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College Student Health Survey Report

## HEALTH AND HEALTH-RELATED BEHAVIORS Minnesota Postsecondary Students

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## Introduction

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

- Health Insurance Status
- Depression
- Ability to Manage Stress
- Tobacco Use
- Alcohol Use
- Engagement in Physical Activity
- Credit Card Debt


## A: They all affect the health and academic achievement of college students.


#### Abstract

Across the state of Minnesota and the U.S. Virgin Islands, ten two-year and four-year postsecondary schools joined together with Boynton Health Service at the University of Minnesota in the spring of 2009 to collect information from 17,167 undergraduate and graduate students about their experiences and behaviors in the areas of health insurance and health care utilization, mental health, tobacco use, alcohol and other drug use, personal safety and financial health, nutrition and physical activity, and sexual health. Of the 17,167 students who received a survey, 6,114 students completed the survey, for an overall response rate of $35.6 \%$.


This report highlights the findings of this comprehensive survey and serves as an essential first step in identifying health and health-related behavior issues affecting college students. Boynton Health Service hopes that the information contained in this report will be helpful to college and university leaders as they strive to develop programs and policies that will assure a safe institutional environment, promote access to health care and essential services, encourage responsible student decision making and behavior, and contribute to the health, well-being, and academic success of students enrolled in their schools. The survey results are also intended to raise awareness among state and local policymakers and community leaders concerning the importance of the health of college students to the overall educational, health, and economic status of both Minnesota and the U.S. Virgin Islands.

## Survey

## Methodology

Over 6,000 undergraduate and graduate students enrolled in nine postsecondary institutions in Minnesota and one postsecondary institution in the U.S. Virgin Islands completed the 2009 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 $\$ 500$ (two) at a variety of stores and drawings for six iPod touches ${ }^{\mathrm{TM}}$.

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 17,167 undergraduate and graduate students from nine colleges and universities in Minnesota and one university in the U.S. Virgin Islands were invited to participate in the 2009 College Student Health Survey (see Appendix 1 for a list of participating schools).

In addition to the 17,167 randomly selected students, 1,293 veterans who attended the ten schools were also invited to participate in the survey. The survey results for veterans will be treated as a separate report.

This report is based on the 16,057 randomly selected students from the nine participating colleges and universities in the state of Minnesota.

## 2009 College Student Health Survey Methodology Highlights

- 16,057 students from nine Minnesota colleges and universities were randomly selected to participate in this survey.
- 5,692 completed the survey.
- $\mathbf{3 5 . 4} \%$ of the students responded.



## 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) 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 2009 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).

The results from this survey are based on a random sample of students from each of the participating colleges and universities. Random sampling is a technique in which a group of subjects (in this case, the sample of college students) is selected for study from a larger group (in this case, the population of students enrolled at each of the participating institutions).

Each individual is chosen entirely by chance, and each member of the population has an equal chance of being included in the sample. Random sampling ensures that the sample chosen is representative of the population and that the statistical conclusions (in this case, the prevalence) will be valid.

## Results

## Health Insurance and Health Care Utilization

Students' current health influences their ability to realize their immediate goal of achieving academic success and graduating, and their future health affects their ability to accomplish their longer term goal of finding and sustaining a career. Access to health care has been shown to improve health. Although institutions of higher education differ in scope of services, each institution has a unique opportunity and bears a certain responsibility to address issues related to student health and to reduce barriers to health insurance access.

## National Comparison

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 years old, report good health. The majority of young adults in Minnesota (92.4\%) and nationwide (90.0\%) report excellent, very good, or good health. ${ }^{1}$ 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 $80.9 \%$ report some kind of health care insurance, and nationwide the number is $71.4 \% .^{1,2}$ More young males ( $32.3 \%$ ) than young females ( $24.9 \%$ ) lack health insurance coverage. ${ }^{2}$ Among all age groups, young adults ( $71.1 \%$ ) are least likely to identify a usual place for medical care. ${ }^{2}$

Many health insurance plans allow dependents under the age of 25 to remain covered by their parents' insurance while attending a postsecondary institution. Therefore, students who attend postsecondary institutions tend to have higher rates of health insurance coverage than those who do not.

Students who completed the 2009 College Student Health Survey report an overall uninsured rate of $16.5 \%$. Males have a slightly higher uninsured rate compared to females ( $\mathbf{2 0 . 8} \%$ vs. $\mathbf{1 4 . 0} \%$, respectively). International students report an uninsured rate of $\mathbf{3 7 . 3} \%$.

Students ages 25-29 report the highest uninsured rate. The lowest uninsured rate is among students ages $18-19$. This rate may be a reflection of parental health insurance coverage for 18- and 19-year-old students.

More than one-third ( $\mathbf{3 6 . 7 \%}$ ) of all students report having a spouse, and $\mathbf{2 2 . 3}$ \% of these students report that their spouse is uninsured.

Approximately one-fourth (24.2\%) of students report having dependent children. Of these dependent children, 10.4\% lack health insurance.

Health Insurance Status-Uninsured All Students


Health Insurance Status-Uninsured
All Students by Age Group


Spouse and Dependent Health Care Coverage
All Students

Marital Status and Health Care Coverage


Health Insurance and Number of Sick DaysPast 30 Days
All Students


Health Insurance and Health Status
All Students


Preventive Health Care UtilizationPast 12 Months
All Students by Gender

*Includes medical exam and/or gynecological exam for females.

Number of sick days is a measure of healthrelated 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. ${ }^{3}$

Among students who completed the 2009 College Student Health Survey, those with health insurance and those without health insurance report similar average numbers of sick days in the past 30 days.

Students with health insurance report higher rates of diagnosed chronic conditions and mental health conditions compared to students without health insurance.

Female students who completed the 2009
College Student Health Survey report obtaining routine medical exams, dental exams and cleanings, cholesterol checks, and blood pressure checks at higher rates than male students.

Health insurance coverage appears to have an impact on whether students obtained routine medical examinations within the past 12 months Uninsured male and female students report lower rates of obtaining a routine medical examination than insured students.

Among students who completed the 2009 College Student Health Survey, the primary locations for obtaining many health care services appear to be a community clinic and a private practice. It should be noted that of students who report receiving mental health services, 4.1\% used their school's health service and $8.5 \%$ used their school's student counseling service.

