

2018



Substance Abuse in Minnesota: A State Epidemiological Profile

Section 1. Introduction

Prepared by: EpiMachine, LLC

**for the Minnesota Department of Human Services, Alcohol
and Drug Abuse Division**

Substance Abuse in Minnesota

Section 1. Introduction

The 2018 Minnesota State EpiProfile is divided into eight parts:

- 1. Introduction (which includes a profile overview, population snapshot, and acknowledgements)**
- 2. Executive Summary**
- 3. Alcohol: Use, Consequences, and Intervening Variables**
- 4. Tobacco and Nicotine: Use, Consequences, and Intervening Variables**
- 5. Drugs: Use, Consequences, and Intervening Variables**
- 6. Mental Health and Shared Factors**
- 7. Socioeconomic Factors**
- 8. Appendix (which includes technical notes and data sources)**

Introduction

Profile Overview and Format

Overview

Minnesota's State Epidemiological Profile of Substance Use (Epi Profile) has been created under the supervision of the State Epidemiological Outcomes Workgroup (SEOW) funded by the Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Substance Abuse Prevention (CSAP).

Minnesota's SEOW membership is wide and varied. Led by the Department of Human Services Alcohol and Drug Abuse Division (ADAD) and staffed through a subcontract with the Invitation Health Institute, the SEOW works closely with the Minnesota Strategic Prevention Framework (SPF) Advisory Council and Management Team.

Evidence-based Planning and Needs Assessment

The Epi Profile is grounded in CSAP's Strategic Prevention Framework (SPF). The SPF is a five-step prevention planning model consisting of 1) Assessment (of both need and resources), 2) Capacity Building, 3) Planning, 4) Implementation, and 5) Evaluation. The Epi Profile serves as an important first step in the Needs Assessment phase of the SPF by summarizing and characterizing consumption patterns and consequences related to the use of alcohol, tobacco and other drugs in Minnesota.

The Epi Profile was created to help the state and communities determine prevention needs based upon available data on substance use and consequent outcomes. Accordingly, the Epi Profile can be used for a variety of purposes. State-level administrators may use the profile to prepare applications for federal funding or they may use it to monitor prevention-related trends in local communities to which they administer grants. Community-level prevention planners may use the profile, in conjunction with the interactive website located at www.sumn.org, to assess the relative importance of substance related problems in their communities or to apply for grant funding. Overall, the Profile is intended to help all audiences in Minnesota make decisions based on existing evidence and demonstration of need. The Epi Profile contains numerous indicators of substance use and consequences—it is up to each community to determine which indicators are of highest priority. Priority setting involves assessment of the problems, the community's capacity to address each problem, and community readiness. Problem assessment entails looking at: magnitude (how many youth are reporting alcohol use), severity (how our community compares with the

region and the state), and time trends (whether youth alcohol consumption is increasing or decreasing from year to year).

The SEOW views this Epi Profile as a “living document.” That is, it will be updated and revised annually. The SEOW intends to improve upon the current content and structure of the Epi Profile based upon the availability of data and feedback from experts and users. The data included in the Epi Profile are also available on the SEOW’s new interactive website, located at www.sumn.org. Users of the site can create their own tables, graphs and maps, and find links to relevant articles, community resources and tools.

Format

In order to provide a variety of data, the Epi Profile casts a wide net over the universe of available substances and related consequences. Substances and consequences in the Epi Profile are grouped in the following categories: Alcohol, Tobacco or Other Drugs (ATOD).

This document is formatted with these categories in mind. The Profile is divided into sections pertaining to statewide *ATOD consumption* patterns (measures of substance use), related *consequences* (negative outcomes associated with use) and *intervening variables* (influencing consumption).

Definitions, Technical Notes, and Data Sources

In order to best utilize the data presented in the Profile, we recommend the reader take time to review the definitions, technical notes, and data sources and their descriptions in the appendix at the end of this document.

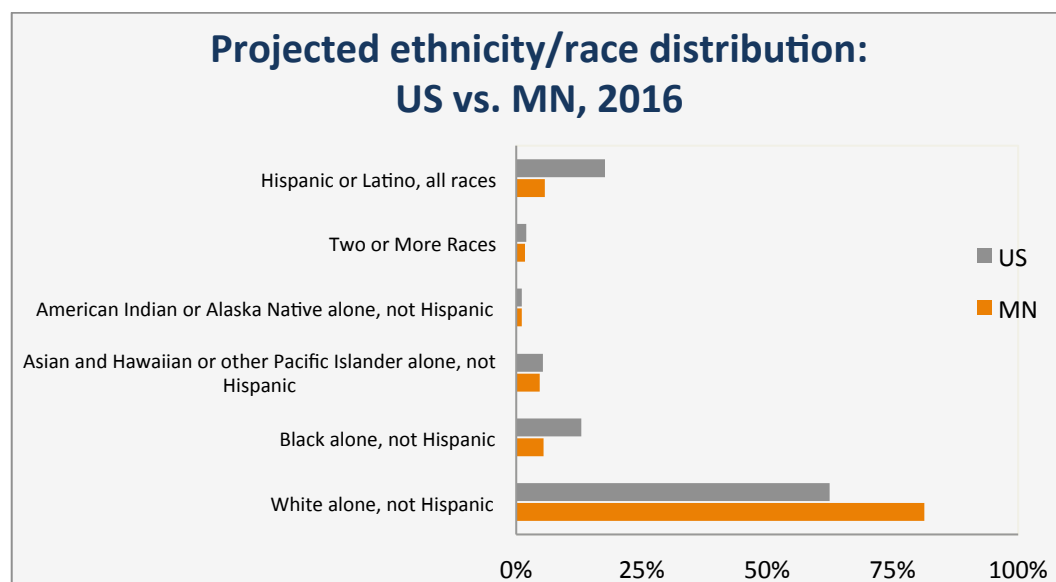
Legend

The following color scheme is used for the graphs in the Epi Profile:



Population Snapshot

Minnesota comprises 87 counties, and is the 21st largest state by population. In 2017, it was home to an estimated 5,576,606 people.¹



According to US Census estimates, approximately 1.3% of persons living in Minnesota identify as American Indian/Alaska Native. There are two tribes located in Minnesota, the Sioux and Ojibwe: four nations in the Sioux tribe and seven nations in the Ojibwe tribe. Members of other tribes have moved to Minnesota as well. About 31% of Minnesota's approximately 55,000 American Indians reside on reservation lands, another 35% live in the cities of Minneapolis and St. Paul, and others live in communities throughout the state.

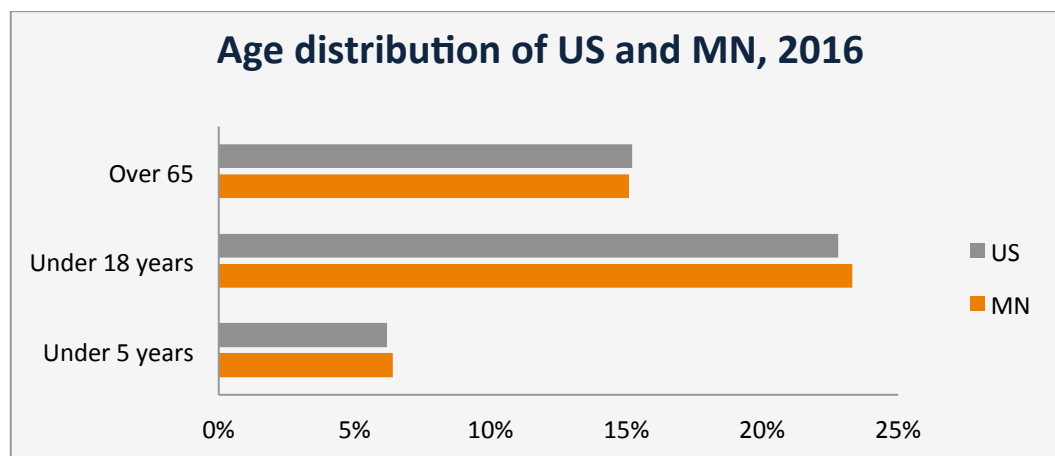
Approximately 6.2% of persons living in Minnesota identify as African-American, African or Black only (not in combination with another race). While this is a small population relative to other states, recent years have seen a significant and substantial increase in the number of Minnesotans of African immigrant descent. In 2016, 3 of the 17 largest cultural groups in Minnesota were Somali, Ethiopian, and Liberian.²

According to the US Census estimates, the percentage of persons living in Minnesota who identify as Hispanic/Latino was 5.2% in 2016. Hispanics and Latinos in Minnesota include persons from Mexico, Cuba, Puerto Rico, Central or South America, and other countries.

¹ Quick Facts: Minnesota. Retrieved on March 2, 2018 from <https://www.census.gov/quickfacts/MN>

² Minnesota State Demographic Center. The Economic Status of Minnesotans: A Chartbook with Data for 17 Cultural Groups. https://mn.gov/admin/assets/the-economic-status-of-minnesotans-chartbook-msdc-jan2016-post_tcm36-219454.pdf. Published January 2016. Accessed March 2, 2018.

The percentage of persons living in Minnesota who identify as Asian was 4.9% in 2016. The largest Asian communities in Minnesota in 2016 were: Hmong (1.2% of total MN population), Asian Indian (0.8%), Vietnamese (0.6%), and Chinese (0.5%).



Minnesota’s Drug Prevention Regions

Minnesota is divided into seven Alcohol, Tobacco and Other Drug Prevention Regions. The Minnesota Prevention Region Coordinators (RPCs) support communities in their efforts to prevent alcohol, tobacco and other drug (ATOD) abuse. The RPCs help communities by building regional relationships to enhance prevention efforts, identifying and providing training opportunities, and providing technical assistance. Learn more about the RPCs at <http://www.rpcmn.org/>.

America’s Health Rankings

According to the United Health Foundation’s America’s Health Rankings, Minnesota was the healthiest state in the nation from 2003 to 2006. The state’s rankings dropped for a few years, rose to 3rd place for 2012 and 2013, and fell to 6th for 2014, where it remained in 2017. The report identified a high prevalence of excessive drinking as a major concern.³

³ United Health Foundation. America’s Health Rankings 2017: Minnesota. Retrieved on March 2, 2018 from <https://www.americashealthrankings.org/explore/2017-annual-report/state/MN>

Acknowledgements

The Profile is a collaborative effort of the Minnesota SEOW and representatives from state agencies, coalitions and other local organizations. The SEOW is extremely grateful for the time and attention given to the Profile by the following organizations and individuals:

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Substance Abuse in Minnesota: A State Epidemiological Profile

Section 2. Executive Summary

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- 8. Appendix (which includes technical notes and data sources)**

Executive Summary

Overview and Key Findings

The 2018 Minnesota State Epidemiological Profile of Substance Use (Epi Profile) was created to help the state and communities determine prevention needs based upon available data on substance use and related outcomes. Accordingly, the Epi Profile can be used by a variety of audiences for a variety of different, but related purposes. State-level administrators may use the profile to prepare applications for federal funding or they may use it to monitor prevention-related trends in local communities to which they administer grants. Community-level prevention planners may use the Epi Profile, in conjunction with the interactive website located at www.sumn.org, to assess the relative importance of substance related problems in their communities or to apply for grant funding themselves. Overall, the Profile is intended to help all audiences in Minnesota make decisions based on existing evidence and demonstration of need.

The Epi Profile represents a comprehensive source of data related to alcohol, tobacco and other drugs (ATOD) in Minnesota. THREE types of data are presented in the Profile:

1. **USE:** Information on ATOD consumption
2. **CONSEQUENCES:** Negative outcomes associated with use
3. **INTERVENING VARIABLES:** Factors affecting use

The Profile is intended as a “one-stop shop” for audiences interested in substance abuse data. Data from fourteen state and national sources are presented ranging from years 1998 to 2017. However, the utility of the Epi Profile lies in the fact that the various sources are presented in one comprehensive document.

The data are presented in a variety of ways:

- State data are presented **in conjunction** with national data
- Data are organized by a variety of **demographic variables** (gender, age, race/ethnicity, metro/non-metro)
- **Trend data** present over time

ALCOHOL

Adult

Minnesota overall annual per capita consumption has risen slightly, to 2.7 gallons, moving from the 5th decile among US states in consumption in 2011, to the 3rd decile in 2015.

Overall, Minnesotans drink slightly more than the national average. They consume about the same amount of beer and wine as the US average, and significantly more alcohol in the form of hard alcohol.

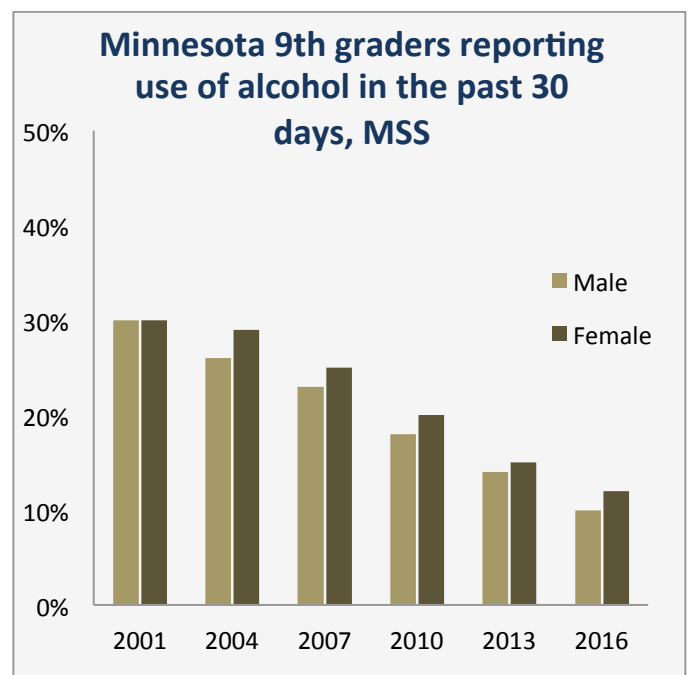
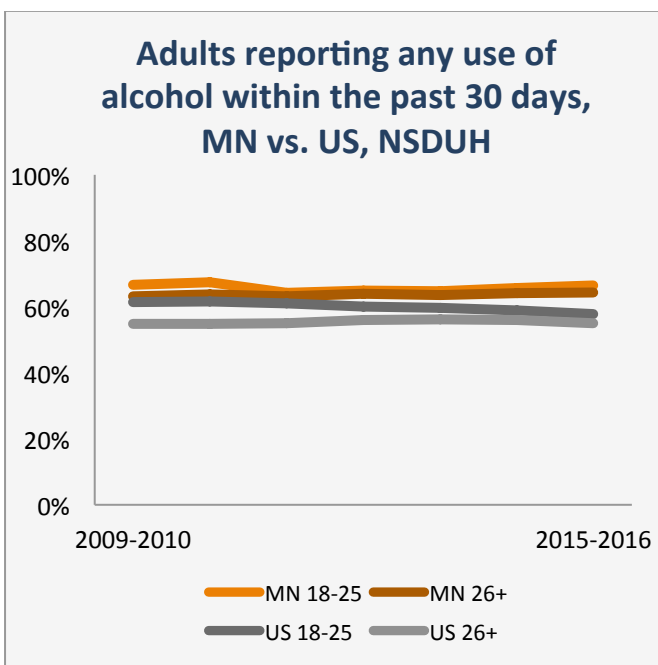
Minnesota adults report slightly higher levels of both per capita alcohol consumption and binge drinking than the national average.

Youth

Alcohol use varied by age: 7.9% of 8th graders reported recent alcohol use, while 24.6% of 11th graders reported use in 2016.

8th grade alcohol consumption in Minnesota is slightly higher than the national average.

Past 30-day alcohol use declined among 9th grade students from 2001 to 2016 (down by nearly two-thirds), to 11%.



TOBACCO

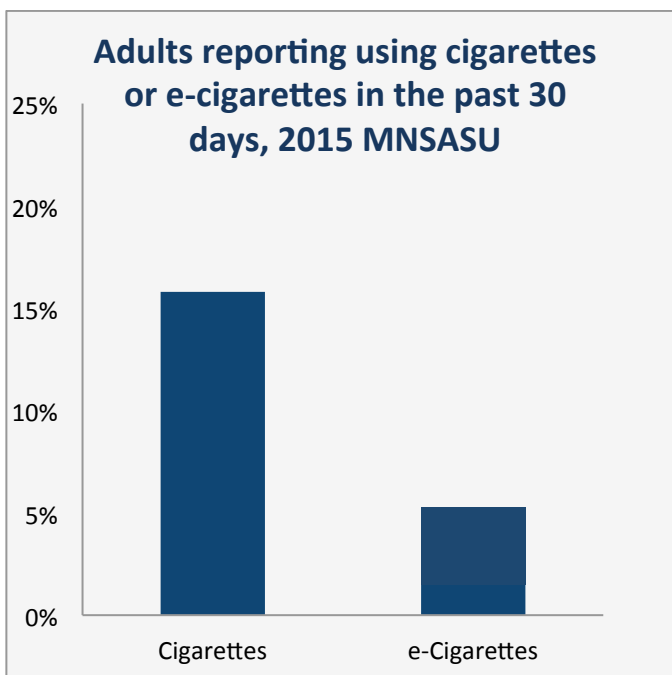
Adult

Smoking rates of adults in Minnesota are on par with the national average.

Young adults (ages 25-44) tend to smoke more, but rates have decreased slightly.

Lung, bronchus and trachea cancer death rates have declined slightly over time, both in Minnesota and nationally. Rates in Minnesota have been consistently lower than nationwide rates.

Most Minnesota adults perceive great or moderate risk of harm from cigarettes, but the rates of adults perceiving harm of e-cigarettes are much lower, especially for young people.



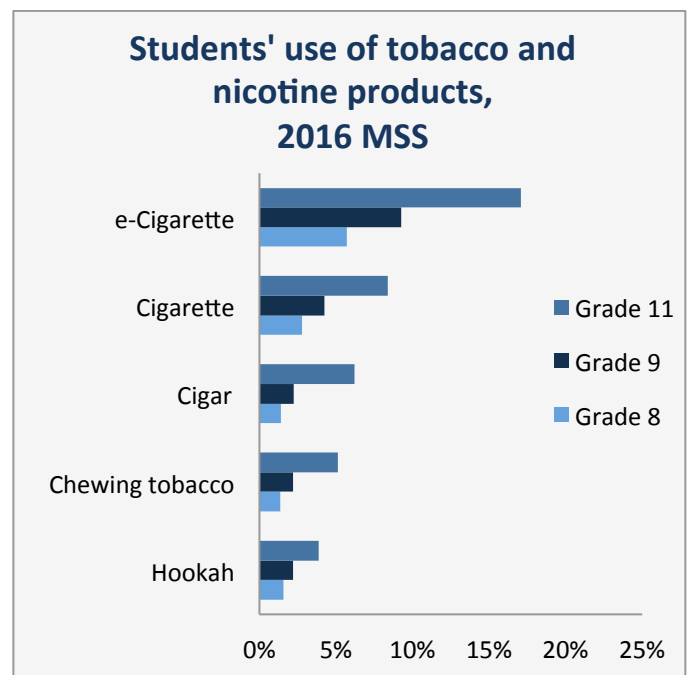
Youth

Rates of 9th graders' 30-day smoking continue to decrease. Reported 30-day cigarette smoking dropped dramatically for 9th grade students from 1998 to 2016 (from 23% down to 4%).

The level of past 30-day smoking for 8th graders is slightly higher than the national average.

Rates of 9th graders' 30-day chewing tobacco use have remained steady. The level for 8th graders is slightly below the national average.

Students are much more likely to report using e-cigarettes than other sources of nicotine.



ILLICIT DRUGS

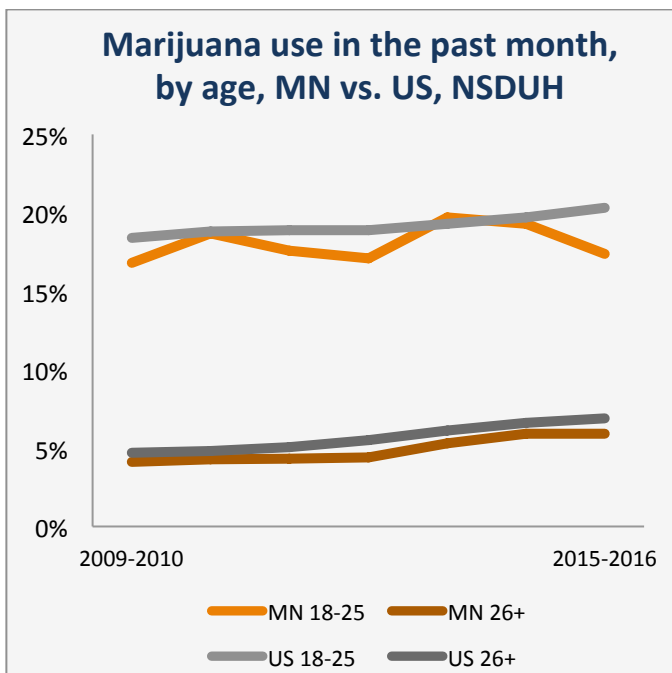
Adult

The rates in Minnesota for all measured illicit drugs (other than marijuana) are below the national average.

Illicit drug use is highest for persons aged 18-25 years.

Pain reliever misuse rates in Minnesota are slightly lower than average US rates.

The rates of past 30-day marijuana use in Minnesota have remained slightly below national rates for the past 5 years. Although use has increased, rates have remained stable for the past decade.

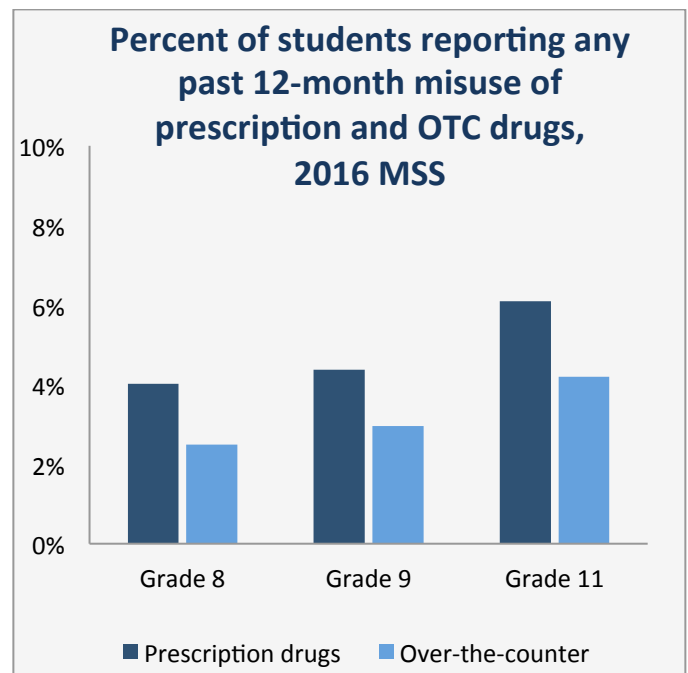


Youth

Minnesota 9th graders' use of all illicit drugs has declined since 1995.

Although 8th graders have a higher perception of risk of harm from smoking marijuana, the perception of risk in 9th graders has declined. Students in 9th grade also perceive less disapproval from friends and parents for smoking marijuana.

Beyond the “big 3” of alcohol, tobacco/nicotine, and marijuana, Minnesota students are most likely to misuse prescription pain relievers, ADD/ADHD medication, and over-the-counter medications.



MENTAL HEALTH

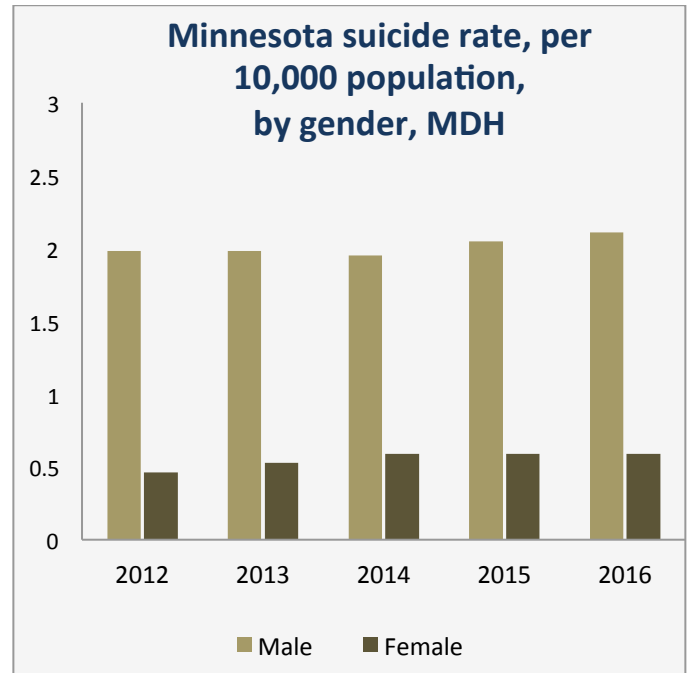
Adult

Minnesotans experience past-year mental illness at nearly the same rate as the US average: about 18%.

Biracial Minnesotans are most likely to report depressive symptoms in the past 2 weeks; Hispanic and Latino Minnesotans are the least likely.

Over 15% of young adults (ages 18-24) meet the criteria for a DSM5 drug and/or alcohol use disorder.

Men in Minnesota have much higher suicide rates than women: 2.11 per 10,000 population, vs. 0.59.



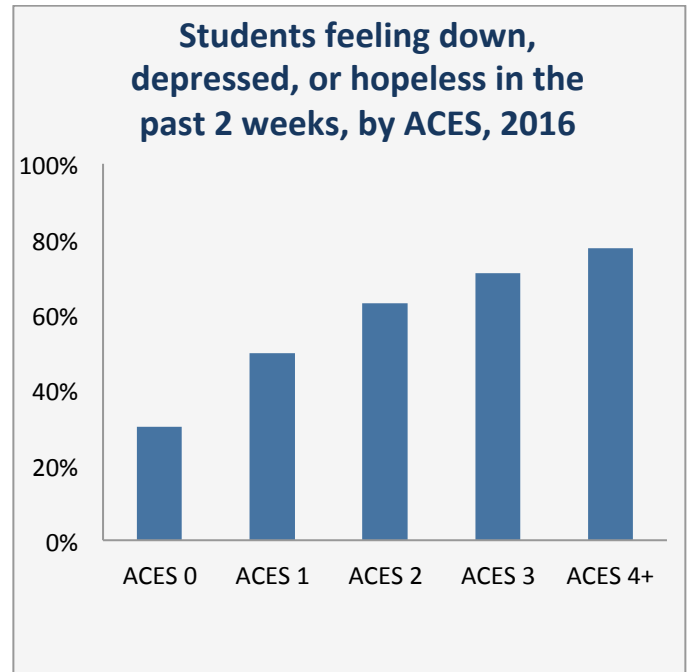
Youth

Over 60% of Minnesota students report having no adverse childhood experiences (ACEs).

Students who can talk to their parents are less likely to report mental health issues and substance use.

Students experiencing bullying are more likely to report mental health issues and substance use.

The number of ACEs reported by students is significantly correlated to both alcohol use and depression.



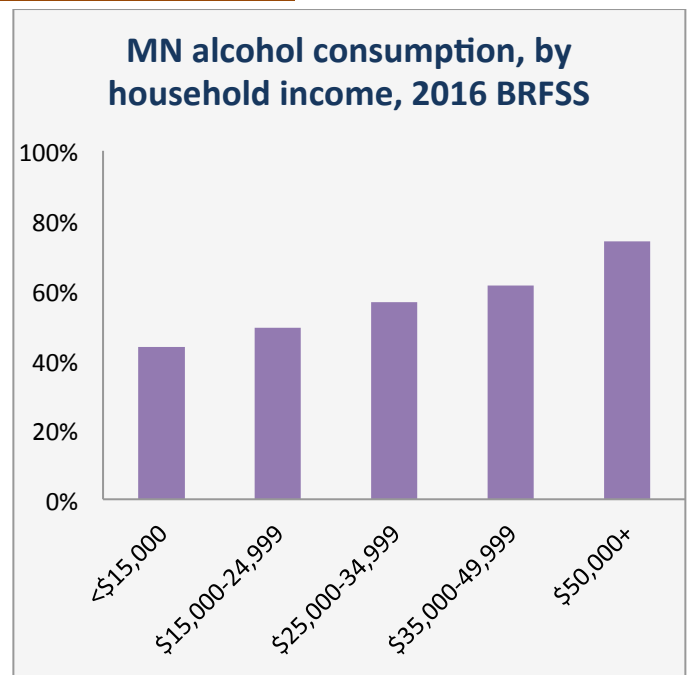
SOCIOECONOMIC FACTORS

Adult

Median household income in Minnesota is slightly higher than in the US as a whole.

Nearly one-fifth of Minnesota adults experiencing homelessness cite a drinking or drug problem as the reason for leaving their last stable housing situation.

In Minnesota, income is positively correlated with alcohol consumption and negatively correlated with cigarette use.

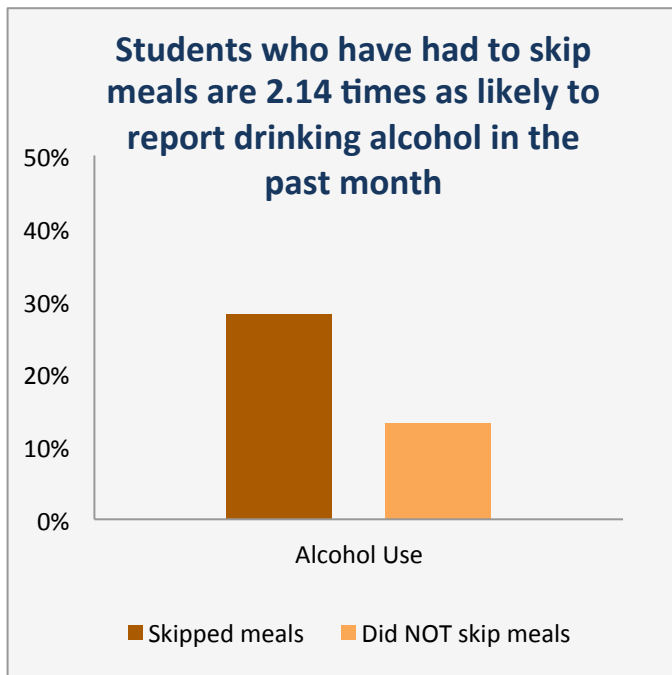


Youth

Nearly 12% of Minnesota children live in poverty. With this rate, the state ranks 8th in the nation.

Young adults experiencing homelessness in the metro area are more likely to report marijuana and cocaine use than those in greater Minnesota, but less likely to report cigarette or methamphetamine use.

Minnesota students who have had to skip meals or who are experiencing homelessness are more likely to report substance use.



2018



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Section 3.

Alcohol: Use, Consequences, and Intervening Variables

Prepared by: EpiMachine, LLC

**for the Minnesota Department of Human Services, Alcohol and
Drug Abuse Division**

Substance Abuse in Minnesota

Section 3. Alcohol: Use, Consequences, and Intervening Variables

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Alcohol in Minnesota: Use

Recent Alcohol Use

About the Indicator

Alcohol is the most frequently used drug nationally and statewide, and is associated with a number of adverse health consequences¹. Reported use of alcohol in the past 30 days is a common measure of recent alcohol use. Adults are defined as persons aged 18 and older. Youth include 8th, 9th, and 11th graders.

Data Source(s)

General Consumption

National Institute on Alcohol Abuse and Alcoholism (NIAAA)

Adults

National Survey on Drug Use and Health (NSDUH), Behavioral Risk Factor Surveillance System (BRFSS) and the Minnesota Survey of Adult Substance Use (MNSASU)

Youth

Minnesota Student Survey (MSS) and Monitoring the Future (MTF)

Section Summary

Adults

- Minnesota's overall per capita consumption went up, from 2.44 gallons in 2011, to 2.80 gallons in 2014, moving from the 5th decile among US states in consumption, to the 2nd decile. It then declined slightly to 2.73 in 2015, to the 3rd decile.

Youth

- Past 30-day alcohol use declined among 9th grade students from 2001 to 2016 (from 30% to 11%).
- Alcohol use varied by age: 7.9% of 8th graders reported recent alcohol use, while 24.6% of 11th graders reported use in 2016.
- Unlike adults, female students reported similar (or higher) rates of alcohol use as male students.

