the adjusted aggregate data from all students, females report more days of poor physical health, more days of poor mental health, and more days when poor physical and/or mental health affected daily activities compared to males.

Average Number of Days Affected by Illness Veterans and All Students by Gender

| | Average Number of Days Affected–Past 30 Days | | | | | | |
|--|--|---------|---------|-------|---------|---------|--|
| Illness | Males | Females | p-value | Males | Females | p-value | |
| Poor Physical Health | 3.7 | 4.2 | ns | 3.0 | 4.0 | <0.001 | |
| Poor Mental Health | 4.9 | 7.2 | <0.001 | 4.4 | 6.1 | <0.001 | |
| Poor Physical and/or Mental Health Affected Daily Activities | 3.4 | 4.0 | ns | 2.5 | 3.3 | <0.001 | |
| Veterans All Students-Adjusted Data | | | | | | | |

^{ns} Not statistically significant.

Acute Condition Diagnosis– Lifetime and Past 12 Months

Veterans and All Students

| | Percent Who Report Being Diagnosed | | | | | |
|---|------------------------------------|------|-------|-----|-----------------|---------|
| Acute Condition | Within Lifetime | | | | n Past onths | p-value |
| Chlamydia | 5.4 | 4.6 | ns | 0.7 | 0.9 | ns |
| Gonorrhea | 2.0 | 1.7 | ns | 0.2 | 0.3 | ns |
| Hepatitis A | 0.2 | 0.7 | ns | 0.0 | 0.5 | <0.05 |
| Lyme Disease | 1.7 | 1.8 | ns | 0.3 | 0.4 | ns |
| Mononucleosis | 7.7 | 8.1 | ns | 0.4 | 0.6 | ns |
| Pubic Lice | 3.2 | 2.9 | ns | 0.0 | 0.3 | ns |
| Strep Throat | 41.7 | 41.0 | ns | 4.8 | 6.0 | ns |
| Syphilis | 0.2 | 0.9 | <0.05 | 0.2 | 0.3 | ns |
| Urinary Tract Infection | 17.3 | 15.8 | ns | 3.5 | 4.1 | ns |
| At Least One of the Above Acute Conditions | 52.3 | 50.3 | ns | 8.9 | 10.6 | ns |
| Veterans All Students–Adjusted Data | | | | | | |

^{ns} Not statistically significant.

Veterans who completed the 2011 College Student Health Survey were asked to report if they have been diagnosed with selected infectious acute illnesses within the past 12 months and within their lifetime.

The acute condition diagnosed most frequently within veterans' lifetimes is strep throat. Overall, **52.3%** of veterans report being diagnosed with at least one acute condition within their lifetime, and **8.9%** report being diagnosed with at least one acute condition within the past 12 months.

The adjusted aggregate survey data obtained from all students show that **50.3%** report they have been diagnosed with at least one acute condition within their lifetime, and **10.6%** report being diagnosed with at least one acute condition within the past **12** months.

Chronic Condition Diagnosis– Lifetime and Past 12 Months Veterans and All Students

| | Percent Who Report Being Diagnosed | | | | | |
|---|------------------------------------|------|---------------------------------|------|------|---------|
| Acute Condition | Within Lifetime | | Within Pas p-value 12 Months | | | p-value |
| Alcohol Problems | 11.4 | 9.4 | ns | 2.2 | 1.9 | ns |
| Allergies | 35.0 | 36.2 | ns | 9.2 | 9.5 | ns |
| Asthma | 10.9 | 15.2 | <0.001 | 2.2 | 3.0 | ns |
| Cancer | 1.9 | 2.2 | ns | 0.4 | 0.7 | ns |
| Diabetes Type I | 0.8 | 1.0 | ns | 0.6 | 0.7 | ns |
| Diabetes Type II | 3.0 | 2.7 | ns | 1.2 | 1.7 | ns |
| Drug Problems (Other Than Alcohol) | 5.5 | 6.8 | ns | 0.6 | 1.0 | ns |
| Genital Herpes | 2.2 | 1.9 | ns | 0.4 | 0.6 | ns |
| Genital Warts/ Human Papilloma Virus | 5.3 | 5.5 | ns | 0.7 | 1.2 | ns |
| Hepatitis B | 0.5 | 1.1 | ns | 0.2 | 0.5 | ns |
| Hepatitis C | 1.1 | 1.1 | ns | 0.1 | 0.6 | ns |
| High Blood Pressure | 13.7 | 12.7 | ns | 8.5 | 6.4 | <0.01 |
| High Cholesterol | 15.6 | 12.8 | <0.05 | 8.0 | 6.0 | <0.05 |
| HIV/AIDS | 0.1 | 1.3 | <0.01 | 0.0 | 0.6 | <0.05 |
| Obesity | 9.3 | 10.3 | ns | 5.2 | 5.6 | ns |
| Repetitive Stress Injury | 6.2 | 1.0 | <0.001 | 0.0 | 0.4 | ns |
| Tuberculosis | 1.0 | 4.1 | <0.001 | 1.7 | 1.0 | ns |
| At Least One of the Above Chronic Conditions | 61.7 | 61.2 | ns | 25.2 | 25.1 | ns |
| Veterans All Students–Adjusted Data | | | | | | |

^{ns} Not statistically significant.

Chronic conditions are ongoing health concerns for veterans and all students. Surveillance of these conditions provides a picture of longer term health care needs for college students.

The most common chronic condition diagnosed in veterans who completed the 2011 College Student Health Survey is allergies. More than three in five (61.7%) veterans report being diagnosed with at least one chronic condition within their lifetime, and approximately one-fourth (25.2%) report being diagnosed with at least one chronic condition within the past 12 months.

The adjusted aggregate survey data obtained from all students show that 61.2% report being diagnosed with at least one chronic condition within their lifetime, and 25.1% report being diagnosed with at least one chronic condition within the past 12 months.

Results Mental Health

This section examines areas related to the mental and emotional status of college and university students. Recent research shows that young adults in the United States have relatively high rates of mental health problems compared to other age groups. Based on the results of the National Comorbidity Survey Replication Study using the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders-IV criteria, 58.7% of 18- to 29-year-olds have been diagnosed with a mental disorder within their lifetime, and 43.8% of 18- to 29-year-olds have been diagnosed with a mental disorder within the previous year.⁷ Among all age groups, 18- to 25-year-olds have the highest past-year prevalence of serious mental illness, i.e., mental illness that results in functional impairment, (7.4%) and the highest past-year prevalence of major depressive episode (8.7%).8 More than one in ten (10.8%) young adults between the ages of 18 and 25 have received treatment for a mental health problem in the previous year.⁸

As a group, veterans may face an even greater challenge in making the adjustments necessary to succeed in college. For some veterans there may be some lingering psychological issues related to their military service, which affect their mental well-being. A recent Department of Defense Task Force report documented that among U.S. troops returning from Iraq and Afghanistan, nearly two-fifths of soldiers, one-third of Marines, and one-half of National Guard members report symptoms of psychological problems.⁹ Some veterans choose to struggle with their mental health issues in isolation due to concern over the stigma associated with disclosing mental health symptoms and asking for help within the military culture.¹⁰ Offering resources to all students struggling with mental health problems is important, whether or not these students are veterans. However, the unique life experiences of veterans require colleges to think critically about the types of programs and services they offer and whether they meet the particular needs of veterans.

A report published in 2006 presents the results of a population-based analysis of 303,905 Army and Marine troops who completed a Post-Deployment Health Assessment between May 2003 and April 2004.¹¹ The report documents that 19.1% of Operation Iraqi Freedom (OIF) veterans and 11.3% of Operation Enduring Freedom (OEF) veterans reported some mental health issue (e.g., anxiety, depression, and post-traumatic stress disorder) and 9.8% of OIF veterans and 4.7% of OEF veterans reported symptoms of post-traumatic stress disorder.¹¹ In addition, the mental health symptoms that many soldiers experience often increase three or four months after their return.¹²

For veterans who completed the 2011 College Student Health Survey, depression, anxiety, and post-traumatic stress disorder are the most frequently reported mental health diagnoses within their lifetime. The adjusted aggregate data show that compared to all students who completed the survey, male and female veterans report being diagnosed with post-traumatic stress disorder within their lifetime at higher rates than all male and female students who completed the survey.

Mental Health Condition Diagnosis– Lifetime Veterans and All Students by Gender

| | Percent Who Report Being Diagnosed | | | | | | |
|---------------------------------------|------------------------------------|------|---------|------|------|---------|--|
| Mental Health Condition | Ma | les | p-value | Fem | ales | p-value | |
| Anorexia | 0.7 | 0.5 | ns | 2.5 | 3.0 | ns | |
| Anxiety | 20.5 | 16.1 | <0.01 | 33.7 | 29.9 | ns | |
| Attention Deficit Disorder | 9.6 | 10.6 | ns | 11.1 | 7.0 | <0.05 | |
| Bipolar Disorder | 2.4 | 3.3 | ns | 3.3 | 2.8 | ns | |
| Bulimia | 0.3 | 0.3 | ns | 2.5 | 2.6 | ns | |
| Depression | 26.7 | 20.7 | <0.001 | 39.9 | 36.4 | ns | |
| Obsessive-Compulsive Disorder | 1.6 | 1.8 | ns | 1.6 | 3.0 | ns | |
| Panic Attacks | 7.5 | 6.9 | ns | 14.8 | 14.8 | ns | |
| Post-Traumatic Stress Disorder | 17.2 | 2.6 | <0.001 | 18.5 | 6.8 | <0.001 | |
| Seasonal Affective Disorder | 2.0 | 3.7 | <0.05 | 4.5 | 6.2 | ns | |
| Social Phobia/ Performance Anxiety | 4.0 | 5.0 | ns | 4.9 | 5.1 | ns | |
| Veterans All Students-Adjusted Data | | | | | | | |

^{ns} Not statistically significant.

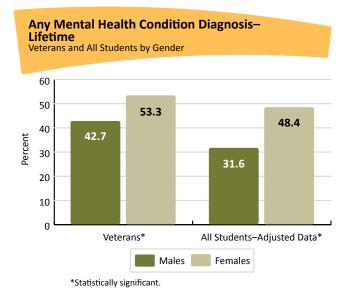
The most frequently reported mental health diagnoses within the past 12 months for veterans who completed the survey are anxiety, depression, and post-traumatic stress disorder. For both males and females, veterans have similar diagnosis rates for most mental health conditions within the past 12 months compared to all students. However, male and female veterans report being diagnosed with post-traumatic stress disorder within the past 12 months at higher rates than all male and female students who completed the survey, and male veterans have higher rates of being diagnosed with anxiety and depression within the past 12 months than all male students.

Mental Health Condition Diagnosis– Past 12 Months

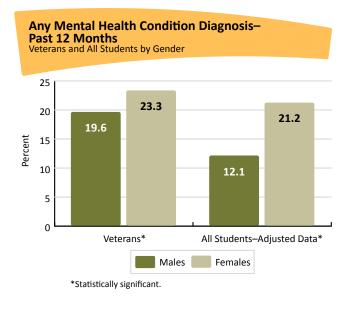
Veterans and All Students by Gender

| | Percent Who Report Being Diagnosed | | | | | |
|---------------------------------------|------------------------------------|-----|---------|------|------|---------|
| Mental Health Condition | Ma | les | p-value | Fem | ales | p-value |
| Anorexia | 0.1 | 0.3 | ns | 0.0 | 0.5 | ns |
| Anxiety | 9.4 | 7.3 | <0.05 | 15.9 | 13.4 | ns |
| Attention Deficit Disorder | 2.7 | 3.0 | ns | 3.4 | 2.6 | ns |
| Bipolar Disorder | 0.9 | 0.9 | ns | 2.2 | 0.8 | ns |
| Bulimia | 0.0 | 0.2 | ns | 0.0 | 0.4 | ns |
| Depression | 11.1 | 6.8 | <0.001 | 13.2 | 12.5 | ns |
| Obsessive-Compulsive Disorder | 0.1 | 0.8 | ns | 0.4 | 1.2 | ns |
| Panic Attacks | 1.9 | 2.8 | ns | 3.4 | 5.7 | ns |
| Post-Traumatic Stress Disorder | 7.2 | 1.4 | <0.001 | 7.3 | 0.1 | <0.001 |
| Seasonal Affective Disorder | 0.7 | 1.5 | ns | 1.3 | 2.3 | ns |
| Social Phobia/ Performance Anxiety | 1.6 | 2.3 | ns | 1.7 | 2.1 | ns |
| Veterans All Students–Adjusted Data | | | | | | |

^{ns} Not statistically significant.