Rates of Obtaining a Routine Medical Examination-Past 12 Months
All Students by Gender and Insurance Status


## Health Care Utilization by Location

All Students (Includes Only Those Students Who Report
Obtaining a Service in the Past 12 Months)

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

| Health Care Service (Percent of students who obtained senvice) | Percent Who Report Obtaining Service at School Health Service | Percent Who Report Obtaining Service at Student Counseling Service | Percent Who Report Obtaining Service at Hospital | Percent Who Report Obtaining Service at Community Clinic | Percent Who Report Obtaining Service at HMO | Percent Who Report Obtaining Service at Private Practice |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Routine Doctor's Visit <br> (89.6) | 6.3 | 0.2 | 16.2 | 53.4 | 7.2 | 21.1 |
| Dental Care (88.1) | 1.8 | 0.1 | 3.5 | 36.3 | 4.7 | 54.9 |
| Mental Health Service (26.2) | 4.1 | 8.5 | 12.3 | 35.7 | 7.1 | 34.3 |
| Testing for Sexually Transmitted Infections (41.8) | 7.6 | 0.2 | 14.2 | 57.1 | 6.3 | 16.3 |
| Treatment for Sexually Transmitted Infections (22.9) | 7.3 | 0.6 | 15.9 | 53.4 | 7.0 | 15.6 |
| Testing for HIV (35.8) | 6.4 | 0.2 | 15.6 | 56.1 | 6.4 | 16.1 |
| Emergency Care <br> (85.0) | 2.5 | 0.1 | 85.1 | 13.3 | 2.4 | 4.1 |

Immunization Status
All Students by Insurance Status


Average Number of Days Affected by Illness
All Students by Gender

|  | Average Number of Days Affected- <br> Past 30 Days |  |
| :--- | :---: | :---: |
| IIlness | Males | Females |
| Poor Physical Health | 3.1 | 4.0 |
| Poor Mental Health | 4.3 | 6.4 |
| Poor Physical and/or <br> Mental Health <br> Affected Daily Activities | 2.3 | 3.3 |

Diagnosed With Acute ConditionLifetime and Past 12 Months
All Students

| Acute Condition | Percent Who <br> Report Being <br> Diagnosed Within <br> Lifetime | Percent Who <br> Report Being <br> Diagnosed Within <br> Past 12 Months |
| :--- | :---: | :---: |
| Chlamydia | 5.0 | 0.8 |
| Gonorrhea | 1.0 | 0.2 |
| Hepatitis A | 0.6 | 0.1 |
| Lyme Disease | 1.1 | 0.2 |
| Mononucleosis | 9.7 | 1.4 |
| Pubic Lice | 2.4 | 0.1 |
| Strep Throat | 48.4 | 8.3 |
| Syphilis | 0.3 | 0.2 |
| Urinary Tract Infection | 25.9 | 8.7 |

At Least One
of the Above
Acute Conditions

Students with health insurance obtain flu shots and immunizations for hepatitis $A$, hepatitis $B$, and meningitis at higher rates than students without health insurance.

Currently these immunizations are not required for students enrolled in postsecondary institutions. Hepatitis B immunization, however, is required for high school students in Minnesota. It is expected that the hepatitis B immunization rate in postsecondary institutions will increase over the next ten years.

Compared to male respondents who completed the 2009 College Student Health Survey, female respondents 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.

Students who completed the 2009 College Student Health Survey were asked to report if they have been diagnosed with selected acute illnesses within the past 12 months and within their lifetime.

The acute condition diagnosed most frequently within students' lifetimes was strep throat, with 48.4\% of all students reporting having this diagnosis. The acute condition diagnosed most frequently within the past 12 months was urinary tract infection, with $\mathbf{8 . 7} \%$ of all students reporting having this diagnosis. Overall, 60.2\% of students report being diagnosed with at least one acute condition within their lifetime, and $17.3 \%$ report being diagnosed with at least one acute condition within the past 12 months.

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

The two most common chronic conditions diagnosed in students who completed the 2009 College Student Health Survey are allergies (38.0\% lifetime) and asthma ( $\mathbf{1 6 . 4 \%}$ lifetime). Nearly three out of five (57.8\%) students report being diagnosed with at least one chronic condition within their lifetime, and approximately one-fourth (23.9\%) report being diagnosed with at least one chronic condition within the past 12 months.

Diagnosed With Chronic ConditionLifetime and Past 12 Months
All Students

| Chronic Condition | Percent Who <br> Report Being <br> Diagnosed Within <br> Lifetime | Percent Who <br> Report Being <br> Diagnosed Within <br> Past 12 Months |
| :--- | :---: | :---: |
| Alcohol Problem | 5.0 | 1.5 |
| Allergies | 38.0 | 11.2 |
| Asthma | 16.4 | 3.4 |
| Cancer | 1.7 | 0.5 |
| Diabetes Type I | 1.0 | 0.4 |
| Diabetes Type II <br> Drug Problems <br> (Other Than Alcohol) <br> Genital Herpes$\quad 3.9$ | 0.6 |  |
| Genital Warts/ <br> Human Papilloma Virus | 1.8 | 0.9 |
| Hepatitis B | 5.3 | 0.6 |
| Hepatitis C | 0.6 | 1.5 |
| High Blood Pressure | 6.9 | 0.3 |
| High Cholesterol | 7.1 | 0.3 |
| HIV/AIDS | 0.4 | 3.7 |
| Obesity | 8.7 | 3.6 |
| Repetitive Stress Injury | 3.8 | 0.3 |
| Tuberculosis | 0.8 | 5.0 |
| At Least One | 57.8 | 1.2 |
| of the Above |  | 0.3 |
| Chronic Conditions |  |  |

## Results

## Mental Health

Mental health issues can have a profound impact on students' ability to engage fully in the opportunities presented to them while in college. These issues affect their physical, emotional, and cognitive well-being and can lead to poor academic performance, lower graduation rates, and poor interpersonal relationships.

There is increasing diversity among college students. Among undergraduates nationwide, 32.2\% are minorities, $57.2 \%$ are female, and $31.0 \%$ are age 25 or older. ${ }^{4}$ In addition, approximately 335,000 foreign undergraduate students are studying at U.S. colleges and universities. ${ }^{4}$ This diversity presents a myriad of counseling concerns related to multicultural and gender issues, life transition, stress, career and developmental needs, violence, interpersonal relationships, and serious emotional and psychological problems. This array of mental health problems represents everincreasing challenges as postsecondary institutions strive to meet the needs of their students.

## National Comparison

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. ${ }^{5}$ Among all age groups, 18- to 25 -year-olds have the highest lifetime prevalence of serious psychological distress, i.e., mental illness that results in functional impairment (17.9\%), and the highest past year prevalence of major depressive episode (8.9\%). ${ }^{6}$ More than one in ten (10.3\%) young adults between the ages of 18 and 25 have received treatment for a mental health problem in the previous year. ${ }^{6}$

For students who completed the 2009 College Student Health Survey, depression and anxiety are the two most frequently reported mental health diagnoses for both lifetime and the past 12 months.

Among all students, 36.5\% report being diagnosed with at least one mental health condition within their lifetime. Females report being diagnosed with a mental health condition within their lifetime and within the past 12 months at higher rates than males, which is consistent with gender differences seen in national data.

Additional analysis shows that 21.8\% report being diagnosed with two or more mental health conditions within their lifetime.