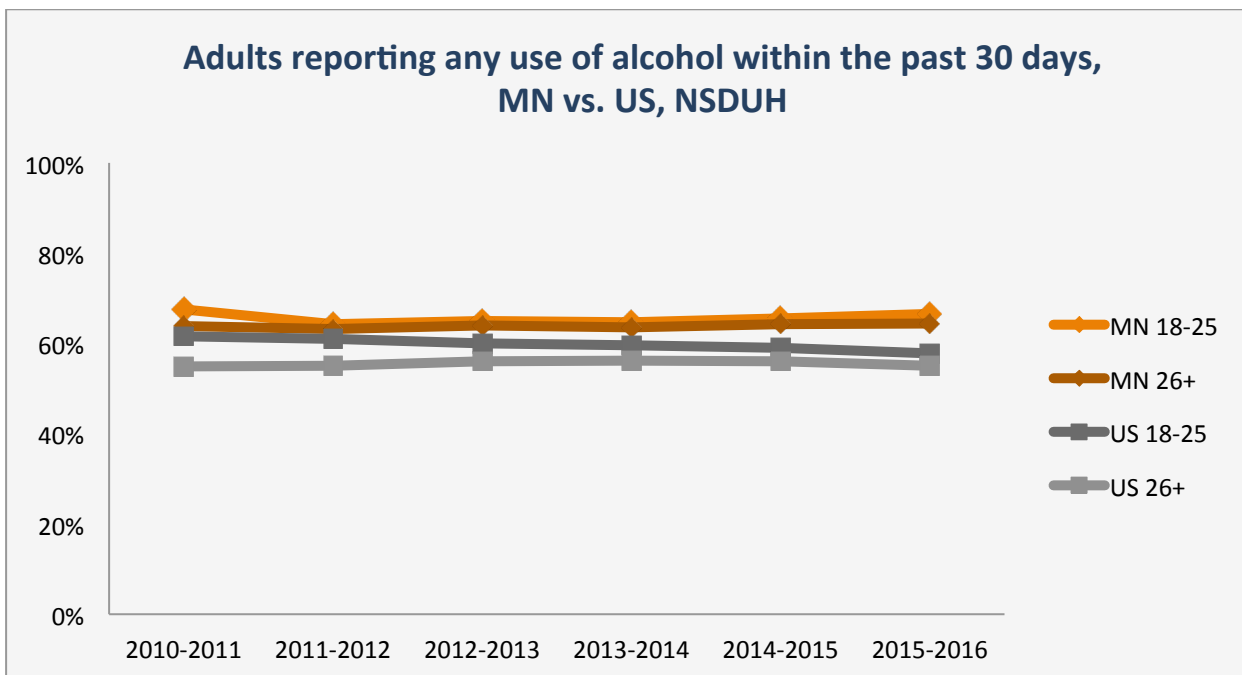
Data Source: NIAAA

Overall, Minnesotans drink almost 20% more than the national average. Although they consume about the same amount of beer and wine as the US average, they consume much more alcohol in the form of hard alcohol, or spirits.

Per Capita Ethanol Consumption in Gallons among Persons Age 14 and Older

Beer	2007	2008	2009	2010	2011	2012	2013	2014	2015
MN	1.16	1.21	1.19	1.10	1.09	1.18	1.13	1.13	1.16
US	1.21	1.20	1.17	1.14	1.12	1.13	1.12	1.10	1.09
Rate ratio	0.96	1.01	1.02	0.97	0.97	1.04	1.01	1.03	1.06
Wine	2007	2008	2009	2010	2011	2012	2013	2014	2015
MN	0.32	0.37	0.37	0.33	0.34	0.42	0.43	0.44	0.43
US	0.38	0.38	0.38	0.39	0.40	0.42	0.42	0.43	0.42
Rate ratio	0.84	0.97	0.97	0.85	0.85	1.00	1.02	1.02	1.02
Spirits	2007	2008	2009	2010	2011	2012	2013	2014	2015
MN	0.97	1.03	1.04	0.99	1.09	1.11	1.16	1.23	1.14
US	0.73	0.73	0.74	0.74	0.76	0.78	0.80	0.80	0.81
Rate ratio	1.33	1.41	1.41	1.34	1.43	1.42	1.45	1.54	1.41
Total	2007	2008	2009	2010	2011	2012	2013	2014	2015
MN	2.45	2.60	2.59	2.42	2.44	2.70	2.72	2.80	2.73
US	2.31	2.31	2.29	2.27	2.28	2.33	2.34	2.32	2.32
Rate ratio	1.06	1.12	1.13	1.07	1.07	1.16	1.16	1.21	1.18

Data Source: NSDUH



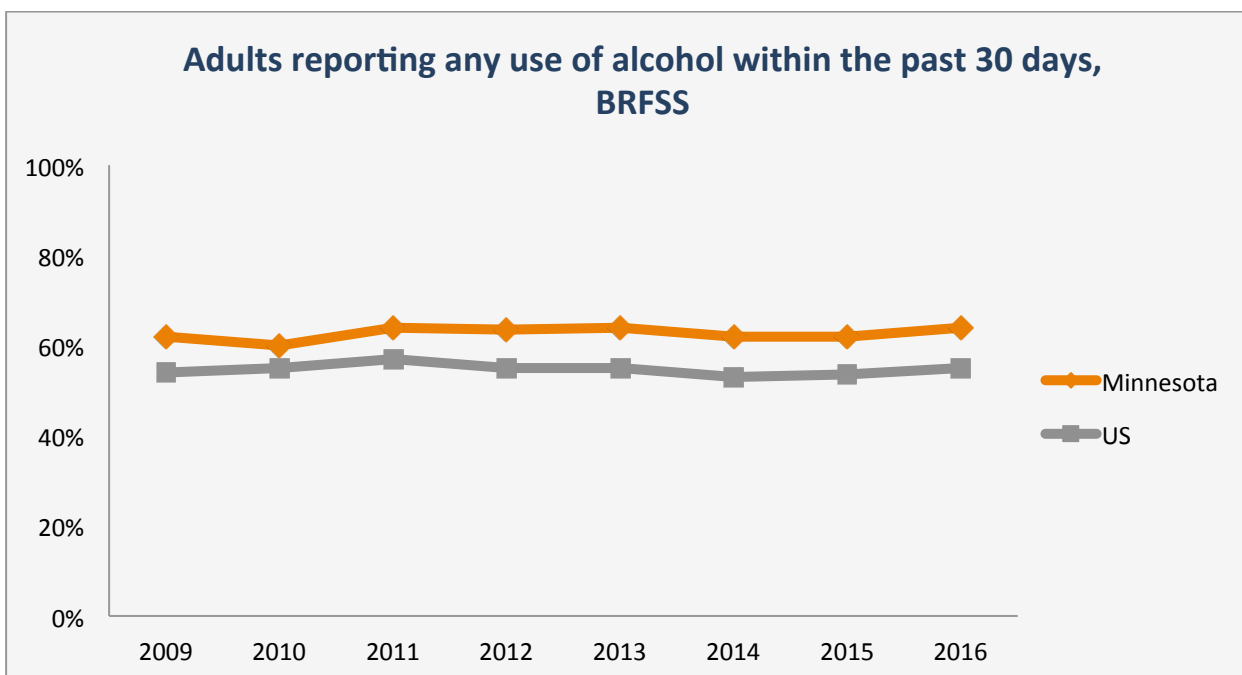
Adults Reporting Any Use of Alcohol within the Past 30 Days

Minnesota	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Alcohol use 12+	59.5%	58.6%	58.9%	58.8%	59.4%	59.7%
Ages 12 thru 17	13.1%	13.1%	11.9%	10.7%	10.7%	10.4%
Ages 18 thru 25	67.5%	64.2%	64.7%	64.7%	65.6%	66.5%
Ages 26 and Over	63.8%	63.2%	63.6%	63.6%	64.2%	64.4%
United States	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Alcohol use 12+	51.8%	51.9%	52.1%	52.4%	52.2%	51.2%
Ages 12 thru 17	13.5%	13.1%	12.2%	11.6%	10.6%	9.4%
Ages 18 thru 25	61.0%	60.5%	59.9%	59.6%	59.0%	57.8%
Ages 26 and Over	55.0%	55.3%	55.7%	56.2%	56.0%	55.1%
Total current alcohol*	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Alcohol use 12+	1.15	1.13	1.13	1.12	1.14	1.16

NOTE: Total percent represents the total number of survey respondents reporting use divided by the total number of survey respondents who answered the question. Percent within an age group, for example, represents the total number of survey respondents in the age group reporting use, divided by the total number of survey respondents in that age group who answered the question. Estimates are based on a survey-weighted hierarchical Bayes estimation approach. For NSDUH, percentages are presented for the 2 years combined.

*Ratio of MN relative to US; A score above 1 means MN rates are above US rates; a score below 1 means MN rates are below US rates

Data Source: BRFSS



Minnesota Adults Reporting Any Use of Alcohol in the Past 30 Days by Gender, Age, and Race/Ethnicity

		2009	2010	2011	2012	2013	2014	2015	2016
Gender	Male	67%	64%	69%	69%	68%	65%	66%	68%
	Female	56%	55%	59%	58%	59%	58%	57%	60%
Age	Ages 18 thru 24	50%	N/A	57%	57%	59%	53%	54%	55%
	Ages 25 thru 34	66%	64%	71%	69%	71%	66%	68%	68%
	Ages 35 thru 44	70%	67%	68%	67%	68%	69%	66%	70%
	Ages 45 thru 54	70%	68%	69%	69%	69%	67%	66%	68%
	Ages 55 thru 64	65%	61%	63%	65%	62%	63%	64%	66%
	Ages 65 and over	44%	47%	52%	52%	51%	51%	52%	55%
Race/Ethnicity	White	63%	62%	66%	66%	67%	65%	65%	67%
	Black	N/A	N/A	50%	44%	52%	37%	38%	38%
	Hispanic	N/A	N/A	44%	46%	50%	46%	40%	47%
	Other	N/A	N/A	50%	48%	41%	45%	50%	N/A
	Multiracial	N/A	N/A	N/A	53%	54%	56%	61%	57%

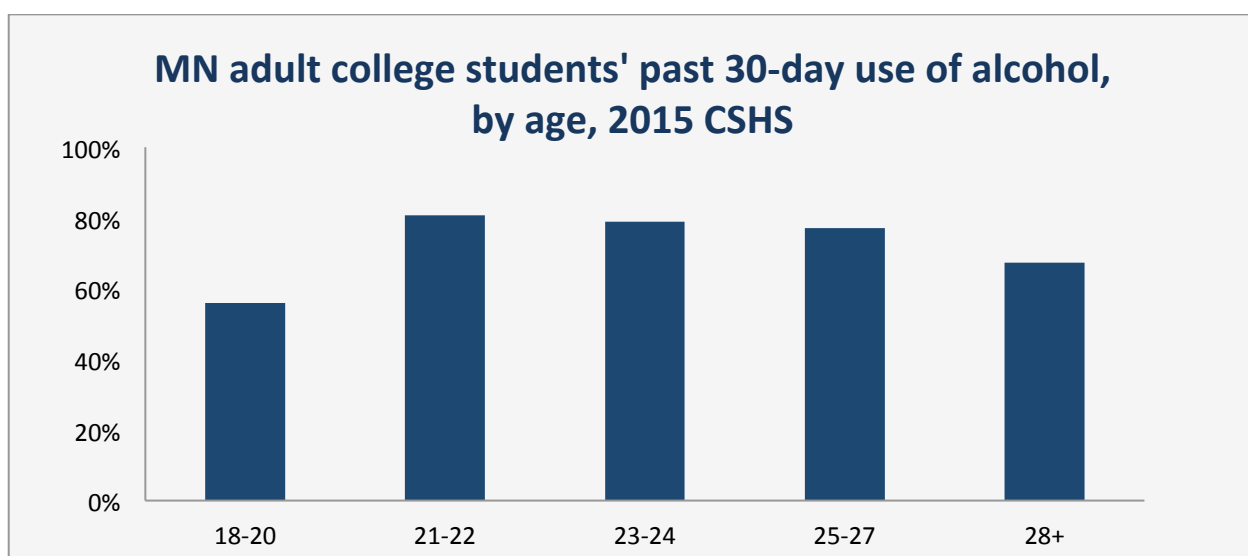
N/A = Not available if the un-weighted sample size for the denominator was < 30 or was unavailable.

NOTE: Use caution in comparing 2011 estimates to those from 2010 or earlier. The addition of a cell-phone sample in 2011 may have resulted in significant mode effects.

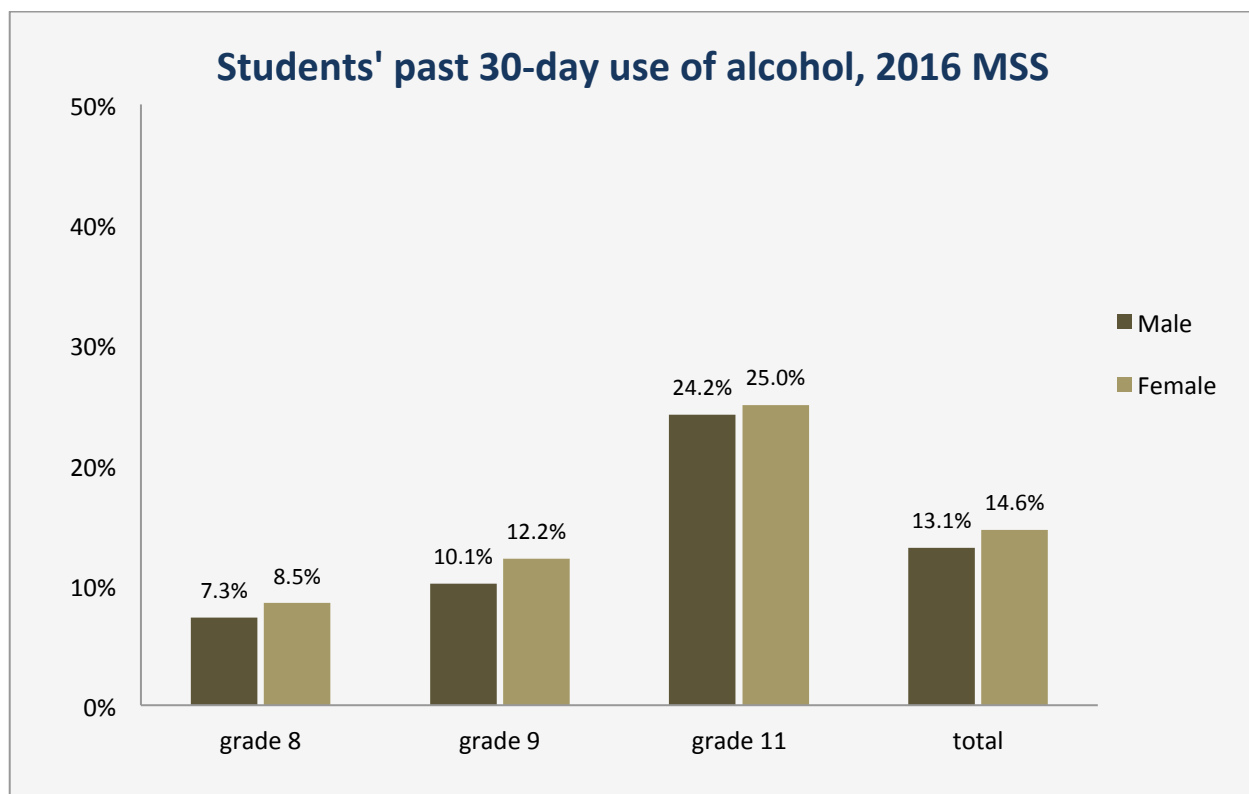
Data Source: MNSASU

Percent of Minnesota Adults Reporting any Use of Alcohol within the Past 30 Days, 2015 MNSASU				
		2004	2010	2015
Age	Ages 18 thru 24	54.6%	51.4%	50.1%
	Ages 25 thru 44	66.4%	62.8%	59.7%
	Ages 45 thru 64	62.7%	59.5%	56.9%
	Ages 65 and over	42.3%	40.9%	45.7%
Race/Ethnicity	African American or Black	33.4%	30.0%	26.1%
	American Indian	48.8%	33.4%	29.3%
	Asian American/Pacific Islander	34.2%	32.8%	36.0%
	Hispanic/Latino	32.7%	31.7%	27.2%
	Bi-Racial/Multi-Racial	48.2%	51.0%	46.8%
	White	62.8%	60.1%	59.2%
Gender	Male	66.9%	63.9%	59.9%
	Female	52.9%	49.9%	49.9%
	Total	59.8%	56.8%	54.8%
Sexual Orientation	Lesbian, Gay, Bisexual, and Transgender	N/A	N/A	57.9%
	Heterosexual	N/A	N/A	56.1%

NOTE: Total percent represents the total number of survey respondents reporting use divided by the total number of survey respondents who answered the question. Percent within an age group, for example, represents the total number of survey respondents in the age group reporting use, divided by the total number of survey respondents in that age group who answered the question.



Data Source: MSS



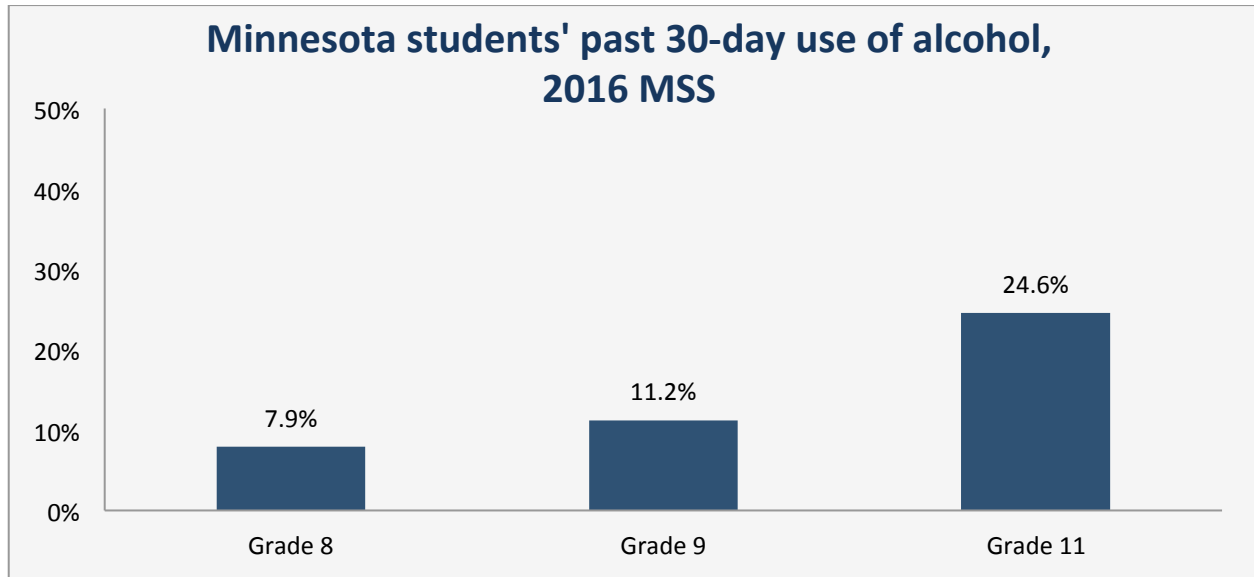
Students Reporting Any Use of Alcohol in the Past 30 Days, 2016 MSS

	N (#)	%
Male	7,672	13.1%
Female	8,653	14.6%
8 th Graders	3,325	7.9%
9 th Graders	4,692	11.2%
11 th Graders	8,351	24.6%

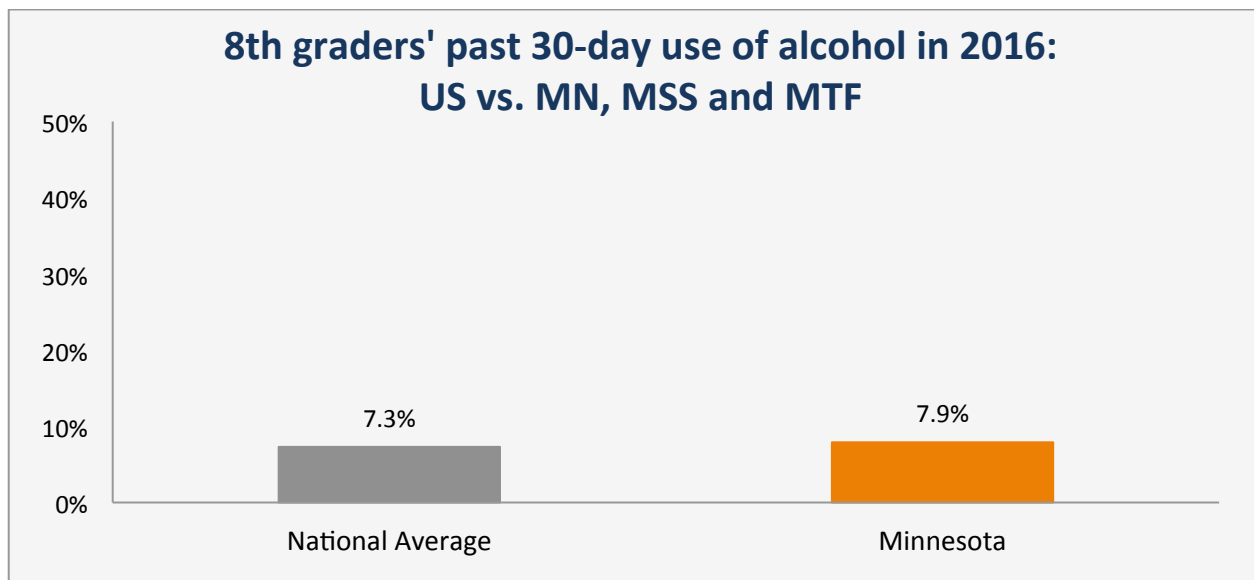
Minnesota 9th Graders Reporting Use of Alcohol in the Past 30 Days, MSS

	2001	2004	2007	2010	2013	2016
Male	30%	26%	23%	18%	14%	10%
Female	30%	29%	25%	20%	15%	12%
Total	30%	28%	24%	19%	15%	11%

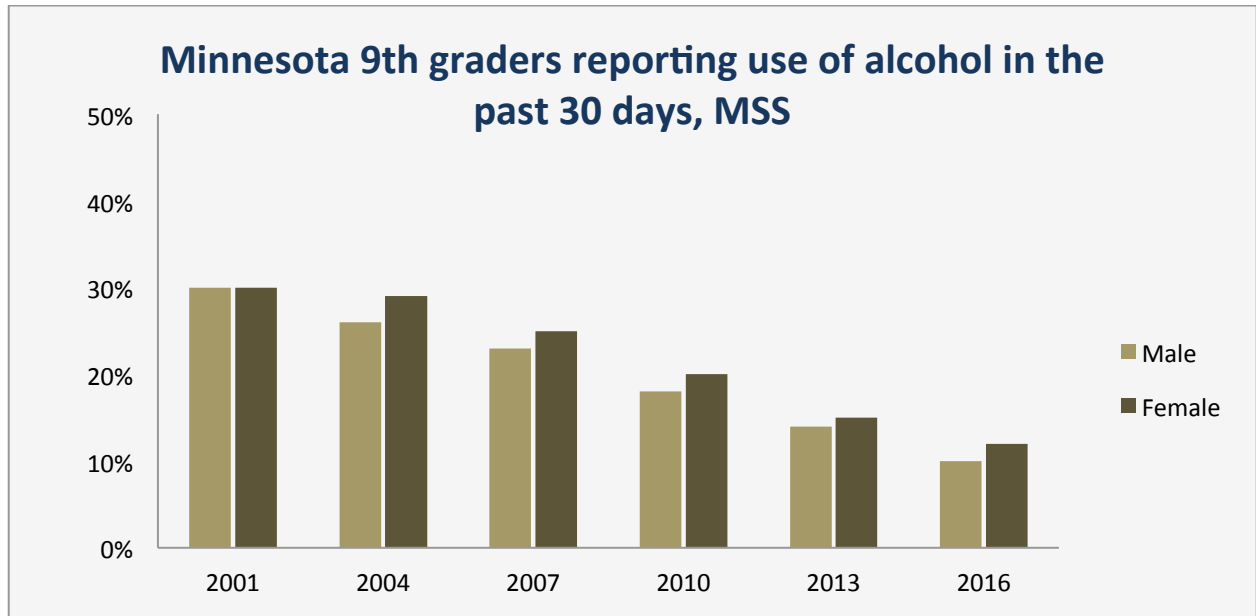
Data Source: MSS and MTF



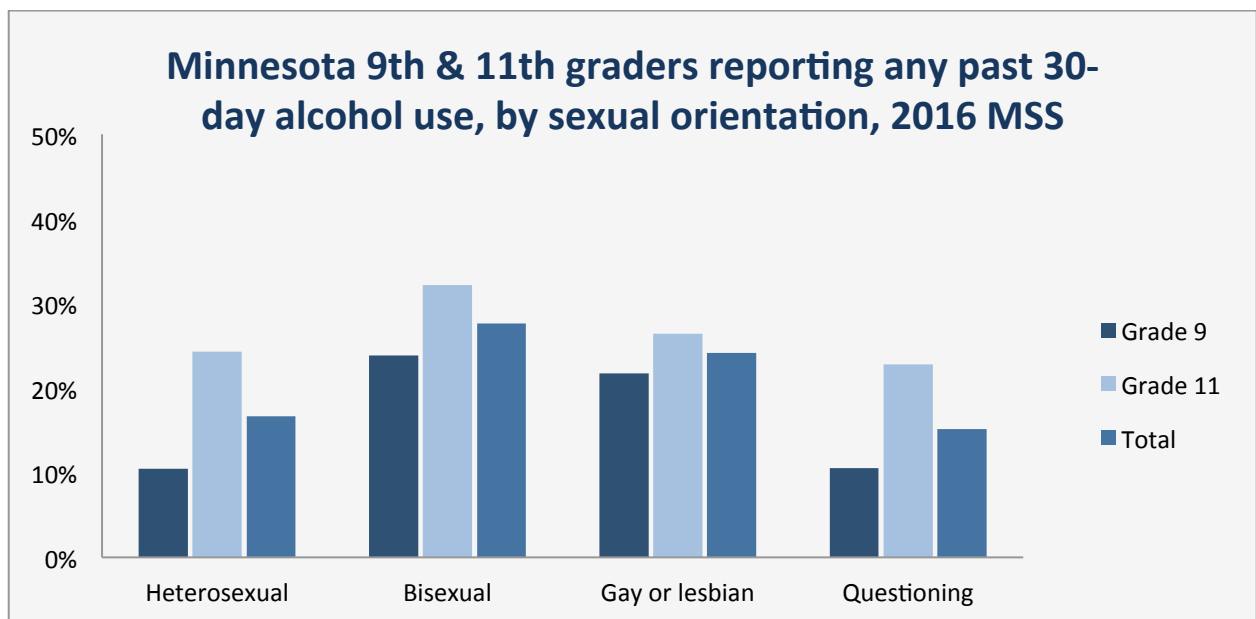
8th graders' past 30-day use of alcohol in 2013 was slightly higher than the national average (7.9% vs. 7.3%). Past 30-day use by 9th graders is decreasing.



Data Source: MSS



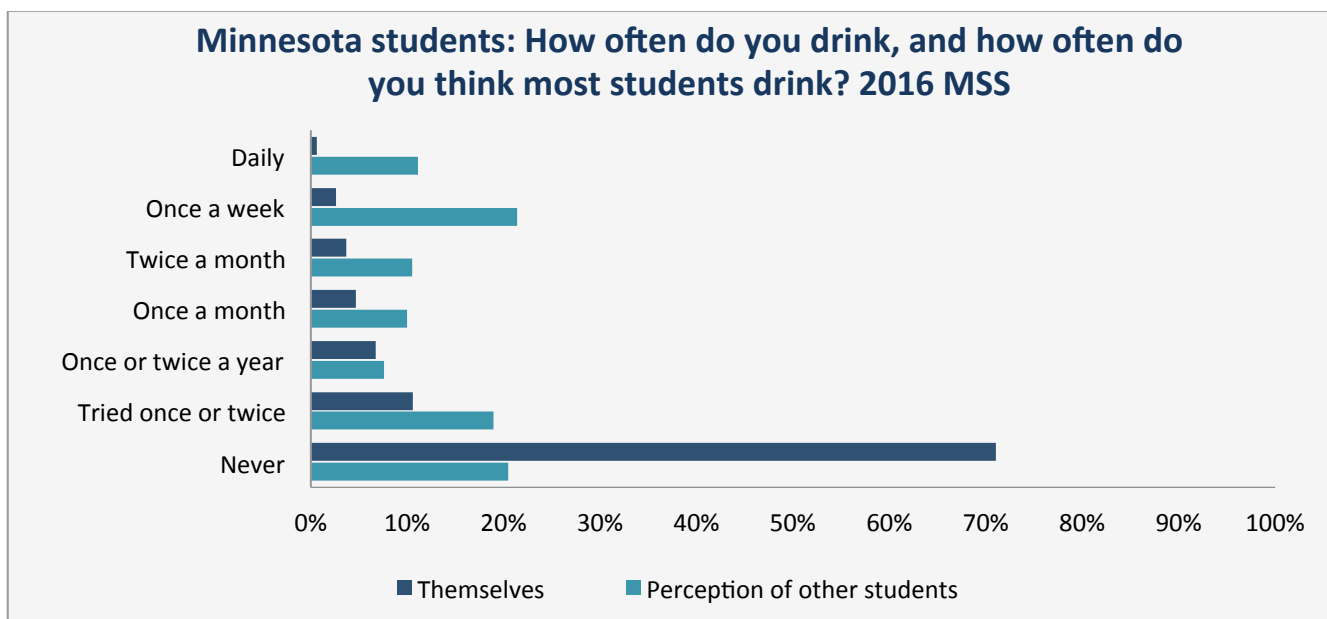
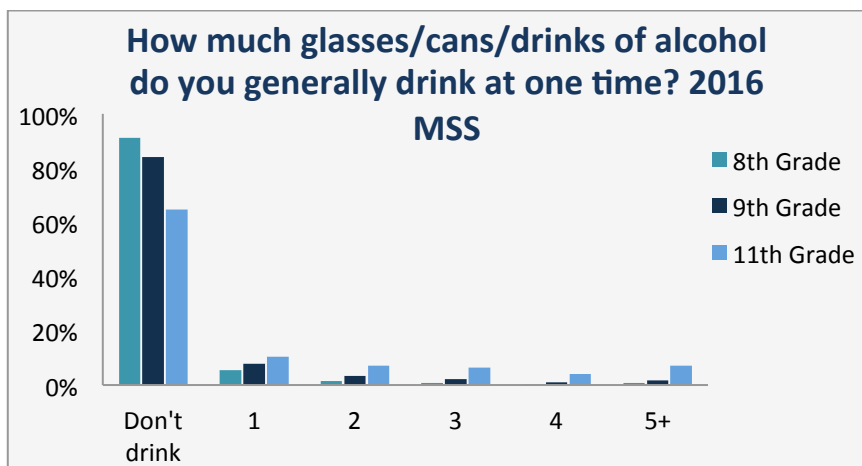
Bisexual, gay and lesbian students, and those questioning their sexual orientation, are all more likely to drink, compared to their heterosexual classmates.



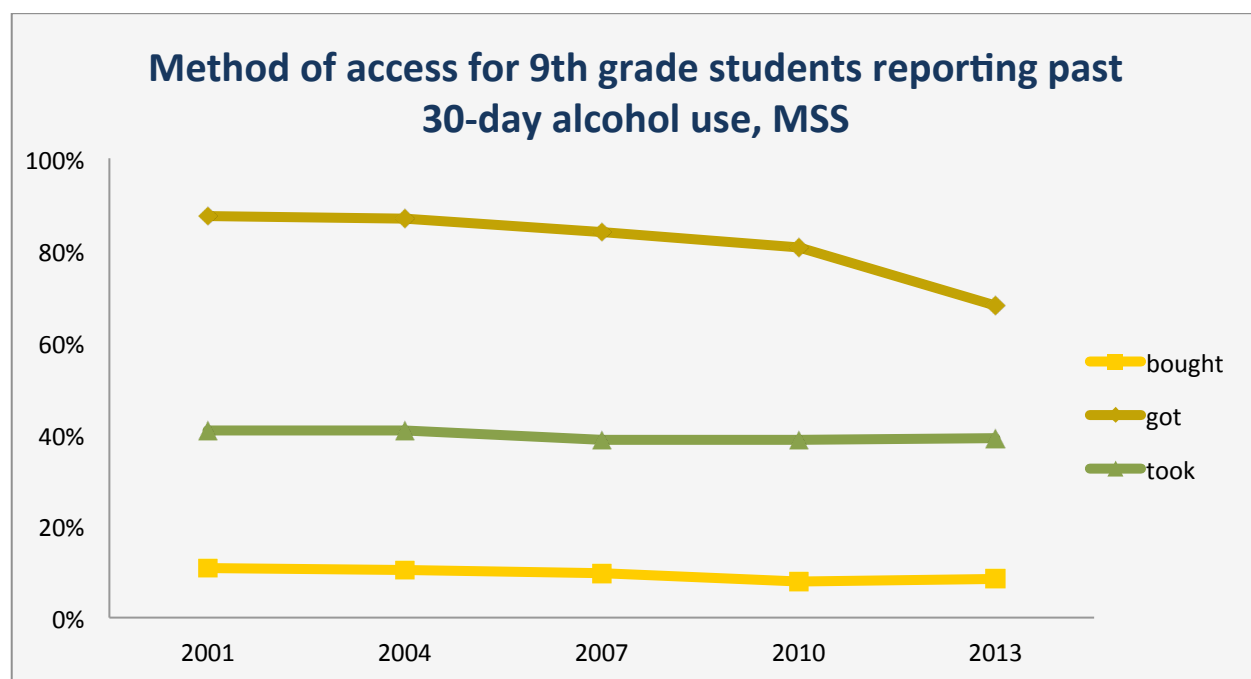
Data Source: MSS

While Minnesota students tend to drink at a relatively low rate, their perception generally is that other students drink more than they actually do.

Students who believe most other students drink often are more likely to report drinking often, themselves.