Among all veterans, **45.5%** report being diagnosed with at least one mental health condition within their lifetime. Female veterans report a higher rate of being diagnosed with a mental health condition within their lifetime compared to male veterans (p=0.006). The adjusted aggregate survey data show that veterans have a statistically significantly higher rate of being diagnosed with any mental health condition within their lifetime compared to all students (**45.5%** vs. **36.1%**, respectively, p<0.001).



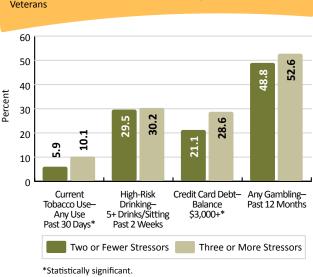
Female veterans report a higher though not statistically significantly different rate of being diagnosed with a mental health condition within the past 12 months compared to male veterans. The adjusted aggregate survey data show that veterans have a statistically higher rate of being diagnosed with any mental health condition within the past 12 months compared to all students (20.6% vs. 14.6%, respectively, p<0.001). The most commonly experienced stressors among veterans who completed the 2011 College Student Health Survey are the death of someone close to them, lack of health care coverage, and excessive debt other than credit card. A total of **44.9%** of veterans report experiencing one or two stressors within the past 12 months, and **26.3%** report experiencing three or more stressors over that same time period. The adjusted aggregate data from all students who completed the survey show that **41.8%** of all students report experiencing one or two stressors within the past 12 months, and **26.6%** report experiencing three or more stressors within that same time period.

Mental Health Stressors Veterans and All Students

| Stressor | Percent Who Report Experiencing Within Past 12 Months | | p-value | | | |
|--|---|------|---------|--|--|--|
| Getting Married | 4.7 | 3.8 | ns | | | |
| Failing a Class | 12.6 | 11.1 | ns | | | |
| Serious Physical Illness of Someone Close to You | 14.3 | 15.8 | ns | | | |
| Death of Someone Close to You | 20.8 | 19.0 | ns | | | |
| Being Diagnosed With a Serious Physical Illness | 4.0 | 3.5 | ns | | | |
| Being Diagnosed With a Serious Mental Illness | 6.0 | 3.9 | <0.01 | | | |
| Divorce or Separation From Your Spouse | 13.3 | 10.0 | <0.001 | | | |
| Termination of Personal Relationship (Not Including Marriage) | 13.8 | 12.1 | ns | | | |
| Attempted Suicide | 1.0 | 0.9 | ns | | | |
| Being Put on Academic Probation | 8.6 | 7.5 | ns | | | |
| Excessive Credit Card Debt | 10.2 | 13.5 | <0.01 | | | |
| Excessive Debt Other Than Credit Card | 15.8 | 17.0 | ns | | | |
| Being Arrested | 2.3 | 2.4 | ns | | | |
| Being Fired or Laid Off From a Job | 8.8 | 9.9 | ns | | | |
| Roommate/Housemate Conflict | 11.1 | 10.3 | ns | | | |
| Parental Conflict | 8.5 | 7.8 | ns | | | |
| Lack of Health Care Coverage | 18.9 | 19.7 | ns | | | |
| Issues Related to Sexual Orientation | 1.6 | 2.4 | ns | | | |
| Bankruptcy | 1.5 | 2.1 | ns | | | |
| Zero of the Above Stressors | 28.8 | 31.6 | ns | | | |
| One or Two of the Above Stressors | 44.9 | 41.8 | ns | | | |
| Three or More of the Above Stressors | 26.3 | 26.6 | ns | | | |
| Veterans III Students–Adjusted Data | | | | | | |

^{ns} Not statistically significant.

Over the same 12-month period, veterans who experienced three or more stressors tend to have statistically significantly higher rates of current marijuana use (p<0.05) and credit card debt (p<0.05) compared to veterans who experienced two or fewer stressors. The adjusted aggregate data obtained from all students who participated in the survey show that students who experienced three or more stressors tend to have statistically significantly higher rates of current marijuana use, high-risk drinking, credit card debt, and gambling compared to students who experienced two or fewer stressors.



Mental Health Stressors and Risky Behavior



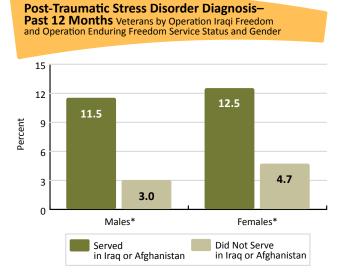
Nearly one-fourth (24.0%) of veterans who completed the 2011 College Student Health Survey report they are unable to manage their stress level. Additional analysis shows that 21.2% of male veterans and 31.6% of female veterans report they are unable to manage their stress level.

The adjusted aggregate survey data show that **20.2%** of all students report they are unable to manage their stress level.

Stress and Mental Health, Acute, and Chronic Condition Diagnosis Veterans

| Condition | Percent W Being Diagn the Past 1 | p-value | | | | |
|---|--|---------|--------|--|--|--|
| Any Acute Condition | 7.9 | 12.1 | ns | | | |
| Any Chronic Condition | 22.6 | 34.0 | <0.001 | | | |
| Anxiety | 6.3 | 26.3 | <0.001 | | | |
| Depression | 6.7 | 27.1 | <0.001 | | | |
| Obsessive-Compulsive Disorder | 0.0 | 0.9 | ns | | | |
| Panic Attacks | 0.7 | 7.4 | <0.001 | | | |
| Social Phobia/ Performance Anxiety | 0.6 | 5.1 | <0.001 | | | |
| Managed Stress (Index ≤1) Unmanaged Stress (Index >1) | | | | | | |

Unmanaged stress levels are associated with rates of diagnosis for various health conditions. For example, **26.3%** of veterans with unmanaged stress levels report being diagnosed with anxiety within the past year compared to only **6.3%** of veterans with managed stress levels reporting the same diagnosis (p<0.001). The adjusted aggregate data show the same type of relationship between ability to manage stress and various health conditions among all students.



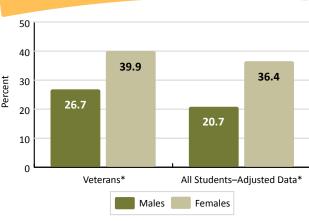
*Statistically significant.

Differences in reported rates of post-traumatic stress disorder diagnosis exist among veterans. Male veterans who served in either Iraq or Afghanistan have a higher past-12-month diagnosis rate of post-traumatic stress disorder compared to males veterans who did not serve in Iraq or Afghanistan (p<0.001). Similarly, female veterans who served in either Iraq or Afghanistan have a higher past-12-month diagnosis rate of posttraumatic stress disorder compared to females veterans who did not serve in Iraq or Afghanistan (p<0.05).

Among all veterans, **46.0%** report that they served in Iraq or Afghanistan.

Among veterans who completed the 2011 College Student Health Survey, females report being diagnosed with depression within their lifetime at a higher rate compared to males (p<0.001).

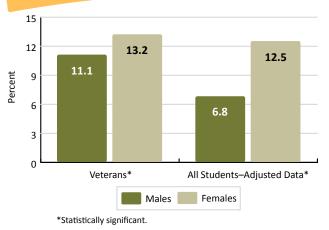
Depression Diagnosis–Lifetime Veterans and All Students by Gender



*Statistically significant.

Male veterans report being diagnosed with depression within the past 12 months at a higher but not statistically significantly different rate as female veterans. According to the adjusted aggregate survey data, female students report being diagnosed with depression within the past 12 months at a higher rate than male students (p<0.001).

Depression Diagnosis–Past 12 Months Veterans and All Students by Gender



Overall, 12.6% of veterans who completed the 2011 College Student Health Survey report they currently are taking medication for depression. Female veterans report using medication for depression at a statistically higher rate than male veterans (p=0.002). According to the adjusted aggregate survey data, female students report using medication for depression at a higher rate than male students (p<0.001).

Currently Taking Medication for Depression Veterans and All Students by Gender 20 18.4 15 16.5 Percent 10 10.6 8.1 5

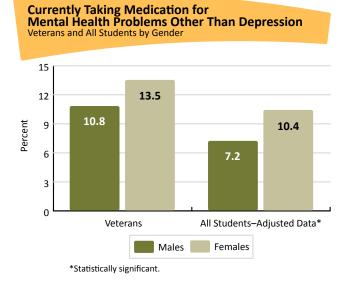
Males Females

All Students-Adjusted Data*



Veterans*

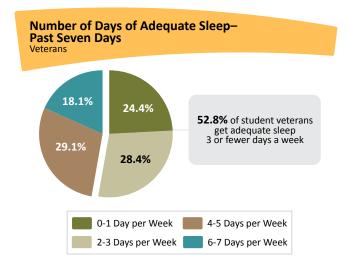
0



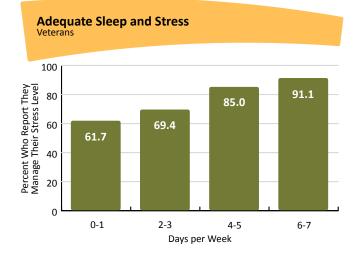
Female veterans report a higher but not statistically significantly different rate of medication use for mental health problems other than depression than male veterans. Overall, **11.6%** of veterans report taking medication for a mental health problem other than depression.

Eating Disorder Diagnosis–Lifetime Veterans and All Students by Gender 5 4.5 4 4.1 3 Percent 2 0.9 0.7 1 0 Veterans* All Students-Adjusted Data* Males Females *Statistically significant.

Among veterans who completed the 2011 College Student Health Survey, **0.9%** of males compared to **4.1%** of females report being diagnosed with anorexia and/or bulimia within their lifetime (p=0.003). The adjusted aggregate data obtained from all students who participated in the survey show that **0.7%** of all males and **4.5%** of all females report being diagnosed with anorexia and/or bulimia within their lifetime (p<0.001).



More than one-half (52.8%) of all veterans report they received enough sleep so they felt rested when they woke up in the morning on three or fewer days over the previous seven days. The adjusted aggregate data show that 50.6% of all students who completed the 2011 College Student Health Survey report they received adequate sleep on three or fewer days over the previous seven days. Receiving adequate sleep appears to affect veterans' ability to manage their stress level. Only **61.7%** of veterans who report receiving 0-1 day per week of adequate sleep also report the ability to manage their stress, whereas **91.1%** of veterans who report 6-7 days per week of adequate sleep also report the ability to manage their stress (p<0.001). A similar association between sleep and stress is seen in the adjusted aggregate survey data from all students.



Results Tobacco Use

Recent research shows that current cigarette use by Americans of all ages peaks among young adults ages 21-25 at 37.7%, while 18- to 20-year-olds are not far behind at 33.1%.¹³ Nearly one in three (29.9%) full-time college students smoked cigarettes at least one time in the previous year, less than one in five (17.9%) smoked cigarettes at least one time in the previous 30 days, and less than one in ten (8.0%) smoke cigarettes daily.¹⁴ Among young adults ages 18-25, 6.1% used smokeless tobacco in the previous month.¹³ Current cigarette smokers are more likely to use other tobacco products, alcohol, or illicit drugs than nonsmokers.¹³ Among all current smokers, 45.3% have tried to quit and have stopped smoking for at least one day in the preceding 12 months.¹⁵ Of the 15 million college students in the United States, an estimated 1.7 million will die prematurely due to smoking-related illnesses.¹⁶ Clearly the current level of tobacco use among college students poses a major health risk.

Several studies have documented higher rates of tobacco use among veterans compared to the civilian population. According to the Department of Veterans Affairs (VA) National Smoking and Tobacco Use Cessation Program directive, the prevalence of smokers in the VA is 22.0% compared to 20.9% in the general population.¹⁷ A National Survey on Drug Use and Health report estimates that 18.1% of veterans smoke cigarettes on a daily basis, compared to 14.3% of nonveterans.¹⁸ In a study of U.S. military personnel serving in the first Gulf War, 7.0% of respondents indicated they started smoking for the first time and 56.0% of preexisting regular smokers stated they increased consumption while deployed.¹⁹

The current tobacco use rate for all veterans who completed the 2011 College Student Health Survey is significantly higher than the current tobacco use rate among all students who completed the survey (**39.6%** vs. **32.3%**, respectively, p<0.001). Male veterans report a statistically significantly higher rate of current tobacco use compared to female veterans (**42.4%** vs. **30.9%**, respectively, p=0.002).

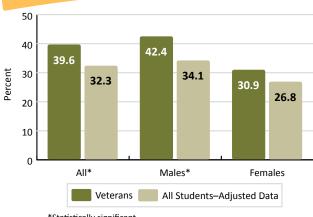
Definition:

Current Tobacco Use

Any tobacco use in the past 30 days. Tobacco use includes both smoking and smokeless tobacco.