Diagnosed Mental Health ConditionLifetime and Past 12 Months
All Students

| Mental Health Condition | Percent Who <br> Report Being <br> Diagnosed <br> Within <br> Lifetime | Percent Who <br> Report Being <br> Diagnosed <br> Within <br> Past 12 Months |
| :--- | :---: | :---: |
| Anorexia | 1.7 | 0.4 |
| Anxiety | 20.2 | 9.1 |
| Attention Deficit Disorder | 7.8 | 2.3 |
| Bipolar Disorder | 2.5 | 0.8 |
| Bulimia | 1.4 | 0.4 |
| Depression | 25.3 | 8.6 |
| Obsessive-Compulsive Disorder | 2.7 | 1.1 |
| Panic Attacks | 9.9 | 4.1 |
| Post-Traumatic Stress Disorder | 3.5 | 1.2 |
| Seasonal Affective Disorder | 3.9 | 1.7 |
| Social Phobia/ <br> Performance Anxiety | 4.1 | 1.9 |

Diagnosis of Any Mental Health ConditionLifetime and Past 12 Months
All Students by Gender


## Mental Health Stressors

All Students

| Stressor | Percent Who Report Experiencing Within Past 12 Months |
| :---: | :---: |
| Getting Married | 3.1 |
| Failing a Class | 15.3 |
| Serious Physical Illness of Someone Close to You | 18.6 |
| Death of Someone Close to You | 21.4 |
| Being Diagnosed With a Serious Physical Illness | 3.2 |
| Being Diagnosed With a Serious Mental Illness | 4.7 |
| Divorce or Separation From Your Spouse | 2.2 |
| Termination of Personal Relationship (Not Including Marriage) | 16.5 |
| Attempted Suicide | 0.8 |
| Being Put on Academic Probation | 9.6 |
| Excessive Credit Card Debt | 15.3 |
| Excessive Debt Other Than Credit Card | 14.8 |
| Being Arrested | 2.2 |
| Being Fired or Laid Off From a Job | 10.8 |
| Roommate/Housemate Conflict | 18.3 |
| Parental Conflict | 15.9 |
| Lack of Health Care Coverage | 17.4 |
| Issues Related to Sexual Orientation | 2.2 |
| Not Applicable <br> (None of the Above Happened to Me) | 25.5 |
| One or Two of the Above Stressors | 43.0 |
| Three or More of the Above Stressors | 30.5 |

## Mental Health Stressors and Risky Behavior

 All Students

The most commonly experienced stressors among students who completed the 2009 College Student Health Survey are the death of someone close to them and the serious physical illness of someone close to them. Other frequently reported stressors include roommate/housemate conflict and lack of health care coverage. A total of $\mathbf{4 3 . 0} \%$ of students report experiencing one or two stressors within the past 12 months, and $\mathbf{3 0 . 5} \%$ report experiencing three or more stressors over that same time period.

An association appears to exist between reported number of stressors experienced within the past 12 months and various types of risk-taking behavior. Over the same $12-$ month period, students who experienced three or more stressors tend to have higher rates of current tobacco use, high-risk drinking, current marijuana use, credit card debt, and gambling compared to students who experienced two or fewer stressors.

More than one-fourth (26.4\%) of students who completed the 2009 College Student Health Survey report they are unable to manage their stress level. Additional analysis shows that among these students, $\mathbf{1 7 . 2 \%}$ also report they were diagnosed with depression within the past 12 months. Nearly three-fourths (73.6\%) of all students report they are able to manage their level of stress. Only $5.5 \%$ of these students report they were diagnosed with depression within the past 12 months.

An association appears to exist between unmanaged stress levels and higher rates of diagnosis for acute and chronic conditions as well as various mental health conditions. For example, $\mathbf{1 8 . 3} \%$ of students with unmanaged stress levels report being diagnosed with anxiety within the past year compared to only $\mathbf{5 . 8 \%}$ of students with managed stress levels reporting the same diagnosis.

Among students who completed the 2009 College Student Health Survey, depression is the mental health condition most frequently reported within their lifetime. Females report being diagnosed with depression-both lifetime and the past 12 months-at higher rates than males.

## Ability to Manage Stress-Past 12 Months

 All StudentsIn an attempt to measure effectiveness in managing stress, students were asked to rate their stress level and their ability to manage stress, each on a scale of 1 to 10 . The reported stress level is then divided by the reported ability to manage stress. Any result greater than 1 means a student is not effectively managing his or her stress.


## Stress and Mental Health, Acute, and Chronic Condition Diagnosis <br> All Students

| Diagnosed Within the | Percent Among <br> Students Who <br> Report <br> Managed <br> Stress <br> (Index $\leq 1)$ | Percent Among <br> Students Who <br> Report <br> Unmanaged <br> Stress <br> (Index >1) |
| :--- | :---: | :---: |
| Any Acute Condition | 15.1 | 23.5 |
| Any Chronic Condition | 21.6 | 30.2 |
| Anxiety | 5.8 | 18.3 |
| Depression | 5.5 | 17.2 |
| Obsessive-Compulsive Disorder | 0.6 | 2.3 |
| Panic Attacks | 2.5 | 8.7 |
| Social Phobia/ <br> Performance Anxiety | 1.2 | 3.7 |

Depression Diagnosis-
Lifetime and Past 12 Months
All Students by Gender


Depression DiagnosisLifetime and Past 12 Months
All Students by Age Group


Within Lifetime $\square$ Within Past 12 Months

Currently Taking Medication for Depression All Students by Gender


The proportions of all students who report being diagnosed with depression within their lifetime and within the past 12 months increase with age.


Overall, $\mathbf{9 . 7 \%}$ of students who completed the 2009 College Student Health Survey report they currently are taking medication for depression. Females report a higher rate of medication use for depression than males, which correlates with the higher depression diagnosis rates found in females compared to males.

Female students also report a higher rate of medication use for mental health problems other than depression than male students. Overall, 7.0\% of students report taking medication for a mental health problem other than depression.

Among students who completed the 2009 College Student Health Survey, $\mathbf{0 . 5 \%}$ of males and $\mathbf{3 . 7 \%}$ of females report being diagnosed with anorexia and/or bulimia within their lifetime.

Eating Disorder Diagnosis-Lifetime
All Students by Gender


Number of Days of Adequate SleepPast Seven Days
All Students


## Adequate Sleep and Stress <br> All Students



## Results

## Tobacco Use

Young adults transitioning between high school and college find themselves in an environment with increased opportunities to make personal and lifestyle decisions without supervision or input from their parents. Coupling this new-found freedom with growing academic pressure and an expanding social network can lead to experimentation and risky behaviors such as smoking. Preventing smoking among young adults is critical to reducing long-term use of tobacco products and the subsequent negative health consequences.

## National Comparison

Recent research shows that current cigarette use by Americans of all ages peaks among young adults ages 21-25 at 38.5\%, while 18- to 20 -year-olds are not far behind at $32.7 \% .{ }^{6}$ Approximately one in three ( $30.7 \%$ ) full-time college students smoked cigarettes at least one time in the previous year, one in five (19.9\%) smoked cigarettes at least one time in the previous 30 days, and one in ten ( $9.3 \%$ ) smoke cigarettes daily. ${ }^{7}$ Among young adults ages 18-25, 5.3\% used smokeless tobacco in the previous month. ${ }^{6}$ Current cigarette smokers are more likely to use other tobacco products, alcohol, or illicit drugs than nonsmokers. ${ }^{6}$ Among all current smokers, 42.5\% have tried to quit and have stopped smoking for at least one day in the preceding 12 months. ${ }^{8}$ Of the 15 million college students in the United States, an estimated 1.7 million will die prematurely due to smoking-related illnesses. ${ }^{9}$ Clearly the current level of tobacco use among college students poses a major health risk.

The current tobacco use rate for students who completed the 2009 College Student Health Survey is $\mathbf{3 1 . 5 \%}$, with a daily tobacco use rate of $13.7 \%$. Males report higher rates of both current and daily tobacco use compared to females.

## Definition:

## Current Tobacco Use

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

The highest current tobacco use rates are found among 23- and 24 -year-old students (37.5\% and $\mathbf{3 6 . 9 \%}$, respectively), and the lowest current tobacco use rate is found among 18-year-old students (21.8\%).

The rates of daily tobacco use are lower among students ages 18-21 compared to students ages 22 and older.