Data Source: MSS



Method of Access for Students Reporting Past 30-Day Alcohol Use, MSS

	2001	2004	2007	2010	2013
Students reporting past 30 day alcohol use who "bought" the alcohol (from a store, bar, restaurant, or the internet)	10.8%	10.3%	9.6%	7.8%	8.4%
Students reporting past 30 day alcohol use who "got" the alcohol (from a from friends, parents, other family members, someone buying for them, or parties)	87.4%	86.9%	83.9%	80.6%	67.9%
Students reporting past 30 day alcohol use who "took" the alcohol (from their home, a friend's home, or from stores)	40.7%	40.8%	38.7%	38.7%	39.1%

NOTE: This question was not included in the 2016 version of the Minnesota Student Survey.

Recent Binge Drinking

About the Indicator

Binge drinking has been associated with alcohol-related injuries and deaths, as well as violence and crime. Up until 2006, BRFSS defined binge drinking as having 5 or more drinks in a row on one occasion. In 2006, binge drinking was defined as 5 or more drinks for males or 4 or more drinks for females in a row on one occasion. MNSASU used the later definition; both captured binge drinking in the past 30 days. NSDUH also changed its binge drinking definition: until the 2015 survey redesign, it defined binge drinking as 5 or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days; in 2015, it changed to match the BRFSS definition. MSS continues to define binge drinking as 5 or more drinks in a row on one occasion in the past 30 days (for males or females).

Adult is defined as persons aged 18 and older. Youth data from the MSS include 9th and 11th graders.

Data Source(s)

Adults

National Survey on Drug Use and Health (NSDUH), Behavioral Risk Factor Surveillance System (BRFSS), and the Minnesota Survey of Adult Substance Use (MNSASU)

Youth

Minnesota Student Survey (MSS)

Section Summary

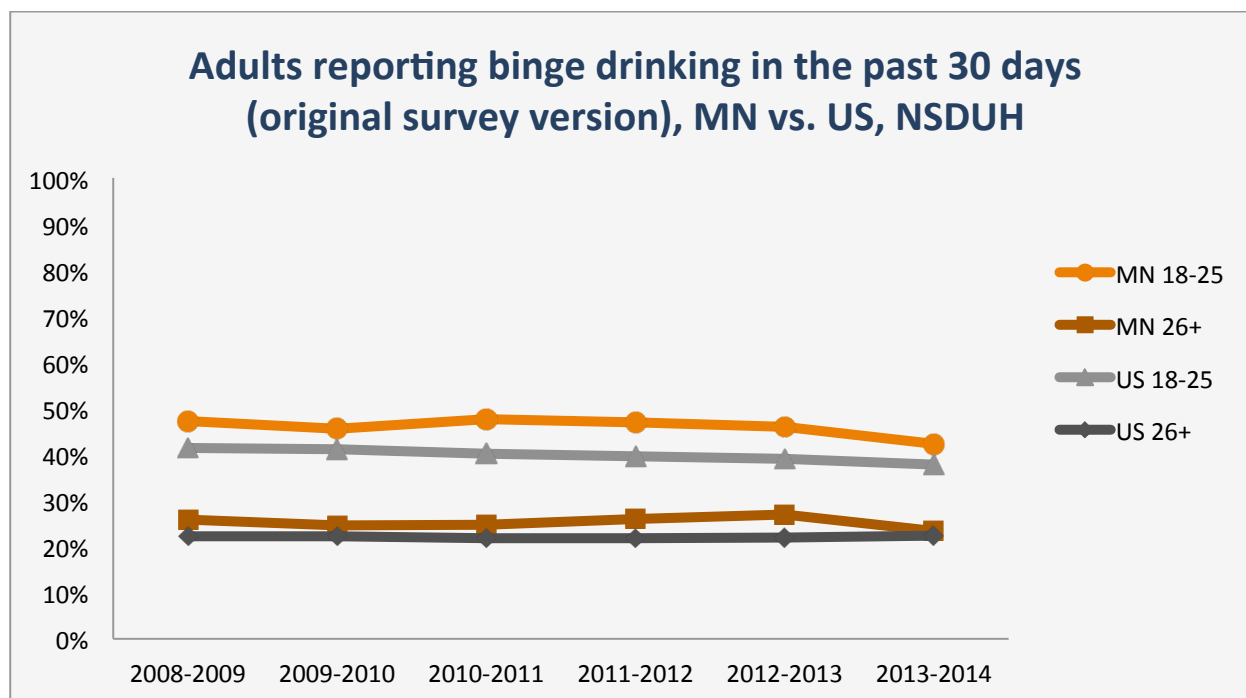
Adults

- Minnesotans report higher rates of binge drinking than the national average, although the trend shows a slight decrease in rates over the past 7 years.
- Males had higher rates of recent binge drinking than females, regardless of age, race/ethnicity, or region. Surveys broadly agree that young adult males binge drink at the highest rates.

Youth

- Binge drinking is more prevalent among older students than younger students, and is higher among males as compared to females.

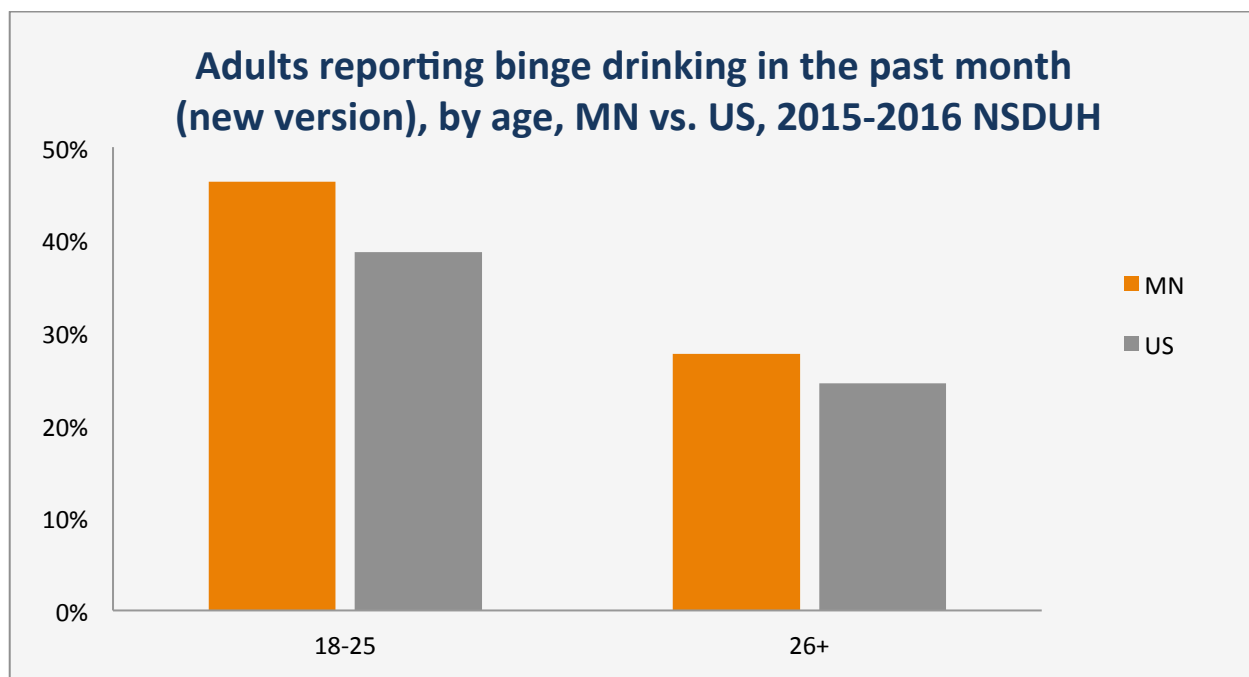
Data Source: NSDUH



Adults Reporting Binge Drinking in the Past 30 Days (Original Survey Version), NSDUH

Minnesota	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Binge drinking 12+	26.9%	25.9%	26.2%	26.9%	27.1%	24.1%
Ages 12 thru 17	8.0%	7.9%	8.3%	7.9%	6.6%	5.1%
Ages 18 thru 25	47.2%	45.6%	47.7%	46.9%	45.5%	42.3%
Ages 26 and Over	25.8%	24.7%	24.7%	25.9%	26.6%	23.4%
United States	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Binge drinking 12+	23.5%	23.4%	22.9%	22.8%	22.9%	22.9%
Ages 12 thru 17	8.8%	8.4%	7.6%	7.3%	6.7%	6.2%
Ages 18 thru 25	41.4%	41.2%	40.2%	39.7%	38.7%	37.8%
Ages 26 and Over	22.3%	22.2%	21.8%	21.8%	22.2%	22.4%
MN:US rate ratio	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Binge drinking 12+	1.14	1.11	1.15	1.18	1.18	1.05

Data Source: NSDUH

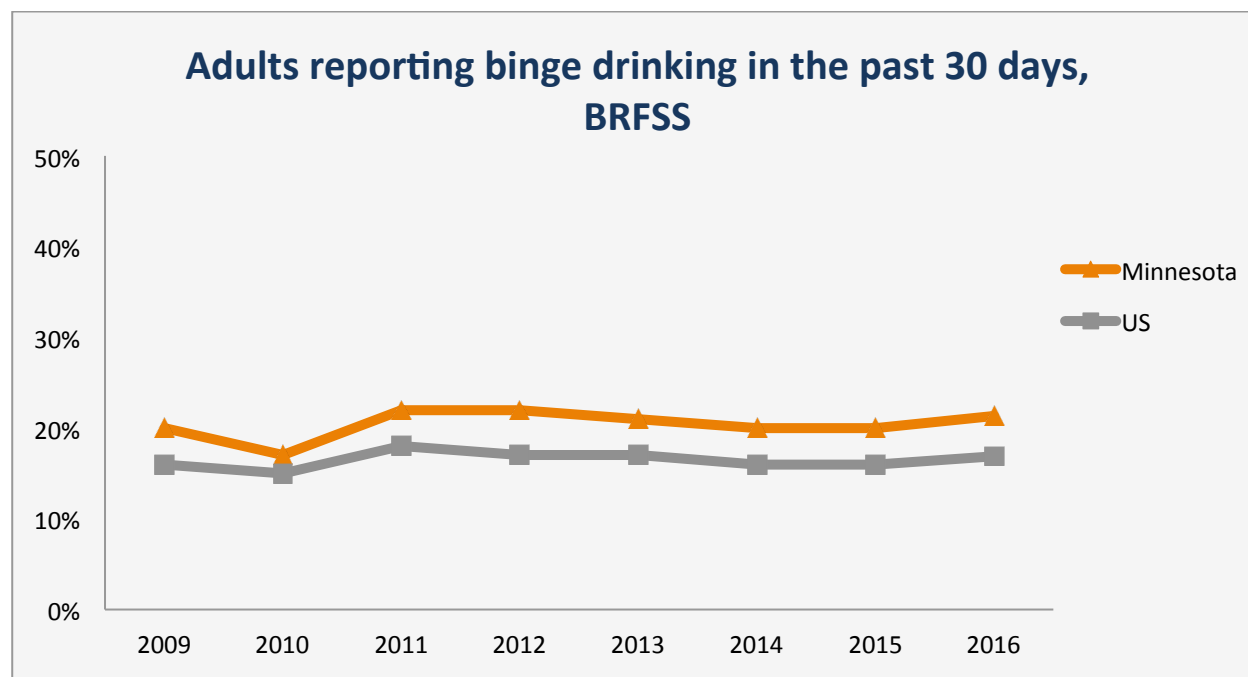


Adults Reporting Binge Drinking in the Past Month (New Survey Version), NSDUH

Minnesota	2015-2016
Binge Drinking 12+	28.0%
Ages 12 thru 17	5.3%
Ages 18 thru 25	46.3%
Ages 26 and Over	27.7%
United States	2015-2016
Binge Drinking 12+	24.6%
Ages 12 thru 17	5.3%
Ages 18 thru 25	38.7%
Ages 26 and Over	24.5%
MN:US rate ratio	2015-2016
Binge Drinking 12+	1.14

NOTE: Due to changes in the 2015 National Survey on Drug Use and Health (NSDUH), the measure of past-month binge drinking is not comparable after the 2013-2014 survey. Past trend data up to the 2013-2014 survey are presented separately from data from 2015 and later.

Data Source: BRFSS



Minnesota Adults Reporting Binge Drinking in the Past 30 Days by Gender, Age, and Race/Ethnicity, BRFSS

		2009	2010	2011	2012	2013	2014	2015	2016
Gender	Male	25%	22%	29%	29%	27%	25%	25%	27%
	Female	15%	12%	16%	16%	15%	15%	14%	16%
Age	Ages 18 thru 24	28%	20%	33%	32%	30%	29%	30%	31%
	Ages 25 thru 34	28%	28%	34%	36%	33%	30%	29%	32%
	Ages 35 thru 44	24%	21%	26%	26%	23%	24%	25%	27%
	Ages 45 thru 54	23%	19%	22%	23%	24%	20%	20%	22%
	Ages 55 thru 64	14%	11%	14%	13%	15%	14%	14%	16%
	Ages 65 and over	4%	4%	5%	5%	4%	5%	5%	7%
Race/Ethnicity	White	21%	18%	23%	23%	22%	20%	20%	22%
	Black	N/A	8%	17%	12%	20%	12%	10%	12%
	Hispanic	13%	7%	22%	22%	16%	20%	17%	20%
	Other	N/A	N/A	19%	21%	15%	14%	22%	N/A
	Multiracial	N/A	N/A	N/A	25%	28%	24%	26%	28%

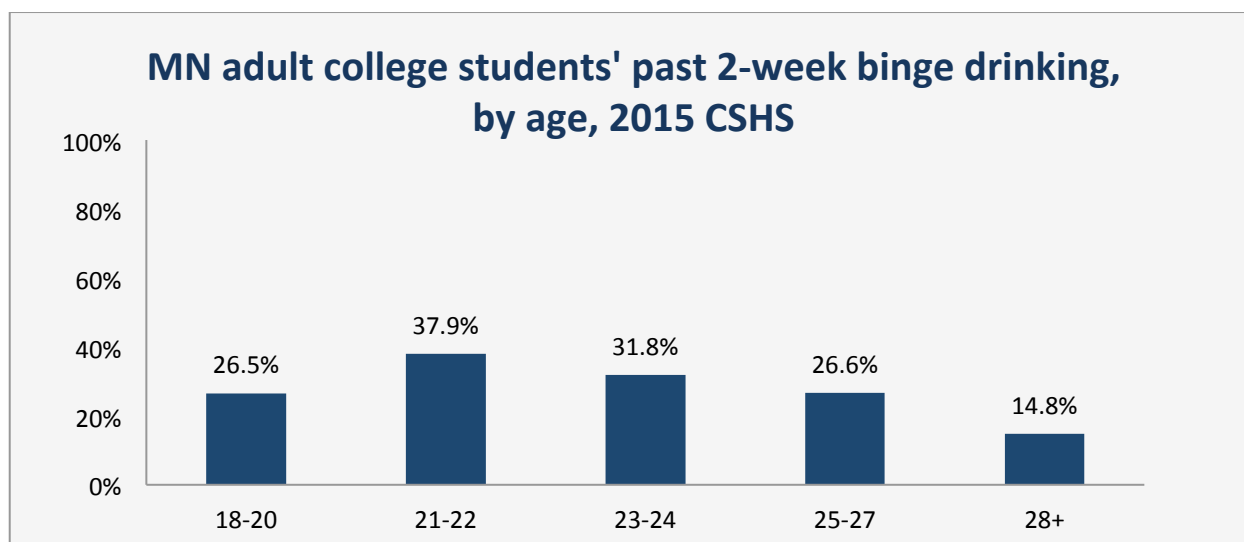
N/A = Not available if the un-weighted sample size for the denominator was < 30 or the indicator was unavailable for the year.

NOTE: Use caution in comparing 2011 estimates to those from 2010 or earlier. The addition of a cell-phone sample in 2011 may have resulted in significant mode effects.

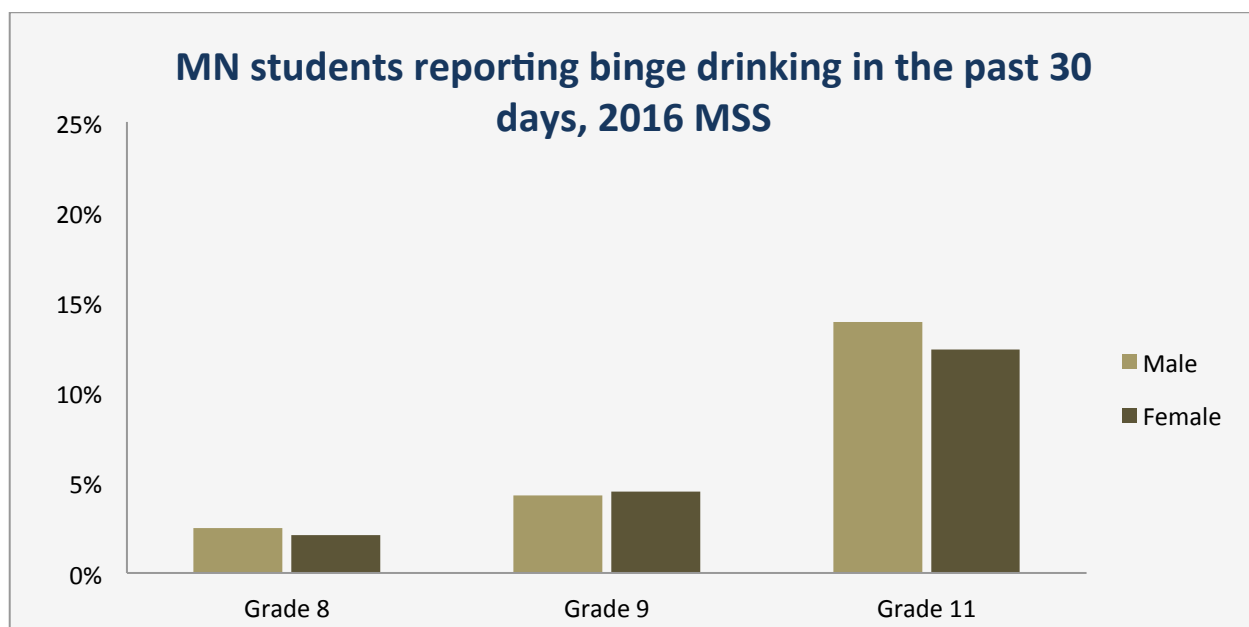
Data Source: MNSASU

Percent of Minnesota Adults Reporting Binge Drinking Within the Past 30 Days by Gender, Age, Race/Ethnicity, and Sexual Orientation, 2015 MNSASU		2004	2010	2015
Age	Ages 18 thru 24	35.2%	33.4%	27.8%
	Ages 25 thru 44	24.0%	25.4%	18.8%
	Ages 45 thru 64	13.3%	13.2%	10.3%
	Ages 65 and over	2.7%	2.5%	2.1%
Race/Ethnicity	African American or Black	9.5%	9.8%	6.8%
	American Indian	30.5%	20.3%	16.1%
	Asian American/Pacific Islander	13.0%	5.8%	8.1%
	Hispanic/Latino	15.1%	13.3%	11.6%
	Bi-Racial/Multi-Racial	20.2%	25.1%	18.5%
	White	19.3%	15.0%	14.6%
Gender	Male	24.3%	23.4%	17.9%
	Female	13.4%	13.3%	10.2%
	Total	18.8%	18.2%	13.9%
Sexual Orientation	Lesbian, Gay, Bisexual, and Transgender	N/A	N/A	17.1%
	Heterosexual	N/A	N/A	14.1%

Note: Adults are defined as persons aged 18 and older. Total percent represents the total number of survey respondents reporting use divided by the total number of survey respondents who answered the question. Percent within an age group, for example, represents the total number of survey respondents in the age group reporting use, divided by the total number of survey respondents in that age group who answered the question.



Data Source: MSS



In 2013, the Minnesota Student Survey question on binge drinking changed from reporting binge drinking in the past 2 weeks, to reporting binge drinking in the past 30 days. This brought Minnesota in line with other national and state student surveys.

Minnesota Students Reporting Binge Drinking in the Past 30 Days, 2016 MSS				
	Male		Female	
	N (#)	%	N (#)	%
8 th Grade	503	2.5%	437	2.1%
9 th Grade	845	4.3%	898	4.5%
11 th Grade	2,240	13.9%	2,027	12.4%

Other Problematic Alcohol Use

About the Indicator

Other risky patterns of alcohol use measured in surveys include daily use and participation in drinking games. Daily alcohol use can pose an increased health risk depending on a combination of factors, including quantity consumed and family medical history. Heavy use of alcohol, as measured by the Behavioral Risk Factor Surveillance System (BRFSS), is defined as average daily alcohol consumption greater than 2 drinks for men and 1 drink for women.

Drinking games can lead to risky alcohol consumption, as they encourage participants to drink more in one sitting than they otherwise would, through peer pressure and competition. In 2015, the MNSASU asked how often respondents have participated in drinking games involving alcohol (for example: beer pong, flip cup, or card games) in the past 30 days.

Data Source(s)

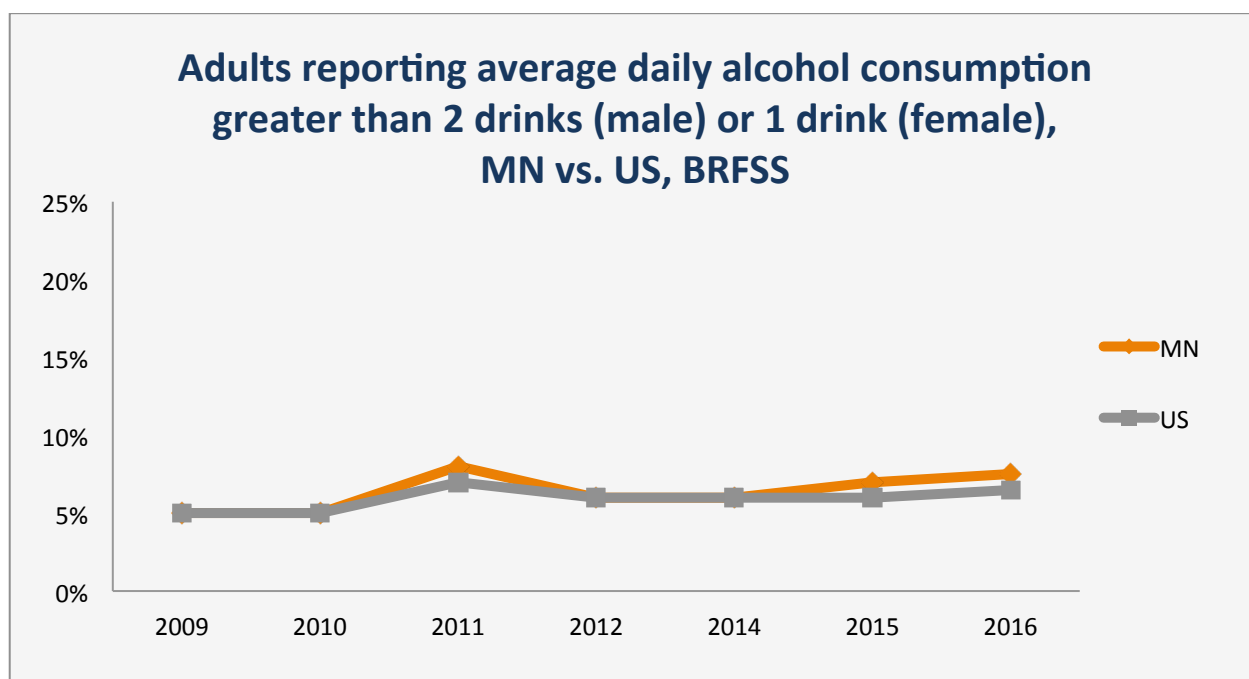
Adults

Behavioral Risk Factor Surveillance System (BRFSS), the Minnesota Survey of Adult Substance Use (MNSASU), and the College Student Health Survey (CSHS)

Section Summary

- Historically, Minnesota's heavy drinking rate has been similar to—or slightly higher than—the national average.
- Minnesota women reported rates of heavy drinking higher than that of men in the state: 8% vs. 7%.
- Estimates of heavy drinking are highest among Minnesotans ages 25-34 and 45-54.
- Drinking games are most prevalent in those aged 18 to 24.

Data Source: BRFSS

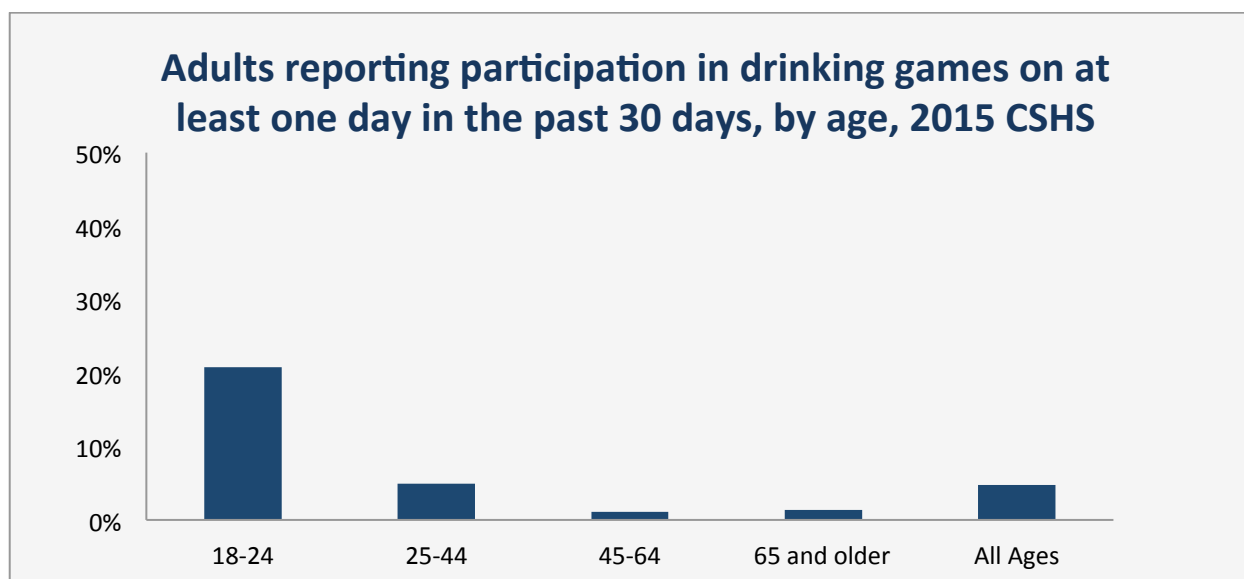


Minnesota Adults Reporting Average Daily Alcohol Consumption Greater than 2 Drinks (Male) or Greater than 1 Drink (Female) Per Day, BRFSS

		2009	2010	2011	2012	2013	2014	2015	2016
Gender	Male	5%	5%	9%	7%	8%	7%	6%	7%
	Female	5%	5%	7%	6%	7%	6%	7%	8%
Age	Ages 18 thru 24	5%	7%	11%	8%	6%	7%	9%	8%
	Ages 25 thru 34	5%	4%	10%	7%	9%	8%	6%	9%
	Ages 35 thru 44	4%	4%	7%	6%	7%	6%	8%	8%
	Ages 45 thru 54	7%	6%	9%	7%	10%	7%	7%	9%
	Ages 55 thru 64	6%	5%	7%	6%	8%	7%	7%	7%
	Ages 65 and over	2%	3%	4%	4%	4%	5%	4%	5%
Race/Ethnicity	White	5%	5%	8%	6%	8%	7%	7%	8%
	Black	4%	1%	7%	6%	N/A	N/A	N/A	3%
	Hispanic	1%	3%	N/A	N/A	N/A	N/A	N/A	4%
	Other	1%	5%	4%	7%	N/A	3%	N/A	N/A
	Multiracial	N/A	N/A	N/A	N/A	N/A	N/A	10%	11%

Data Source: MNSASU

Adults reporting participation in drinking games on at least one day in the past 30 days, 2015 MNSASU		
		2015
Age	Ages 18 thru 24	20.8%
	Ages 25 thru 44	4.9%
	Ages 45 thru 64	1.1%
	Ages 65 and over	1.4%
Race/Ethnicity	African American or Black	*
	American Indian	*
	Asian American/ Pacific Islander	5.3%
	Hispanic/Latino	2.8%
	Bi-Racial/Multi-Racial	*
	White	5.0%
Gender	Male	5.4%
	Female	4.1%
	Total	4.8%
Sexual Orientation	Lesbian, Gay, and Bisexual	6.3%
	Heterosexual	4.9%



Self-Reported Impaired Driving

About the Indicator

As a depressant, alcohol use interferes with coordination, judgment and reaction time. The following data sources contain reported behavior of impaired driving or riding with an impaired driver. Penalties related to impaired driving are included in the upcoming section. Adult is defined as persons aged 18 and older. Youth include 9th and 11th graders.

Data Source(s)

Adults

Behavioral Risk Factor Surveillance System (BRFSS)

Youth

Minnesota Student Survey (MSS)

Section Summary

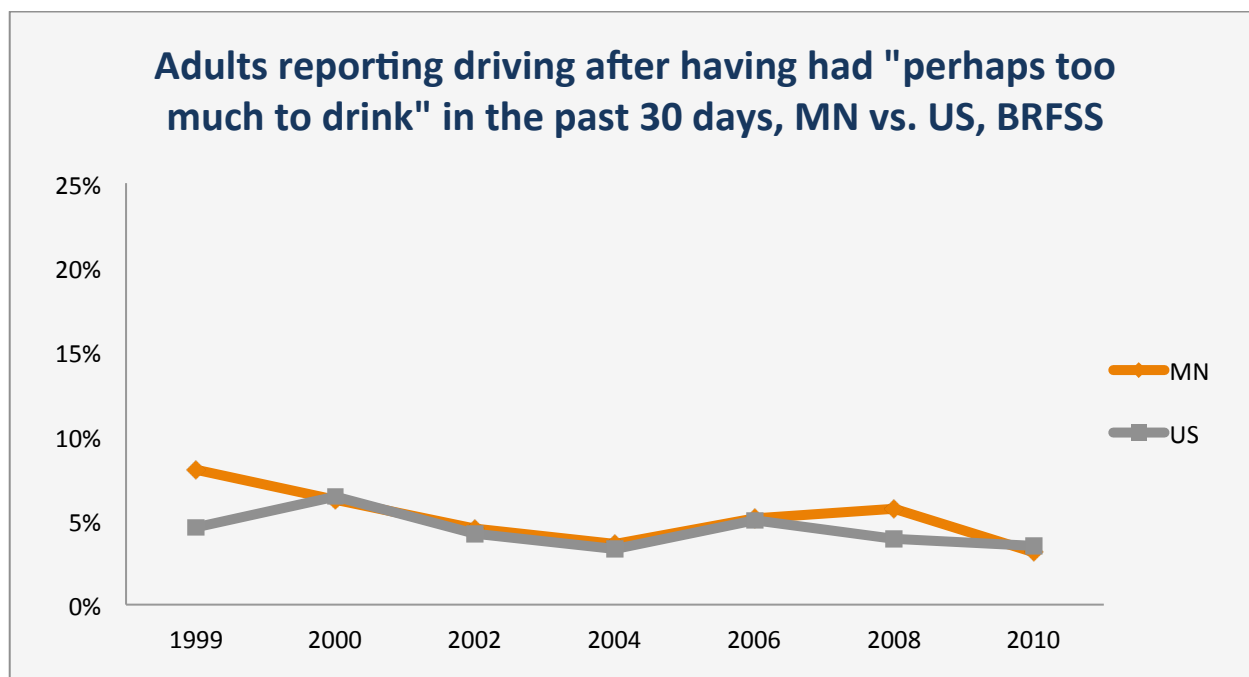
Adults

- From 1999 to 2010, rates of reported impaired driving among Minnesota adults were similar to national rates—both rising after 2004, but with an overall decline since 1999.

Youth

- Impaired driving among 9th graders has decreased steadily since 1998.