Current Tobacco Use

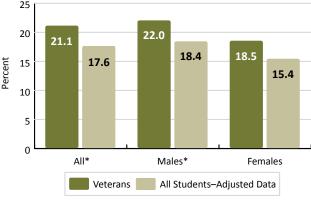
Veterans and All Students by Gender



*Statistically significant.

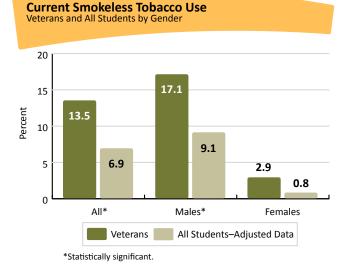
The daily tobacco use rate for all veterans who completed the 2011 College Student Health Survey is statistically significantly higher than the daily tobacco use rate among all students who completed the survey (21.1% vs. 17.6%, respectively, p=0.007). The daily tobacco use rate for male veterans is higher but not statistically significantly different that the rate for female veterans (22.0% vs. 18.5%, respectively).

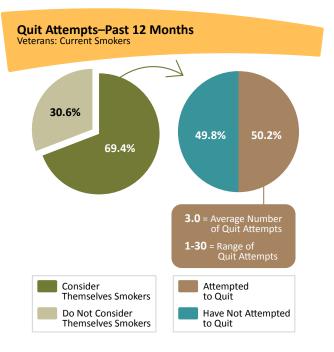




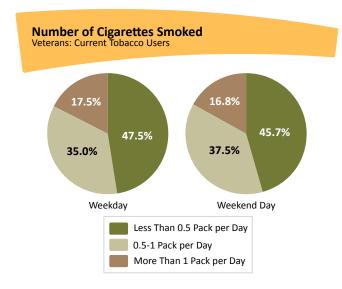
*Statistically significant.

Overall, **17.1%** of male veterans report using smokeless tobacco during the past 30 days compared to **2.9%** of female veterans (p<0.001). The current smokeless tobacco use rate for all veterans who completed the 2011 College Student Health Survey is statistically significantly higher than the current smokeless tobacco use rate among all students who completed the survey (**13.5%** vs. **6.9%**, respectively, p<0.001).

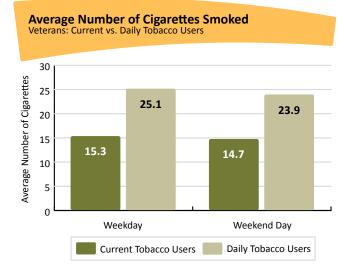




Among those who report using smoking tobacco in the past 30 days, **30.6%** of veterans, compared to **28.2%** of all students who completed the survey, do not consider themselves smokers. Among those who do consider themselves smokers, **50.2%** of veterans, compared to **52.5%** of all students, made at least one attempt to quit smoking over the past 12 months. These veterans made an average of **3.0** quit attempts during that same 12-month period, while all students who consider themselves smokers made an average of **4.8** quit attempts.



Among veterans who report using tobacco over the past 30 days, the proportion who report smoking half a pack of cigarettes or more per day increases from **52.5%** on a weekday to **54.3%** on a weekend day. The adjusted aggregate survey data from all students who currently use tobacco show that the proportion of students who report they smoke half a pack of cigarettes or more per day increases from **50.7%** on a weekday to **52.2%** on a weekend day.



Veterans who are current tobacco users smoke similar average numbers of cigarettes per weekday and per weekend day. Veterans who are daily tobacco users smoke more but not a statistically significantly different average numbers of cigarettes per weekday compared to per weekend day. The adjusted aggregate survey data from all students show a statistically significantly higher average number of cigarettes smoked on weekdays compared to on weekend days for both current and daily tobacco users. Veterans who used tobacco in the past 30 days report the most common locations of their use where they live (outside), in a car, on campus (outside), and at bars/restaurants. The most common locations obtained from the adjusted aggregate data from all students who completed the 2011 College Student Health Survey were the same as those reported by veterans.

Tobacco Use Location Veterans and All Students: Current Tobacco Users

| | Percent Who Indicate Use | | | | |
|-------------------------------------|--------------------------|------|------|------|--|
| Location | Ins | ide | Out | side | |
| On Campus | 3.6 | 3.8 | 63.8 | 63.3 | |
| Residence Halls | * | * | 2.9 | 6.5 | |
| Fraternity/Sorority | 0.3 | 1.0 | 1.9 | 2.0 | |
| Bars/Restaurants | * | * | 55.3 | 53.2 | |
| In a Car | 76.4 | 73.6 | * | * | |
| Where I Live | 26.2 | 27.7 | 78.3 | 75.8 | |
| Private Parties | 17.8 | 23.7 | 46.9 | 50.7 | |
| Work Site | * | * | 41.7 | 43.0 | |
| Parking Ramp/Garage | 22.0 | 22.6 | * | * | |
| Other | 10.0 | 10.4 | 30.4 | 34.9 | |
| Veterans All Students-Adjusted Data | | | | | |

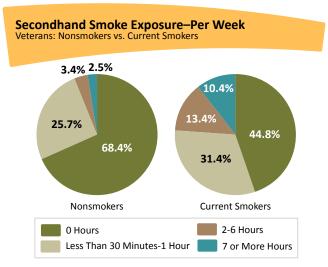
*Location not included in question.

For both veterans who are nonsmokers and veterans who are smokers, on campus (outside) is the most commonly cited location for exposure to secondhand smoke. Approximately one-third (31.8%) of veterans report never being exposed to secondhand smoke. Adjusted aggregate data from all students who completed the survey show that 35.4% report never being exposed to secondhand smoke.

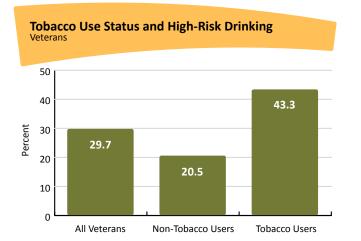
Secondhand Smoke Exposure Veterans

| | Percent Who Indicate Exposure | | | | | |
|---------------------|-------------------------------|------|------|------|--|--|
| Location | Ins | ide | Out | side | | |
| On Campus | 1.1 | 1.6 | 34.0 | 48.5 | | |
| Residence Halls | * | * | 1.3 | 3.6 | | |
| Fraternity/Sorority | 0.2 | 1.0 | 0.3 | 2.6 | | |
| Bars/Restaurants | * | * | 14.9 | 35.3 | | |
| In a Car | 13.1 | 49.8 | * | * | | |
| Where I Live | 5.2 | 16.5 | 10.3 | 36.2 | | |
| Private Parties | 6.6 | 13.3 | 10.4 | 25.9 | | |
| Work Site | * | * | 11.2 | 23.3 | | |
| Parking Ramp/Garage | 6.0 | 10.0 | * | * | | |
| Other | 8.7 | 10.4 | 17.4 | 21.0 | | |
| Nonsmoker Smoker | | | | | | |

*Location not included in question.



For veterans who are nonsmokers, **5.9%** report being exposed to secondhand smoke 2 or more hours per week. For veterans who are current smokers, **23.8%** they report being exposed to secondhand smoke 2 or more hours per week.

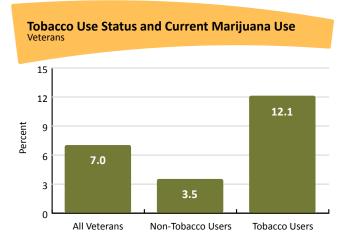


Veterans who use tobacco have a higher rate of high-risk drinking compared to veterans who are non-tobacco users (43.3% vs. 20.5%, respectively, p<0.001).

This same relationship between tobacco use and high-risk drinking is seen in the adjusted aggregate data from all students who completed the 2011 College Student Health Survey.

Definition: High-Risk Drinking

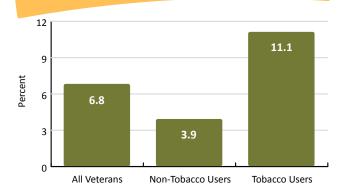
Consumption of five or more alcohol drinks at one sitting within the past two weeks for both males and females. A drink is defined as a bottle of beer, wine cooler, glass of wine, shot glass of liquor, or mixed drink.



Similar to the relationship between high-risk drinking and tobacco use, the use of marijuana in the past 30 days is higher among veterans who are tobacco users (12.1%) compared to veterans who are non-tobacco users (3.5%) (p<0.001).

A similar relationship between tobacco use and current marijuana use is seen in the adjusted aggregate data from all students who completed the survey. The use of other illegal drugs is also associated with tobacco use. Veterans who are tobacco users use illegal drugs other than marijuana at nearly three times the rate of non-tobacco users (**11.1%** vs. **3.9%**, respectively, p<0.001).

The relationship between tobacco use and other illegal drug use seen in the adjusted aggregate data from all students who completed the survey is similar to that seen among the veterans. Tobacco Use Status and Other Illegal Drug Use (Not Marijuana)–Past 12 Months Veterans



Results

Alcohol Use and Other Drug Use

American college students consume alcohol and other drugs at very high rates. More than four in five (82.6%) full-time college students have consumed alcohol at least one time, nearly four in five (79.4%) have consumed alcohol in the past year, and nearly two in three (65.8%) full-time college students consume alcohol monthly.¹⁴ The rate of binge drinking (consuming five or more alcoholic beverages in a row in the previous two weeks) peaks between ages 21 and 25 at 46.5% and is 34.7% among 18- to 20-year-olds.¹³ Young adults ages 18 to 22 who are enrolled in college full time are more likely than their peers who are not enrolled in college full time to consume alcohol monthly and to binge drink.¹³

Approximately one-half (51.4%) of full-time college students have used an illicit drug at least once in their lifetime, more than one-third (36.0%) of full-time college students have used an illicit drug at least once in the past year, and approximately one in five (20.7%) full-time college students have used an illicit drug in the last month.¹⁴ Marijuana is the illicit drug of choice for full-time college students, with nearly half (47.5%) of students having used the drug at least once in their lifetime and almost one-third (32.8%) having used it in the past year.¹⁴ Among full-time college students, 7.5% have used amphetamines, 4.2% have used cocaine, and 0.4% have used heroin in the previous year.¹⁴

The National Survey on Drug Use and Health, an annual survey sponsored by the Substance Abuse and Mental Health Services Administration, examined differences in alcohol and drug use among veterans and nonveterans in two separate reports released in November 2005. The rates of alcohol and marijuana use were higher among veterans compared to nonveterans. The report estimated a pastmonth alcohol use rate among veterans of 56.6%, compared to a rate of 50.8% among nonveterans, with 22.6% of veterans also reporting they consumed five or more drinks at one sitting over that same time period and 21.6% of nonveterans reporting having engaged in that same type of behavior.¹⁸ The second report, which highlighted the use of marijuana and other illicit drugs, estimated the rates of marijuana use within the past 30 days to be 3.5% among veterans and 3.0% among nonveterans. The use of illicit drugs within the past 30 days was slightly lower among veterans than among nonveterans (1.7% vs. 1.9%, respectively).²⁰ The rates for any use of alcohol in the past 12 months are similar for male and female veterans who completed the 2011 College Student Health Survey (79.6% vs. 83.2%, respectively).

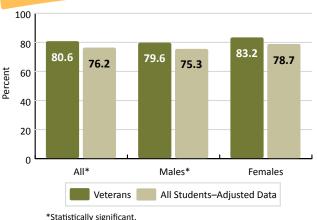
The rate for any use of alcohol within the past year is statistically significantly higher among veterans (80.6%) compared to the adjusted aggregate data from all students who completed the survey (76.2%) (p=0.002).

Definition:

Past-12-Month Alcohol Use

Any alcohol use within the past year.

Alcohol Use–Past 12 Months Veterans and All Students by Gender



Among veterans who completed the 2011 College Student Health Survey, the rate for use of alcohol in the past 30 days is higher though not statistically significantly different for males compared to females (69.3% vs. 65.2%, respectively). Analysis of the adjusted aggregate data shows that veterans report a higher though not statistically significantly different rate of alcohol use within the past 30 days compared to all students who completed the survey (68.3% vs. 66.2%, respectively).

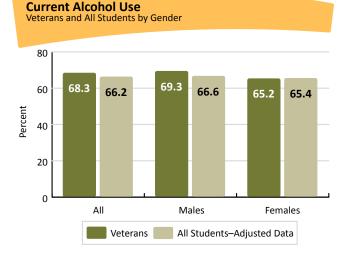
Definition:

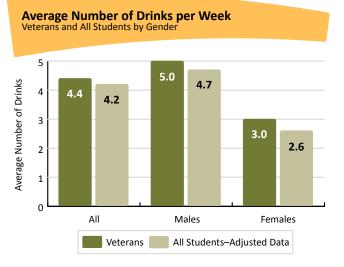
Current Alcohol Use

Any alcohol use within the past 30 days.