Current and Daily Tobacco Use
All Students by Gender


## Current Tobacco Use

All Students by Age


Daily Tobacco Use
All Students by Age


## Current Smokeless Tobacco Use

All Students by Gender


Quit Attempts-Past 12 Months
All Students: Current Cigarette Users


## Number of Cigarettes Smoked

All Students: Current Tobacco Users


Males are the predominant users of smokeless tobacco. Overall, 12.5\% of male students report using smokeless tobacco during the past 30 days.

Among students who report using smoking tobacco in the past 30 days, $\mathbf{3 8 . 7 \%}$ do not consider themselves smokers. Among students who do consider themselves smokers, 57.8\% made at least one attempt to quit smoking over the past 12 months. These students made an average of 4.2 quit attempts during that same 12-month period.


For students who report using tobacco over the past 30 days, the percentage of those who say they smoke half a pack of cigarettes or more per day increases from $\mathbf{3 8 . 9}$ \% on a weekday to 45.0\% on a weekend day.

The average number of cigarettes smoked by students who are current tobacco users increases slightly from $\mathbf{1 1 . 6}$ per weekday to $\mathbf{1 2 . 2}$ per weekend day. For daily tobacco users, the average number decreases slightly from 21.9 per weekday to $\mathbf{2 1 . 7}$ per weekend day.

Students who used tobacco in the past 30 days report the most common locations of their use are in a car, where they live, at private parties, and at campus events.

Average Number of Cigarettes Smoked
All Students: Current vs. Daily Tobacco Users


## Location of Tobacco Use

All Students: Current Tobacco Users

| Location | Percent Who Indicate Use <br> at Specified Location |
| :--- | :---: |
| Campus Events | 52.1 |
| Bars/Restaurants | 43.3 |
| In a Car | 75.4 |
| Where I Live | 65.2 |
| Private Parties | 56.4 |
| Work Site | 39.8 |
| Residence Hall | 4.7 |
| Fraternity/Sorority | 3.2 |
| Other | 26.1 |

## Exposure to Secondhand Smoke

All Students

| Location | Percent of <br> Nonsmokers <br> Who Indicate <br> Exposure | Percent of <br> Smokers <br> Who Indicate <br> Exposure | Percent of <br> All Students <br> Who Indicate <br> Exposure |
| :--- | :---: | :---: | :---: |
| N/A-Never Exposed | 43.9 | 14.1 | 35.1 |
| Campus Events | 11.4 | 9.4 | 10.8 |
| Bars/Restaurants | 13.8 | 23.3 | 16.6 |
| In a Car | 14.7 | 54.3 | 26.3 |
| Where I Live | 10.8 | 35.9 | 18.1 |
| Private Parties | 18.5 | 43.6 | 25.9 |
| Work Site | 6.7 | 15.4 | 9.2 |
| Residence Hall | 2.1 | 2.2 | 2.1 |
| Fraternity/Sorority | 0.5 | 2.0 | 1.0 |
| Other | 16.4 | 22.4 | 18.1 |

Number of Hours Exposed to Secondhand Smoke
All Students: Nonsmokers


Number of Hours Exposed to Secondhand Smoke
All Students: Current Smokers


Tobacco Use Status and High-Risk Drinking All Students


For nonsmokers, the hours of exposure to secondhand smoke increase from a weekday to a weekend day. During the week, $\mathbf{3 0 . 3}$ \% report being exposed to some level of secondhand smoke per day, whereas during the weekend this exposure rate increases to $\mathbf{3 5 . 8} \%$.

The same trend of increased exposure to secondhand smoke from a weekday to a weekend day is seen in smokers. Any exposure to secondhand smoke increases from 61.9\% on a weekday to $\mathbf{7 1 . 5 \%}$ on a weekend day. In addition, exposure to two hours or more per day increases from $\mathbf{2 1 . 0} \%$ on a weekday to $\mathbf{3 0 . 2} \%$ on a weekend day.

Students who use tobacco tend to have a higher rate of high-risk drinking compared to students who are non-tobacco users (56.6\% vs. 21.8\%, respectively).

## 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, use of marijuana in the past 30 days is higher among tobacco users ( $\mathbf{2 5 . 9} \%$ ) compared to non-tobacco users ( $\mathbf{5 . 4 \%}$ ). This is a nearly fivefold increase in the rate.

Tobacco Use Status and Current Marijuana Use All Students


Tobacco Use Status and Other Illegal Drug Use (Not Marijuana)-Past 12 Months All Students


## Results

## Alcohol Use and Other Drug Use

For some young adults, college life includes an introduction or increase in the use of alcohol, marijuana, and various illicit drugs. Whether students are using these substances to signify emergence into adulthood, enhance their social life, or cope with stress, substance abuse can lead to a decline in classroom performance, lower grades, aggressive behavior, property damage, and personal injury.

## National Comparison

American college students consume alcohol and other drugs at very high rates. More than four in five ( $83.1 \%$ ) full-time college students have consumed alcohol at least one time, and approximately two in three ( $66.6 \%$ ) full-time college students consume alcohol monthly. ${ }^{7}$ 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 $45.9 \%$ and is $35.7 \%$ among 18 - to 20 -year-olds. ${ }^{6}$ 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. ${ }^{6}$

Approximately one-half (50.5\%) of full-time college students have used an illicit drug at least once in their lifetime, about one-third (35.0\%) of full-time college students have used an illicit drug at least once in the past year, and nearly one in five (19.3\%) full-time college students have used an illicit drug in the last month. ${ }^{7}$ 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 ( $31.8 \%$ ) having used it in the past year. ${ }^{7}$ Among full-time college students, $6.9 \%$ have used amphetamines, $5.4 \%$ have used cocaine, and $0.2 \%$ have used heroin in the previous year. ${ }^{7}$

The rate for use of alcohol in the past 12 months is slightly higher for females than for males who completed the 2009 College Student Health Survey (77.7\% vs. 76.2\%, respectively).

## Definition:

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

Among students who completed the 2009 College Student Health Survey, the rate for use of alcohol in the past 30 days is slightly higher for males compared to females ( $66.8 \%$ vs. $64.0 \%$, respectively).

## Definition:

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

The rate of current alcohol use increases from 39.4\% among 18-year-old students to $\mathbf{8 0 . 1 \%}$ among 23 -year-old students. The rate of this behavior peaks between the ages of 21 and 24 .

Alcohol Use-Past 12 Months
All Students by Gender


## Current Alcohol Use

All Students by Gender


## Current Alcohol Use

All Students by Age


Average Number of Drinks per Week
All Students by Gender


High-Risk Drinking
All Students by Gender


High-Risk Drinking
All Students by Age


Male students who completed the 2009 College Student Health Survey consume a higher average number of drinks per week than female students. The average number of drinks per week may serve as an indicator of overall alcohol use.

Male students report a higher rate of high-risk drinking compared to female students (41.3\% vs. $\mathbf{2 8 . 1} \%$, respectively).

Among students who completed the 2009 College Student Health Survey, the peak years for engaging in high-risk drinking are between ages 21 and 25 .

Students who completed the 2009 College Student Health Survey overestimate the high-risk drinking rate among their peers. The estimate from all students is $\mathbf{3 7 . 5 \%}$, and the actual high-risk drinking rate is $32.8 \%$. Those who have engaged in highrisk drinking tend to estimate a higher level of this behavior among their peers ( $\mathbf{4 7 . 7 \%}$ ), while those who have not engaged in high-risk drinking estimate very accurately at 32.5\%.