Data Source: BRFSS

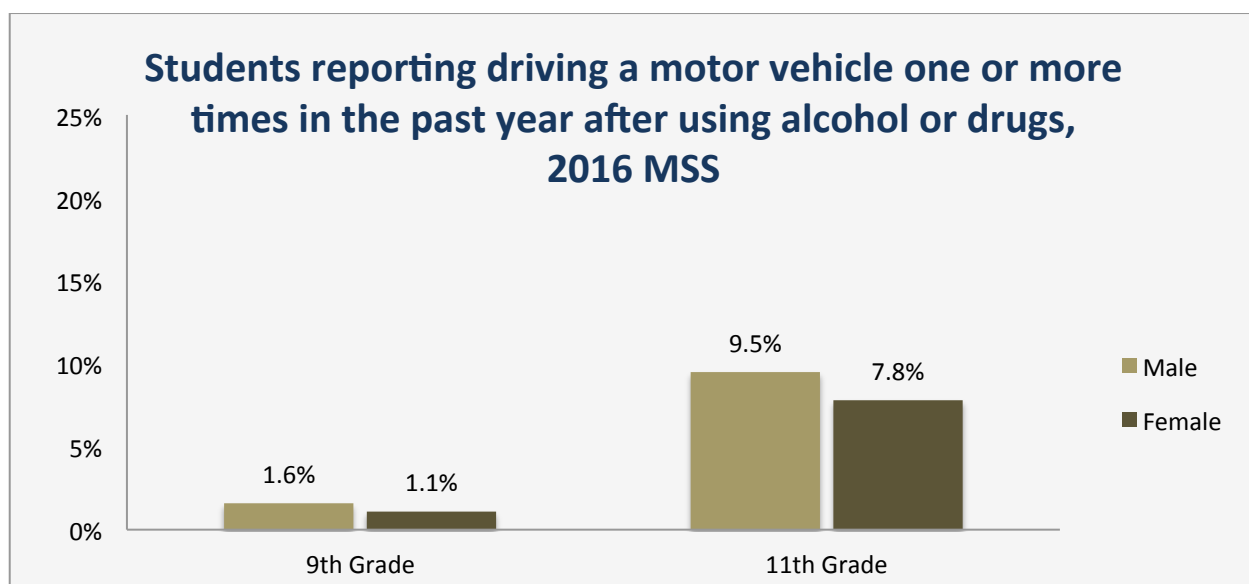
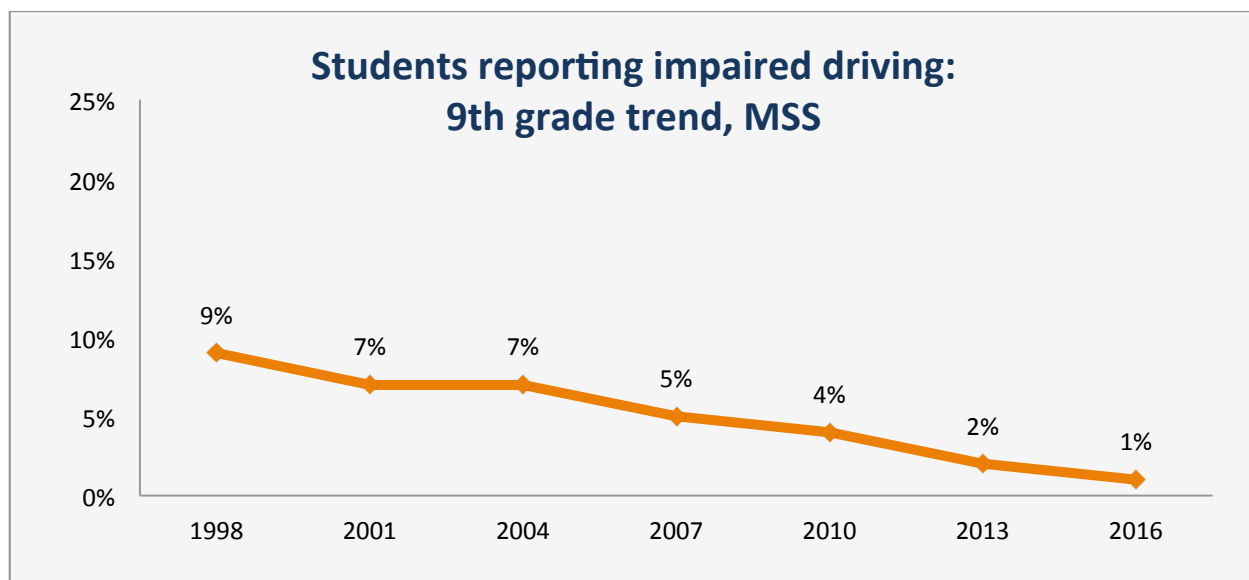


Adults Reporting Driving After Having Had "Perhaps Too Much to Drink" in the Past 30 Days, BRFSS

	1999	2000	2002	2004	2006	2008	2010
MN	8.0%	6.2%	4.5%	3.6%	5.1%	5.7%	3.1%
US	4.6%	6.4%	4.2%	3.3%	5.0%	3.9%	3.5%
MN:US*	1.7	0.97	1.07	1.09	1.02	1.46	0.89

NOTE: This question was not included in the survey after 2010.

Data Source: MSS



**Students Reporting Driving a Motor Vehicle 1 or More Times in the Last 12 Months
After Using Alcohol or Drugs, 2016 MSS**

	Male		Female		Total	
	N (#)	%	N (#)	%	N (#)	%
9th Grade	315	1.6%	224	1.1%	539	1.3%
11th Grade	1545	9.5%	1292	7.8%	2837	8.7%
Total	1860	5.1%	1516	4.1%	3376	4.6%

Alcohol in Minnesota: Consequences

Fatal Alcohol-Related Motor Vehicle Crashes

About the Indicator

As a depressant, alcohol use interferes with coordination, judgment and reaction time and can have fatal consequences. Driving while impaired puts the driver and others at risk.

The following measures report the number of fatal alcohol related crashes and number of deaths in which at least one driver, pedestrian, or cyclist has been drinking.

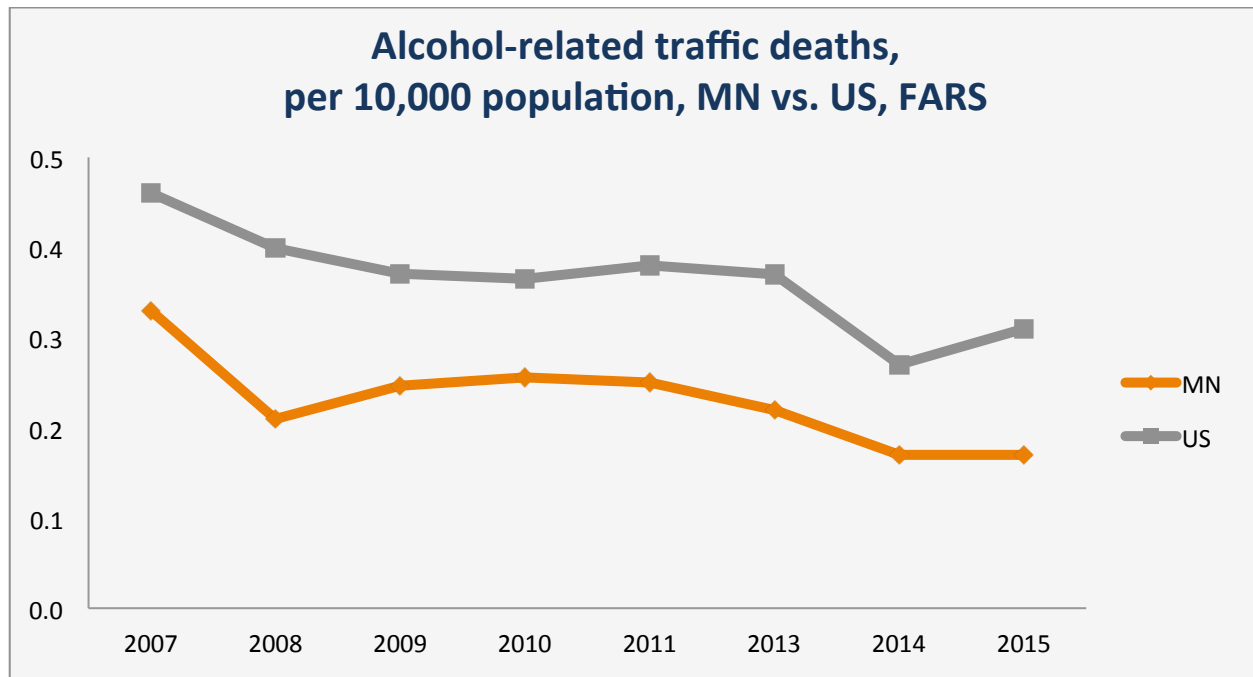
Data Source(s)

Minnesota Office of Traffic Safety (OTS), and US Fatality Analysis Reporting System (FARS)

Section Summary

- About one-third of all fatal motor vehicle crashes in Minnesota are alcohol-related.
- Minnesota consistently has had a lower rate of fatal alcohol-related traffic crashes than the US as a whole, although rates are converging.
- In 2015, of 379 Minnesotans killed in motor vehicle crashes; 144 deaths were alcohol-related.
- The number of drivers killed in alcohol-related crashes generally decreased in the early 2000s, and then remained steady for about 4 years before rising again in 2015.

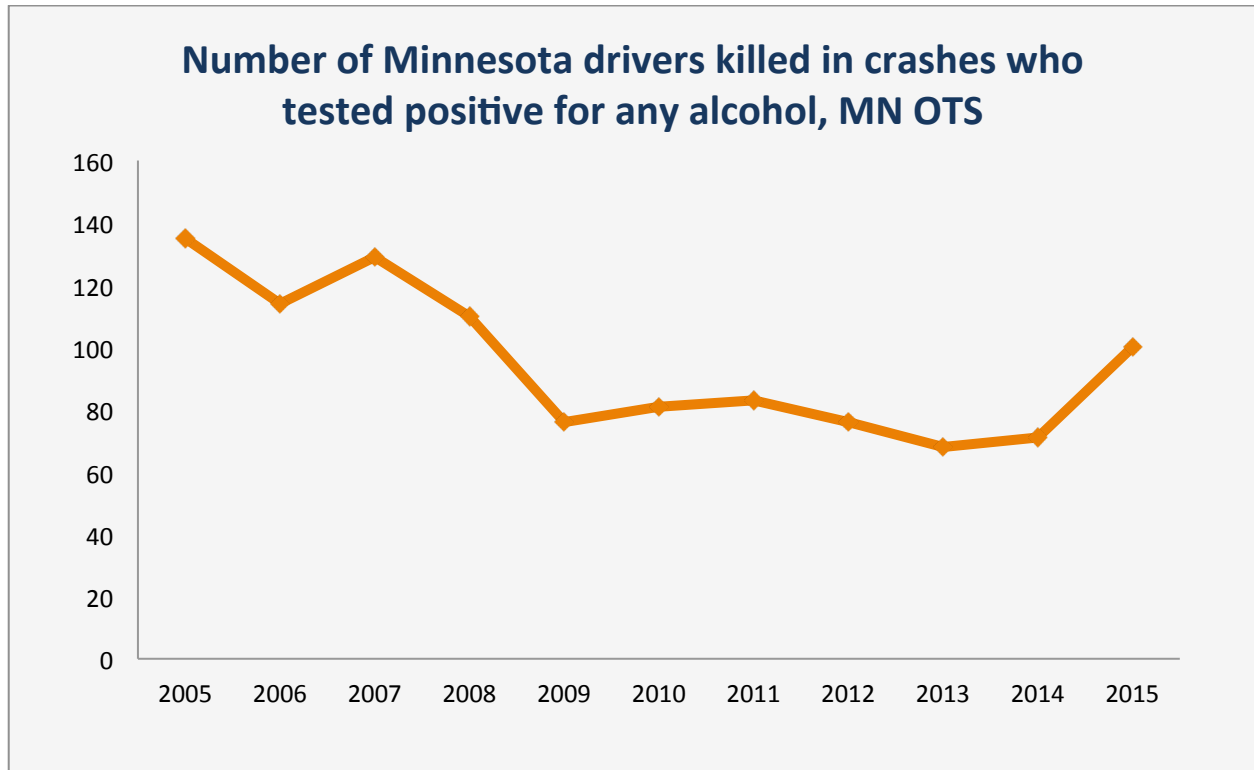
Data Source: FARS



Alcohol-Related Traffic Deaths (0.08 BAC or higher) per 10,000 Population

Minnesota	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number of persons killed in fatal alcohol-related crashes	173	132	141	131	136	131	117	92	137
Percent of persons killed in all fatal crashes in MN	34%	29%	34%	32%	37%	33%	30%	28%	33%
Rate per 10,000 population	0.33	0.25	0.21	0.25	0.26	0.25	0.22	0.17	0.17
United States	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number of persons killed in fatal alcohol-related crashes	13,841	11,711	12,149	11,462	11,388	11,960	11,615	8,527	9,982
Percent of persons killed in all fatal crashes in US	32%	31%	36%	35%	35%	35%	35%	28%	31%
Rate per 10,000 population	0.46	0.39	0.40	0.37	0.37	0.38	0.37	0.27	0.31
	2007	2008	2009	2010	2011	2012	2013	2014	2015
MN:US	0.72	0.64	0.53	0.67	0.70	0.65	0.54	0.63	0.54

Data Source: Minnesota Office of Traffic Safety

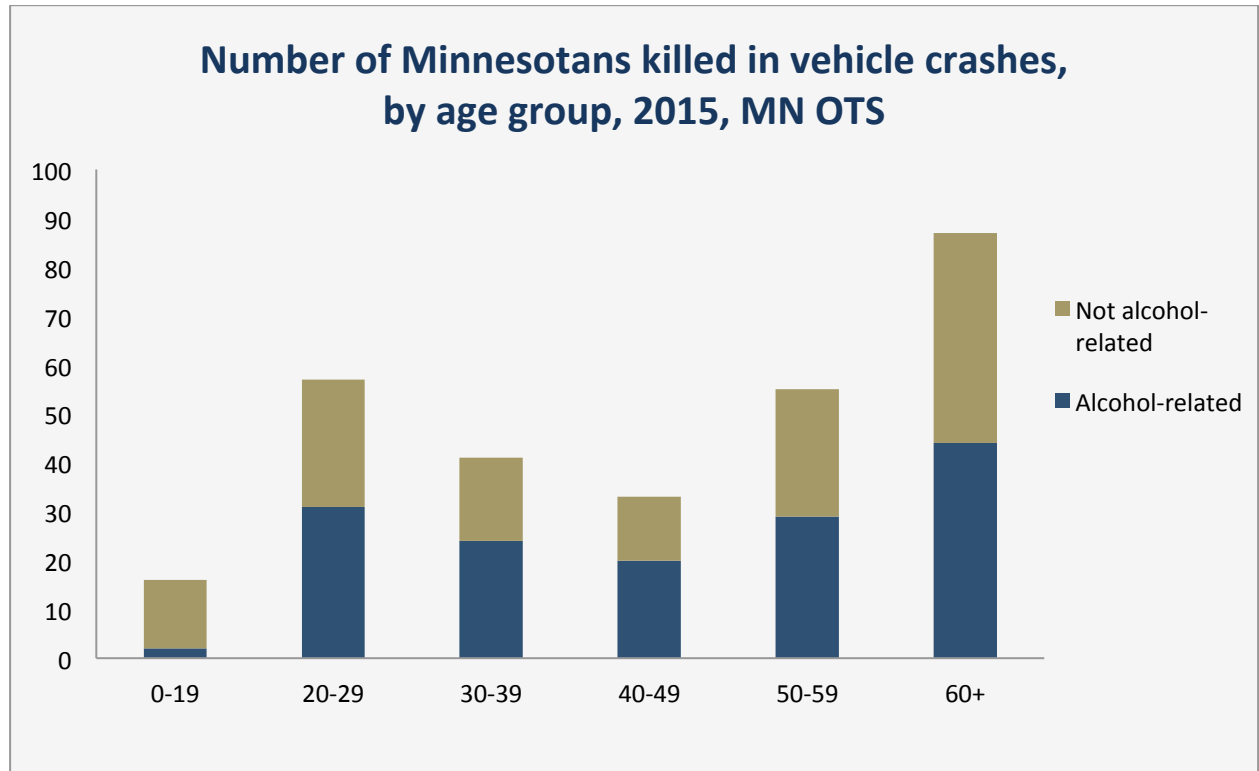


Number of Minnesota Drivers Killed in Crashes, by Blood Alcohol Content

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Drivers who tested 0.01 or higher (any alcohol)	135	114	129	110	76	81	83	76	68	71	100
Drivers who tested over the legal limit (0.08+)	118	99	114	95	63	75	72	71	58	63	78

Alcohol: Consequences

Data Source: Minnesota Office of Traffic Safety

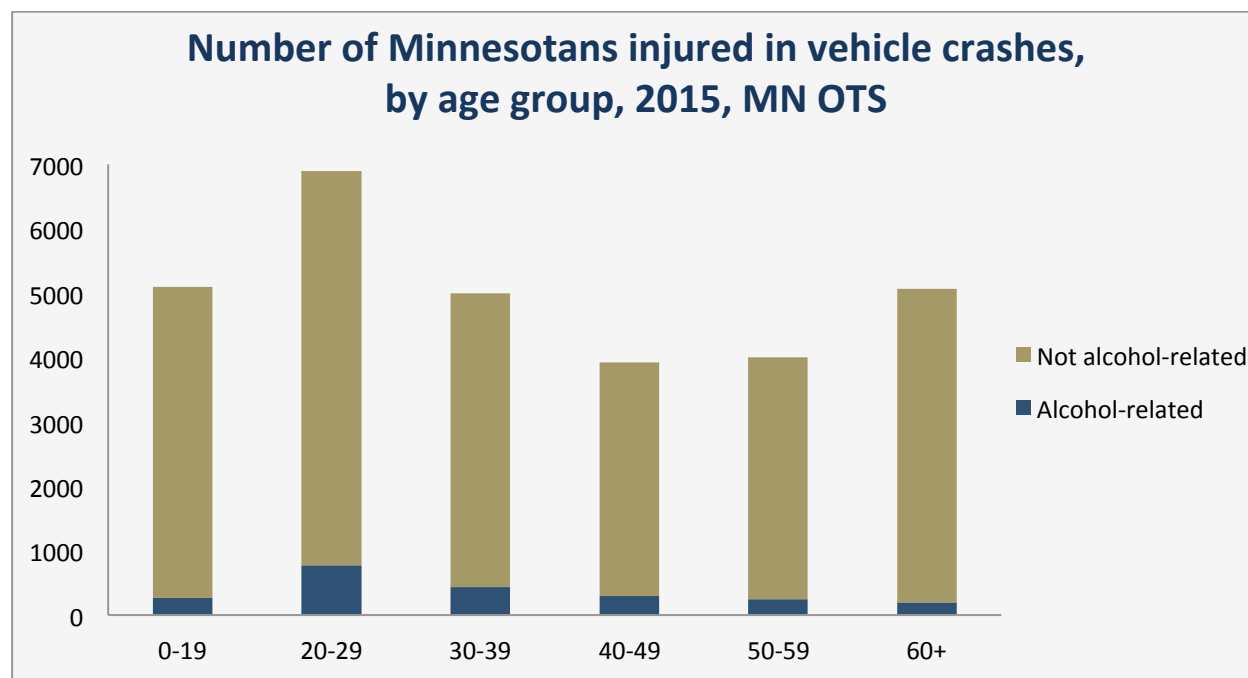


Number of Minnesotans Killed in All Crashes and in Alcohol-Related Crashes (0.01 BAC or Higher), by Age Group

Age Group	2010		2011		2012		2013		2014		2015	
	All Crashes	Alcohol-Related	All Crashes	Alcohol-Related	All Crashes	Alcohol-Related	All Crashes	Alcohol-Related	All Crashes	Alcohol-Related	All Crashes	Alcohol-Related
0-19	61	12	49	17	49	6	47	10	28	4	16	2
20-29	90	48	86	52	89	37	77	41	71	32	57	31
30-39	52	20	33	11	53	29	46	23	55	20	41	24
40-49	53	17	41	15	49	19	41	12	46	19	33	20
50-59	57	18	54	20	55	21	63	20	67	23	55	29
60+	98	11	105	21	99	17	112	11	94	13	87	44

Alcohol: Consequences

Data Source: Minnesota Office of Traffic Safety



Number of Minnesotans Injured in All Crashes and in Alcohol-Related Crashes (0.01 BAC or Higher), by Age Group

Age Group	2010		2011		2012		2013		2014		2015	
	All Crashes	Alcohol-Related	All Crashes	Alcohol-Related	All Crashes	Alcohol-Related	All Crashes	Alcohol-Related	All Crashes	Alcohol-Related	All Crashes	Alcohol-Related
0-19	6,053	353	5,504	280	5,354	340	5,135	297	4,842	227	5,095	263
20-29	7,469	926	7,215	913	6,890	1,016	7,127	799	6,695	765	6,894	774
30-39	4,782	435	4,744	429	4,460	490	5,034	464	4,862	368	4,994	430
40-49	4,468	355	4,405	344	4,091	344	4,288	306	4,148	282	3,922	297
50-59	3,855	248	3,847	241	3,872	263	4,231	259	4,024	238	4,005	246
60+	3,841	134	3,857	143	4,018	172	4,201	149	4,186	130	5,071	193

Impaired Driving Violations

About the Indicator

As a depressant, alcohol use interferes with coordination. Driving with a blood alcohol concentration (BAC) of 0.08% or higher (0.04% or higher for drivers operating a commercial vehicle) is a violation of Minnesota Statute 169.A. Violations for driving while intoxicated (DWIs), also called driving under the influence (DUIs), are entered directly on driver license records maintained by the Minnesota Department of Public Safety. DWIs are also reported to the federal Department of Justice by the Minnesota Bureau of Criminal Apprehension as part of its Uniform Crime Reports (UCR).

In 2015, the Minnesota Office of Traffic Safety reported 22,790 DWIs. According to Uniform Crime Reports, there were 20,995 arrests. The discrepancy is due to different reporting procedures for the two systems. The higher number is more accurate, as it is taken from driver license records. UCR counts are low because not all law enforcement agencies report all their DWI arrests to the Bureau of Criminal Apprehension, and because the counts include only arrests where the most serious offense was the DWI. All states make comparable UCR reports to the US Department of Justice; thus, the UCR DWI counts can be used to compare Minnesota statistics to those of the entire US.

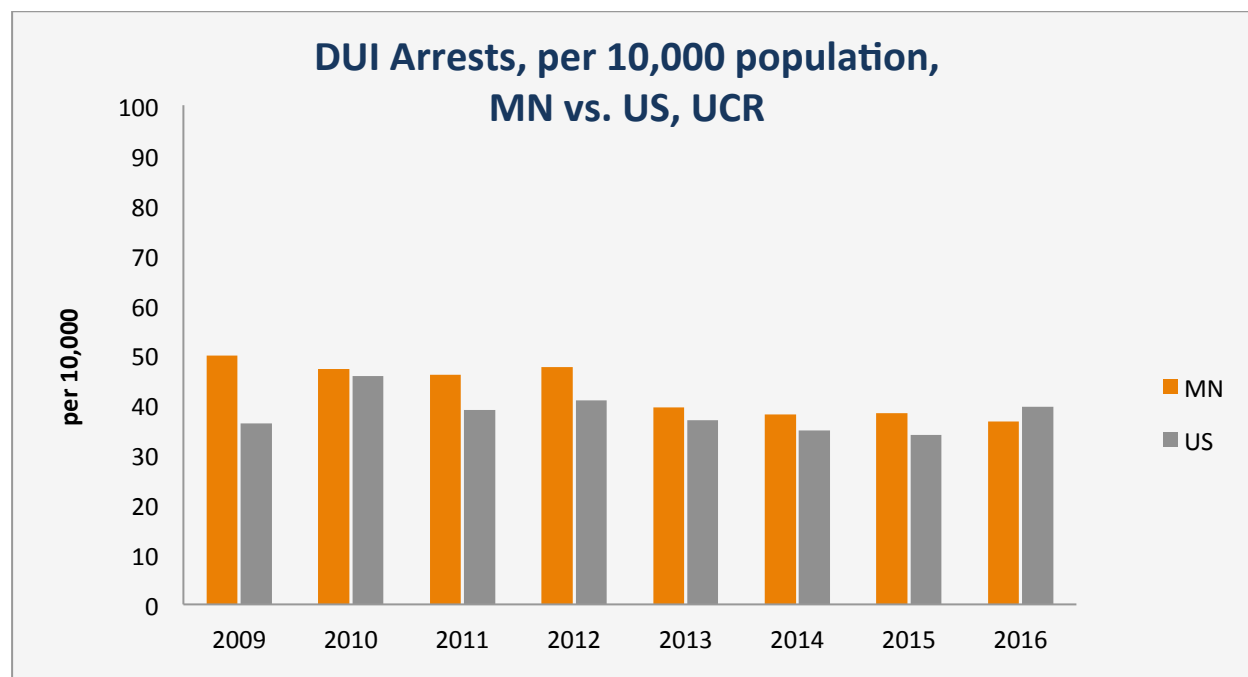
Data Source(s)

The following statistics on gender and age groups of those arrested for DWI are from the Office of Traffic Safety of the Minnesota Department of Public Safety, and are derived from entries on Minnesota driver license records. The statistics on the total number of DWI arrests, the rate per 1,000 population, juvenile versus adult, race and ethnicity, are from the Bureau of Criminal Apprehension's Uniform Crime Reports (UCR).

Section Summary

- DUI arrests are more prevalent among males, and are most prevalent among individuals age 20-24, compared to other age groups.
- Minnesota's DUI arrest rate has decreased steadily since 2006, finally falling below national DUI arrest rates in 2016.

Data Source: UCR

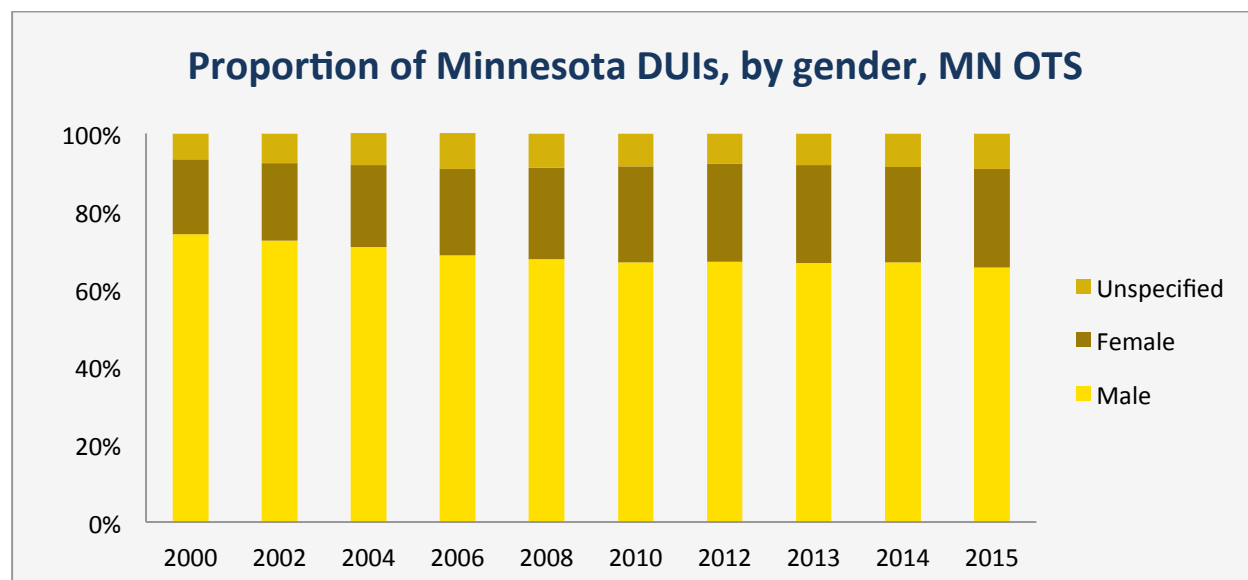


Arrests for DUI per 10,000 Population

Minnesota*	2009	2010	2011	2012	2013	2014	2015	2016
DUI arrests	26,240	24,978	24,548	25,537	21,409	20,656	20,995	19,196
Rate per 10,000 population	49.8	47.1	46	47.5	39.5	38.1	38.3	36.6
United States	2009	2010	2011	2012	2013	2014	2015	2016
DUI arrests	1,112,384	1,412,223	1,215,077	1,282,957	1,166,824	1,117,852	1,089,171	1,017,808
Rate per 10,000 population	36.2	45.7	39	40.9	36.9	34.8	33.9	39.6
	2009	2010	2011	2012	2013	2014	2015	2016
MN:US	1.4	1	1.18	1.16	1.07	1.10	1.13	1.08

* St. Paul Police Department does not submit Part II arrest data to the BCA. Includes only arrests where the most serious offense was the Driving Under the Influence offense

Data Source: MN Office of Traffic Safety

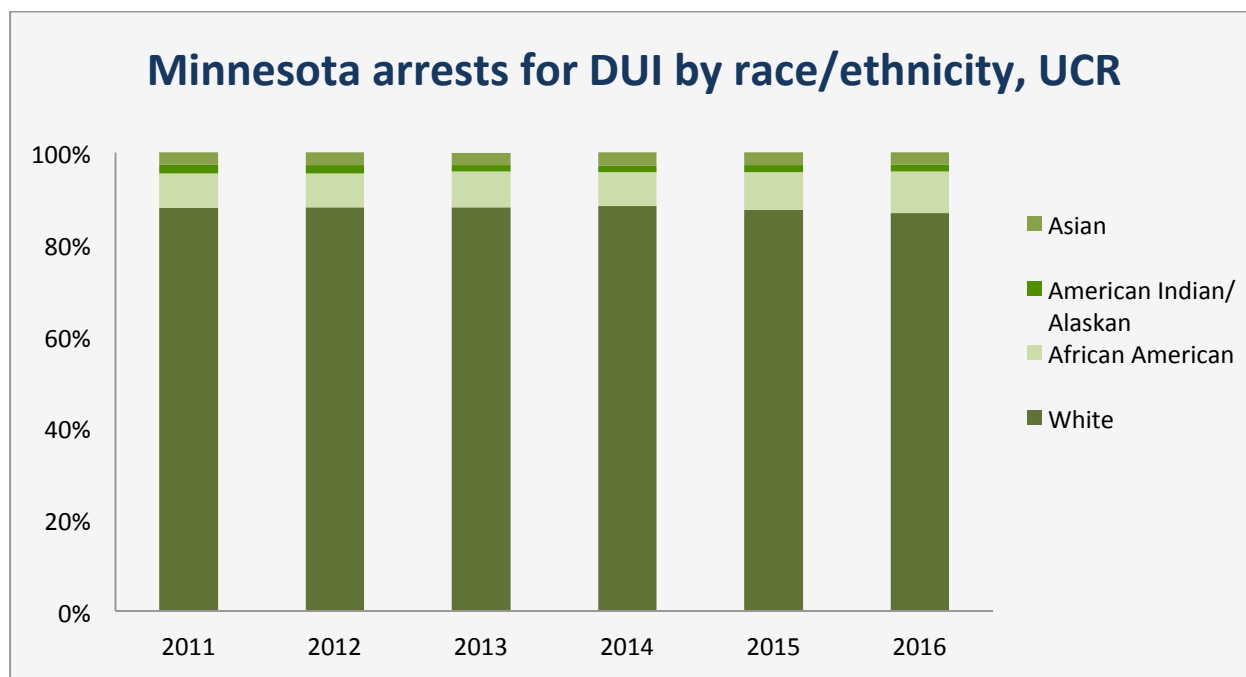


Minnesota Arrests for DUI, by Gender and Age: Violator Data

		2010		2011		2012		2013		2014		2015	
		N (#)	%	N (#)	%	N (#)	%	N (#)	%	N (#)	%	N (#)	%
Gender	Male	19,982	66.8%	19,851	67.8%	19,035	67.0%	17,130	66.6%	16,908	66.9%	16,422	65.5%
	Female	7,410	24.8%	19,851	24.9%	7,156	25.2%	6,497	25.3%	6,189	24.5%	6,368	25.4%
Age	0-14	4	0.0%	1	0.0%	4	0.0%	1	0.0%	0	0.0%	0	0.0%
	15-19	1,294	4.3%	1,154	3.9%	1,117	3.9%	868	3.4%	783	3.1%	787	3.1%
	20-24	6,821	22.8%	6,505	22.2%	6,413	22.6%	5,478	21.3%	5,110	20.2%	4,908	19.6%
	25-29	5,776	19.3%	5,837	20.0%	5,421	19.1%	5,023	19.5%	4,842	19.2%	4,881	19.5%
	30-34	3,934	13.1%	3,895	13.3%	3,950	13.9%	3,766	14.6%	3,592	14.2%	3,553	14.2%
	35-39	2,918	9.8%	2,778	9.5%	2,627	9.2%	2,596	10.1%	2,711	10.7%	2,789	11.1%
	40-44	2,671	8.9%	2,671	9.1%	2,665	9.4%	2,236	8.7%	2,267	9.0%	2,117	8.5%
	45-49	2,565	8.6%	2,393	8.2%	2,212	7.8%	1,950	7.6%	1,864	7.4%	1,873	7.5%
	50-54	1,914	6.4%	1,904	6.5%	1,839	6.5%	1,779	6.9%	1,799	7.1%	1,797	7.2%
	55-59	1,086	3.6%	1,084	3.7%	1,090	3.8%	1,041	4.0%	1,175	4.7%	1,226	4.9%
60-64	543	1.8%	608	2.1%	613	2.2%	557	2.2%	611	2.4%	609	2.4%	
65-69	234	0.8%	231	0.8%	271	1.0%	245	1.0%	318	1.3%	290	1.2%	
70-74	98	0.3%	120	0.4%	135	0.5%	110	0.4%	115	0.5%	121	0.5%	
75+	60	0.2%	73	0.3%	61	0.2%	69	0.3%	71	0.3%	74	0.3%	

Note: In this table, for example, 69.7% for males in 2005 indicates that 69.7% % of all DUI arrests were of males. It does not mean that 69.7% of all males were arrested for DUI. Percentages do not total to 100%—if a person arrested for impaired driving does not have a Minnesota driver’s license, then a record is created, but the new record does *not* show the person’s gender.