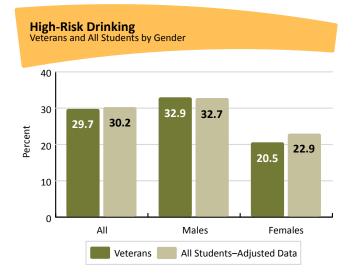
Male veterans who completed the 2011 College Student Health Survey consume approximately 1.5 times the number of drinks per week than female veterans consume (5.0 vs. 3.0, respectively, p<0.001).

Analysis of the adjusted aggregate data shows that male veterans report consuming a similar average number of drinks per week compared to all males who completed the survey (5.0 vs. 4.7, respectively). Female veterans report consuming a higher but not statistically significantly different average number of drinks per week compared to all females who completed the survey (3.0 vs. 2.6, respectively).





Results



Male veterans report a higher rate of high-risk drinking compared to female veterans (**32.9%** vs. **20.5%**, respectively, p<0.001). Among all students who completed the 2011 College Student Health Survey, males report a higher rate of high-risk drinking compared to females (p<0.001).

Analysis of the adjusted aggregate data shows that male veterans report a high-risk drinking rate similar to that for all males who completed the survey (**32.9%** vs. **32.7%**, respectively). Female veterans report a slightly lower though not statistically significantly different high-risk drinking rate compared to all females who completed the survey (**20.5%** vs. **22.9%**, respectively).

Among veterans who completed the 2011 College Student Health Survey, the peak years for engaging in high-risk drinking are between ages 21 and 27. Among all students who completed the survey, the peak years for engaging in high-risk drinking are also between ages 21 and 27.

60 50 53.8 40 42.6 Percent 30 34.3 20 23.4 15.9 10 0 18-20 21-22 25-27 28+ 23-24 Age Group

Blood Alcohol Content

High-Risk Drinking

Veterans by Age Group

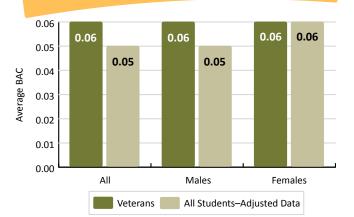
Blood alcohol content (BAC) measures the percentage of alcohol in a person's blood. The calculation of BAC is based on a formula that takes into account the following factors:

- Gender
- Current body weight
- Amount of alcohol consumed (number of drinks)
- Time period of consumption
- Concentration of alcohol in the beverage consumed (based on the alcohol content of one typical can of beer containing 4.5% alcohol)

The blood alcohol content of a student on the most recent socializing/partying occasion was calculated based on answers to four different survey questions (gender, current body weight, amount of alcohol consumed, and time period of consumption). It should be noted that the BAC calculated in this study is an estimate. This information is self-reported, and students tend to underestimate the actual amount of alcohol they consume. The average estimated blood alcohol content for both male and female veterans who completed the 2011 College Student Health Survey, based on the last time they partied/socialized, is **0.06**.

Analysis of the adjusted aggregate data shows that the average estimated BAC level is higher though not statistically significantly different among male veterans than among all males who completed the survey (0.06 vs. 0.05, respectively).

Average Estimated Blood Alchol Content Veterans and All Students by Gender



The average estimated BAC levels for veterans range from **0.04** to **0.10**. Veterans ages 21-26 all report estimated BAC levels that meet or exceed the legal driving limit of 0.08 for individuals of legal drinking age.

The adjusted aggregate data from all students who completed the 2011 College Student Health Survey show that the average estimated BAC level ranges from **0.03** to **0.08**.

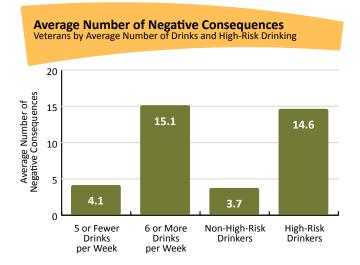
Average Estimated Blood Alcohol Content Veterans by Age Group 0.10 0.10 0.09 0.08 80.0 Average BAC 0.06 0.05 0.04 0.04 0.02 0.00 18-20 21-22 23-24 25-26 27-28 29-30 31-32 33-34 35+ Age Group

Negative Consequences of Alcohol/Drug Use Veterans and All Students

| Negative Consequence Due to Alcohol/Drug Use | Percent Who Report Experiencing Within Past 12 Months | |
|--|---|------|
| Had a Hangover | 50.1 | 51.0 |
| Performed Poorly on a Test or Important Project | 16.1 | 17.0 |
| Been in Trouble With Police, Residence Hall, or Other College Authorities | 3.8 | 4.2 |
| Damaged Property, Pulled Fire Alarms, etc. | 1.3 | 1.3 |
| Got Into an Argument or Fight | 16.6 | 14.4 |
| Got Nauseated or Vomited | 24.3 | 26.5 |
| Driven a Car While Under the Influence | 13.8 | 15.2 |
| Missed a Class | 16.0 | 15.3 |
| Been Criticized by Someone I Know | 17.9 | 16.5 |
| Thought I Might Have a Drinking or Other Drug Problem | 8.7 | 8.9 |
| Had a Memory Loss | 15.8 | 16.6 |
| Done Something I Later Regretted | 17.4 | 19.5 |
| Been Arrested for DWI/DUI | 1.3 | 1.7 |
| Have Been Taken Advantage of Sexually | 1.6 | 1.6 |
| Have Taken Advantage of Another Sexually | 0.3 | 0.6 |
| Tried Unsuccessfully to Stop Using | 3.9 | 3.5 |
| Seriously Thought About Suicide | 3.6 | 2.9 |
| Seriously Tried to Commit Suicide | 0.7 | 0.4 |
| Been Hurt or Injured | 8.5 | 6.3 |
| | | |

Veterans All Students-Adjusted Data

Among all veterans, **16.0%** report missing a class, **13.8%** report having driven while under the influence, and **16.1%** report performing poorly on a test or project as a result of alcohol/drug use.



A strong association exists between the average number of drinks veterans consumed per week and the total number of reported negative consequences they experienced over the past 12 months (p<0.001). An association also exists between engaging in high-risk drinking within the past two weeks and reported negative consequences (p<0.001).

The adjusted aggregate survey data from all students show the same relationships between average number of drinks consumed per week, engagement in high-risk drinking, and reported negative consequences. The rates for the negative consequences identified are generally three to four times higher among veterans who have engaged in high-risk drinking compared to veterans who have not engaged in high-risk drinking. More than one-fourth (28.6%) of veterans who have engaged in high-risk drinking have driven while under the influence of alcohol or drugs one or more times in the past 12 months.

Higher rates are seen in the adjusted aggregate data from the 2011 College Student Health Survey, with **33.8%** of all students who engage in high-risk drinking behavior also reporting they have driven while under the influence of alcohol or drugs within the past 12 months.

Veterans were asked if they would call 911 when someone "passes out" due to alcohol/drug use and they are unable to wake the individual. In an example of a situation in which 911 must be called, **65.3%** of all veterans report they would be "very likely" to call for emergency assistance.

According to the adjusted aggregate survey data, **64.8%** of all students report they would be "very likely" to call for emergency assistance if they found someone passed out due to alcohol/drug use.

The rate for any marijuana use within the past 12 months is **11.3%** for all veterans who completed the 2011 College Student Health Survey. This rate is lower than the past-12-month marijuana use rate reported among all students in the adjusted aggregate data (p<0.001).

Definition: Past-12-Month Marijuana Use

Any marijuana use within the past year.

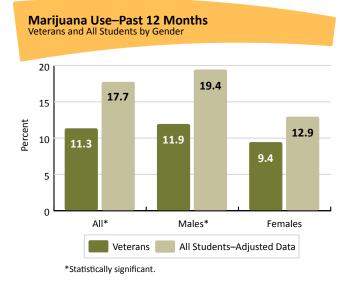
High-Risk Drinking and Selected Consequences* Veterans

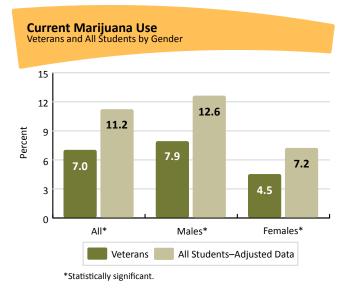
| Negative Consequence | | Percent | : |
|---|------|-------------|--------|
| Driven a Car While Under the Influence | | 7.5 | 28.6 |
| Got Into an Argument or Fight | 16.6 | 10.0 | 32.5 |
| Performed Poorly on a Test or Important Project | 16.1 | 11.2 | 27.9 |
| Missed a Class | 16.0 | 9.2 | 32.1 |
| Have Been Taken Advantage of Sexually (Includes Males and Females) | 1.6 | 1.1 | 2.9 |
| All Veterans Non-High-Risk Drinkers | High | -Risk Dr | inkers |

*The rate for high-risk drinking is based on behavior in the past two weeks while the rate for negative consequences is based on reported experiences within the previous 12-month period.

Likelihood of Calling 911 in an Alcohol/Drug-Related Situation Veterans

| Response | | Percent | | | |
|-------------------|---|---------|---------------|--|--|
| Very Likely | 65.3 | 72.5 | 61.9 | | |
| Somewhat Likely | 20.1 | 16.7 | 21.6 | | |
| Somewhat Unlikely | 8.4 | 5.4 | 9.8 | | |
| Very Unlikely | 6.2 | 5.4 | 6.7 | | |
| All Veterans | Veterans Who Did Not Use Alcohol Within the Past 30 Days | | e I Within | | |





The current marijuana use rate is lower among veterans compared to the rate obtained from the adjusted aggregate data from all students who completed the 2011 College Student Health Survey (7.0% vs. 11.2%, respectively, p<0.001).

Definition: Current Marijuana Use

Any marijuana use within the past 30 days.

| Selected Drug Use–Past 12 Months | |
|----------------------------------|--|
| Veterans and All Students | |

| | Percent Who Report Use | | | |
|------------------------------------|------------------------|-----|---------|--|
| Drug | Within Past 12 Months | | p-value | |
| Cocaine | 1.4 | 2.1 | ns | |
| Amphetamines | 0.6 | 1.5 | <0.05 | |
| Sedatives | 4.6 | 3.6 | ns | |
| Hallucinogens | 1.1 | 2.0 | ns | |
| Opiates | 1.1 | 0.9 | ns | |
| Inhalants | 0.6 | 0.3 | ns | |
| Ecstasy | 1.4 | 1.6 | ns | |
| Steroids | 0.6 | 0.1 | <0.01 | |
| GHB/Rohypnol | 0.3 | 0.2 | ns | |
| At Least One of the Above Drugs | 6.8 | 7.5 | ns | |

^{ns} Not statistically significant.

The illicit drugs most commonly used by veterans are sedatives (4.6%), cocaine (1.4%), and ecstasy (1.4%). Among veterans, 6.8% report having used at least one of the nine listed illicit drugs. In addition, 3.2% of veterans report using another person's prescription drugs.

Among all students, **7.5%** report having used at least one of the listed illicit drugs within the past 12 months. In addition, **5.4%** of students report using another person's prescription drugs.

29

Results

Personal Safety and Financial Health

Though many efforts are made to reduce violence and victimization on campus, these unfortunate events still occur. Current data show that almost one in six (17.6%) women and one in 33 (3.0%) men in the United States have been victims of rape or attempted rape in their lifetime.²¹ Based on estimates by the National Institute of Justice, 20.0% of American women experience rape or attempted rape while in college, but fewer than 5.0% of college rape victims report the incident to the police.22

According to the 2006 Gender Relations Survey of Active Duty Members, 6.8% of female active-duty members and 1.8% of male active-duty members reported experiencing unwanted sexual contact.²³ Of the active-duty members who indicated experiencing unwanted sexual contact, 16% of women and 16% of men sought professional help and 21% of woman and 22% of men discussed the incident with an authority or organization but the majority (79% of women and 78% of men) chose not to report it.²³

Financial health is another area of concern.

According to the U.S. Department of Education, the average price of college attendance was \$14,000 for all undergraduates and \$22,400 for all full-time, full-year undergraduate students in 2007-2008.²⁴ In 2007-2008, 65.6% of all undergraduates received some type of financial aid, and the average amount of aid received was \$9,100.²⁴ Nearly two in five (38.5%) undergraduate students borrowed money through a school loan, and the average loan amount was \$7,100.²⁴ More than four in five (84.0%) college students in the United States have at least one credit card, and one-half (50.0%) have four or more credit cards.²⁵ The average credit card debt per U.S. college student is \$3,173.²⁵

Gambling represents one possible obstacle to achieving and maintaining financial health. Gambling is a form of entertainment for many people. Approximately 68.0% of the U.S. adult population has gambled legally within the past year, and more than two-fifths (41.9%) of college students report participating in some type of gambling activity in the previous school year.^{26,27} However, for some individuals, gambling becomes a problem. Nationally, between 1.6% and 3.4% of the general population may experience a gambling problem within their lifetime.²⁸ The rate of problem gambling are even higher among veterans of a similar age, especially among veterans being treated for post-traumatic stress disorder.²⁸

Based on data from the 2011 College Student Health Survey, female veterans report experiencing sexual assault within their lifetime at a higher rate than male veterans (44.4% vs. 9.0%, respectively, p<0.001).