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 students who completed the 2009 College Student Health Survey, based on the last time the student partied/socialized, is $\mathbf{0 . 0 7}$.

High-Risk Drinking Rates on CampusPerceived vs. Actual
All Students

Question asked:
In the past two weeks, what percentage of students at your school do you think had five or more drinks at a sitting?
(One drink = one shot of alcohol, 12-ounce can of beer, mixed drink containing 1 or 1.5 ounces of alcohol, 12-ounce wine cooler, or 5-ounce glass of wine.)

| High-Risk |  |  |
| :--- | :---: | :---: |
| Drinking Status | Students' Perception of <br> High-Risk Drinking by <br> School Peers | Actual <br> High-Risk <br> Drinking Rate |
| All Students | $37.5 \%$ |  |
| High-Risk Drinkers | $47.7 \%$ | $32.8 \%$ <br> of All Students |
| Non-High-Risk Drinkers | $32.5 \%$ |  |

## Blood Alcohol Content

Blood alcohol content (BAC) measures the percentage of alcohol in a person's blood. The calculation of BAC is based on a simple 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)

Average Estimated Blood Alcohol Content All Students by Age


Negative Consequences of Alcohol/Drug Use
All Students

| Negative Consequence Due to | Percent <br> Who Report <br> Experiencing <br> Within Past <br> 12 Months |
| :--- | :---: |
| Had a Hangover | 53.9 |
| Performed Poorly on a Test or Important Project | 22.2 |
| Been in Trouble with Police, Residence Hall, or <br> Other College Authorities |  |
| Damaged Property, Pulled Fire Alarms, etc. | 7.1 |
| Got Into an Argument or Fight | 1.8 |
| Got Nauseated or Vomited | 21.5 |
| Driven a Car While Under the Influence | 38.1 |
| Missed a Class | 17.5 |
| Been Criticized by Someone I Know | 22.9 |
| Thought I Might Have a Drinking or Other Drug Problem | 22.2 |
| Had a Memory Loss | 20.7 |
| Done Something I Later Regretted | 24.9 |
| Been Arrested for DWI/DUI | 1.3 |
| Have Been Taken Advantage of Sexually | 3.7 |
| Have Taken Advantage of Another Sexually | 0.6 |
| Tried Unsuccessfully to Stop Using | 3.6 |
| Seriously Thought About Suicide | 3.2 |
| Seriously Tried to Commit Suicide | 0.7 |
| Been Hurt or Injured | 9.3 |

The average estimated BAC levels for students range from 0.05 to 0.09 , with the estimated BAC for all survey respondents averaging $\mathbf{0 . 0 7}$. Students ages 21, 22, and 25 report average estimated BAC levels of $\mathbf{0 . 0 9}$, which exceed the legal driving limit of 0.08 for individuals of legal drinking age.

Nearly one-fifth (17.5\%) of all students report having driven a car while under the influence of alcohol or drugs. Among all students, 22.9\% report missing a class and $\mathbf{2 2 . 2} \%$ 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 students consumed per week and the total number of reported negative consequences they experienced over the past 12 months. An association also exists between engaging in high-risk drinking within the past two weeks and reported negative consequences.

The rates for the negative consequences identified generally are two to four times higher among students who have engaged in high-risk drinking compared to students who have not engaged in high-risk drinking. Nearly two in five (37.5\%) students who have engaged in highrisk drinking have driven while intoxicated one or more times in the past 12 months.

Students 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 this example of a situation in which 911 must be called, $\mathbf{6 3 . 4 \%}$ of all students report they would be "very likely" to call for emergency assistance.

Average Number of Negative Consequences
All Students by Average Number of Drinks and High-Risk Drinking


High-Risk Drinking and Selected Consequences*
All Students

| Negative Consequence | Percent <br> of All <br> Students | Percent <br> Among <br> Non-HRD <br> Students | Percent <br> Among <br> HRD <br> Students |
| :--- | :---: | :---: | :---: |
| Driven While Intoxicated | 17.5 | 7.7 | 37.5 |
| Argument | 21.5 | 12.7 | 39.5 |
| Poor Test/Project | 22.2 | 13.7 | 39.5 |
| Missed Class |  |  |  |
| Been Taken Advantage of Sexually <br> (Includes Males and Females) | 22.9 | 13.8 | 41.5 |

*Note: 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
All Students

|  | Percent Among <br> Students Who <br> Did Not Use <br> Alcohol Within <br> the Past <br> 30 Days | Percent Among <br> Students Who <br> Did Use |
| :--- | :---: | :---: | :---: |
| Alcohol Within |  |  |
| the Past |  |  |
| 30 Days |  |  |$|$

Marijuana Use-Past 12 Months and Current All Students by Gender


Selected Drug Use-Past 12 Months All Students


The rate for any marijuana use within the past 12 months is $\mathbf{2 0 . 0} \%$ for all students who completed the 2009 College Student Health Survey, while the current marijuana use rate is $11.9 \%$ for all students. Both the past-12-month and current marijuana use rates are higher for males than for females.

## Definitions:

Past-12-Month Marijuana Use
Any marijuana use within the past year.
Current Marijuana Use
Any marijuana use within the past 30 days.

The illicit drugs most commonly used by students are sedatives (3.4\%) and cocaine (2.8\%). Further analysis shows that among students, $7.9 \%$ report having used at least one of the nine listed illicit drugs. In addition, 6.9\% of students report using another person's prescription drugs.

## Results

## Personal Safety and Financial Health

The health of students and their subsequent success in academic life depends on a multitude of factors both intrinsic and extrinsic to the individual. Safety and personal finances are natural sources of concern for students, parents, and college personnel. A safe campus offers students the opportunity to pursue learning in an environment free from threats to their physical or emotional well-being. As college populations become more diverse, the challenge of creating a safe environment becomes more complex. Students' decisions related to finances also affect their academic success. This section concentrates on the areas of personal safety and financial health.

## National Comparison

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. ${ }^{10}$ 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. ${ }^{11}$

Financial health is another area of concern. More than four in five (83.0\%) college students in the United States have at least one credit card, and nearly one-half (47.0\%) have four or more credit cards. ${ }^{12}$ The average credit card debt per U.S. college student is $\$ 2,327 .{ }^{12}$ More than two-fifths (41.9\%) of college students report that they participated in some type of gambling activity during the previous school year. ${ }^{13}$

More than one in four (28.5\%) female students who completed the 2009 College Student Health Survey report experiencing a sexual assault within their lifetime, with $\mathbf{5 . 2}$ \% reporting having been assaulted within the past 12 months. Male students have experienced sexual assault at lower rates, with $\mathbf{5 . 7} \%$ reporting an assault within their lifetime and $1.6 \%$ reporting an assault within the past 12 months.

Among students who completed the 2009 College Student Health Survey, approximately one in three (34.2\%) females and nearly one in five ( $\mathbf{1 7 . 3}$ \%) males report experiencing domestic violence within their lifetime.

Further examination of data shows that almost one in five ( $\mathbf{1 8 . 3} \%$ ) students report either sexually assaulting or inflicting domestic violence on another person within their lifetime. Of those who report being a perpetrator of sexual assault or domestic violence, 42.0\% indicate they have been a victim of a sexual assault within their lifetime.