Data Source: UCR



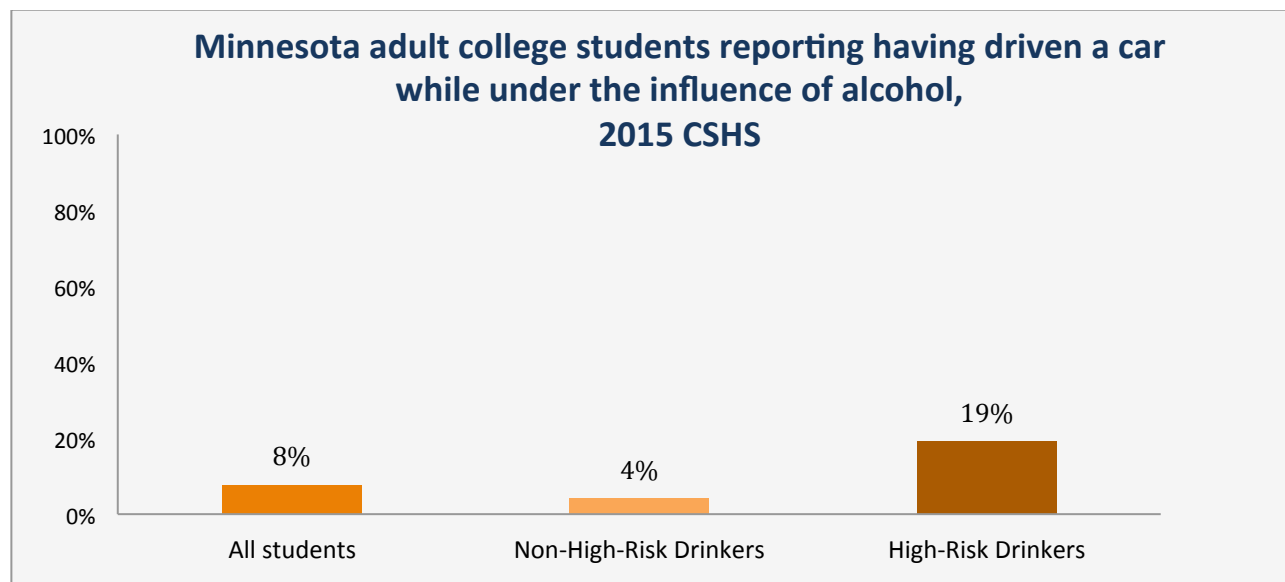
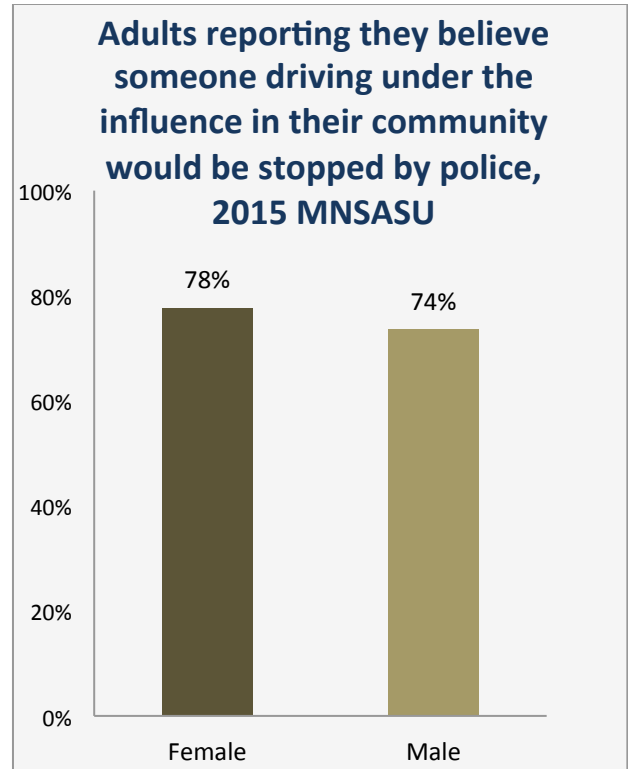
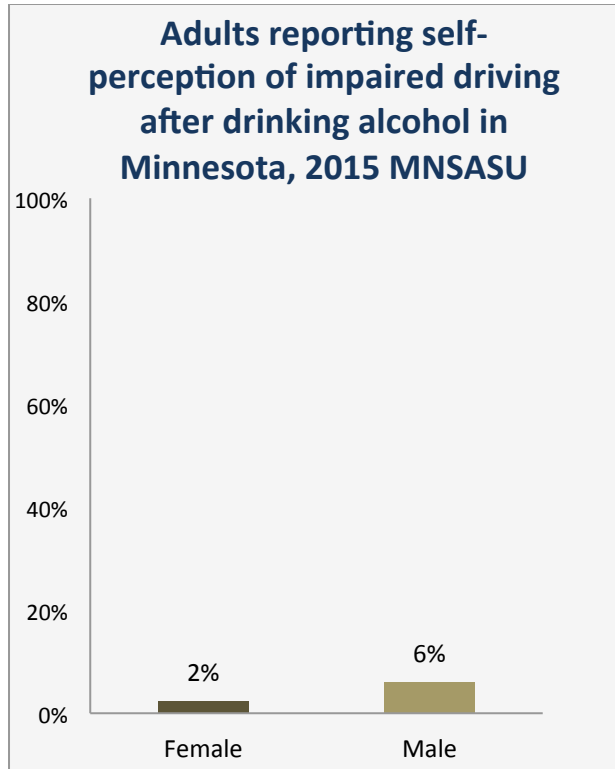
Minnesota Arrests for DUI by Age and Race*

		2011		2012		2013		2014		2015		2016	
		N (#)	%	N (#)	%	N (#)	%	N (#)	%	N (#)	%	N (#)	%
Age	Juvenile	283	1.2	260	1.1	205	1.0	193	0.9	155	0.7	151	0.8
	Adult	24,265	98.8	23,277	98.9	21,181	99.0	20,463	99.1	20,862	99.3	20,077	99.2
Race	White	21,566	87.9	20,725	88.1	18,824	88.0	18,257	88.4	18,394	87.5	17,425	86.8
	African American	1,867	7.6	1,738	7.4	1,669	7.8	1,513	7.3	1,717	8.2	1,805	9.0
	American Indian/ Alaskan	458	1.9	407	1.7	306	1.4	293	1.4	309	1.5	314	1.6
	Asian	657	2.7	667	2.8	587	2.7	593	2.9	597	2.8	528	2.6

*St. Paul Police Department does not submit Part II arrest data to the BCA. Includes only arrests where the most serious offense was the Driving Under the Influence offense. Juveniles are defined as persons aged 17 and under; adults are defined as persons aged 18 and older. Note: In this table, for example, 1.9% for juveniles in 2009 indicates that 1.9% of all DUI arrests were of juveniles. It does not mean that 1.9% of all juveniles were arrested for DUI.

Alcohol: Consequences

Data Source: CSHS and MNSASU



NOTE: High-risk drinkers are defined as adult students who have engaged in binge-drinking (5 or more drinks in one sitting) in the past 2 weeks.

Alcohol-Related Negative Consequences

About the Indicator

The number and severity of negative consequences experienced by drinkers may have an effect on consumption patterns. The College Student Health Survey, administered by the University of Minnesota to 17 colleges and universities in Minnesota, asks adult students about any negative consequences they may have experienced in the past year due to alcohol use. The available negative consequence responses on the survey are:

- Arrested for a DWI/DUI
- Criticized by Someone I Know
- Damaged Property, Pulled Fire Alarm, etc.
- Done Something I Later Regretted
- Driven a Car While Under the Influence
- Got Into an Argument or Fight
- Got Nauseated or Vomited
- Had a Hangover
- Had a Memory Loss
- Have Been Taken Advantage of Sexually
- Have Taken Advantage of Another Sexually
- Hurt or Injured
- Missed a Class
- Performed Poorly on a Test or Important Project
- Seriously Thought About Suicide
- Seriously Tried to Commit Suicide
- Thought I Might Have a Drinking Problem
- Tried Unsuccessfully to Stop Using
- Trouble with Police, Residence Hall, or Other University/College Authorities

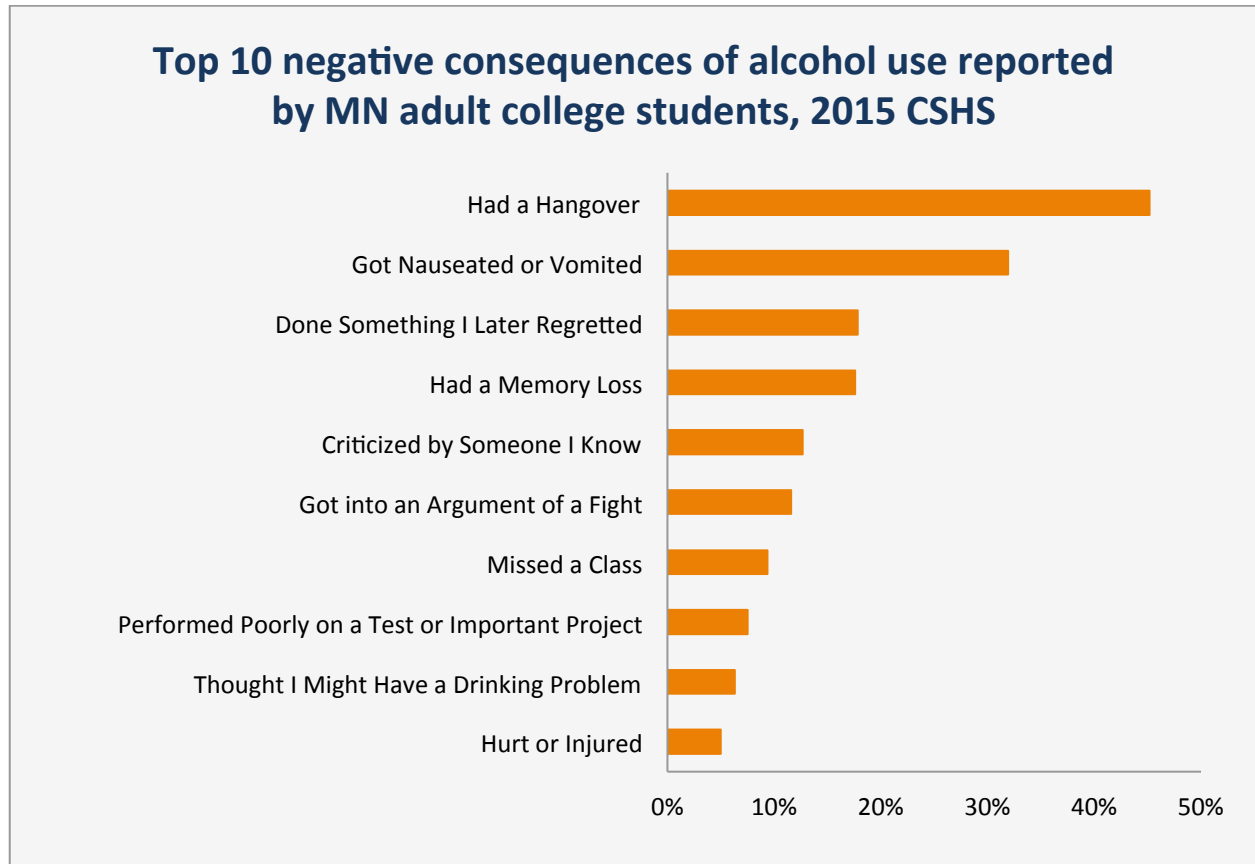
Data Source(s)

College Student Health Survey (CSHS)

Section Summary

- The most frequently reported negative consequence was a hangover.
- While not in the top 10 negative consequences, driving after drinking was reported by 7.6% of students.

Data Source: CSHS



Alcohol-Related Boating Citations

About the Indicator

In Minnesota, the Department of Natural Resources conservation officers and county sheriffs are charged with enforcing boating laws and regulations. Operating a motorboat while under the influence of alcohol, a controlled substance or other illegal chemical is unlawful. As on the roadways, on-water enforcement officers may administer sobriety and/or chemical tests to determine the influence of alcohol on the operator. The alcohol concentration for impaired operation is now 0.08.

As boating is a recreational activity, boating citation levels demonstrate a more elastic response to circumstances such as weather, water levels, and gas prices; therefore, boating citation levels vary more widely than citations for road vehicles.

These data are from all reporting agencies combined.

Citations do not include tickets for underage consumption, or those for which BAC was found to be under 0.08.

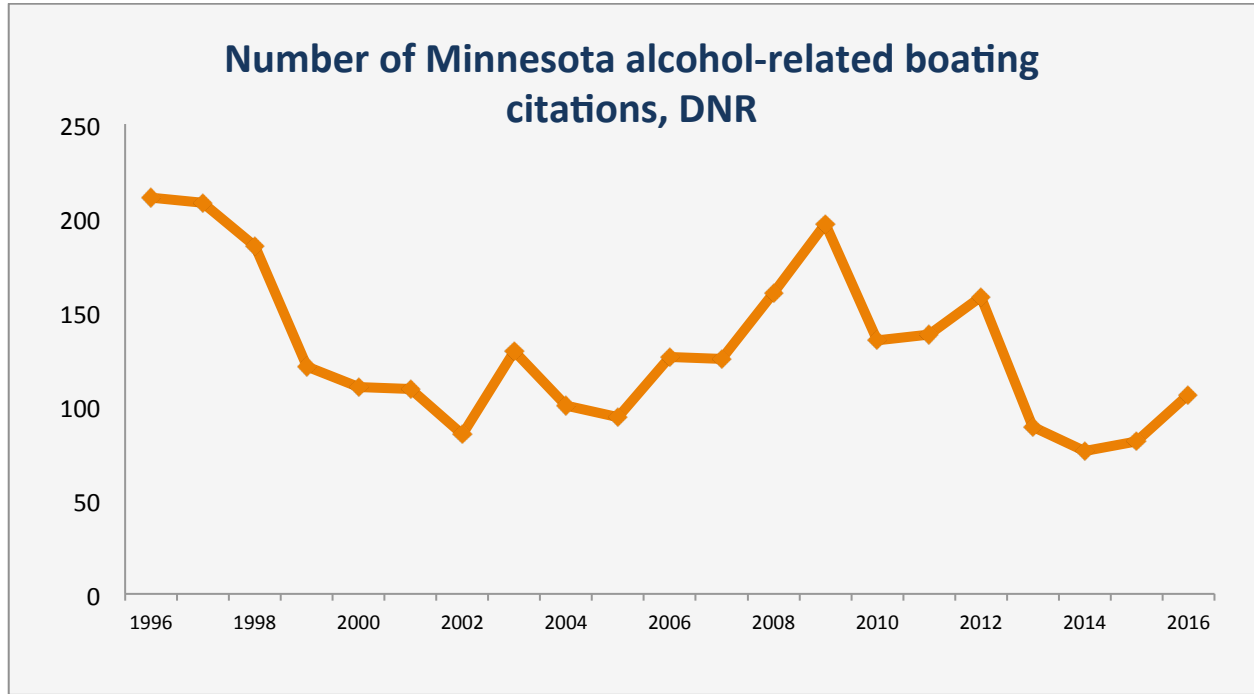
Data Source(s)

Minnesota Department of Natural Resources, Boat & Water Safety Section (obtained by request)

Section Summary

- The number of alcohol-related boating citations in Minnesota declined between 2007 and 2014, but then rose again in 2015 and 2016.

Data Source: Boat & Water Safety Section, DNR



Number of Minnesota Alcohol-Related Boating Citations

	2007	2008	2008	2009	2010	2011	2012	2013	2014	2015	2016
Number of Citations	125	160	160	197	135	138	158	89	76	81	106

Liquor Law Arrests

About the Indicator

With the exception of drunkenness and driving under the influence (DUI), all state or local liquor law violations are placed in this class. Liquor laws include manufacturing, selling, transporting and furnishing, as in maintaining unlawful drinking places. Bootlegging, operating a still, furnishing liquor to a minor and the using of a vehicle for illegal transportation of liquor are also included.

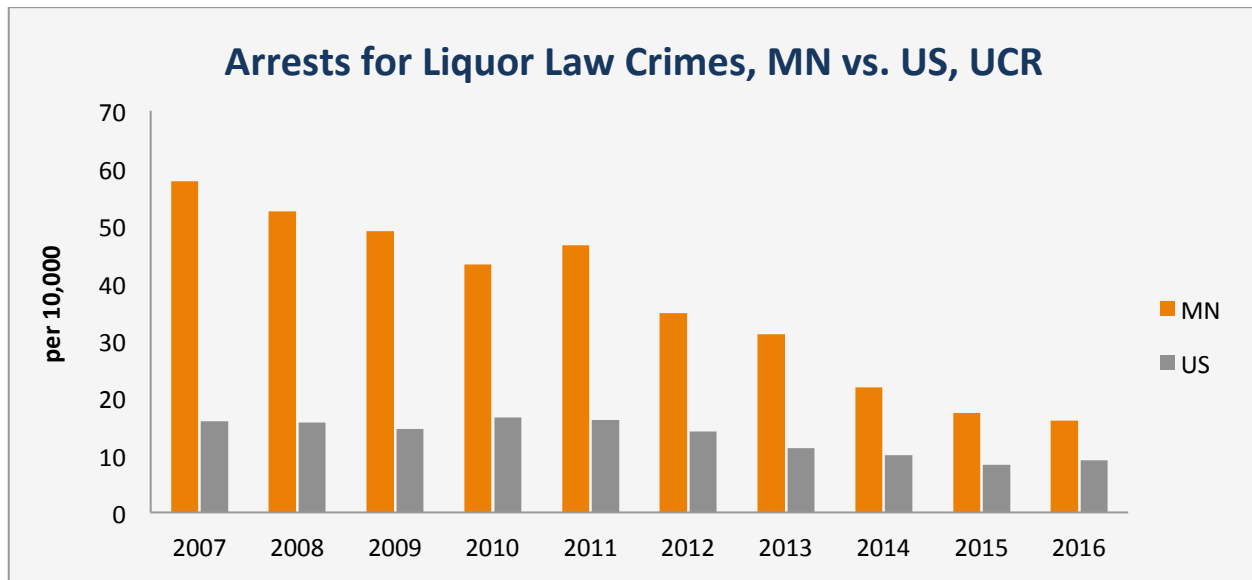
Data Source(s)

Uniform Crime Reports (UCR)

Section Summary

- Minnesota's liquor law arrest rate has been consistently higher than the U.S. average, but has been decreasing.
- The percent of liquor law arrestees in Minnesota who are juveniles has hovered near 21% for the last 5 years.

Data Source: UCR



Arrests for Liquor Law Crimes per 10,000 Population

Minnesota*	2008	2009	2010	2011	2012	2013	2014	2015	2016
Liquor law arrests	27,458	25,784	23,060	24,832	18,667	16,858	11,841	9,889	8,405
Rate per 10,000 population	52.5	49	43.2	46.6	34.7	31.1	21.8	17.3	16.0
United States	2008	2009	2010	2011	2012	2013	2014	2015	2016
Liquor law arrests	478,800	447,496	512,790	500,648	441,532	354,872	321,125	266,250	234,899
Rate per 10,000 population	15.7	14.6	16.6	16.1	14.1	11.2	10.0	8.3	9.1
MN:US	3.34	3.36	2.6	2.89	2.46	2.78	2.19	2.08	1.76

St. Paul Police Department does not submit Part II arrest data to the BCA. Includes only arrests where the most serious offense was the liquor law offense.

Arrests for Liquor Law Crimes in Minnesota by Gender, Age, and Race/Ethnicity

		2012		2013		2014		2015		2016	
		N (#)	%	N (#)	%	N (#)	%	N (#)	%	N (#)	%
Age	Juvenile	3,979	21.3	2,799	19.8	2,555	21.6	2,088	21.1	1,900	22.6
	Adult	14,688	78.7	11,347	80.2	9,286	78.4	7,801	78.9	6,505	77.4
Race	White	14,305	76.6	10,854	76.7	9,480	80.1	8,003	80.9	6,987	83.1
	African American	2,859	15.3	2,228	15.8	1,552	13.1	1,186	12.0	923	11.0
	Indian/Alaskan	1,073	5.7	819	5.8	485	4.1	494	5.0	338	1.9
	Asian	430	2.0	245	1.7	194	1.6	204	2.1	157	4.0

Note: Persons of Hispanic ethnicity can be of any race. St. Paul Police Department does not submit Part II arrest data to the BCA.

Homicide

About the Indicator

Homicide is closely associated with alcohol abuse. The International Classification of Diseases (ICD-10) measures all homicides, many of which are attributable to substance abuse.

The Centers for Disease Control and Prevention (CDC) provides a measure of Alcohol-Attributable Fractions (AAFs). AAFs are based on direct observations about the relationship between alcohol and a given health outcome. The AAF for homicide for both males and females is 47%.

In order to provide comprehensive data on homicides, both measures are presented.

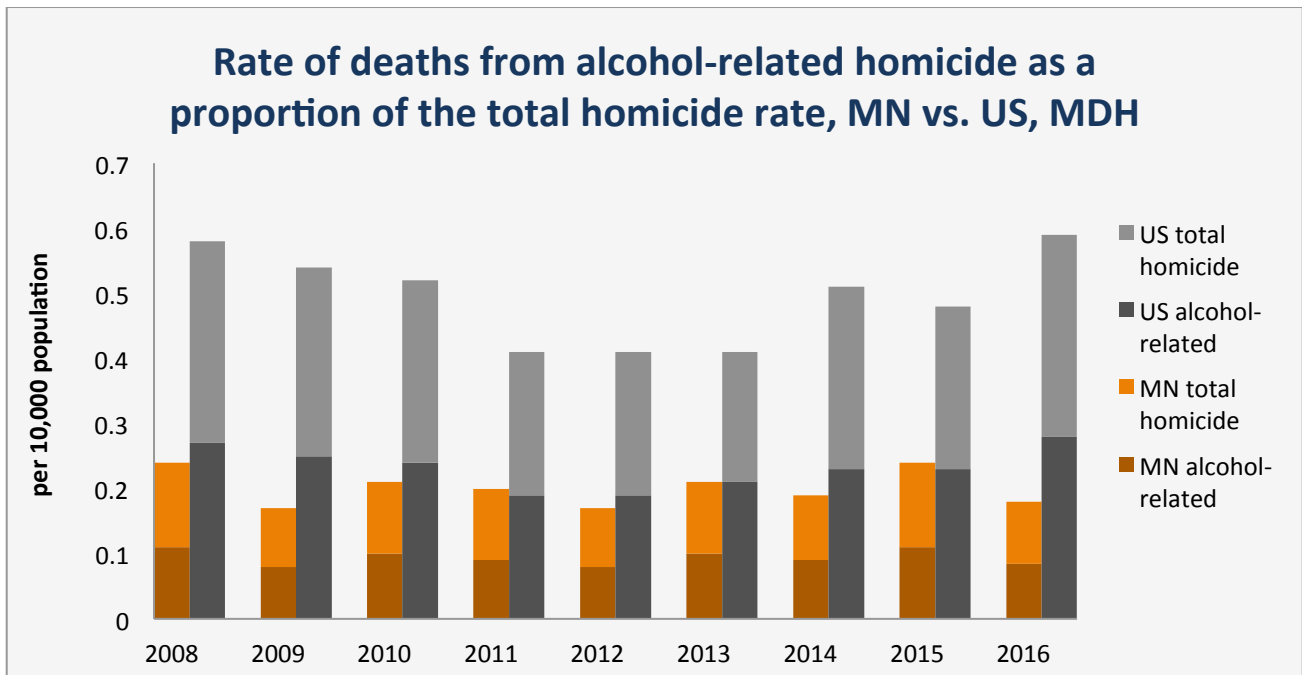
Data Source(s)

Minnesota Center for Health Statistics, Minnesota Department of Health, CDC Wonder Compressed Mortality Data, and the Alcohol-Related Disease Impact

Section Summary

- Minnesota's homicide rate is generally less than half that of the national average.
- The Minnesota homicide rate has stayed relatively stable between 2007 and 2016.

Data Source: Minnesota Department of Health and CDC Wonder



Deaths from Alcohol-Related* Homicide per 10,000 Population

Minnesota	2008	2009	2010	2011	2012	2013	2014	2015	2016
Deaths from alcohol-related* Homicide	60	42	51	49	43	52	47	61	47
Rate per 10,000 population	0.11	0.08	0.10	0.09	0.08	0.10	0.09	0.11	0.08
United States	2008	2009	2010	2011	2012	2013	2014	2015	2016
Deaths from alcohol-related* Homicide	8,263	7,779	7,524	5,952	6,000	6,672	7,430	7,377	7,083
Rate per 10,000 population	0.27	0.25	0.24	0.19	0.19	0.21	0.23	0.23	0.28
MN:US**	0.43	0.31	0.40	0.47	0.42	0.48	0.37	0.48	0.29

*= Alcohol-related homicide data are calculated using the AAF for homicide, 47%

Alcohol in Minnesota: Intervening Variables

Perception of Harm

About the Indicator

The Minnesota Student Survey (MSS) has asked students about their perceptions of the harm from alcohol use since 2007, and the same question was then added to the Minnesota Survey on Adult Substance Use (MNSASU) in 2010.

Both the adults and students taking these surveys were asked how much they thought people risked harming themselves physically or in other ways if they have 5 or more alcoholic drinks in a row on one occasion, once or twice per week. The statistics presented here show the number and percent of respondents who answered either “great risk” or “moderate risk” of harm. The other two selection options on the survey were “slight risk” and “no risk.”

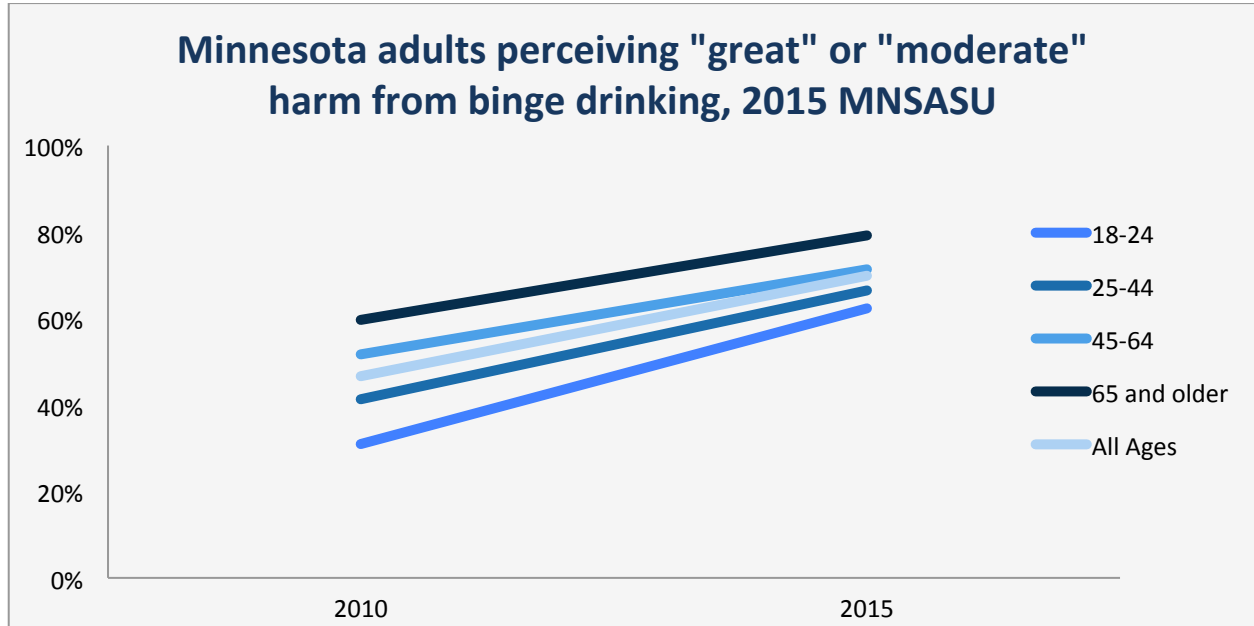
Data Source(s)

Minnesota Survey on Adult Substance Use (MNSASU), Minnesota Student Survey (MSS)

Section Summary

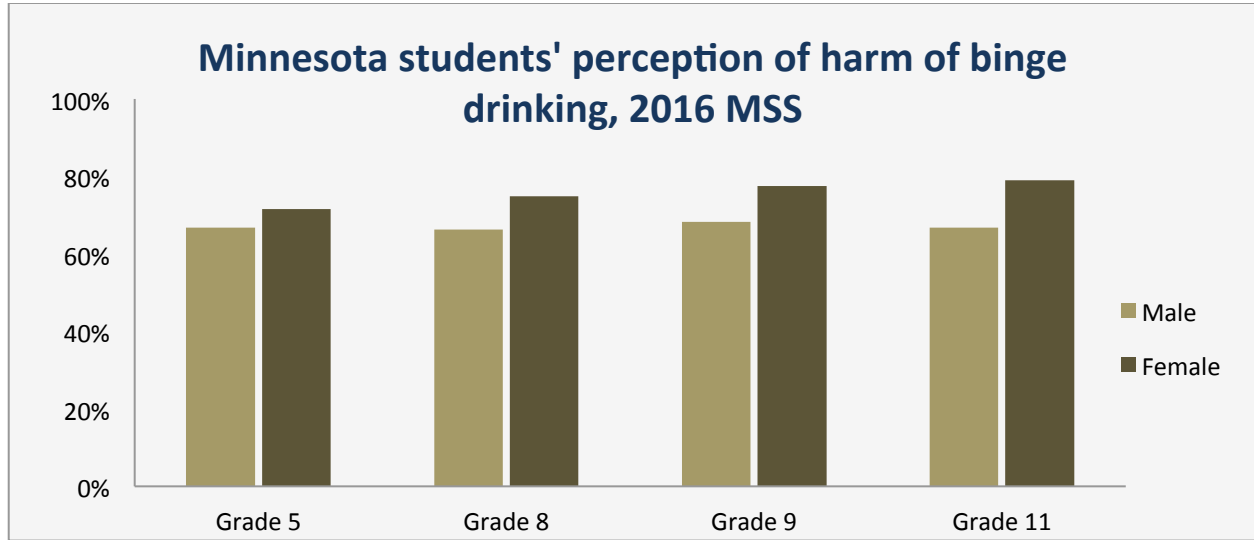
- Female students are more likely than male students to report that they believed people risked harming themselves by frequently binge drinking.
- Perception of harm from binge drinking is highest among 9th graders, but 11th grade girls are the most likely overall to perceive harm.

Data Source: MNSASU



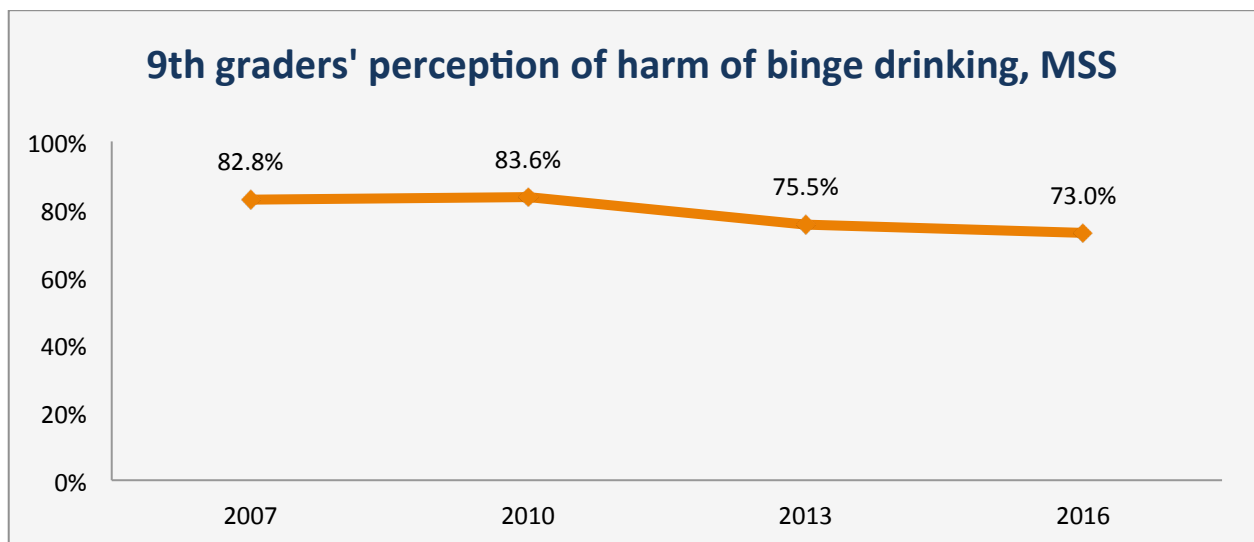
Percent of Minnesota adults reporting a "great" or "moderate" perception of harm of binge drinking once or twice a week, 2015 MNSASU		
		2015
Age	Ages 18 thru 24	62.4%
	Ages 25 thru 44	66.5%
	Ages 45 thru 64	71.3%
	Ages 65 and over	79.2%
Race/Ethnicity	African American or Black	75.9%
	American Indian	62.6%
	Asian American/ Pacific Islander	71.5%
	Hispanic/Latino	79.7%
	Bi-Racial/Multi-Racial	65.4%
	White	69.3%
Gender	Male	63.6%
	Female	75.8%
	Total	69.8%
Sexual Orientation	Lesbian, Gay, Bisexual, and Transgender	73.0%
	Heterosexual	70.0%

Data Source: MSS



Students reporting they think people put themselves at "great" or "moderate" risk of harming themselves physically or in other ways if they have five or more drinks of an alcoholic beverage once or twice a week, 2016 MSS

	Male		Female		Total	
	N (#)	%	N (#)	%	N (#)	%
Grade 5	12,567	66.8%	13,199	71.5%	25,766	65.1%
Grade 8	13,063	66.3%	14,949	74.8%	28,012	72.1%
Grade 9	13,047	68.3%	15,235	77.6%	28,282	75.5%
Grade 11	10,469	66.8%	12,705	79.0%	23,174	74.7%



Perception of Disapproval

About the Indicator

In 2010, students were asked how they thought their parents or guardians would feel if they drank alcohol. Students were also asked how they thought their parents or guardians would feel if they drank alcohol. The statistics presented here show the number and percent of students responding that their close friends would either “greatly disapprove” or “disapprove.” The other two selection options on the survey were “would not care at all” and “would approve.”