Analysis of the adjusted aggregate data shows that female veterans report experiencing sexual assault within their lifetime at a higher rate than all female students who completed the survey (44.4% vs. **30.6%**, respectively, p<0.001).

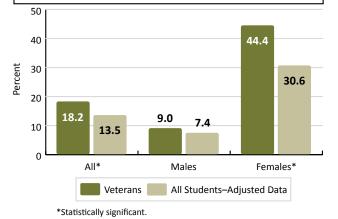
Sexual Assault–Lifetime

Veterans and All Students by Gender

Sexual assault is defined as answering yes to at least one of the following two questions:

Within your lifetime or during the past 12 months, have you:

- Experienced actual or attempted sexual intercourse without your consent or against your will?
- Experienced actual or attempted sexual touching without your consent or against your will?



The past-12-month rate for experiencing a sexual assault is higher but not statistically significantly

different among female veterans compared to male

veterans (2.5% vs. 1.6%, respectively).

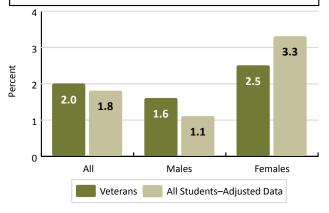
Sexual Assault–Past 12 Months

Veterans and All Students by Gender

Sexual assault is defined as answering yes to at least one of the following two questions:

Within your lifetime or during the past 12 months, have you:

- Experienced actual or attempted sexual intercourse
- without your consent or against your will? Experienced actual or attempted sexual touching
- without your consent or against your will?

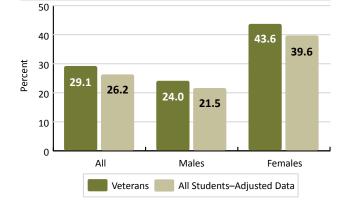


Domestic Violence–Lifetime Veterans and All Students by Gender

Domestic violence is defined as answering yes to at least one of the following two questions:

Within your lifetime or during the past 12 months, have you:

- Been slapped, kicked, or pushed by your significant other or spouse/partner?
- Been hurt by threats, "put-downs," or yelling by your significant other or spouse/partner?



Based on data from the 2011 College Student Health Survey, female veterans report experiencing domestic violence within their lifetime at a higher rate than male veterans (**43.6%** vs. **24.0%**, respectively, p<0.001).

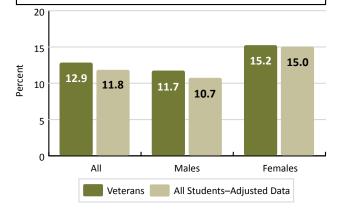
Analysis of the adjusted aggregate data shows that female veterans report experiencing domestic violence within their lifetime at a higher though not statistically significantly different rate than all female students who completed the survey (43.6% vs. 39.6%, respectively).

Domestic Violence–Past 12 Months Veterans and All Students by Gender

Domestic violence is defined as answering yes to at least one of the following two questions:

Within your lifetime or during the past 12 months, have you:

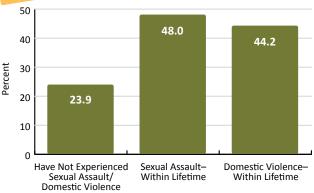
- Been slapped, kicked, or pushed by your significant other or spouse/partner?
- Been hurt by threats, "put-downs," or yelling by your significant other or spouse/partner?



The past-12-month rate for experiencing domestic violence is higher though not statistically significantly different among female veterans compared to male veterans (**15.2%** vs. **11.7%**, respectively).

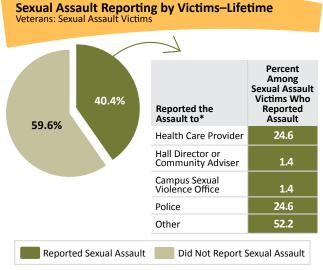
The rates of depression diagnosis within their lifetime are higher for both veterans who report being victims of sexual assault (48.0%) and veterans who report being victims of domestic violence (44.2%) than for veterans who have not experienced sexual assault or domestic violence (23.9%). This same relationship between experiencing sexual assault or domestic violence and depression diagnosis is seen in the adjusted aggregate data from all students who completed the 2011 College Student Health Survey.

Depression Diagnosis–Lifetime Veterans by Sexual Assault/Domestic Violence



Of the veterans who indicate they have experienced a sexual assault within their lifetime (18.2%), approximately two in five (40.4%) state they reported the incident. Of the veterans who reported the incident, 24.6% reported it to the police and 24.6% reported it to a health care provider.

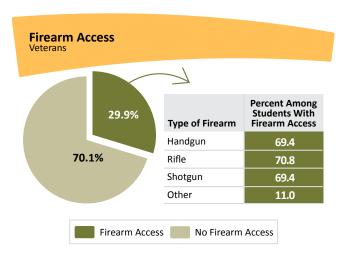
According to the adjusted aggregate survey data, among all students who report they have experienced a sexual assault within their lifetime (13.5%), only **32.9%** indicate they reported the incident.

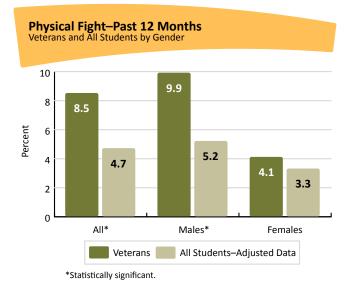


*Veterans may have reported incident to individuals in more than one category.

Nearly one in three (29.9%) veterans report they have immediate access to a firearm, 32.4% for males and 23.0% for females. The adjusted aggregate survey data show that 16.6% of all students report having immediate access to a firearm.

Among those who report having access to a firearm, veterans report a higher rate of access to a handgun compared to all students who completed the survey (69.4% vs. 46.9%, respectively, p<0.001).





35.7

15.2

18.6

30.5

Motorized Two-Wheeled

Vehicle Helmet Use

Always Most of the Time Sometimes Never 3.2

7.4

55.8

33.6

Texting While Driving

Transportation Safety–Past 12 Months

12.5

8.7

9.1

69.8

Bicycle Helmet Use

All Students

100

80

Percent

40

20

0

Male veterans are more likely to report having engaged in a physical fight over the past 12 months than female veterans (9.9% vs. 4.1%, respectively, p=0.007).

The rate of engaging in a physical fight within the past 12 months is higher among veterans than among all students in the adjusted aggregate survey data (8.5% vs. 4.7%, respectively, p<0.001).

Approximately one-half (50.9%) of veterans who rode a motorized two-wheeled vehicle report they wear a helmet always or most of the time while on the vehicle. About two-thirds (66.4%) of veterans report texting sometimes, most of the time, or always while driving.

According to the adjusted aggregate survey data, **50.5%** of all students who rode a motorized twowheeled vehicle report they wear a helmet always or most of the time while on the vehicle.

Injuries–Past 12 Months Veterans and All Students

| Type of Injury | Percent Who Report Experiencing Within Past 12 Months | | |
|---|---|------|--|
| Assaulted by Another Person (Nonsexual) | 1.7 | 1.4 | |
| Burned by Fire or a Hot Substance | 3.8 | 4.3 | |
| Motor Vehicle Related | 2.7 | 2.1 | |
| Team Sports | 4.1 | 6.5 | |
| Individual Sports | 6.8 | 6.3 | |
| Bicycle Related | 1.9 | 2.5 | |
| Falls | 10.8 | 8.7 | |
| Other | 16.8 | 11.4 | |
| Not Applicable–I Was Not Injured | 64.3 | 67.1 | |
| Veterans All Students-Adjusted Data | | | |

More than one-third (**35.7%**) of veterans report experiencing at least one injury over the past 12 months. The injuries most commonly reported during this period are due to individual sports and falls.

Analysis of the adjusted aggregate data from the 2011 College Student Health Survey indicates that **32.9%** of all students report experiencing at least one injury over the past 12 months.

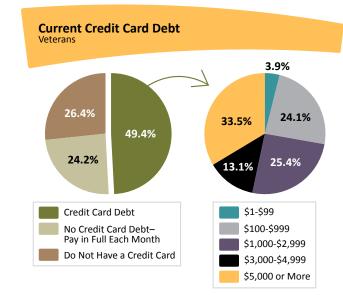
Results Personal Safety and Financial Health

Nearly one-half (49.4%) of all veterans report carrying some level of credit card debt over the past month, which is a rate similar to that found in the adjusted aggregate survey data among all students (50.5%). Among those who report carrying some monthly credit card debt, veterans report a higher though not statistically significantly different rate of carrying a debt of \$3,000 per month or more compared to all students (46.6% vs. 44.8%, respectively).

Definition:

Current Credit Card Debt

Any unpaid balance at the end of the past month.

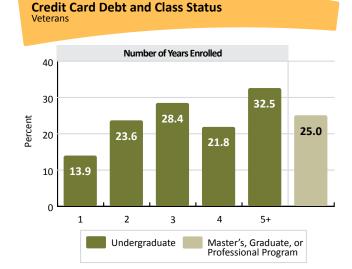


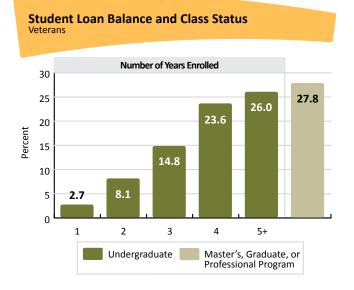
The rate of monthly credit card debt of \$3,000 or more for veterans who completed the 2011 College Student Health Survey was lowest among firstyear undergraduate students (**13.9%**) and highest among undergraduate students enrolled five or more years (**32.5%**).

The adjusted aggregate data from all students who completed the survey show that the rate of monthly credit card debt ranges from **15.6%** among first-year undergraduate students to **33.6%** among undergraduate students enrolled five or more years.

Definition: Credit Card Debt

A monthly debt of \$3,000 or more.





The percentage of veterans who report a student loan balance of \$20,000 or more increases from **2.7%** among first-year undergraduates to **27.8%** among students enrolled in a master's, graduate, or professional program.

The adjusted aggregate data from all students who completed the survey show that the rate of carrying a student loan balance of \$20,000 or more ranges from **6.2%** among first-year undergraduate students to **41.5%** among students enrolled in a master's, graduate, or professional program.

Definition:

Student Loan Balance

A student loan balance of \$20,000 or more.



Approximately one-half (49.8%) of veterans who completed the 2011 College Student Health Survey report engaging in gambling over the past 12 months. According to the adjusted aggregate survey data, veterans report engaging in gambling over the past 12 months at a higher rate that all students who completed the survey (49.8% vs. 45.3%, respectively, p=0.008).

Among those who report gambling within the past 12 months, **14.8%** of veterans, compared to **11.6%** of all students who completed the survey, report spending \$100 or more per month (p<0.001).

Results Nutrition and Physical Activity

Research shows that young adults in the United States generally eat fewer fruits and vegetables but are more physically active compared to older adults.³ Young adults between the ages of 18 and 24 (20.3%) are slightly less likely than all adults (23.4%) to eat fruits and vegetable five or more times per day.³ Young adults between the ages of 18 and 27 report consuming breakfast an average of 3.1 days per week and consuming fast food an average of 2.5 days per week.²⁹ The rate of obesity among young adults ages 18 to 24 is 17.7%.³

Nationwide, 82.1% of young adults between the ages of 18 and 24 compared to 76.2% of all adults report participating in at least one physical activity during the last month.³ Approximately three out of five (61.4%) 18- to 24-year-olds report engaging in at least 30 minutes of moderate physical activity five or more days per week or at least 20 minutes of vigorous physical activity three or more days per week; for all adults, the rate is 49.0%.³

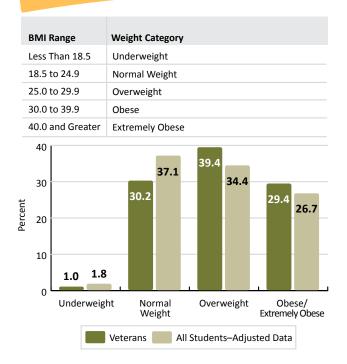
According to data from the 2003 and 2004 Behavioral Risk Factor Surveillance System surveys, 28.3% of veterans had a body mass index (BMI) that placed them in the normal weight category, 23.9% were obese, and 47.6% were overweight. After adjustment for age, gender, race, education, and smoking status, obesity prevalence in veterans and nonveterans was similar.³⁰ Only 37.4% of overweight veterans and 65.5% of obese veterans reported they were trying to lose weight.³⁰ When adjusted for age, gender, diabetes, personal doctor status, the rates for trying to lose weight were similar among veterans and nonveterans.²⁸

Among those who completed the 2003 Behavioral Risk Factor Surveillance System survey, when adjusted for age and gender, more veterans than nonveterans reported engaging in at least 30 minutes of moderate physical activity five or more days per week or at least 20 minutes of vigorous physical activity three or more days per week (46.0% vs. 42.0%, p<0.001).³¹

Body mass index (BMI) is a common and reliable indicator of body fatness.³² BMI equals the weight in kilograms divided by the height in meters squared (BMI = kg/m²). This table presents weight categories based on BMI ranges.