## Sexual Assault-Lifetime and Past 12 Months

 All Students by GenderSexual 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 and Past 12 Months

 All Students by GenderDomestic 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?



## Depression Rates-Lifetime

All Students by Sexual Assault/Domestic Violence


Sexual Assault Reporting by Victims-Lifetime
All Students: Sexual Assault Victims

*Note: Students may have reported incident to individuals in more than one category.

## Victim of Theft-Past 12 Months

All Students


For students who report being victims of sexual assault, 46.0\% also say they have been diagnosed with depression within their lifetime; $\mathbf{4 1 . 8 \%}$ of victims of domestic violence say they have had a diagnosis of depression within their lifetime. It should be noted these rates are higher than the lifetime depression rate reported among all students

Of the students who indicate they have experienced a sexual assault within their lifetime (20.3\%), only 34.4\% state they reported the incident. Of the students who chose to report the incident, $\mathbf{3 0 . 6} \%$ reported it to the police and $\mathbf{2 5 . 5} \%$ reported it to a health care provider.

More than one in seven (15.7\%) students who completed the 2009 College Student Health Survey were theft victims within the past 12 months. Of those who report experiencing a theft, $\mathbf{7 8 . 9 \%}$ say the amount of the theft was $\$ 499$ or less.

More than one-tenth (12.2\%) of students report they have immediate access to a firearm, 18.2 \% for males and $8.9 \%$ for females. Of those who have access to a firearm, 40.2\% report they have access to a handgun.

Further analysis shows that $\mathbf{1 0 . 5} \%$ of students state they carried a weapon (e.g., gun, knife) within the past 12 months. This does not include carrying a weapon while hunting.

Male students are more than twice as likely to report having engaged in a physical fight over the past 12 months as female students ( $\mathbf{1 0 . 9} \%$ vs. $\mathbf{5 . 1} \%$, respectively).

Among students who rode in a car, 91.9\% report wearing a seatbelt always or most of the time while in the car. Only $\mathbf{1 7 . 0 \%}$ of students who rode a bicycle report wearing a helmet always or most of the time while riding the bicycle. Approximately two-thirds ( $66.7 \%$ ) of students who rode a motorcycle report they wear a helmet always or most of the time while on the motorcycle.

## Access to Firearms

All Students


Physical Fight-Past 12 Months
All Students by Gender


Helmet and Seatbelt Use-Past 12 Months All Students


Relationship Between Seatbelt Use and High-Risk Behaviors
All Students

*Does not include marijuana use.

Smoke Detector and Carbon Monoxide Detector Present in Residence


## Injuries Sustained-Past 12 Months

All Students

| Type of Injury | Percent Who Report <br> Experiencing Within <br> Past 12 Months |
| :--- | :---: |
| Assaulted by Another Person (Nonsexual) | 2.3 |
| Burned by Fire or a Hot Substance | 7.5 |
| Motor Vehicle Related | 3.5 |
| Team Sports | 7.2 |
| Individual Sports | 6.0 |
| Bicycle Related | 1.7 |
| In-line Skating | 0.6 |
| Skate Boarding | 0.7 |
| Falls | 14.5 |
| Other | 12.9 |
| Not Applicable-I Was Not Injured | 62.2 |

An association appears to exist between seatbelt use and various high-risk behaviors. Students who report they always wear a seatbelt while riding in a car have lower rates of high-risk drinking, current tobacco use, current marijuana use, and other drug use compared to students who indicate they do not always wear a seatbelt.



Nearly all (97.1\%) students who completed the 2009 College Student Health Survey report having a smoke detector in their place of residence, whereas only $\mathbf{5 1 . 7 \%}$ of students report having a carbon monoxide detector.

More than one-third ( $\mathbf{3 7 . 8 \%}$ ) of students report experiencing at least one injury over the past 12 months. The injuries most commonly reported during this period are due to falls and miscellaneous causes.

More than two in five (44.8\%) students report carrying some level of credit card debt over the past month. Of those who carry a monthly credit card balance, 65.1\% report the debt as $\$ 1,000$ per month or more.

## Definition:

## Current Credit Card Debt

Any unpaid balance at the end of the past month.

The rate of high credit card debt increases from 19.0\% among first-year students to 40.4\% among fifth-year students. Approximately two in five (40.1\%) graduate/professional students report high credit card debt.

## Definition:

High Credit Card Debt
A monthly debt of $\$ 1,000$ or more.

Students who carry a high level of credit card debt work more hours for pay per week, have a higher rate of engaging in gambling, and have a higher depression rate than students who carry no or a low level of credit card debt.

Current Credit Card Debt
All Students


High Credit Card Debt and Class Status All Students


Impact of High Credit Card Debt
All Students


## Gambling Frequency-Past 12 Months <br> All Students



Nearly one-half (48.7\%) of students who completed the 2009 College Student Health Survey report engaging in gambling over the past 12 -month period. Less than one in ten ( $\mathbf{8 . 8 \%}$ ) report gambling at least once a month. Of the 48.7\% who gambled within the past year, $7.2 \%$ reported spending $\$ 100$ or more per month.

## Results

## Nutrition and Physical Activity

For many students, the college years represent a time of new experiences and increased opportunities to make personal health decisions. Some of these decisions encompass the areas of nutrition and physical activity. Students are on their own, free to eat what they want, when they want. Busy academic and social schedules can take priority over eating well and exercising regularly. Class and work schedules vary from day to day and change every semester. Lifestyle changes, peer pressure, and limited finances may lead to an increase in stress, triggering overeating that results in weight gain. In addition, the steady availability of a wide variety of food, both nutritious and not so nutritious, can make wise food choices difficult.

## National Comparison

Research shows that young adults in the United States generally eat fewer fruits and vegetables but are more physically active compared to older adults. ${ }^{1,14}$ Young adults between the ages of 18 and $24(30.1 \%)$ are slightly less likely than all adults (32.6\%) to eat fruits two or more times per day. ${ }^{14}$ Fewer young adults (20.9\%) than all adults (27.2\%) eat vegetables three or more times per day. ${ }^{14}$ 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. ${ }^{15}$ The rate of obesity among young adults ages 18 to 29 is $19.1 \% .{ }^{16}$

Nationwide, $81.0 \%$ of young adults between the ages of 18 and 24 compared to $75.1 \%$ of all adults report participating in at least one physical activity during the last month. ${ }^{1}$ Approximately three out of five $(60.7 \%) 18$ - 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 $49.2 \%{ }^{1}$

Body mass index (BMI) is a common and reliable indicator of body fatness. ${ }^{17} \mathrm{BMI}$ equals the weight in kilograms divided by the height in meters squared $\left(B M I=k g / \mathrm{m}^{2}\right)$. This table presents weight categories based on BMI ranges.

Nearly one-half (45.9\%) of all students who completed the 2009 College Student Health Survey fall within the overweight or obese/ extremely obese category. This is based on selfreported height and weight.

Data analysis shows that the average body mass index for male survey respondents is $\mathbf{2 6 . 0}$, and the average BMI for female survey respondents is 25.8. For both male and female students, these averages fall within the overweight category. Approximately one-half (49.9\%) of males and more than two in five (43.7\%) females fall within the overweight or obese/extremely obese category.

As BMI increases, the proportion of students who report they are attempting to lose weight also increases.