In the previous Minnesota Profile the students were asked how their close friends would feel about the same two questions, but if they had 5 or more alcoholic drinks in a row on one occasion, once or twice per week. If you would like to see those data, they are available on the SUMN.org website.

Data Source(s)

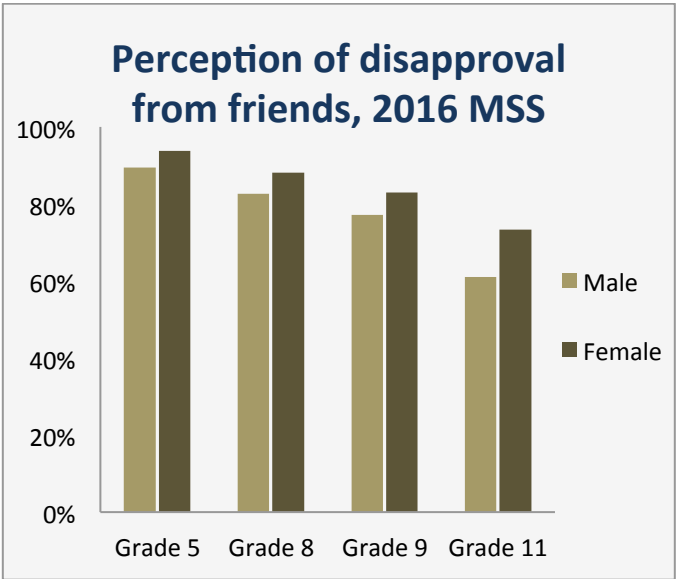
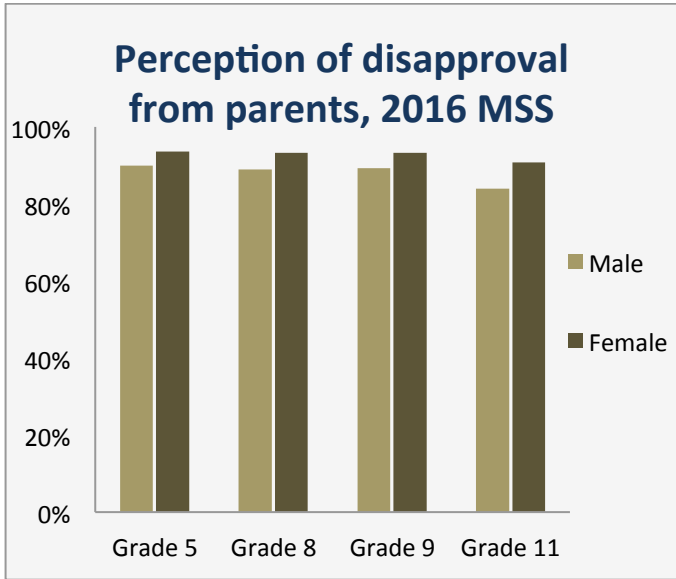
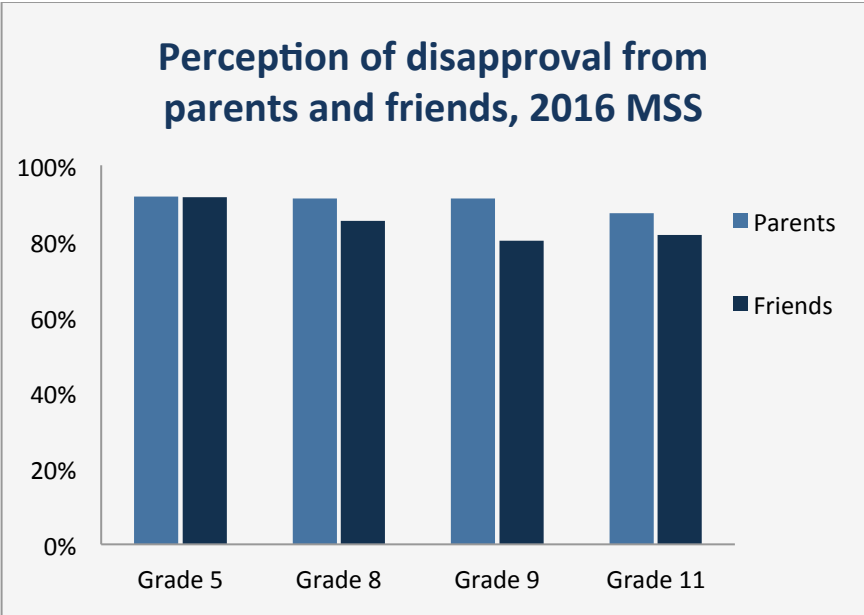
Minnesota Student Survey (MSS)

Section Summary

- Females were more likely than males to report that they believed their parents or guardians would disapprove of them drinking alcohol.
- Perception of parents’ or guardians’ disapproval decreased slightly with increasing grade level, while friends’ disapproval decreased substantially, for both male and female students.

Data Source: MSS

Perception of disapproval:
Students reported thinking their friends or parents would feel it was “very wrong” or “wrong” for them to have one or two drinks of an alcoholic beverage nearly every day



Social Norms and Use Perceptions

About the Indicator

Misperceptions about peer use may lead to skewed social norms: students who perceive their peers to be binge drinkers are more likely to be binge drinkers themselves. The association may work in both directions: those who binge-drink may be more likely to over-estimate others' binge drinking; and those who over-estimate levels of binge-drinking may be more likely to participate in the behavior themselves.

Adult college students were asked to estimate the percentage of students at their institution they thought had five or more drinks in a sitting, in the past 2 weeks (this behavior is referred to as "binge drinking" here). Comparisons were made between high-risk drinkers (those students that had engaged in binge drinking in the past 2 weeks); non-high-risk drinkers (those students that reported past 30-day alcohol use, but not binge drinking); and all students (drinkers and non-drinkers alike).

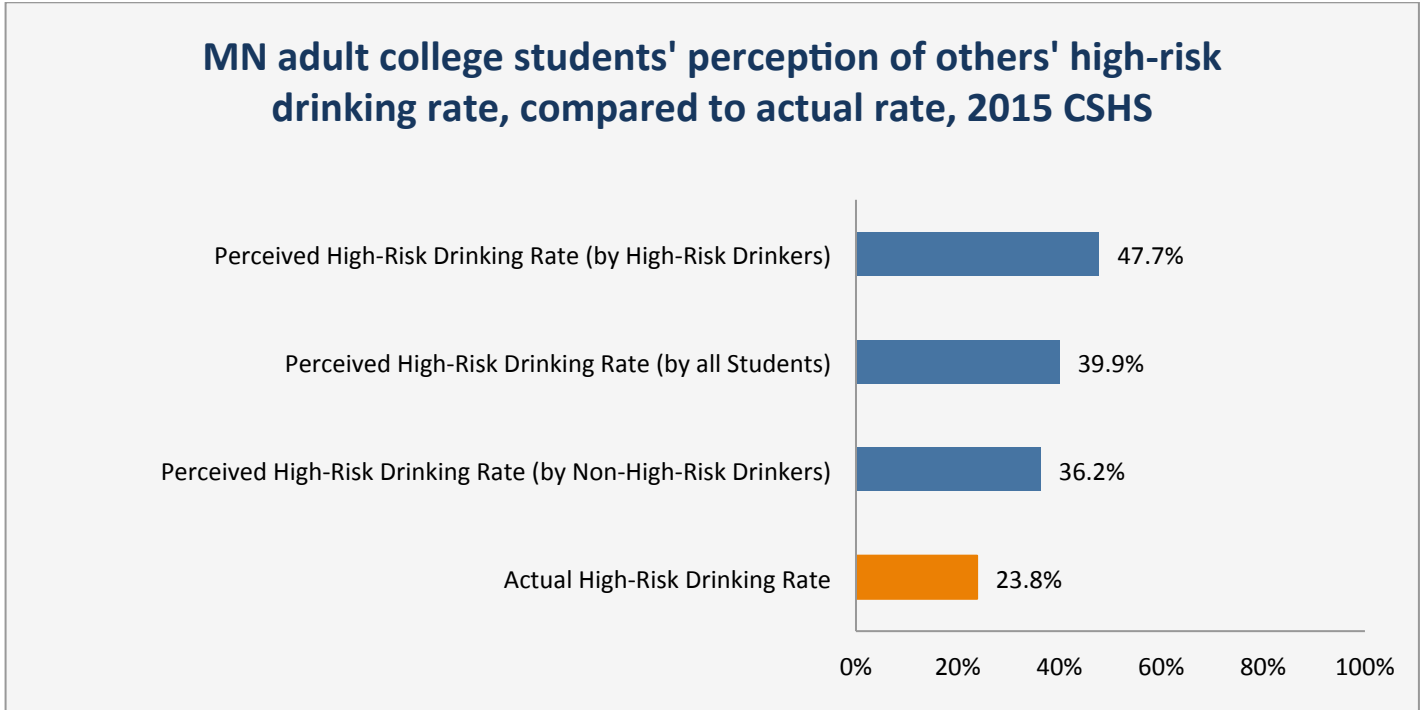
Data Source(s)

College Student Health Survey (CSHS)

Section Summary

- All categories of students over-estimated the percentage of students who binge drink.
- High-risk drinkers over-estimated the percentage of binge drinkers to be more than twice the actual rate.

Data Source: CSHS



2018



Substance Abuse in Minnesota: A State Epidemiological Profile

Section 4.

Tobacco and Nicotine:

Use, Consequences, and Intervening Variables

Prepared by: EpiMachine, LLC

**for the Minnesota Department of Human Services, Alcohol and
Drug Abuse Division**

Substance Abuse in Minnesota

Section 4. Tobacco and Nicotine:

Use, Consequences, and Intervening Variables

The 2018 Minnesota State EpiProfile is divided into eight parts:

- 1. Introduction (which includes a profile overview, population snapshot, and acknowledgements)**
- 2. Executive Summary**
- 3. Alcohol: Use, Consequences, and Intervening Variables**
- 4. Tobacco and Nicotine: Use, Consequences, and Intervening Variables**
- 5. Drugs: Use, Consequences, and Intervening Variables**
- 6. Mental Health and Shared Factors**
- 7. Socioeconomic Factors**
- 8. Appendix (which includes technical notes and data sources)**

Tobacco and Nicotine In Minnesota: Use

Adults Reporting Tobacco and Nicotine Use

About the Indicator

Current cigarette use is defined here as adults reporting smoking cigarettes on one or more days within the past 30 days. Daily cigarette use is defined as persons 18 and over having smoked 100 or more cigarettes in their lifetime, and who now smoke cigarettes every day.

MNSASU asked about e-cigarette use for the first time in 2015.

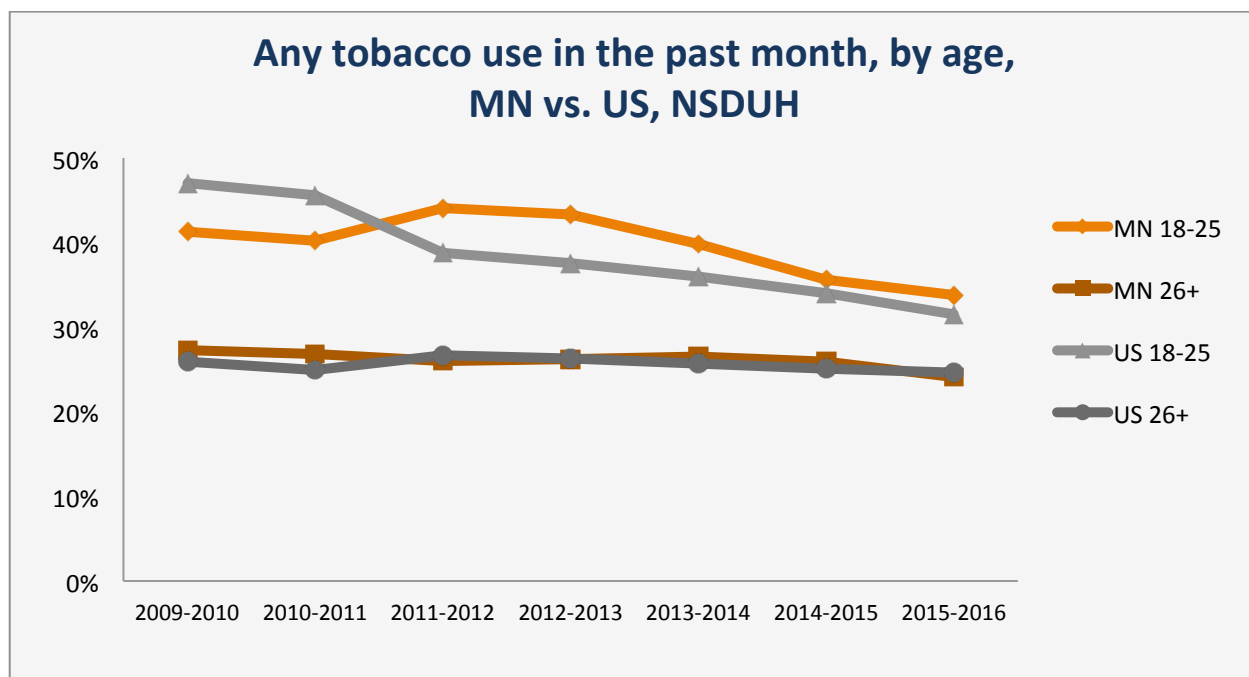
Data Source(s)

National Survey on Drug Use and Health (NSDUH), Behavioral Risk Factor Surveillance System (BRFSS) and the Minnesota Survey of Adult Substance Use (MNSASU)

Section Summary

- While reported cigarette smoking has declined substantially among 12 to 25 year-olds in Minnesota, rates have been nearly flat for adults age 26 and older.
- Minnesotans' smoking rates are on par with the national average.
- Young Minnesotans are more likely to smoke.
- Most adults using e-cigarettes report using them as a cigarette-cessation strategy.

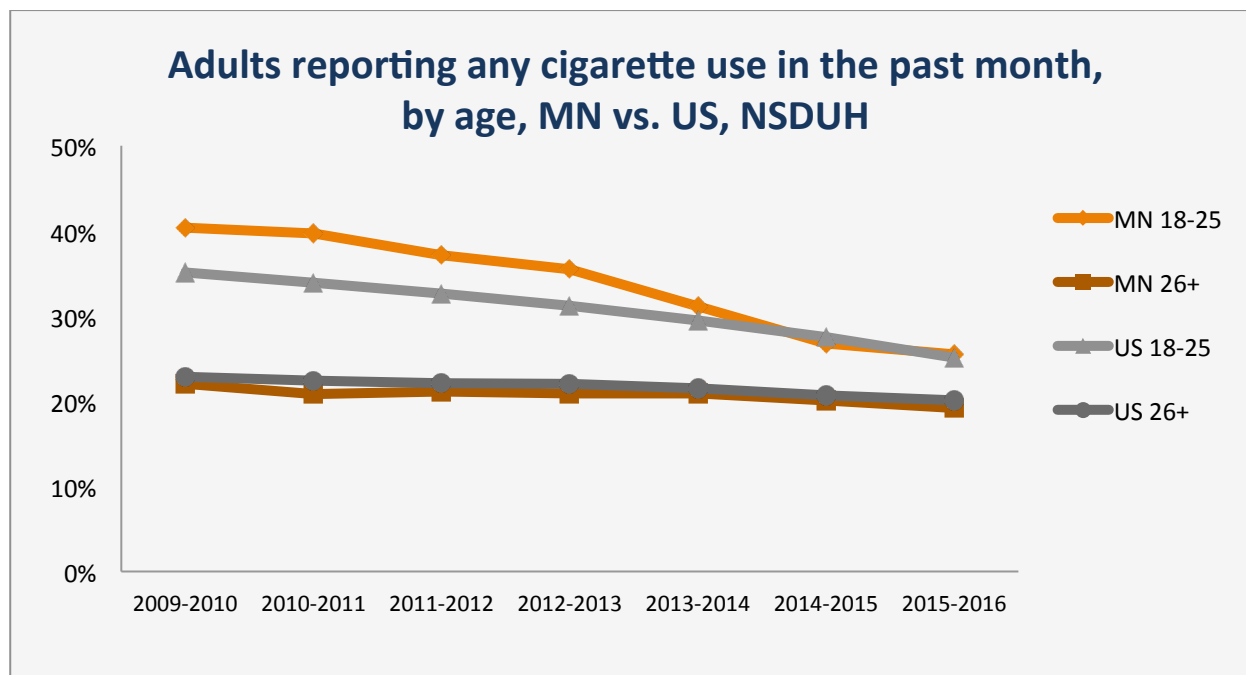
Data source: NSDUH



Adults Reporting any Tobacco Product Use in the Past Month, NSDUH

Minnesota	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Tobacco use 12+	27.6%	27.0%	26.8%	27.0%	26.4%	25.3%	23.6%
Ages 12 thru 17	11.3%	10.3%	10.6%	8.9%	7.5%	6.7%	5.6%
Ages 18 thru 25	41.3%	40.2%	44.0%	43.3%	39.8%	35.6%	33.8%
Ages 26 and Over	27.3%	26.8%	26.0%	26.2%	26.5%	25.9%	24.1%
United States	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Tobacco use 12+	27.3%	26.3%	26.6%	26.1%	25.4%	24.6%	23.7%
Ages 12 thru 17	11.2%	10.4%	9.3%	8.2%	7.4%	6.5%	5.7%
Ages 18 thru 25	47.0%	45.6%	38.8%	37.6%	36.0%	34.0%	31.5%
Ages 26 and Over	25.9%	24.9%	26.7%	26.3%	25.7%	25.1%	24.6%
MN:US rate ratio	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Tobacco use 12+	1.01	1.03	1.01	1.03	1.04	1.03	1.00

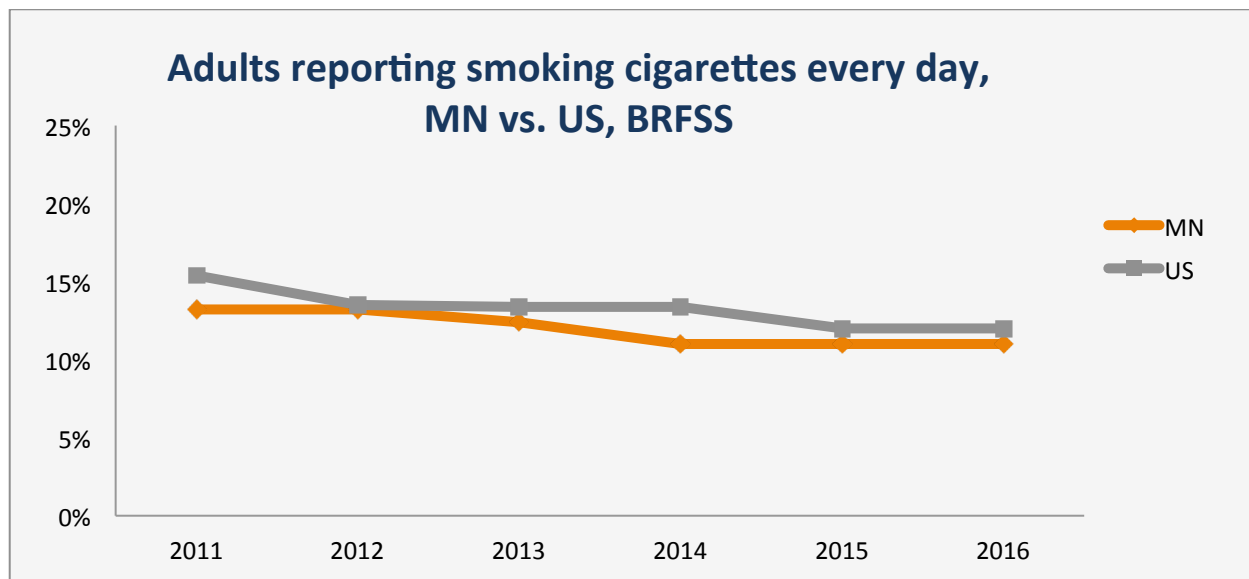
Data Source: NSDUH



Adults Reporting any Cigarette Use in the Past Month, NSDUH

Minnesota	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Cigarette use 12+	23.2%	22.1%	22.0%	21.5%	20.7%	19.5%	18.6%
Ages 12 thru 17	8.9%	8.7%	8.9%	7.0%	5.5%	4.7%	4.2%
Ages 18 thru 25	40.4%	39.7%	37.1%	35.5%	31.1%	26.8%	25.5%
Ages 26 and Over	22.0%	20.8%	21.1%	20.9%	20.9%	20.1%	19.2%
United States	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Cigarette use 12+	23.2%	22.5%	22.1%	21.7%	21.1%	20.1%	19.2%
Ages 12 thru 17	8.7%	8.1%	7.2%	6.1%	5.2%	4.5%	3.8%
Ages 18 thru 25	35.1%	33.9%	32.7%	31.2%	29.5%	27.5%	25.1%
Ages 26 and Over	22.9%	22.4%	22.1%	22.0%	21.5%	20.7%	20.1%
MN:US rate ratio	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Tobacco use 12+	1.00	0.98	0.99	0.99	0.98	0.97	0.97

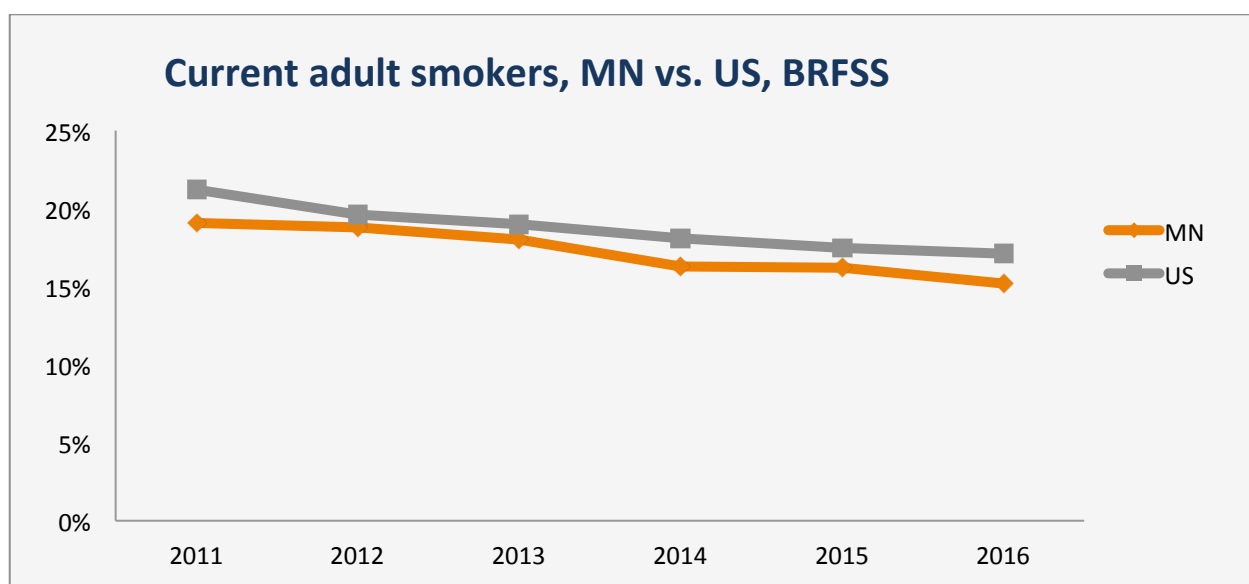
Data Source: BRFSS



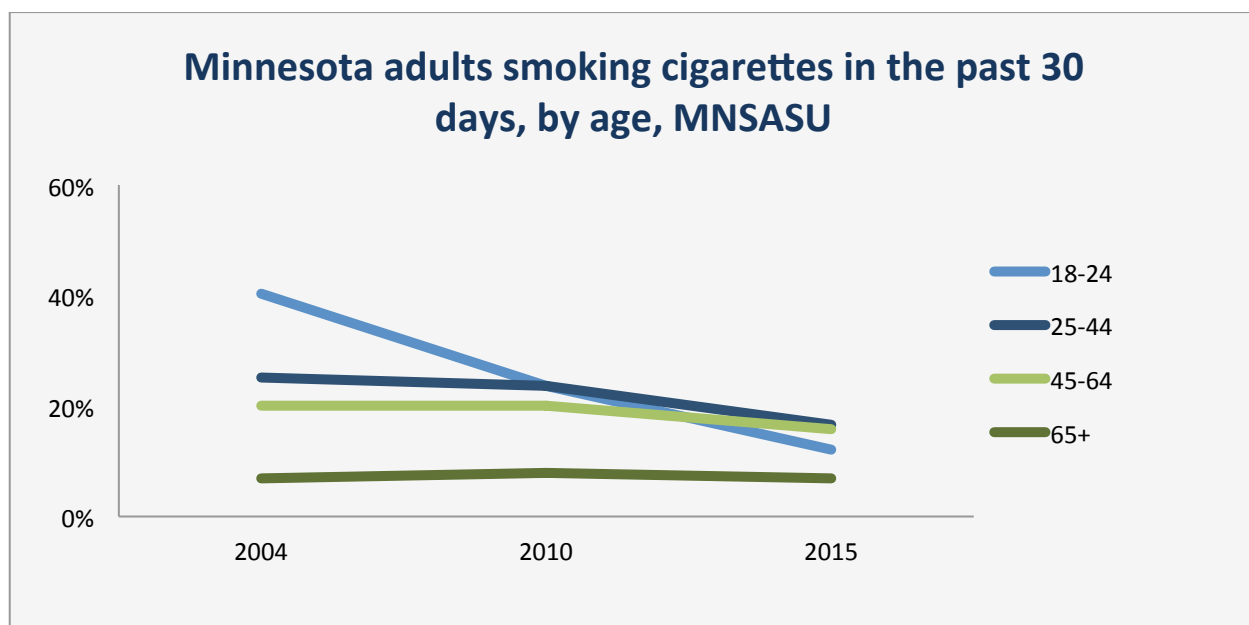
Adults Reporting Smoking Cigarettes Every Day, BRFSS

	2011	2012	2013	2014	2015	2016
Minnesota	13%	13%	12%	11%	11%	11%
US	15%	14%	13%	13%	12%	12%
MN:US*	0.87	0.93	0.92	0.85	0.92	0.85

NOTE: In 2011, BRFSS changed the definition for current smokers, from those who had smoked more than 100 cigarettes in their lifetimes and are now daily smokers, to those who are currently daily smokers. Therefore, the data from 2011 and later are not comparable with those from 2010 and earlier. Between 2004 and 2010, Minnesota’s rate of smokers steadily dropped from 15% to 11%. The rate for Minnesota remained below that of the US for the entire period, with rate ratios between 0.86 and 0.96.

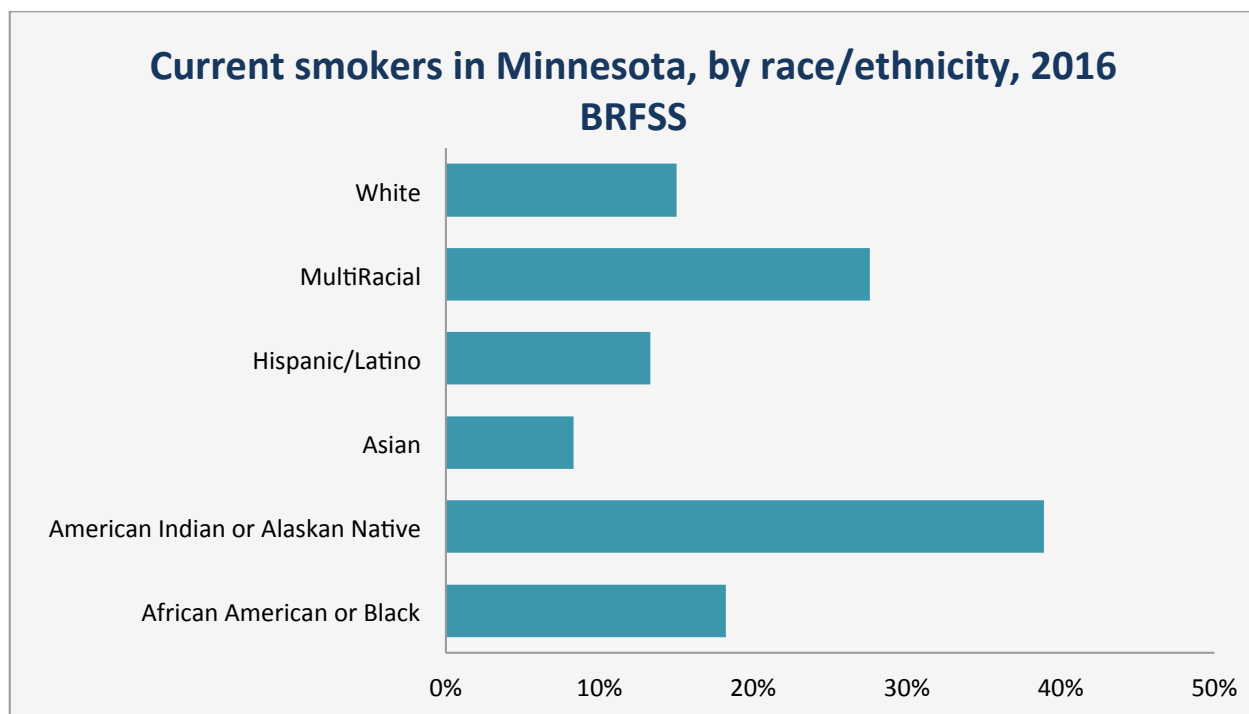


Data Source: MNSASU



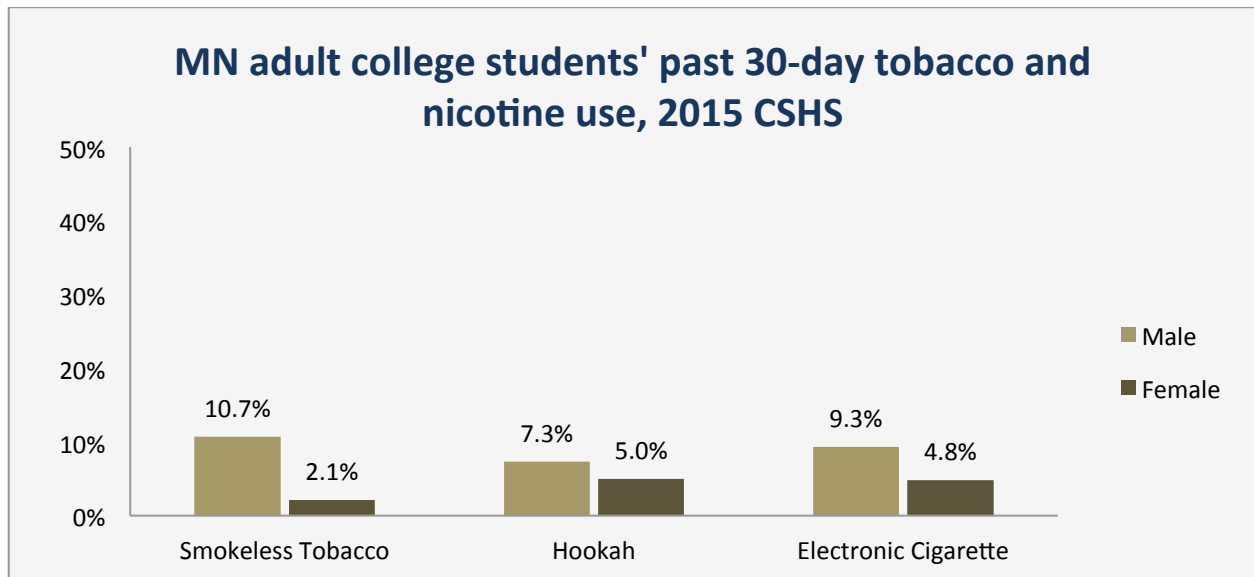
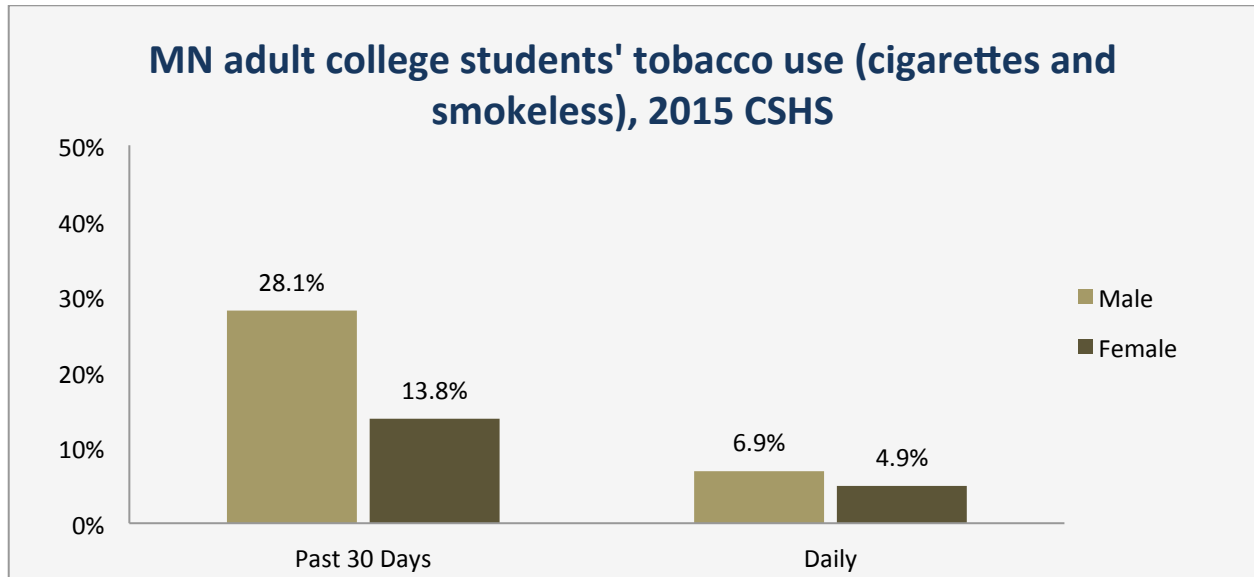
Minnesota adults reporting smoking cigarettes within the past 30 days, MNSASU		2004	2010	2015
Age	Ages 18 thru 24	40.3%	23.7%	12.1%
	Ages 25 thru 44	25.1%	23.7%	16.6%
	Ages 45 thru 64	20.0%	20.0%	15.8%
	Ages 65 and over	6.9%	7.9%	6.9%
Race/Ethnicity	African American or Black	27.1%	26.3%	18.1%
	American Indian	54.2%	58.9%	46.1%
	Asian American/Pacific Islander	18.2%	11.8%	11.4%
	Hispanic/Latino	23.5%	18.3%	11.0%
	Bi-Racial/Multi-Racial	46.9%	38.4%	25.9%
	White	22.2%	19.2%	15.4%
Gender	Male	24.2%	21.0%	16.6%
	Female	21.3%	18.7%	14.9%
	Total	22.7%	19.8%	15.8%
Sexual Orientation	Lesbian, Gay, and Bisexual	N/A	N/A	21.4%
	Heterosexual	N/A	N/A	15.6%