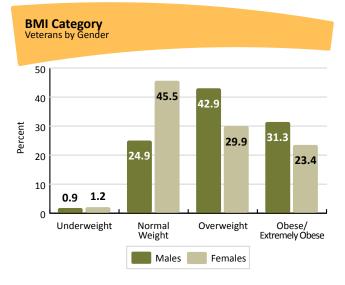
More than three-fifths (68.8%) of all veterans who completed the 2011 College Student Health Survey fall within the overweight and obese/ extremely obese categories compared to 61.1% of all students who completed the survey (p<0.001). Calculated BMI is based on self-reported height and weight.

BMI Category Veterans and All Students

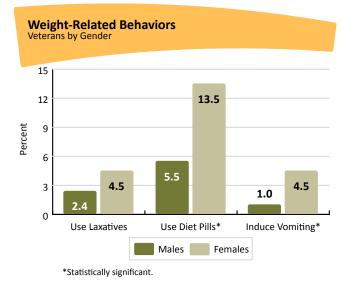


The average body mass index for male veterans is **28.2** compared to **26.6** for female veterans (p<0.001). Both these averages fall within the overweight category. Almost three-fourths (**74.2%**) of male veterans and more than one-half (**53.3%**) of female veterans fall within the overweight or obese/extremely obese categories.

According to the adjusted aggregate survey data among students who completed the 2011 College Student Health Survey, the average BMI for all males is **27.6**, and the average BMI for all females is **27.1** (p<0.001).



38 Health and Health-Related Behaviors Minnesota Postsecondary Student Veterans



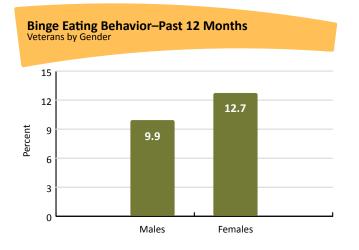
Veterans were asked to report their engagement in any of the following activities in an attempt to control their weight: laxative use, diet pill use, and induced vomiting.

Compared to male veterans, female veterans engage in diet pill use and induced vomiting at statistically significantly higher rates (p<0.001 and p=0.002, respectively). Among all students who completed the 2011 College Student Health Survey, females engage in laxative use, diet pill use, and induced vomiting at statistically significantly higher rates than males (p<0.001).

| Weight-Related Behaviors Veterans by BMI Category | | | | | |
|---|-----------------|-----|-----|-----|--|
| | | | | | |
| Behavior Percent | | | | | |
| Use Laxatives | 0.0 3.2 2.2 4.3 | | | | |
| Use Diet Pills | 0.0 5.7 7.8 9.4 | | | | |
| Induce Vomiting | 0.0 | 3.5 | 1.4 | 1.4 | |
| Underweight Overweight Normal Weight Obese/Extremely Obese | | | | | |

Veterans classified as obese/extremely obese report the highest rates of laxative use and diet pill use. The highest rate of induced vomiting is found among veterans within the normal weight category.

Analysis of the adjusted aggregate data from the 2011 College Student Health Survey shows that students classified as obese/extremely obese report the highest rate of diet pill use, while students classified as underweight report the highest rates of laxative use and induced vomiting.



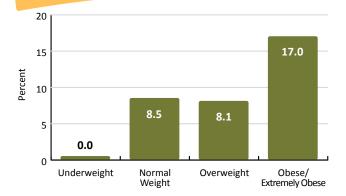
Female veterans who completed the 2011 College Student Health Survey report engaging in binge eating at a higher though not statistically significantly different rate compared to male veterans.

Examining the adjusted aggregate data from all students who completed the survey similarly shows that females report engaging in binge eating at a higher rate than males (16.7% vs. 13.0%, respectively, p<0.001).

The highest rate of reported binge eating behavior among veterans was report by those classified as obese/extremely obese.

According to the adjusted aggregate survey data, the rate of reported binge eating behavior among all students who completed the 2011 College Student Health Survey increased as BMI increased.

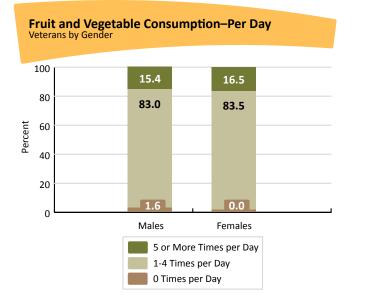
Binge Eating Behavior–Past 12 Months Veterans by BMI Category



Veterans classified as normal weight have the highest rate of never eating breakfast within the past seven days. The highest rate of fast food consumption once a week or more within the past 12 months is found among veterans classified as underweight. The highest rate of eating at a restaurant once per week or more within the past 12 months is found among veterans classified as obese/extremely obese.

The adjusted aggregate data show that among all students who completed the 2011 College Student Health Survey, students classified as obese/ extremely obese have the highest rates of never eating breakfast within the past seven days and of fast food consumption and eating at a restaurant once per week or more within the past 12 months.

| Meal Patterns Veterans by BMI Category | | | | |
|---|------|------|------|------|
| Behavior | | Perc | cent | |
| Breakfast Consumption (Past 7 Days) | | | | |
| 0 Days per Week | 0.0 | 7.8 | 5.1 | 5.4 |
| 1-3 Days per Week | 55.5 | 30.8 | 34.9 | 33.4 |
| 4-7 Days per Week | 44.5 | 62.4 | 60.0 | 61.2 |
| Fast Food Consumption (Past 12 Mon | ths) | | | |
| 1-2 Times per Month or Less | 33.3 | 62.9 | 52.7 | 37.7 |
| Once per Week or More | 66.7 | 37.1 | 47.3 | 62.3 |
| Eat at Restaurant (Past 12 Months) | | | | |
| 1-2 Times per Month or Less | 55.5 | 60.8 | 54.3 | 52.9 |
| Once per Week or More | 44.5 | 39.2 | 45.7 | 47.1 |
| Underweight Overweight Normal Weight Obese/Extremely Obese | | | | |



17.9

Overweight

12.0

Obese/

Extremely Obese

Fruit and Vegetable Consumption-

17.1

Normal

Weight

5 or More Times Per Day

Veterans by BMI Category

0.0

Underweight

20

15

10

5

0

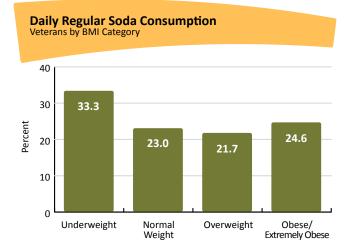
Percent

Only **15.4%** of male veterans and **16.5%** of female veterans consume fruits and vegetables five or more times per day. Male veterans consume fruits and vegetables on average **3.1** times per day, which is slightly lower but not statistically significantly different than female veterans who consume fruits and vegetables on average **3.2** times per day.

The adjusted aggregate survey data show that the average number of times per day fruits and vegetables were consumed is **3.1** for all males and **3.3** for all females (p=0.001).

Across all BMI categories, the majority of veterans eat less than the recommended amount of fruits and vegetables per day. Only **12.0%** of obese/ extremely obese veterans eat fruits and vegetables five or more times per day.

According to the adjusted aggregate survey data, the percentage of all students that eat fruits and vegetables five or more times per day ranges from **12.6%** among underweight and obese/extremely obese students to **19.5%** among normal weight students.



Veterans classified as underweight report a higher level of daily consumption of regular soda compared to those classified as normal weight, overweight, or obese/extremely obese. It should be noted that the number of students who consume regular soda on a daily basis does not reflect the actual quantity of soda consumed per day.

The adjusted aggregate survey data from all students shows that the rate of daily consumption of regular soda ranges from **14.0%** among underweight students to **22.6%** among students classified as obese/extremely obese.

Students were asked several questions related to their physical activity level. The two survey questions that relate to recommendations outlined by the Centers for Disease Control and Prevention (CDC) (see CDC's recommendations listed at left) are:

In the past seven days, how many hours did you spend doing the following activities?

- Strenuous exercise (heart beats rapidly)
- Moderate exercise (not exhausting)

Based on their response to the two questions, students were classified into one of four physical activity levels (zero, low, moderate, or high). The moderate and high classifications meet the CDC's recommended level of physical activity.

More than three in five (**61.3%**) veterans report levels of physical activity that place them in the moderate or high classification, meeting the CDC's recommendations, compared to **58.5%** of all students who completed the survey.

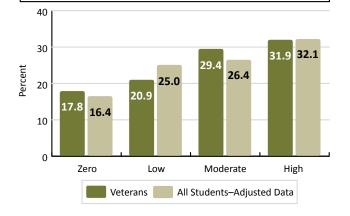
Male and female veterans who engage in a high level of physical activity have lower average BMIs than male and female veterans who engage in a low level of physical activity.

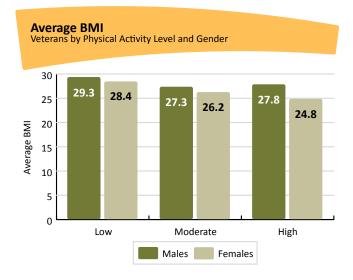
According to the adjusted aggregate data, average BMI for male and female students who completed the 2011 College Student Health Survey decreases as physical activity level increases.

Physical Activity Level All Students

The Centers for Disease Control and Prevention's recommendations for adults are to:

- Engage in moderate-intensity physical activity for at least 30 minutes on five or more days of the week or
- Engage in vigorous-intensity physical activity for at least 20 minutes on three or more days per week.³¹





42 Health and Health-Related Behaviors Minnesota Postsecondary Student Veterans

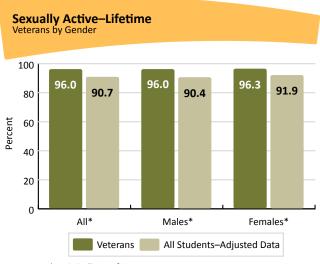
Results Sexual Health

The majority of young adults in the United States are sexually active. Among males, 60.9% of 18- to 19- year-olds and 70.3% of 20- to 24-year-olds report that they have engaged in vaginal intercourse within their lifetime, 59.4% of 18- to 19-year-olds and 73.5% of 20- to 24-year-olds report that they received oral sex from a partner of the opposite sex within their lifetime, and 9.7% of 18- to 19-year-olds and 23.7% of 20- to 24-year-olds report that they engaged in insertive anal intercourse within their lifetime.³⁴ Among females, 64.0% of 18- to 19- year-olds and 85.6% of 20- to 24-year-olds report that they have engaged in vaginal intercourse within their lifetime, 62.0% of 18- to 19-year-olds and 79.7% of 20- to 24-year-olds report that they received oral sex from a partner of the opposite sex within their lifetime, and 20.0% of 18- to 19-year-olds and 39.9% of 20- to 24-year-olds report that they engaged in anal intercourse within their lifetime.³⁴ During their most recent vaginal intercourse event, 42.6% of 18- to 24-year-old females used a condom.³⁵

Due to a combination of behavioral, biological, and cultural reasons, sexually active young adults are at increased risk for acquiring sexually transmitted infections (STIs).³⁶ The higher prevalence of STIs among young adults reflects multiple barriers to accessing quality STI prevention services, including lack of health insurance or other ability to pay, lack of transportation, and concerns about confidentiality.³⁶ Among all males, 20- to 24-year-old males have the highest rate of chlamydia (1,120.6 cases per 100,000 people), gonorrhea (407.5 cases per 100,000 people), and syphilis (20.7 cases per 100,000 people).³⁵ Among all females, 20- to 24-year-olds have the highest rate of syphilis (1.3 cases per 100,000 people) and rates of chlamdyia (3,273.9 cases per 100,000 people) and gonorrhea (555.3 cases per 100,000 people) that are lower only than the rates among 15- to 19-year-olds.³⁵

Female veterans who completed the 2011 College Student Health Survey report a slightly higher but not statistically significantly different rate of sexual activity within their lifetime compared to male veterans (96.3% vs. 96.0%, respectively).