BMI Category
All Students


## BMI Category

All Students by Gender


Weight-Related Goals
All Students by BMI Category


Engagement in Weight-Related Behavior
All Students by Gender


Engagement in Weight-Related Behavior
All Students by BMI Category

| Behavior | Percent <br> Among <br> Students | Percent <br> Among <br> Normal <br> Weight <br> Students | Percent <br> Among <br> Overweight <br> Students | Percent <br> Among <br> Obese/ <br> Extremely <br> Obese <br> Students |
| :--- | :---: | :---: | :---: | :---: |
| Use Laxatives | 4.4 | 3.5 | 4.2 | 4.3 |
| Use Diet Pills | 5.3 | 5.9 | 10.3 | 12.8 |
| Induce Vomiting | 5.8 | 3.1 | 3.4 | 3.2 |

Engagement in Binge Eating BehaviorPast 12 Months
All Students by Gender


Survey respondents 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 males, females engage in these behaviors at higher rates.

Underweight, overweight, and obese/extremely obese students all report similar rates of laxative use. Students classified as obese/extremely obese report the highest rate of diet pill use. The highest rate of induced vomiting is found among students within the underweight category.

As with other weight-related behaviors, females who completed the 2009 College Student Health Survey engage in binge eating at a higher rate than males. More than one out of six (17.7\%) females report they had engaged in binge eating over the past 12 months.

As BMI increases, the rate of reported binge eating behavior among students also increases.

The highest rates of never eating breakfast within the past seven days and of fast food consumption at least once a week within the past 12 months are found among students classified as obese/extremely obese. Underweight and obese/extremely obese students report the highest rates of eating at a restaurant once a week or more within the past 12 months.

Engagement in Binge Eating BehaviorPast 12 Months
All Students by BMI Category


## Meal Patterns

All Students by BMI Category

| Behavior | Percent Among Underweight Students | Percent <br> Among <br> Normal <br> Weight <br> Students | Percent <br> Among Overweight Students | Percent <br> Among Obese/ <br> Extremely Obese Students |
| :---: | :---: | :---: | :---: | :---: |

Breakfast Consumption (Past 7 Days)

| 0 Days per Week | 7.3 | 7.3 | 8.1 | 9.3 |
| :--- | ---: | ---: | ---: | ---: |
| 1-3 Days per Week | 36.2 | 31.4 | 31.1 | 35.0 |
| 4-7 Days per Week | 56.5 | 61.3 | 60.8 | 55.7 |

Fast Food Consumption (Past 12 Months)

| 1-2 Times per Month <br> or Less | 59.1 | 56.6 | 53.5 | 42.1 |
| :--- | :---: | :---: | :---: | :---: |
| Once per Week <br> or More | 40.9 | 43.4 | 46.5 | 57.9 |

Eat at Restaurant (Past 12 Months)

| 1-2 Times per Month <br> or Less | 60.4 | 61.1 | 62.9 | 60.3 |
| :--- | :---: | :---: | :---: | :---: |
| Once per Week <br> or More | 39.6 | 38.9 | 37.1 | 39.7 |

Fruit and Vegetable Consumption-Per Day
All Students by Gender


Fruit and Vegetable Consumption 5 or More Times Per Day
All Students by BMI Category


Daily Consumption of Regular Soda
All Students by BMI Category


A majority of students who completed the 2009 College Student Health Survey consume fruits and vegetables one to four times per day. Only $\mathbf{1 5 . 7 \%}$ of all students consume fruits and vegetables five or more times per day. Based on the reported number of times per day fruits and vegetables are consumed, an average number of times per day can be calculated. Males and females both consume fruits and vegetables on average $\mathbf{3 . 0}$ times per day.

Across all BMI categories, the majority of students eat less than the recommended amount of fruits and vegetables per day. Only $14.8 \%$ of obese/extremely obese students eat fruits and vegetables five or more times per day.

Underweight, overweight, and obese/extremely obese students report higher levels of daily consumption of regular soda compared to normal weight students. 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. In the survey, students were also asked to report their consumption of diet soda. Among those classified within the underweight category, $8.2 \%$ report daily consumption of diet soda compared to $\mathbf{2 6 . 5}$ \% of those classified within the obese/extremely obese category.

Students were asked several questions related to their physical activity level. The two survey questions that relate to recommendations outlined by the CDC (see CDC's recommendations listed at right) 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.

Approximately three out of five ( $\mathbf{6 0 . 9 \%}$ )
students report levels of physical activity that place them in the moderate or high classification, meeting the CDC's recommendations.

For male and female students, average BMI decreases as physical activity level increases. It should be noted that the average BMI levels for male and female students in all physical activity levels fall within the overweight category.


## Screen Time-Moderate to High Level

All Students by BMI Category

Screen time levels-zero, low, moderate, and high-were determined based on a survey question that asked respondents to report the average number of hours they watch TV or use the computer in the course of a day:

Zero Screen Time: 0.0 Hours of Viewing
Low Level: 0.5 to 1.5 Hours per Day
Moderate Level: 2.0 to 3.5 Hours per Day
High Level: 4.0 or More Hours per Day


Additional data analysis shows that nearly threefourths (71.8\%) of students who completed the 2009 College Student Health Survey report watching TV or using the computer (not for work or school) two hours or more per day. Among all students, 2.1\% report zero screen time, $\mathbf{2 6 . 1}$ \% report a low level of screen time, 34.4 \% report a moderate level of screen time, and $\mathbf{3 7 . 4} \%$ report a high level of screen time.

## Results

## Sexual Health

College is a time of great transition. With its increase in freedom and decision-making opportunities, this transitional period poses many challenges for students. Some of the most important decisions facing college students concern sexual health. Choices relating to sexual behavior have the potential for significant, and oftentimes long-term, consequences. So important is the issue of sexual health that in 2001 the U.S. Surgeon General listed "responsible sexual behavior" as one of the 10 leading health indicators for the nation.

## National Comparison

The majority of young adults in the United States are sexually active, with $68.1 \%$ of 18 - to 19 -year-old males, $75.2 \%$ of 18 - to 19 -year-old females, $84.4 \%$ of 20 - to 24 -year-old males, and $86.6 \%$ of 20- to 24 -year-old females reporting they have had at least one sexual partner in the previous 12 months. ${ }^{19}$ Among 20- to 24 -year-olds, $52.7 \%$ of males and $30.9 \%$ of females who have had sexual contact in the previous year used a condom during their last sexual contact. ${ }^{19}$ Due to a combination of behavioral, biological, and cultural reasons, sexually active young adults are at increased risk for acquiring sexually transmitted infections (STIS). ${ }^{20}$ 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. ${ }^{20}$

Among 20- to 24-year-olds, 7.1\% of males and $13.4 \%$ of females report having a sexually transmitted disease other than HIV within their lifetime. ${ }^{19}$ Among all 15- to 24-year-olds, approximately 9.1 million cases of STls and nearly 5,000 cases of HIV/AIDS are diagnosed annually. ${ }^{21}$

Female students who completed the 2009 College Student Health Survey report higher rates of sexual activity, both within their lifetime and within the past 12 months, compared to male students.

Sexually Active-Lifetime and Past 12 Months All Students by Gender


Number of Sexual Partners-Past 12 Months All Students


Most Recent Sexual Partner-Past 12 Months All Students: Sexually Active


## Condom Use

All Students: Sexually Active Within Lifetime
(Does not include those who are married or with a domestic partner.)