Data Source: BRFSS

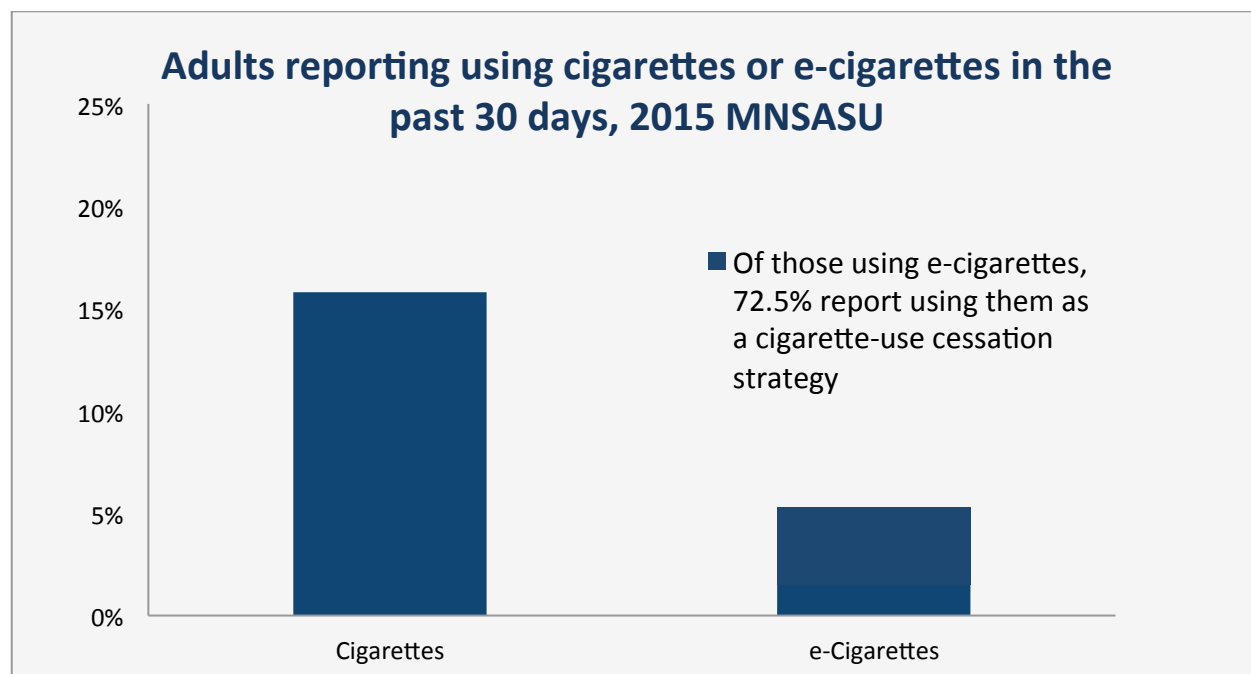


Cigarette Use: Current smokers in Minnesota, BRFSS							
		2011	2012	2013	2014	2015	2016
Age	Ages 18 thru 24	24.7%	20.6%	21.9%	16.1%	17.3%	12.6%
	Ages 25 thru 34	27.6%	26.8%	25.5%	23.0%	22.8%	20.5%
	Ages 35 thru 44	17.4%	21.3%	17.2%	18.0%	16.9%	17.9%
	Ages 45 thru 54	20.7%	20.0%	18.0%	17.5%	18.6%	17.5%
	Ages 55 thru 64	16.3%	16.1%	17.9%	15.8%	15.9%	15.3%
	Ages 65 and over	8.6%	8.8%	9.3%	8.1%	7.4%	8.1%
Race/Ethnicity	African American or Black	29.8%	29.4%	22.2%	22.3%	21.0%	18.2%
	American Indian/Alaskan Native	N/A	N/A	N/A	N/A	37.2%	38.9%
	Asian	N/A	N/A	N/A	N/A	7.7%	8.3%
	Hispanic/Latino	20.1%	18.5%	16.9%	14.3%	16.8%	13.3%
	MultiRacial	40.2%	30.6%	35.7%	29.8%	36.6%	27.6%
	White	18.2%	18.0%	18.0%	15.9%	15.8%	15.0%
Gender	Male	21.2%	21.7%	19.4%	17.9%	17.6%	16.6%
	Female	17.0%	16.0%	16.7%	14.8%	14.8%	13.9%
	Total	19.1%	18.8%	17.0%	16.3%	16.2%	15.2%

Data Source: MNSASU



Data Source: MNSASU



Adults reporting use of e-cigarettes on one or more days within the past 30 days, 2015 MNSASU		
		2015
Age	Ages 18 thru 24	11.5%
	Ages 25 thru 44	6.7%
	Ages 45 thru 64	3.9%
	Ages 65 and over	1.1%
Race/Ethnicity	African American or Black	3.8%
	American Indian	11.9%
	Asian American/ Pacific Islander	6.0%
	Hispanic/Latino	4.1%
	Bi-Racial/Multi-Racial	11.0%
	White	5.2%
Gender	Male	6.0%
	Female	4.6%
	Total	5.3%
Sexual Orientation	Lesbian, Gay, and Bisexual	10.2%
	Heterosexual	5.2%

Mothers Reporting Smoking During Pregnancy

About the Indicator

Smoking can increase a woman's risk of having a low-birthweight baby. Low-birthweight babies face an increased risk of serious health problems during the newborn period, and chronic lifelong disabilities. Smoking during pregnancy is also associated with a number of pregnancy complications.

Minnesota's maternal smoking prevalence was 9.7% in 2014 as compared to the nation's 8.4%.

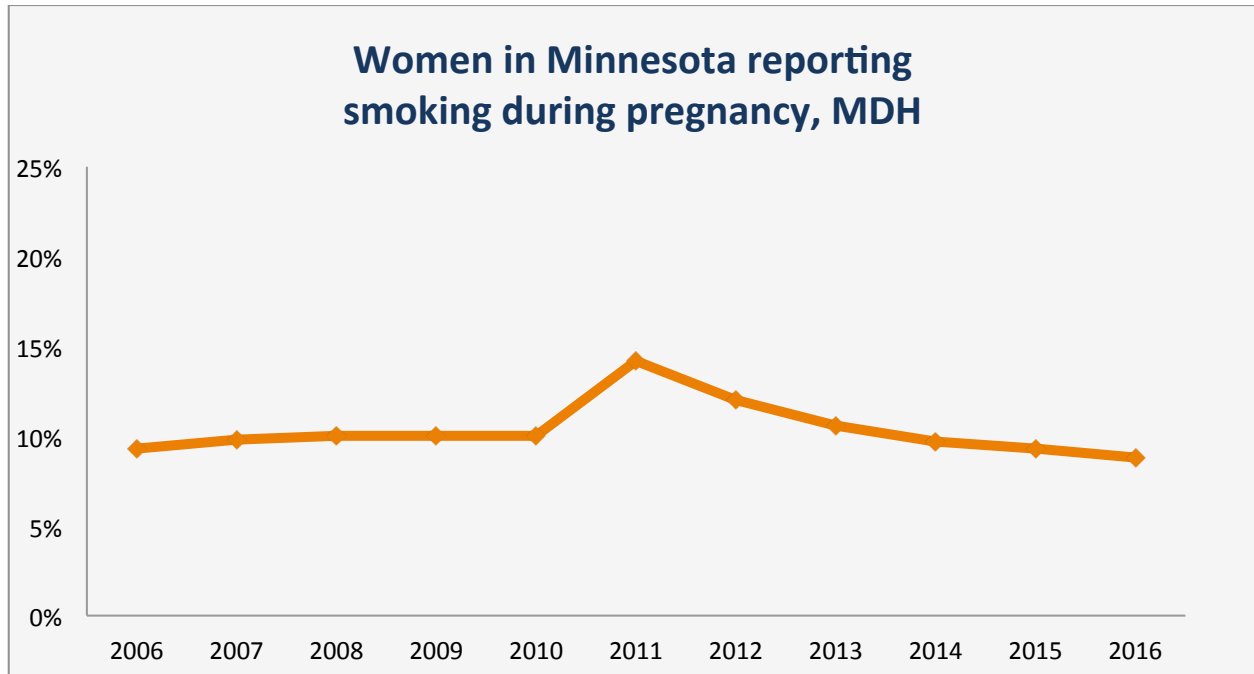
Data Source(s)

Minnesota Health Statistics Annual Summary, Minnesota Department of Health

Section Summary

- Over the 11-year period from 2006 to 2016, an average of 10.3% of mothers reported smoking during pregnancy.

Data Source: MDH



Women in Minnesota Reporting Smoking during Pregnancy

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Percent	9.3%	9.8%	10.0%	10.0%	10.0%	14.2%	12.0%	10.6%	9.7%	9.3%	8.8%

Youth Reporting Current Tobacco and Nicotine Use

About the Indicator

Reported tobacco use within the past 30 days (“30-day use”) is a frequent measure of current use, especially among youth. Youth tobacco use is presented here using 5 statistics: smoking a cigarette on one or more days, smoking cigarettes on 20 or more days, and use of chewing tobacco or snuff.

Data Source(s)

Minnesota Student Survey (MSS), Monitoring the Future (MTF)

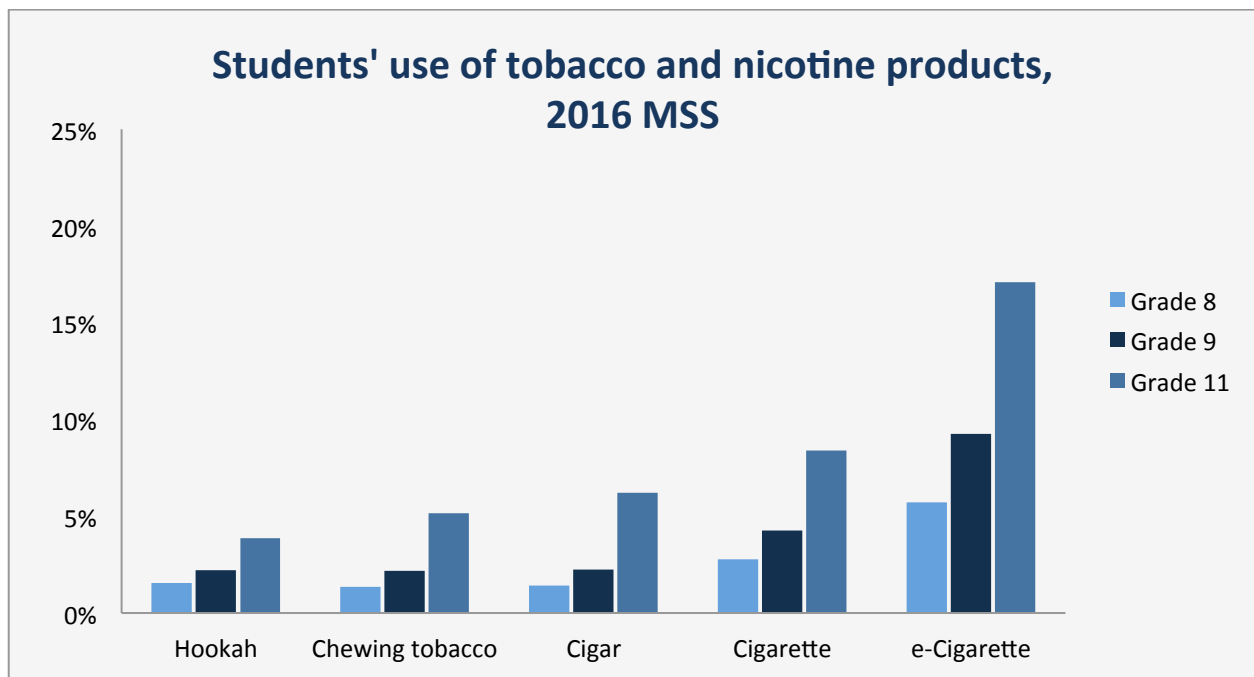
Section Summary

- Reported 30-day cigarette smoking dropped dramatically for 9th grade students from 1998 to 2016 (from 23% down to 4%).
- Older students are more likely to use tobacco or nicotine.
- Male students are much more likely to use chewing tobacco; male and female students smoke at similar rates.
- Minnesota students’ use of tobacco and nicotine is generally on par with, or slightly lower than, use by students nationally.

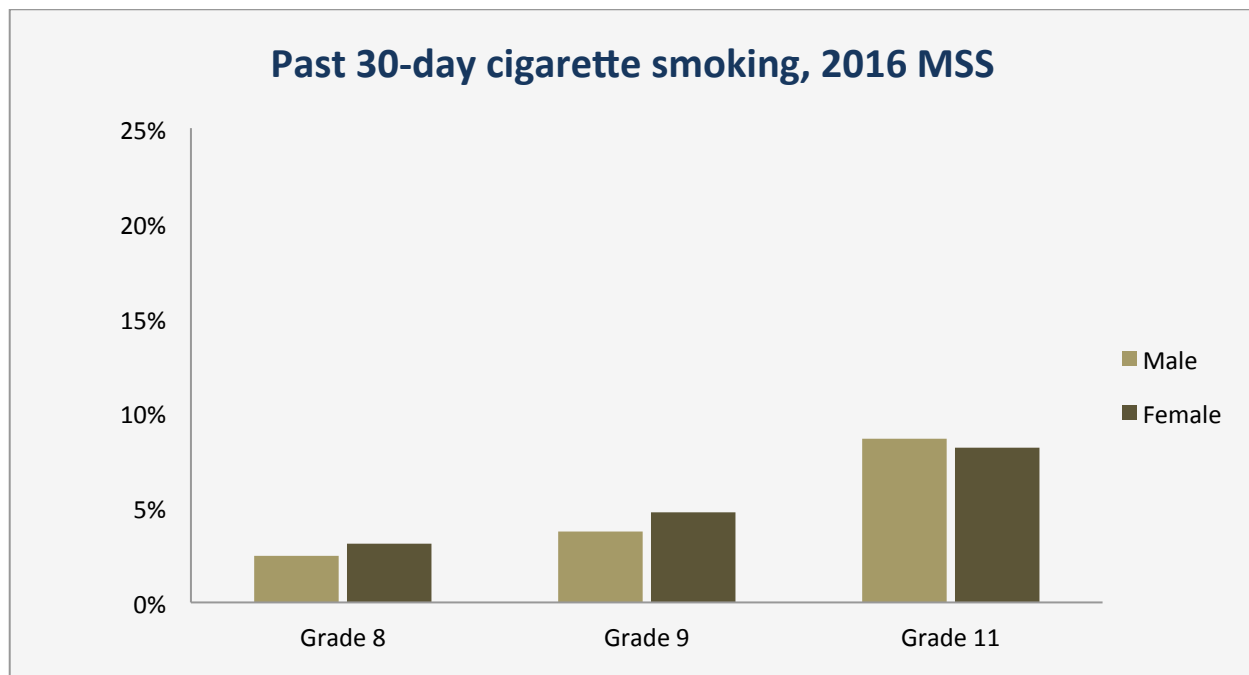
Data Source: MSS

While use of traditional nicotine products by students continues to fall nationwide, e-cigarette and hookah use are on the rise.

Questions about these methods of tobacco and nicotine use were added to the Minnesota Student Survey in 2016.



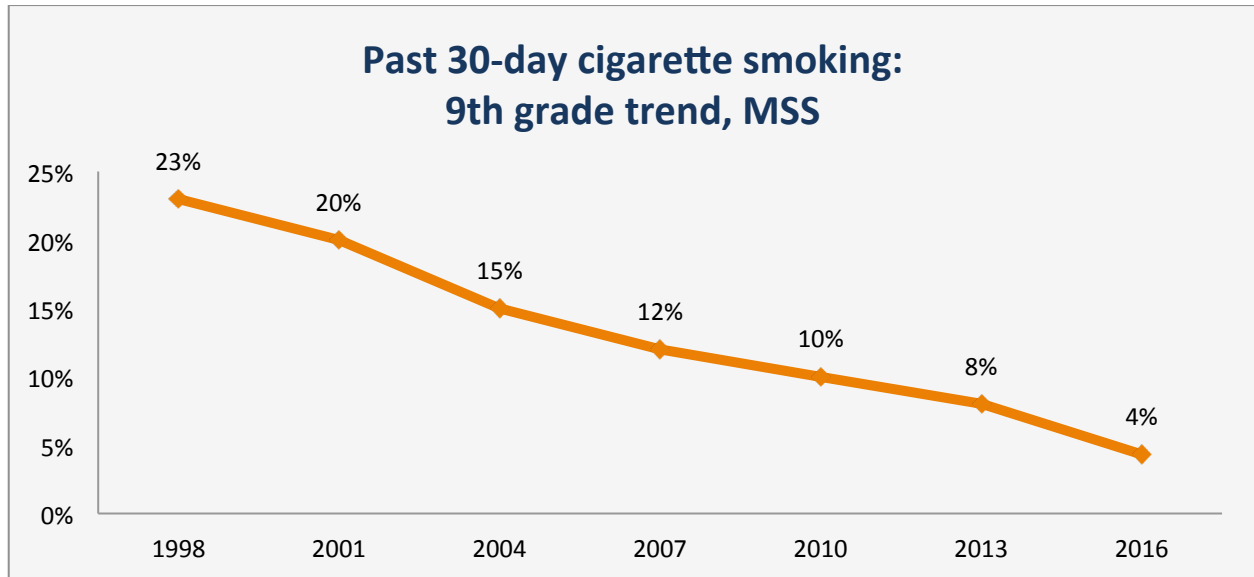
Data Source: MSS



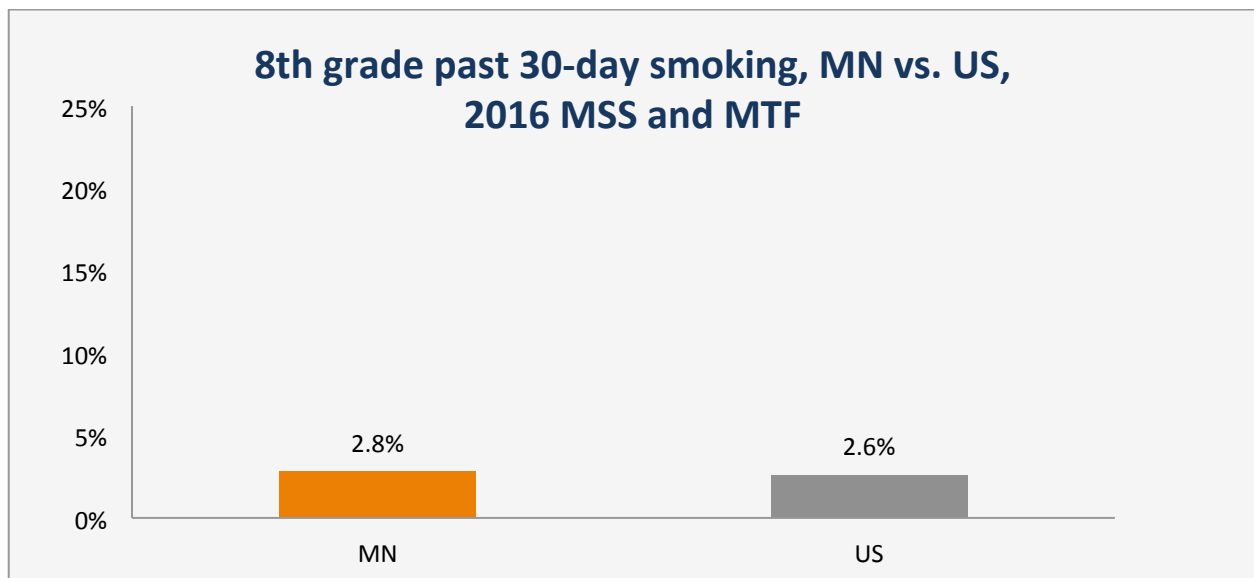
Students Reporting Smoking a Cigarette on One or More Days in the Past 30 Days, 2016 MSS

		Male		Female		Total	
		N (#)	%	N (#)	%	N (#)	%
Grade	8th	513	2.5%	656	3.1%	1,169	2.8%
	9th	776	3.7%	1,010	4.8%	1,786	4.3%
	11th	1,449	8.6%	1,398	8.2%	2,847	8.4%
	Total	2,738	4.7%	3,064	5.1%	5,802	4.9%

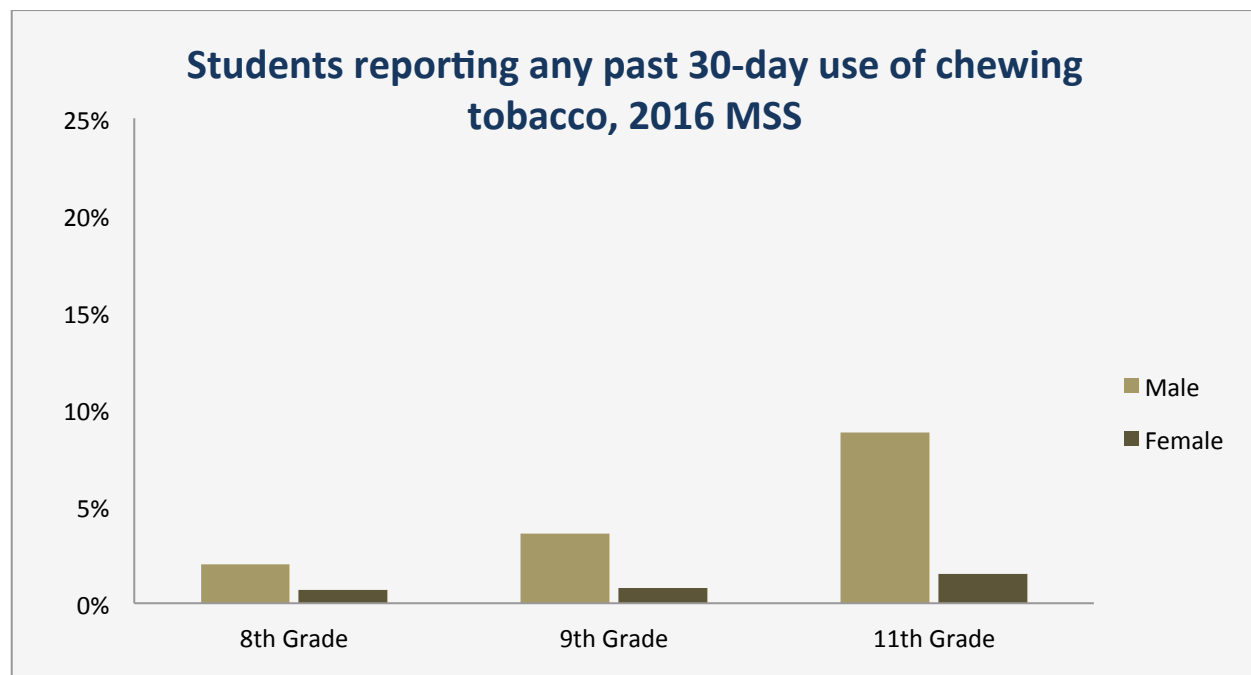
Data Source: MSS and MTF



*9th graders' past 30-day smoking rates continue to decrease.
The level for 8th graders is slightly below the 8th grade national average.*



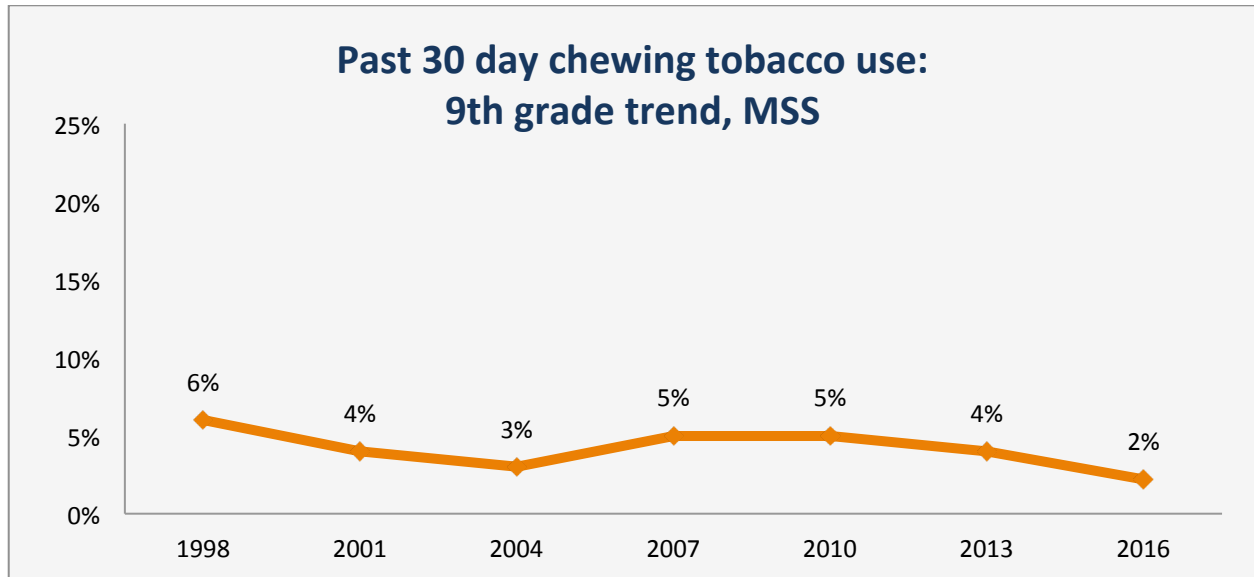
Data Source: MSS



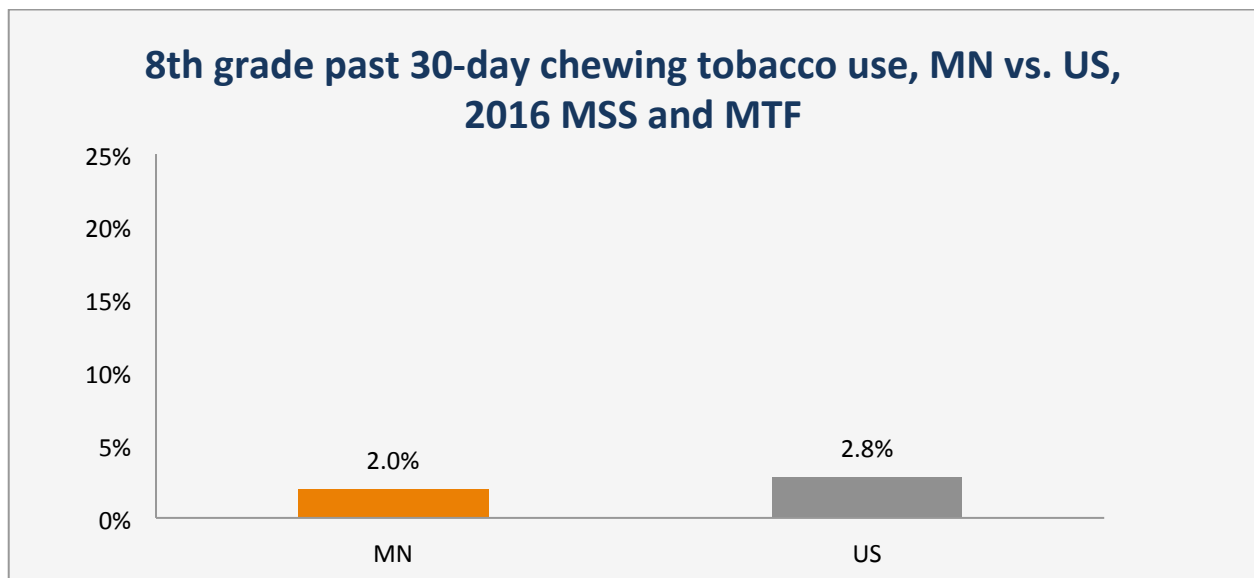
Students Reporting Use of Chewing Tobacco on One or More Days within the Past 30 Days, 2016 MSS

		Male		Female		Total	
		N (#)	%	N (#)	%	N (#)	%
Grade	8th	426	2.0%	146	0.7%	572	1.4%
	9th	741	3.6%	177	0.8%	918	2.2%
	11th	1,476	8.8%	263	1.5%	1,739	5.1%
	Total	2,643	4.5%	586	1.0%	3,229	2.7%

Data Source: MSS and MTF

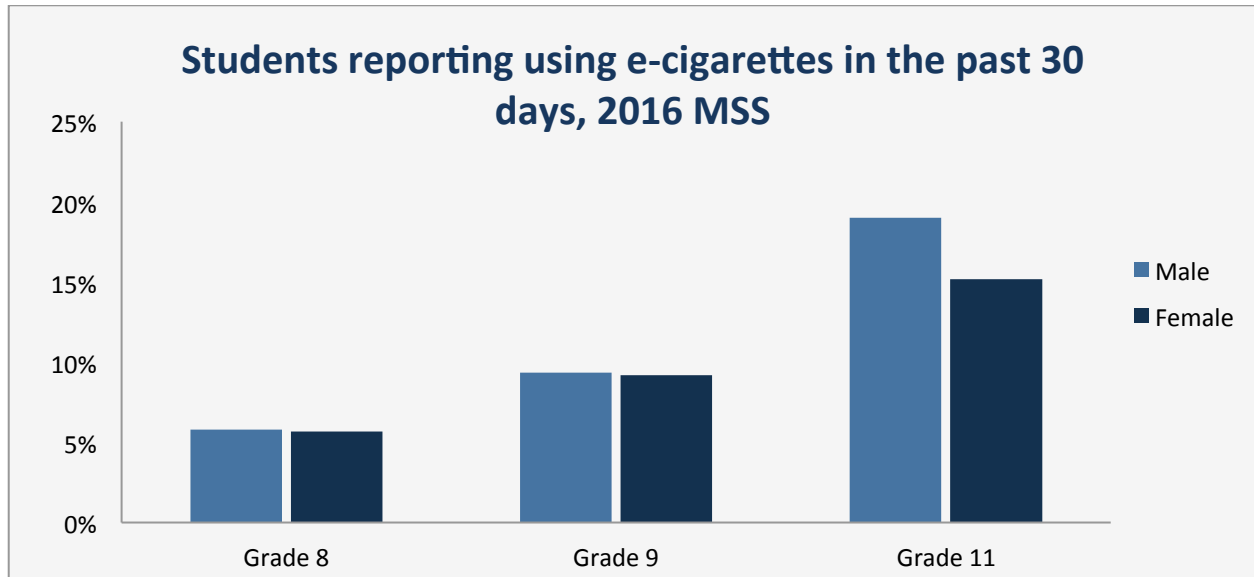


*9th graders' past 30-day chewing tobacco use has decreased over time.
The level for 8th graders is slightly below the 8th grade national average.*



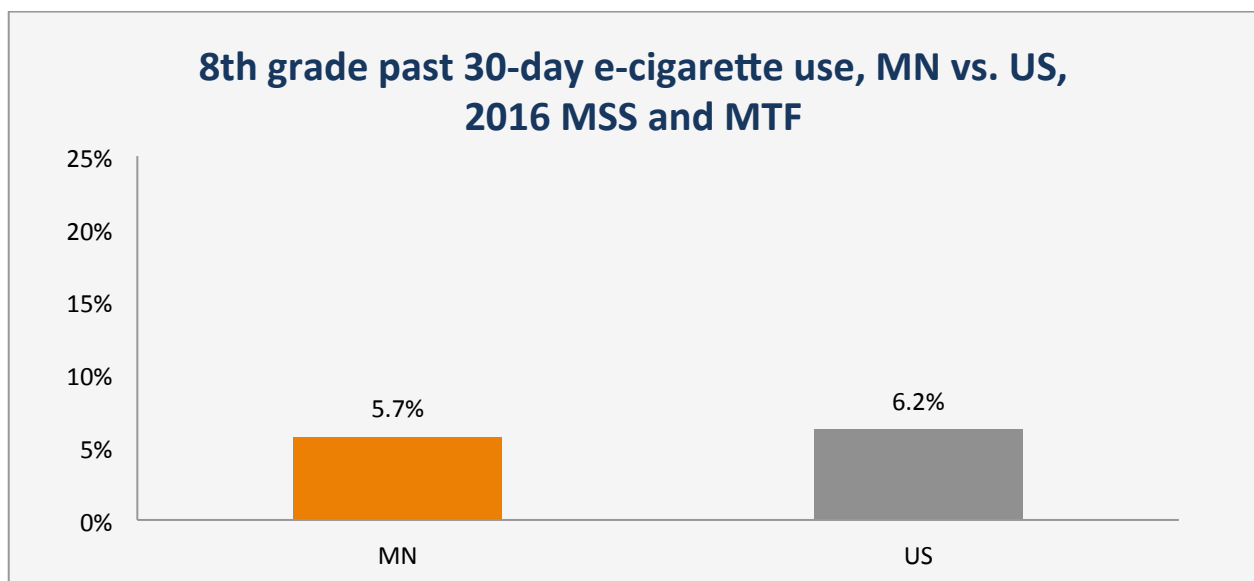
Note: The wording of the MTF (US) survey is “smokeless tobacco,” while the MSS (MN) survey asks about “chewing tobacco.”