The adjusted aggregate data collected from all students who completed the survey show that **96.0%** of veterans compared to **90.7%** of all students report engaging in sexual activity within their lifetime (p<0.001).



*Statistically significant.

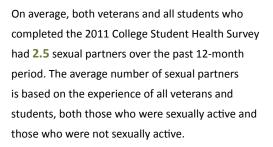
Sexually Active–Past 12 Months

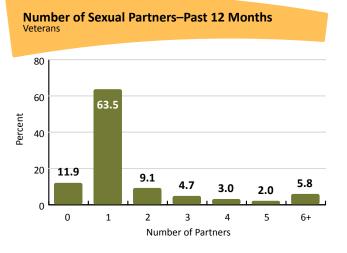
Veterans by Gender

Female veterans who completed the 2011 College Student Health Survey report a slightly higher but not statistically significantly different rate of sexual activity within the past 12 months compared to male veterans (88.5% vs. 87.1%, respectively).

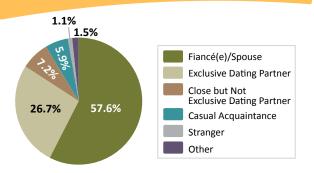
The adjusted aggregate data collected from all students who completed the 2011 College Student Health Survey shows that **87.4%** of veterans compared to **82.9%** of all students report engaging in sexual activity within the past 12 months (p<0.001).

100 80 88.5 87.4 87.1 84.0 82.9 82.6 Percent 60 40 20 0 All* Males* Females Veterans All Students-Adjusted Data *Statistically significant.









24.6

Anal Intercourse

Veterans All Students-Adjusted Data

8.7

Oral Sex

8.1

21.1

Condom Use

44.1

50

40

30

20

10

0

Percent

Sexually Active Students Within Lifetime

45.5

Vaginal Intercourse

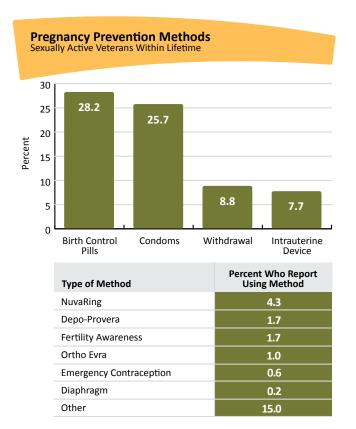
(Does Not Include Those Who Are Married or With a Domestic Partner)

Among veterans who were sexually active within the past 12 months, more than five out of six (84.3%) report that their most recent sexual partner was either a fiancé(e)/spouse or an exclusive dating partner.

The adjusted aggregate survey data show that 84.9% of all students report their most recent sexual partner was either a fiancé(e)/spouse or an exclusive dating partner.

According to the adjusted aggregate data, the rates of condom use during last vaginal intercourse, last anal intercourse, and last oral sex were slightly higher but not statistically significantly higher among all sexually active students compared to sexually active veterans.

Of the 96.0% of veterans who report being sexually active within their lifetime, 96.7% engaged in vaginal intercourse, 89.7% engaged in oral sex, and 40.1% engaged in anal intercourse.



The most common methods that veterans report using to prevent pregnancy the last time they engaged in vaginal intercourse are birth control pills (28.2%) and condoms (25.7%). The withdrawal method is reported by 8.8% of veterans. Other methods of pregnancy prevention reported by veterans are identified in the table. Among veterans who completed the survey, 18.0% report not using any method of pregnancy prevention the last time they engaged in vaginal intercourse.

The adjusted aggregate data from the 2011 College Student Health Survey shows that among all students, the most common methods used to prevent pregnancy the last time they engaged in vaginal intercourse are condoms (27.5%) and birth control pills (26.3%). Among all students, 16.0% report not using any method of pregnancy prevention the last time they engaged in vaginal intercourse. A total of **12.3%** of veterans who completed the 2011 College Student Health Survey has been involved in a pregnancy within the past 12 months, which is higher than the **7.2%** of all students who completed the survey (p<0.001). Of those involved in a pregnancy, **34.3%** of veterans and **33.7%** of all students state it was unintentional.

Among the unintentional pregnancies reported by veterans, **40.0%** resulted in birth and parenting, **31.4%** resulted in miscarriage, and **8.6%** resulted in abortion. Among the unintentional pregnancies reported by all students who completed the survey, **32.6%** resulted in birth and parenting, **20.6%** resulted in miscarriage, and **18.8%** resulted in abortion.

Within the past 12 months, **8.1%** of sexually active female veterans have used emergency contraception. Among those who used emergency contraception, **66.7%** have used it once, **20.0%** have used it twice, and **13.3%** have used it three times within the past 12 months.

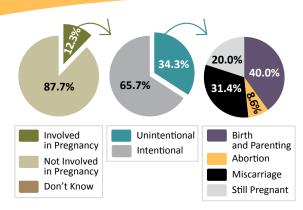
The adjusted aggregate survey data show that 9.9% of all sexually active female students report having used emergency contraception within the past 12 months, and among those who have used emergency contraception, 66.0% have used it once, 21.6% have used it twice, and 12.4% have used it three or more times within the past 12 months.

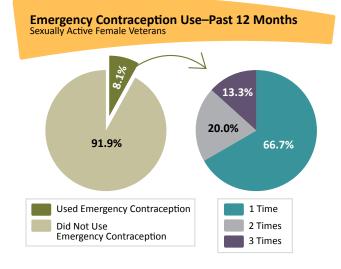
Among veterans who have been sexually active within their lifetime, **14.9%** report being diagnosed with a sexually transmitted infection within their lifetime compared to **14.5%** of all students who completed the survey. A total of **2.1%** of veterans who report having been sexually active within their lifetime also report having been diagnosed with a sexually transmitted infection within the past 12 months compared to **2.9%** of all students who completed the survey.

Chlamydia and genital warts/human papilloma virus are the most commonly diagnosed sexually transmitted infections among veterans.

Unintended Pregnancy Outcome-Past 12 Months







Sexually Transmitted Infection Diagnosis– Lifetime and Past 12 Months Veterans and All Students

| Sexually | Percent Who Report Being Diagnosed | | | | | |
|---|------------------------------------|------|-------|-----|-----|---------|
| Transmitted Infection | Within Lifetime | | | | | p-value |
| Chlamydia | 5.4 | 5.0 | ns | 0.7 | 0.9 | ns |
| Genital Herpes | 2.3 | 2.1 | ns | 0.5 | 0.6 | ns |
| Genital Warts/HPV | 5.4 | 6.0 | ns | 0.7 | 1.3 | ns |
| Gonorrhea | 2.0 | 1.9 | ns | 0.2 | 0.4 | ns |
| HIV/AIDS | 0.0 | 1.3 | <0.05 | 0.0 | 0.7 | <0.01 |
| Pubic Lice | 3.3 | 3.2 | ns | 0.0 | 0.3 | ns |
| Syphilis | 0.2 | 1.0 | <0.05 | 0.1 | 0.3 | ns |
| At Least One of the Above Sexually Transmitted Infections | 14.9 | 14.5 | ns | 2.1 | 2.9 | ns |
| Veterans All Students–Adjusted Data | | | | | | |

^{ns} Not statistically significant.

Implications

Healthy individuals make better students, and better students make healthier communities.

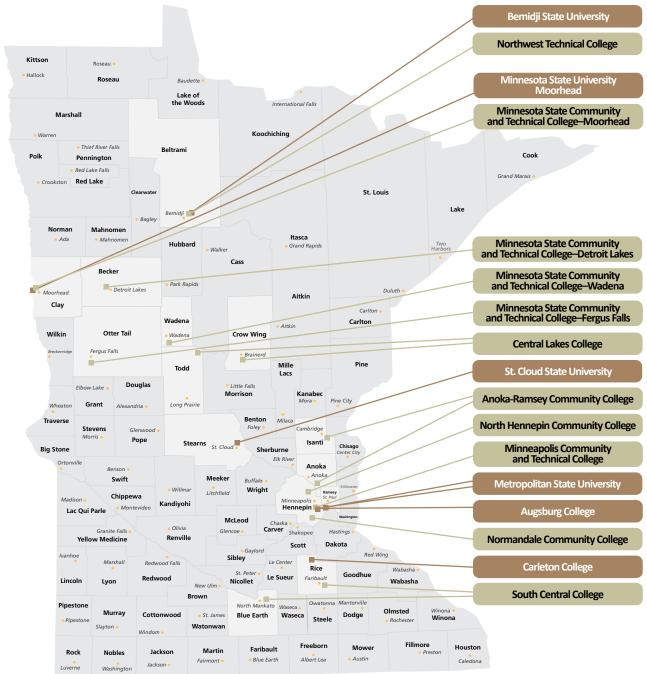
Results from the 2011 College Student Health Survey document the health and health-related behaviors of veterans enrolled in participating Minnesota postsecondary institutions. These data offer a comprehensive look at the diseases, health conditions, and health-related behaviors of student veteran respondents.

The data show that health-related issues among student veterans are similar to those of the general student body, but there are key differences that should be noted. More research in this area is needed to determine why these differences exist. Colleges and universities should consider developing groups to address the unique needs of student veterans on their campuses.

Creating a college environment that supports veterans through coordinating services to address the academic, financial, physical, health-related, and social needs of student veterans will help veterans succeed academically, and in their lives beyond postsecondary education.

Appendix 1

Colleges and Universities Participating in the 2011 College Student Health Survey



| Two-Year Schools | Location | Enrollment- Spring 2011* |
|--|------------------------------------|--|
| Anoka-Ramsey Community College | Cambridge, MN Coon Rapids, MN | 11,044 ³⁷ |
| Central Lakes College | Brainerd, MN Staples, MN | 5,539 ³⁷ |
| Minnesota State Community and Technical College–Detroit Lakes | Detroit Lakes, MN | 8,940 ³⁷ (M State Total) |
| Minnesota State Community and Technical College–Fergus Falls | Fergus Falls, MN | 8,940 ³⁷ (M State Total) |
| Minnesota State Community and Technical College–Moorhead | Moorhead, MN | 8,940 ³⁷ (M State Total) |
| Minnesota State Community and Technical College–Wadena | Wadena, MN | 8,940 ³⁷ (M State Total) |
| Minneapolis Community and Technical College | Minneapolis, MN | 14,942 ³⁸ |
| Normandale Community College | Bloomington, MN | 14,095 ³⁷ |
| North Hennepin Community College | Brooklyn Park, MN | 9,943 ³⁷ |
| Northwest Technical College | Bemidji, MN | 2,433 ³⁷ |
| South Central College | Faribault, MN North Mankato, MN | 5,573 ³⁹ |

| Four-Year Schools | Location | Enrollment– Spring 2011* |
|--|---------------------------------|-----------------------------|
| Augsburg College | Minneapolis, MN | 4,109 ³⁹ |
| Bemidji State University | Bemidji, MN | 6,531 ³⁷ |
| Carleton College | Northfield, MN | 1,940 ³⁹ |
| Metropolitan State University | Minneapolis, MN St. Paul, MN | 9,676 ³⁷ |
| Minnesota State University Moorhead | Moorhead, MN | 8,930 ³⁷ |
| St. Cloud State University | St. Cloud, MN | 21,105 ³⁷ |

*Includes full-time and part-time students.

Appendix 2

2011 College Student Health Survey Demographics Based on Student Response

| | Veterans | All Students– Adjusted Data | All Students– Unadjusted Data |
|---|----------|--------------------------------|----------------------------------|
| Average Age (Years) | 32.6 | 32.3 | 26.9 |
| Age Range (Years) | 18-73 | 18-92 | 18-99 |
| 18-24 Years | 22.7% | 22.7% | 56.3% |
| 25 Years or Older | 77.3% | 77.3% | 43.7% |
| Average GPA | 3.28 | 3.34 | 3.29 |
| Class Status | | | |
| Undergraduate–Enrolled One Year | 23.6% | 18.2% | 22.9% |
| Undergraduate–Enrolled Two Years | 23.5% | 18.9% | 19.8% |
| Undergraduate–Enrolled Three Years | 16.4% | 16.2% | 17.0% |
| Undergraduate–Enrolled Four Years | 11.7% | 11.0% | 12.4% |
| Undergraduate–Enrolled Five or More Years | 16.3% | 20.9% | 14.2% |
| Master's, Graduate, or Professional Program | 3.8% | 8.5% | 5.9% |
| Non-degree Seeking | 4.6% | 5.9% | 7.5% |
| Unspecified | 0.0% | 0.3% | 0.3% |
| Gender | | | |
| Male | 73.9% | 74.0% | 35.4% |
| Female | 25.9% | 25.8% | 64.1% |
| Transgender | 0.1% | 0.1% | 0.2% |
| Other | 0.1% | 0.1% | 0.1% |
| Unspecified | 0.0% | 0.0% | 0.2% |
| Ethnic Origin | | • | |
| American Indian/Alaska Native | 3.4% | 3.1% | 3.0% |
| Asian/Pacific Islander | 1.7% | 5.7% | 5.9% |
| Black–Not Hispanic | 5.1% | 10.3% | 6.8% |
| Latino/Hispanic | 3.2% | 2.7% | 3.1% |
| White–Not Hispanic (Includes Middle Eastern) | 88.5% | 80.1% | 83.5% |
| Other | 2.9% | 2.6% | 2.6% |
| Current Residence | | | |
| Residence Hall or Fraternity/Sorority | 1.4% | 5.3% | 13.0% |
| Other | 98.6% | 94.7% | 87.0% |
| Enrollment in Online Classes This Term | | | |
| No Online Classes | 62.4% | 62.8% | 64.9% |
| Some Online Classes | 31.0% | 25.5% | 25.8% |
| All Online Classes | 6.6% | 11.7% | 9.3% |

Glossary

Current Alcohol Use Any alcohol use within the past 30 days.