Pregnancy Prevention Methods
All Students: Sexually Active Within Lifetime


| Type of Method | Percent Who Report <br> Using Method |
| :--- | :---: |
| Intrauterine Device | 4.5 |
| Depo Provera | 3.7 |
| Emergency Contraception | 2.2 |
| Fertility Awareness | 2.0 |
| Ortho Evra | 0.7 |
| Diaphragm | 0.4 |
| Sponge | 0.1 |
| Other | 11.9 |
| Don't Know/Can't Remember | 1.5 |

Among students sexually active within their lifetime, 52.9 \% used a condom the last time they engaged in vaginal intercourse, 23.9\% used a condom during their last anal intercourse, and $\mathbf{8 . 9 \%}$ used a condom during their last oral sex. Percents are based solely on those who indicated they engaged in the activity.

Data analysis shows that of the $83.4 \%$ of students who report being sexually active within their lifetime, $94.7 \%$ engaged in vaginal intercourse, $\mathbf{8 7 . 6} \%$ engaged in oral sex, and 29.4\% engaged in anal intercourse.

The two most common methods that students report using to prevent pregnancy the last time they engaged in vaginal intercourse are condoms ( $45.7 \%$ ) and birth control pills (43.0\%). The withdrawal method is reported by $14.7 \%$ of students. Other methods of pregnancy prevention reported by students are identified in the table below.

A total of $\mathbf{5 . 7 \%}$ of students who completed the 2009 College Student Health Survey has been involved in a pregnancy within the past 12 months. Of those involved in a pregnancy, $\mathbf{5 2 . 4} \%$ state it was unintentional. Among the unintentional pregnancies, $\mathbf{3 0 . 3} \%$ resulted in birth and parenting, 23.0\% resulted in abortion, 21.8\% resulted in miscarriage, and 0.6\% resulted in birth and adoption.

Analysis shows that within the past 12 months, $\mathbf{1 4 . 1 \%}$ of sexually active female students have used emergency contraception. Among those who used emergency contraception, 64.3\% have used it once, $\mathbf{2 2 . 2} \%$ have used it twice, and $\mathbf{1 3 . 5} \%$ have used it three or more times within the past 12 months.

Among students who have been sexually active within their lifetime, $\mathbf{1 4 . 3}$ \% report being diagnosed with a sexually transmitted infection within their lifetime. Genital warts/human papilloma virus (HPV) (6.3\%) and chlamydia (5.8\%) are the two most commonly diagnosed sexually transmitted infections.

Outcome of Unintended PregnancyPast 12 Months
All Students


Emergency Contraception Use-Past 12 Months
Female Students: Sexually Active


Sexually Transmitted Infections-Lifetime All Students: Sexually Active


Sexually Transmitted Infections-Past 12 Months All Students: Sexually Active


Analysis shows that a total of $\mathbf{3 . 3} \%$ of students who report having been sexually active within their lifetime also report having been diagnosed with a sexually transmitted infection within the past 12 months.

## Implications

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

Results from the 2009 College Student Health Survey presented in this report document the health and health-related behaviors of students enrolled in the participating institutions. These data, therefore, offer a comprehensive look at the diseases, health conditions, and health-related behaviors that are impacting students attending postsecondary schools in Minnesota and the U.S. Virgin Islands. Identification of these health-related issues is critical because the health of college students in Minnesota and the U.S. Virgin Islands affects not only their academic achievement but also the overall health of our society.

While it is intuitively obvious that health conditions can affect academic performance, the link to overall societal health is more subtle but no less profound. Given that there are now more students enrolled in postsecondary institutions than in high schools, that college students help set the norms of behavior for our society and serve as role models for younger students, that college students are establishing and solidifying lifestyles and behaviors that will stay with them for the rest of their lives, and that obtaining a college degree is one of the major determinants of future health and economic status, the importance and the impact of the health of college students on our society becomes evident.

## Appendix 1

Colleges and Universities Participating in the 2009 College Student Health Survey


| Two-Year Schools | Location | Enrollment- <br> Spring 200 * |
| :--- | :--- | :---: |
| Anoka-Ramsey Community College | Cambridge, MN <br> Coon Rapids, MN | 10,265 |
| Minneapolis Community and Technical College | Minneapolis, MN | 11,886 |
| Minnesota State Community and Technical College-Moorhead | Moorhead, MN | 2,550 |
| Normandale Community College | Bloomington, MN | 12,848 |
| North Hennepin Community College | Brooklyn Park, MN | 9,229 |
| Northwest Technical College | Bemidji, MN | 1,892 |
| Riverland Community College | Albert Lea, MN <br> Austin, MN <br> Owatonna, MN | 4,664 |


| Four-Year Schools | Location | Enrollment- <br> Spring 2009* |
| :--- | :--- | :---: |
| Bemidji State University | Bemidji, MN | 6,533 |
| St. Cloud State University | St. Cloud, MN | 20,208 |
| University of the Virgin Islands | St. Croix, USVI <br> St. Thomas, USVI | 2,500 |

*Includes full-time and part-time students.

## Appendix 2

## 2009 College Student Health Survey Demographics Based on Student Response

|  | All Students |
| :--- | :---: |
|  | 25.9 |
| Average Age (Years) | $18-88$ |
| Age Range (Years) | $61.4 \%$ |
| 18-24 Years | $38.6 \%$ |
| 25 Years or Older | 3.22 |
| Average GPA |  |
| Class Status | $29.8 \%$ |
| First-Year Undergraduate | $30.0 \%$ |
| Second-Year Undergraduate | $17.0 \%$ |
| Third-Year Undergraduate | $9.5 \%$ |
| Fourth-Year Undergraduate | $7.7 \%$ |
| Fifth-Year Undergraduate | $6.0 \%$ |
| Graduate or Professional |  |
| Gender | $36.1 \%$ |
| Male | $63.7 \%$ |
| Female | $0.1 \%$ |
| Transgender/Other | $0.1 \%$ |
| Unspecified |  |
| Ethnic Origin | $3.5 \%$ |
| American Indian/Alaska Native | $92.5 \%$ |
| Asian/Pacific Islander | $3.3 \%$ |
| Black-Not Hispanic | $6.4 \%$ |
| Latino/Hispanic | $6.2 \%$ |
| White-Not Hispanic | $3.1 \%$ |
| (includes Middle Eastern) |  |
| Other |  |
| Current Residence |  |
| Residence Hall or Fraternity/Sorority |  |
| Other |  |
|  |  |

## 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.

## High Credit Card Debt

A monthly debt of $\$ 1,000$ or more.

## 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.

## Past-12-Month Alcohol Use

Any alcohol use within the past year.

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

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## Principal Investigator

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

## Co-Investigators

Edward P. Ehlinger, M.D., M.S.P.H.
Boynton Health Service
(612) 625-1612 • eehlinger@bhs.umn.edu

David Golden
Boynton Health Service
(612) 626-6738• dgolden@bhs.umn.edu

## Publication Coordinator/Editor

## Britt Bakke

Boynton Health Service
(612) 624-2965 • bbakke@bhs.umn.edu

## Writer/Editor

Julia Sanem, M.P.H.
Boynton Health Service
(612) 624-1940 • jsanem@bhs.umn.edu

## Designer

Amy Bartkus
Boynton Health Service
(612) 624-0911• abartkus@bhs.umn.edu

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