Current Credit Card Debt Any unpaid balance at the end of the past month.

Current Marijuana Use Any marijuana use within the past 30 days.

Current Tobacco Use Any use of tobacco in the past 30 days. Tobacco use includes both smoking and smokeless tobacco.

Credit Card Debt A monthly debt of \$3,000 or more.

High-Risk Drinking Consumption of five or more alcoholic drinks at one sitting within the past two weeks for both males and females. A drink is defined as a bottle of beer, wine cooler, glass of wine, shot glass of liquor, or mixed drink.

Past-12-Month Alcohol Use Any alcohol use within the past year.

Past-12-Month Marijuana Use Any marijuana use within the past year.

Student Loan Balance A student loan balance of \$20,000 or more

References

- American Council on Education. (2009). ACE issue brief: From soldier to student: Easing the transition of service members on campus. Retrieved February 10, 2011, from http://www.acenet.edu/AM/Template. cfm?Section=Papers_Publications&CONTENTID=33242&TEMPLATE=/CM/ContentDisplay.cfm.
- 2. Boynton Health Service. (2011). *Health and health-related behaviors, Minnesota postsecondary students*. Minneapolis, MN: Boynton Health Service, University of Minnesota.
- 3. Centers for Disease Control and Prevention. (2008). *Behavioral Risk Factor Surveillance System* [survey data]. Atlanta, GA: U.S. Department of Health and Human Services. Retrieved April 22, 2011, from http://apps.nccd. cdc.gov/brfss.
- 4. Heyman KM, Barnes PM, Schiller JS. (2010). *Early release of selected estimates based on data from the January-September 2009 National Health Interview Survey*. Hyattsville, MD: National Center for Health Statistics. Retrieved February 10, 2011, from http://www.cdc.gov/nchs/nhis.htm.
- 5. Himmelstein DU, Lasser KE, McCormick D, Bor DH, Boyd JW, Woolhandler S. (2007). Lack of health coverage among US veterans from 1987 to 2004. *American Journal of Public Health*, 97(12), 2199-2203.
- 6. U.S. Department of Health and Human Services. (2000). *Healthy People 2010: Understanding and improving health*. 2nd ed. Washington, DC: U.S. Government Printing Office.
- 7. Harvard School of Medicine. (2007). *National Comorbidity Survey-Replication* [survey data]. Retrieved April 22, 2011, from http://www.hcp.med.harvard.edu/ncs/index.php.
- Substance Abuse and Mental Health Services Administration. (2010). Results from the 2009 National Survey on Drug Use and Health: National findings (NSDUH Series H-38A, DHHS Publication No. SMA 10-4856Findings). Rockville, MD: Office of Applied Studies.
- 9. Department of Defense Task Force on Mental Health. (2007). *An achievable vision: Report of the Department of Defense Task Force on Mental Health*. Falls Church, VA: Defense Health Board. Retrieved February 10, 2011, from http://www.health.mil/dhb/mhtf/MHTF-Report-Final.pdf.
- 10. American Psychological Association Presidential Task Force on Military Deployment Services for Youth, Families, and Service Members. (2007). *Military Deployment Services Task Force report: The psychological needs of U.S. military service members and their families: A preliminary report*. Retrieved April 22, 2011, from http://www.apa.org/about/governance/council/policy/military-deployment-services.pdf.
- Hoge C, Auchterlonie J, Milliken C. (2006). Mental health problems, use of mental health services, and attrition from military service after returning from deployment to Iraq or Afghanistan. *Journal of the American Medical Association*, 295(9), 1023-1032.
- 12. Grieger TA, Cozza SJ, Ursano RJ, Hoge C, Martinez PE, Engel CC, Wain HJ. (2006). Post-traumatic stress disorder and depression in battle-injured soldiers. *American Journal of Psychiatry*, 163, 1777-1783.
- Substance Abuse and Mental Health Services Administration. (2009). Results from the 2008 National Survey on Drug Use and Health: National findings (NSDUH Series H-36, DHHS Publication No. SMA 09-4434). Rockville, MD: Office of Applied Studies.
- Johnston LD, O'Malley PM, Bachman JG, Schulenberg JE. (2009). Monitoring the Future national survey results on drug use, 1975–2008. Vol. II: College students and adults ages 19-45 (NIH Publication No. 09-7403). Bethesda, MD: National Institute on Drug Abuse.
- 15. Centers for Disease Control and Prevention. (2006, October 27). Tobacco use among adults–United States, 2005. *Morbidity and Mortality Weekly Report*, 5(42), 1145-1148.
- 16. Halperin AC. (2002, March). *State of the union: Smoking on US college campuses. A report for the American Legacy Foundation*. Washington, DC. (unpublished, internal report).
- Department of Veterans Affairs. (2008). National Smoking and Tobacco Use Cessation Program. VHA Directive 2008-081. Washington, DC: Department of Veterans Affairs. Retrieved April 22, 2011, from http://www1. va.gov/VHAPUBLICATIONS/ViewPublication.asp?pub ID=1809.
- 18. Substance Abuse and Mental Health Services Administration. (2005). *The National Survey on Drug Use and Health report: Alcohol use and alcohol-related risk behaviors among veterans*. Rockville, MD: Office of Applied Studies. Retrieved April 22, 2011, from http://www.oas.samhsa.gov/2k5/vetsAlc/vetsAlc.htm.
- 19. Forgas L, Meyer D, Cohen M. (1996). Tobacco use habits of naval personnel during Desert Storm. *Military Medicine*, 161, 165-168.
- 20. Substance Abuse and Mental Health Services Administration. (2005). *The National Survey on Drug Use and Health report: Substance use, dependence, and treatment among veterans*. Rockville, MD: Office of Applied Studies. Retrieved April 22, 2011, from http://www.oas.samhsa.gov/2k5/vets/vets.htm.
- 21. Fischer BS, Cullen FT, Turner MG. (2000). *The sexual victimization of college women* (Report NCJ 182369). Washington, DC: National Institute of Justice.
- 22. Tjaden P, Thoennes N. (2006). Extent, nature, and consequences of rape victimization: Findings from the National Violence Against Women Survey. Washington, D.C.: National Institute of Justice, Report NCJ 210346.

References

- Lipari RN, Cook PJ, Rock LM, Matos K. (2008). 2006 Gender Relations Survey of active duty members (DMDC Report No. 2007-022). Arlington, VA: Defense Manpower Data Center. Retrieved April 22, 2011, from http:// handle.dtic.mil/100.2/ADA476661.
- 24. U.S. Department of Education. (2011, January). *Trends in student financing of undergraduate education: Selected years, 1995-96 to 2007-08* (NCES 2011-218). Washington DC: National Center for Education Statistics.
- 25. Sallie Mae. (2009). How undergraduate students use credit cards. Sallie Mae's national study of usage rates and trends 2009. Retrieved April 22, 2011, from http://inpathways.net/SLMCreditCardUsageStudy41309FINAL2.pdf
- 26. LaBrie RA, Shaffer HJ, LaPlant DA, Wechsler H. (2003). Correlates of college student gambling in the United States. *Journal of American College Health*, 52(2), 53–62.
- 27. National Research Council. (1999). Pathological gambling: A critical review. Washington D.C.: National Academy Press.
- 28. Biddle D, Hawthorne G, Forbes D, Coman G. (2005). Problem gambling in Australian PTSD treatment-seeking veterans. *Journal of Traumatic Stress*, 18(6), 759–767.
- Niemeier HM, Raynor HA, Lloyd-Richardson EE, Rogers ML, Wing RR. (2006). Fast food consumption and breakfast skipping: Predictors of weight gain from adolescence to adulthood in a nationally representative sample. *Journal* of Adolescent Health, 39(6), 842–849.
- 30. Koepsell TD, Forsberg CW, Littman AJ. (2009). Obesity, overweight, and weight control practices in U.S. veterans. *Preventive Medicine*, 48, 267-271.
- 31. Littman AJ, Forsberg CW, Koepsell TD. (2009). Physical activity in a national sample of veterans. *Medicine & Science in Sports & Exercise*, 41(5), 1006-1013.
- 32. Centers for Disease Control and Prevention. (2007). *About BMI for adults*. Retrieved February 10, 2011, from http://www.cdc.gov/nccdphp/dnpa/bmi/adult_BMI/about_adult_BMI.htm#Interpreted.
- 33. Centers for Disease Control and Prevention. (2008). *Physical activity for everyone*. Retrieved February 10, 2011, from http://www.cdc.gov/nccdphp/dnpa/physical/everyone/recommendations/.
- 34. Mosher WD, Chandra A, Jones J. (2005). *Sexual behavior and selected health measures: Men and women 15-44 years of age, United States, 2002. Advance data from vital and health statistics* (No. 362). Hyattsville, MD: National Center for Health Statistics.
- 35. Sanders SA, Reece M, Herbenick D, Schick V, Dodge B, Fortenberry JD. (2010). Condom use during most recent vaginal intercourse event among a probability sample of adults in the United States. *Journal of Sexual Medicine*, 7(suppl 5), 362-373.
- Centers for Disease Control and Prevention. (2010). Sexually transmitted disease surveillance 2009. Atlanta, GA: U.S. Department of Health and Human Services. Retrieved April 22, 2011, from http://www.cdc.gov/std/stats09/ default.htm.
- 37. Minnesota State Colleges and Universities. (2011). *Learn more about our colleges and universities*. Retrieved April 22, 2011, from http://www.mnscu.edu/campuses/index.html.
- 38. Minneapolis Community and Technical College. (2011). *MCTC fast facts*. Retrieved April 22, 2011, from http://accountability.minneapolis.edu/mctc-student-profile.
- 39. Minnesota's Private Colleges. (2011). *Our colleges*. Retrieved April 25, 2011 from http://www.mnprivatecolleges. org/our-colleges.

Funding

Partial funding for the 2011 College Student Health Survey was provided by the following groups. Thank you for your support of this important project.

Grant R40MC17160 (M.E. Eisenberg, principal investigator) through the U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Research Program, and by Building Interdisciplinary Research Careers in Women's Health.

Grant K12HD055887 (N. Raymond, principal investigator) from the National Institutes of Child Health and Human Development.

Grant P116Z090310 through a congressionally directed award to the Minnesota State Colleges and Universities. The contents do not necessarily represent the policy or endorsement of the U.S. Department of Education or the federal government.

Boynton Health Service, 410 Church Street S.E., Minneapolis, MN 55455

2011 Boynton Health Service Survey Team

Principal Investigator

Katherine Lust, Ph.D., M.P.H., R.D. (612) 624-6214 • klust@bhs.umn.edu

Investigator

David Golden

Recruitment/College Coordinator

Maria Rudie, M.P.H.

Web/E-Communications Coordinator

Evelyn Kokes

Project Coordinator/Editor

Jolene Johnson

Writer/Editor

Julia Sanem, M.P.H.

Senior Graphic Designer

Amy Bartkus

Office Manager

Carol Uchal

Published April 2012

The University of Minnesota is an equal opportunity educator and employer.

This publication is available in alternative formats upon request.

Contains a minimum of 10% post-consumer waste.

For more information or additional copies, contact the Boynton Health Service Marketing Department at (612) 625-6410 or cuchal@bhs.umn.edu.

Boynton Health Service

UNIVERSITY OF MINNESOTA Driven to Discover™



www.bhs.umn.edu

410 Church Street S.E., Minneapolis, MN 55455 Phone (612) 625-6410 • Fax (612) 625-2925

©2012 Regents of the University of Minnesota. All rights reserved.