Data Source: MSS and MTF



Minnesota Students Reporting Use of e-Cigarettes in the Past 30 Days, by Grade, 2016 MSS

		Male		Female		Total	
		N (#)	%	N (#)	%	N (#)	%
Grade	8th	1,205	5.8%	1,201	5.7%	2,406	5.7%
	9th	1,935	9.3%	1,948	9.2%	3,883	9.3%
	11th	3,188	19.0%	2,598	15.2%	5,786	17.1%
	Total	6,328	10.8%	5,747	9.7%	12,075	10.2%



Tobacco In Minnesota: Consequences

Tobacco-Related Mortality

About the Indicator

Smoking is a risk factor for many causes of death in Minnesota.

Lung cancer is the most common cause of cancer deaths, for both men and women. The risk of lung cancer increases in proportion to the duration of smoking and the numbers of cigarettes smoked.

Data Source(s)

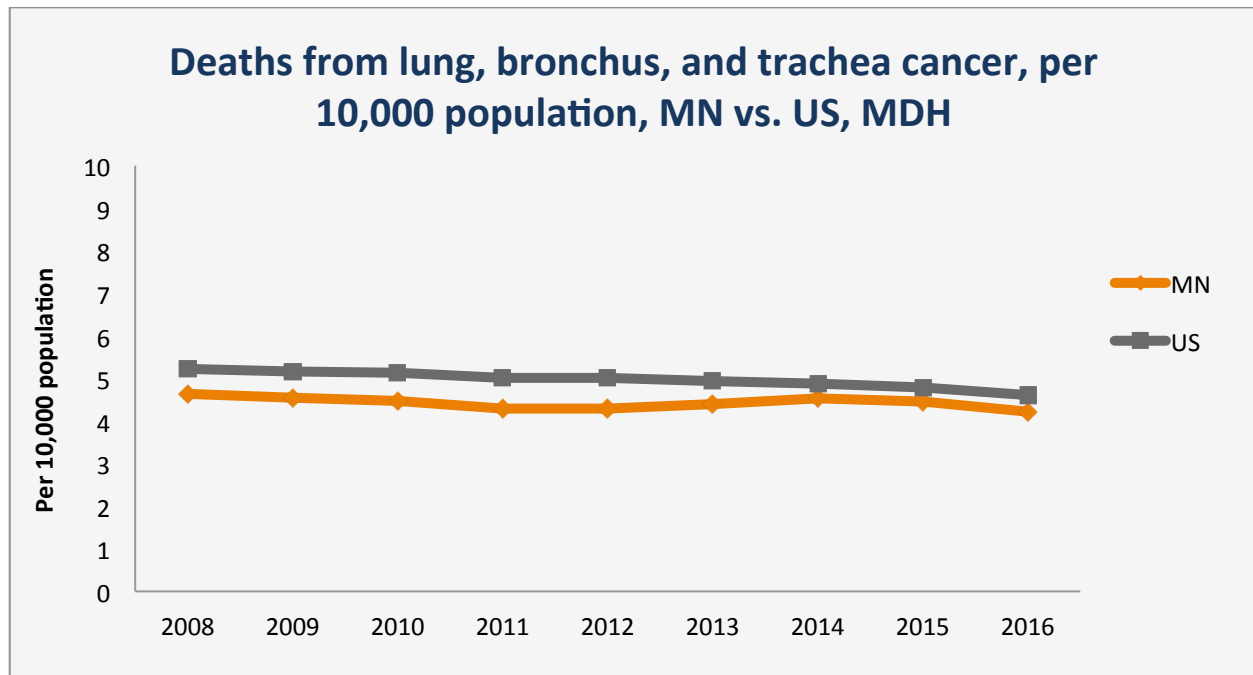
Minnesota Department of Health, CDC Wonder

Section Summary

- Lung, bronchus and trachea cancer death rates have declined slightly over time, both in Minnesota and nationally.
- Rates in Minnesota have been consistently slightly lower than nationwide rates.

Tobacco and Nicotine: Consequences

Data source: Minnesota Department of Health and CDC Wonder



Deaths from Lung, Bronchus, and Trachea Cancer Per 10,000 Population, MDH and CDC

Minnesota	2008	2009	2010	2011	2012	2013	2014	2015	2016
Number of deaths	2,433	2,401	2,373	2,316	2,330	2,386	2,473	2,384	2,331
Rate per 10,000 population	4.64	4.55	4.47	4.30	4.30	4.40	4.53	4.35	4.22
United States	2008	2009	2010	2011	2012	2013	2014	2015	2016
Number of deaths	158,656	158,158	158,318	156,131	157,499	156,252	155,610	153,819	148,945
Rate per 10,000 population	5.22	5.16	5.13	5.01	5.02	4.94	4.88	4.79	4.61
MN:US rate ratio	2008	2009	2010	2011	2012	2013	2014	2015	2016
Deaths	0.89	0.88	0.87	0.86	0.86	0.89	0.93	0.91	0.92

Tobacco In Minnesota: Intervening Variables

Tobacco Retailer Noncompliance

About the Indicator

The Synar Amendment requires states to have laws prohibiting the sale of tobacco products to those younger than 18 and to conduct annual random, unannounced inspections of a valid sample of tobacco retailers to ensure compliance. Statistics presented are the retailer violation rates (RVR) by Federal Fiscal Year (FFY).

Data Source(s)

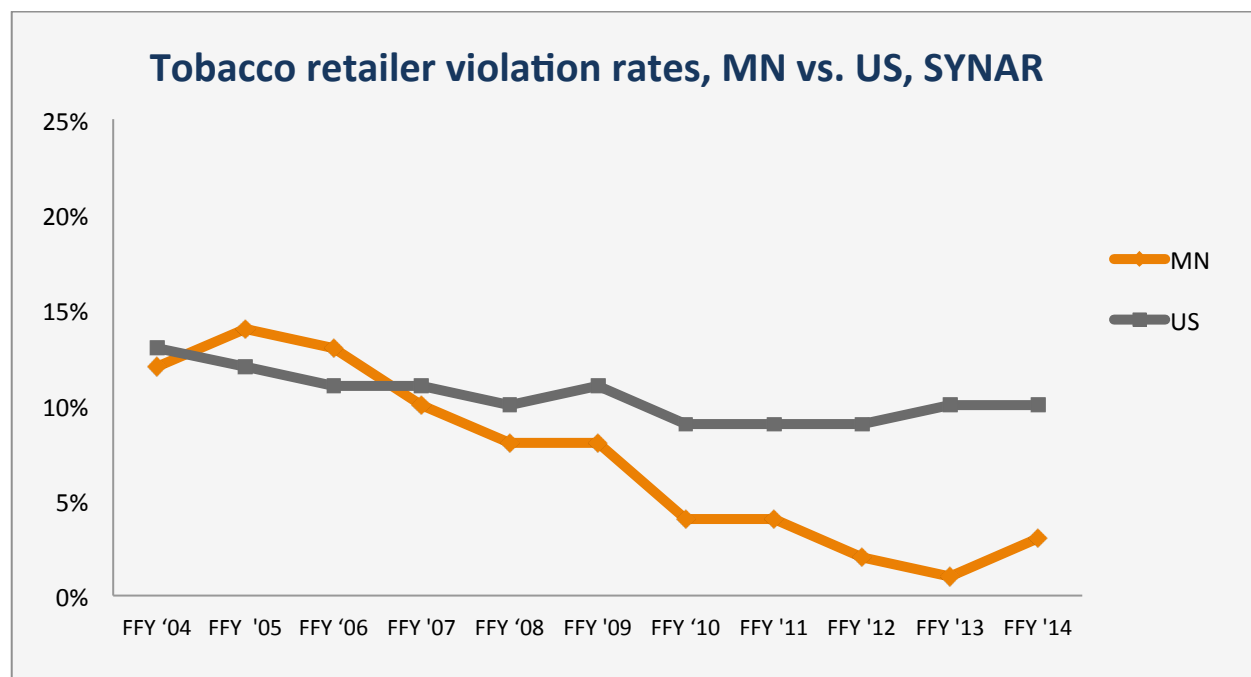
Center for Substance Abuse Prevention (CSAP)

Section Summary

- Minnesota retailer violation rates have steadily declined, from 16% in Federal Fiscal Year 2003 to 1% in Federal Fiscal Year 2013.
- Minnesota's retailer violation rates have been lower than the national average since Federal Fiscal Year 2007. In FFY 2013, Minnesota (along with Nevada) had the lowest RVR in the country.

Tobacco and Nicotine: Intervening Variables

Data source: SYNAR



SYNAR Tobacco Retailer Violation Rates (RVR)

	FFY '05	FFY '06	FFY '07	FFY '08	FFY '09	FFY '10	FFY '11	FFY '12	FFY '13	FFY '14
MN	14%	13%	10%	8%	8%	4%	4%	2%	1%	3%
US	12%	11%	11%	10%	11%	9%	9%	9%	10%	10%
MN:US	1.17	1.18	0.91	0.80	0.73	0.44	0.48	0.22	0.10	0.30

Note: RVR are reported in Federal Fiscal Years. National RVRs were calculated by weighting each state's reported DVR by that state's population.

Perceptions of Disapproval and Harm

About the Indicator

Perception of Harm

Adults were asked about their perceptions of harm of cigarettes and e-cigarettes on the Minnesota Survey of Adult Substance Use (MNSASU) for the first time in 2015. Students on the Minnesota Student Survey (MSS) have been asked about their perceptions since 2007.

For both groups, respondents were asked how much they thought people risked harming themselves physically or in other ways by smoking one or more packs of cigarettes per day. The data show the number and percent of respondents answering either “great risk” or “moderate risk” of harm. The other two options on the survey were “slight risk” and “no risk.”

Perception of Disapproval

Also in 2007, students were asked how they thought their parents or guardians would feel if they smoked one or more packs of cigarettes a day. The statistics presented here for 2007-2010 show the number and percent of students responding that their close friends would either “greatly disapprove” or “disapprove.” The other two selection options on the survey were “would not care at all” and “would approve.” In 2010, the question changed to encompass any smoking at all by students, rather than specifying one or 2 packs a day. In 2013, the wording used to indicate disapproval was changed: students were asked whether others would feel it is “wrong” or “very wrong” for them to smoke cigarettes.

For more information on these data, see the SUMN.org website.

Data Source(s)

Minnesota Survey of Adult Substance Use (MNSASU), Minnesota Student Survey (MSS), Monitoring the Future (MTF)

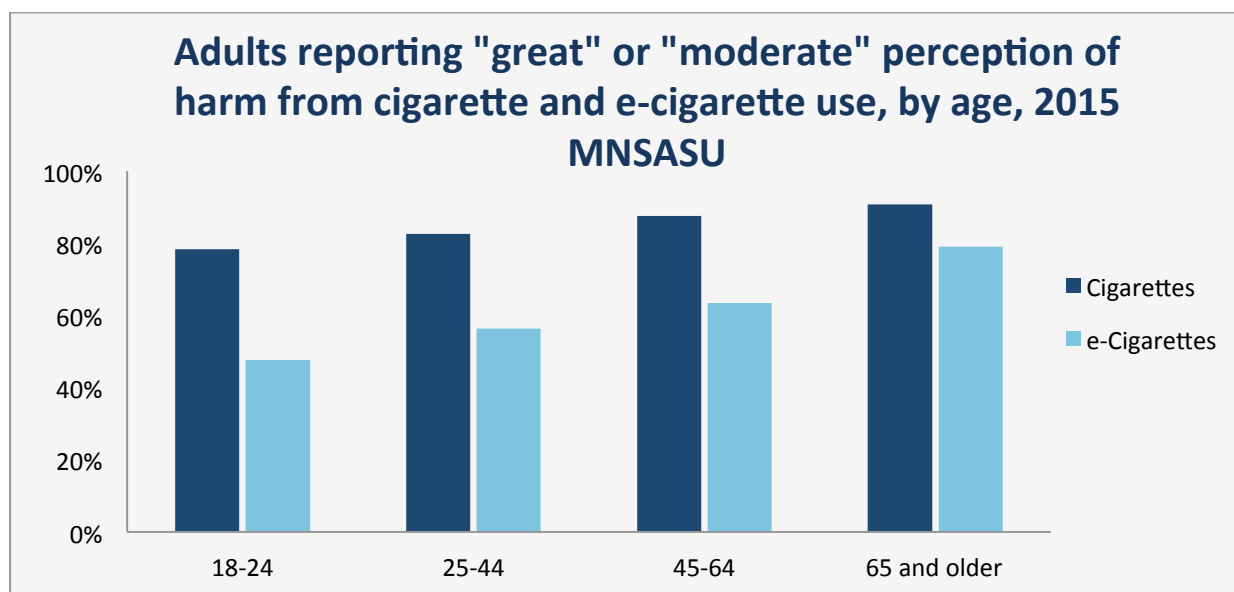
Section Summary

- Perception of harm of smoking is higher among female students than among male students.
- In 2016, perception of harm increased with grade level.
- Female students perceive a greater level of disapproval than male students, from both friends and parents or guardians, for all grade levels.
- Adults perceive e-cigarettes to be much less harmful than cigarettes.

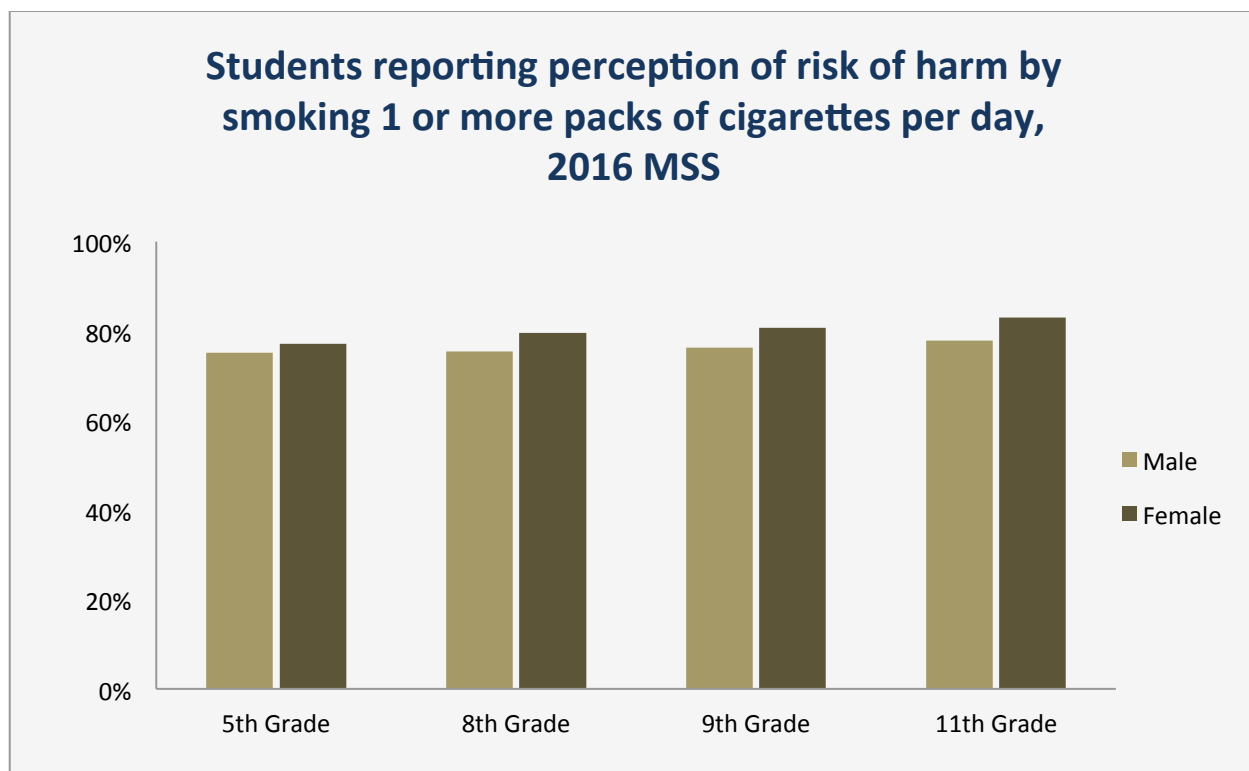
Tobacco and Nicotine: Intervening Variables

Data source: MNSASU

Minnesota adults reporting perception of "great" or "moderate" harm from cigarette and e-cigarette use, 2015 MNSASU			
		Cigarettes	e-Cigarettes
Age	Ages 18 thru 24	78.3%	47.7%
	Ages 25 thru 44	82.6%	56.3%
	Ages 45 thru 64	87.5%	63.5%
	Ages 65 and over	90.7%	79.0%
Race/Ethnicity	African American or Black	82.7%	66.9%
	American Indian	78.8%	57.3%
	Asian American/Pacific Islander	82.5%	67.9%
	Hispanic/Latino	86.4%	73.7%
	Bi-Racial/Multi-Racial	80.3%	59.8%
	White	85.6%	59.7%
Gender	Male	83.1%	59.4%
	Female	87.0%	62.1%
	Total	85.2%	60.9%
Sexual Orientation	Lesbian, Gay, and Bisexual	86.1%	50.6%
	Heterosexual	85.4%	60.9%



Data source: MSS

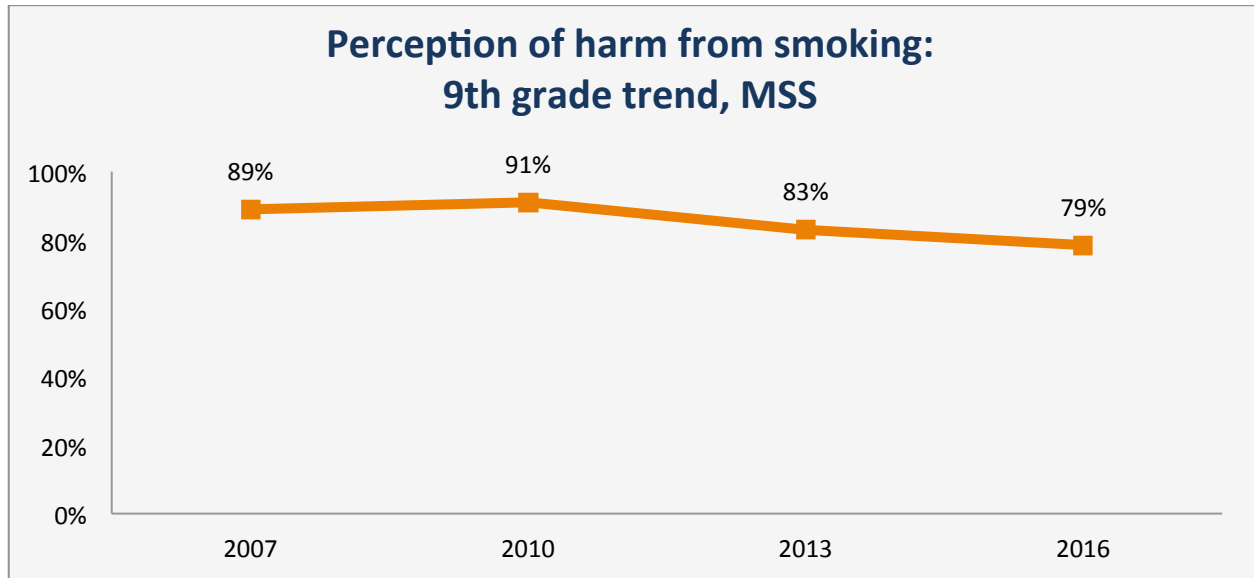


Students reporting they think people put themselves at "great" or "moderate" risk of harming themselves physically or in other ways by smoking 1 or more packs of cigarettes per day, 2016 MSS

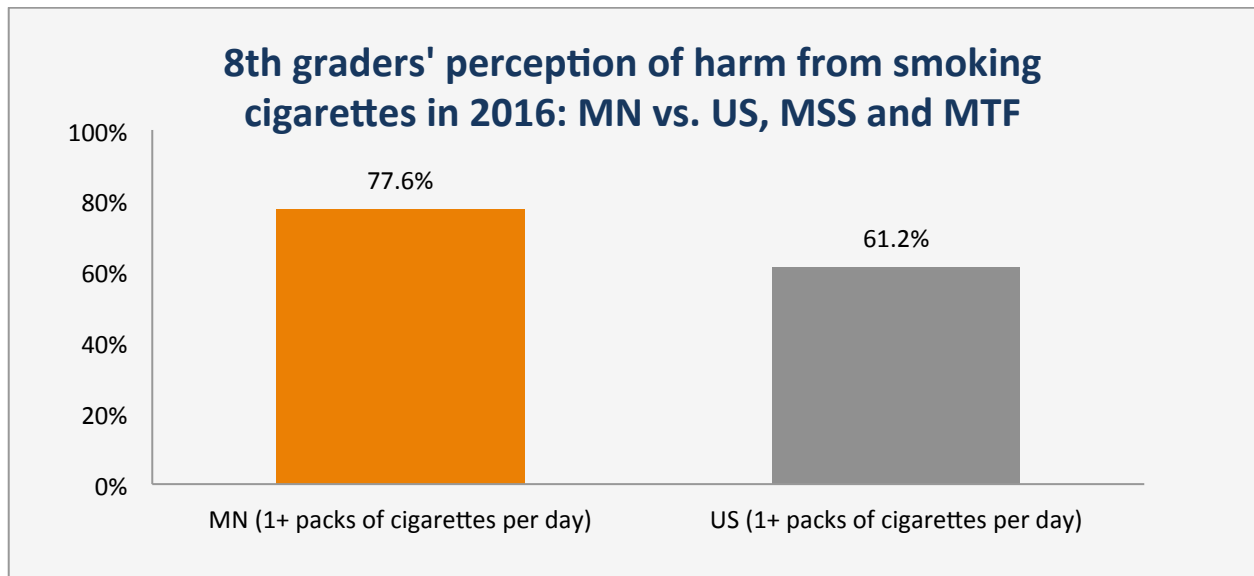
	Male		Female		Total	
	N (#)	%	N (#)	%	N (#)	%
5th Grade	14,153	75.1%	14,291	77.2%	28,444	76.1%
8th Grade	14,880	75.4%	15,932	79.6%	30,812	77.6%
9th Grade	14,586	76.3%	15,837	80.7%	30,423	78.5%
11th Grade	12,212	77.9%	13,356	83.0%	25,568	80.5%
Total	55,831	76.1%	59,416	80.0%	115,247	78.1%

Tobacco and Nicotine: Intervening Variables

Data source: MSS and MTF



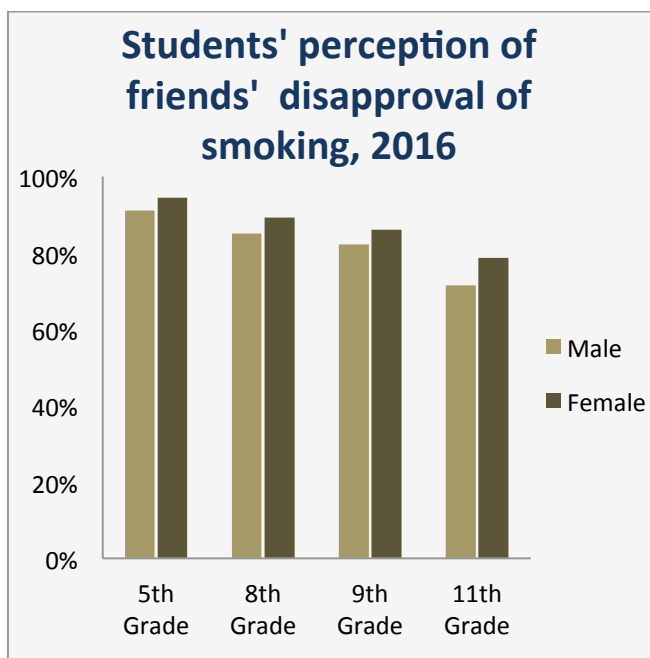
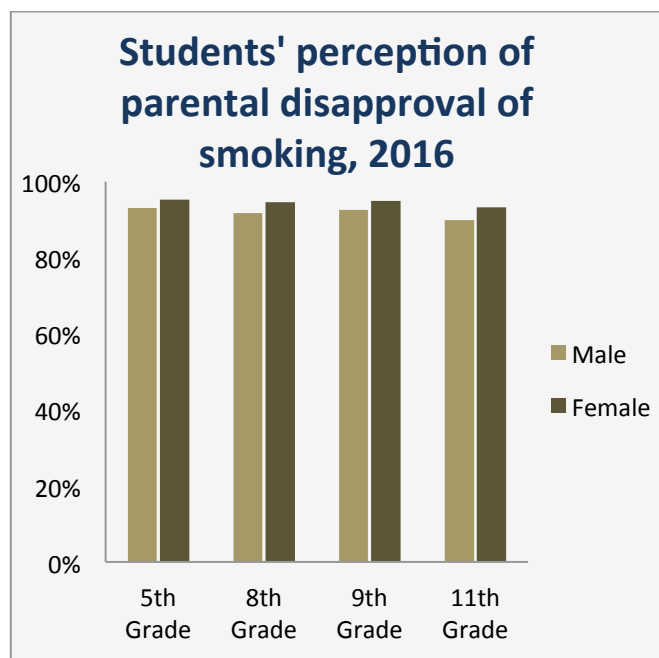
Minnesota's 8th graders' perception of risk of harm from smoking cigarettes is higher than the US average, and Minnesota 9th graders' perception of risk is even higher than that of the 8th graders'.



NOTE: US number is taken from the MTF survey, and represents students who responded that smoking puts a person at "great risk" of harm. Other risk categories included "no risk," slight risk," and "moderate risk."

Tobacco and Nicotine: Intervening Variables

Data source: MSS



Minnesota students reporting their parents or guardians would feel it is "wrong" or "very wrong" for them to smoke cigarettes, 2016

	Male		Female		Total	
	N (#)	%	N (#)	%	N (#)	%
5th Grade	17,735	93.1%	17,944	95.2%	35,679	94.1%
8th Grade	18,133	91.8%	19,023	94.6%	37,156	93.2%
9th Grade	17,677	92.5%	18,601	94.9%	36,278	93.7%
11th Grade	14,100	89.8%	15,004	93.2%	29,104	91.5%
Total	67,645	91.9%	70,572	94.5%	138,217	93.2%

Minnesota students reporting their friends would feel it is "wrong" or "very wrong" for them to smoke cigarettes, 2016

	Male		Female		Total	
	N (#)	%	N (#)	%	N (#)	%
5th Grade	17,191	91.1%	17,689	94.5%	34,880	92.8%
8th Grade	16,753	85.1%	17,884	89.2%	34,637	87.2%
9th Grade	15,613	82.2%	16,825	86.1%	32,438	84.2%
11th Grade	11,179	71.5%	12,641	78.7%	23,820	75.1%
Total	60,736	83.0%	65,039	87.5%	125,775	85.2%

2018



Substance Abuse in Minnesota:
A State Epidemiological Profile
Section 5.

Drugs: Use, Consequences, and Intervening Variables

Prepared by: EpiMachine, LLC

for the Minnesota Department of Human Services, Alcohol and
Drug Abuse Division

Substance Abuse in Minnesota

Section 5. Drugs: Use, Consequences, and Intervening Variables

The 2018 Minnesota State EpiProfile is divided into eight parts:

- 1. Introduction (which includes a profile overview, population snapshot, and acknowledgements)**
- 2. Executive Summary**
- 3. Alcohol: Use, Consequences, and Intervening Variables**
- 4. Tobacco and Nicotine: Use, Consequences, and Intervening Variables**
- 5. Drugs: Use, Consequences, and Intervening Variables**
- 6. Mental Health and Shared Factors**
- 7. Socioeconomic Factors**
- 8. Appendix (which includes technical notes and data sources)**

Illicit Drugs in Minnesota: Use Marijuana Use

About the Indicator

Current marijuana use is often assessed by reported use in the past 30 days (30-day use or past-month use). Past 12-month use is also included.

Data Source(s)

Adults

National Survey on Drug Use and Health (NSDUH) and the Minnesota Survey of Adult Substance Use (MNSASU)

Youth

Minnesota Student Survey (MSS) and Monitoring the Future (MTF)

Section Summary

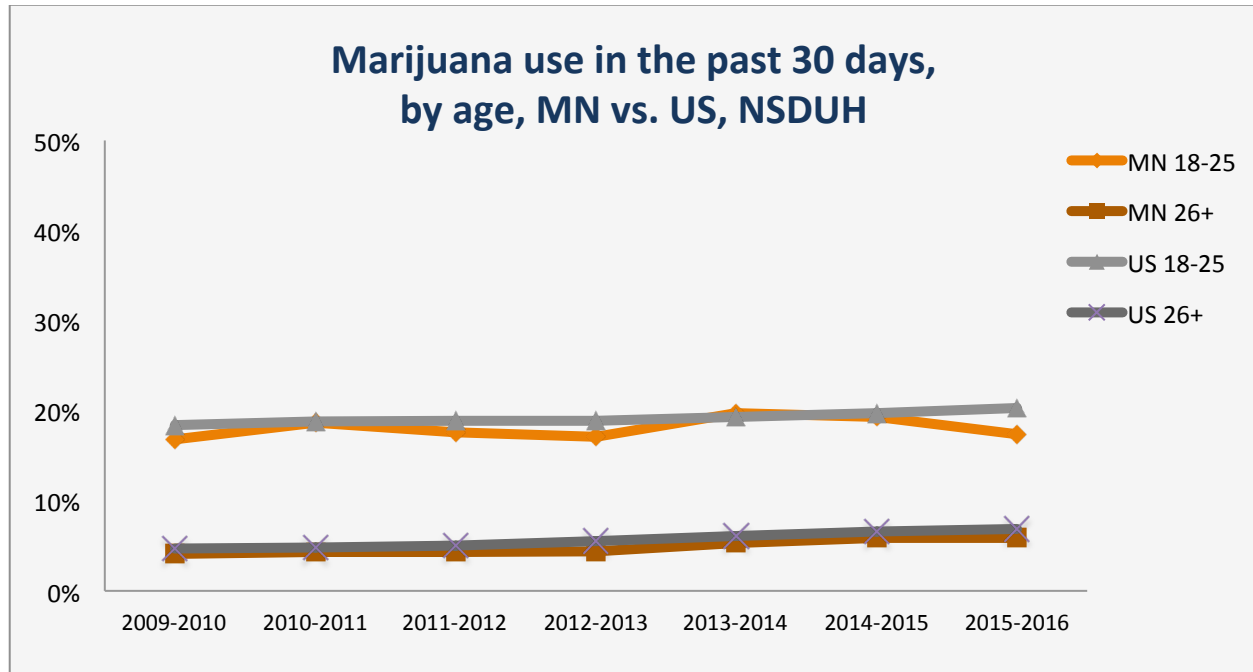
Adults

- Since 2009-2010, both Minnesota's past-month and past-year rates of marijuana use have risen very gradually (NSDUH).
- Males, young adults, American Indians and bi- or multiracial individuals reported higher levels of past 30-day marijuana use (MNSASU).

Youth

- The use of marijuana by 9th grade students decreased from 14% in 2001 to 6.7% in 2016.
- Almost 16% of 11th graders reported past 30-day marijuana use in 2016. Almost 23% reported past-year usage.

Data source: NSDUH



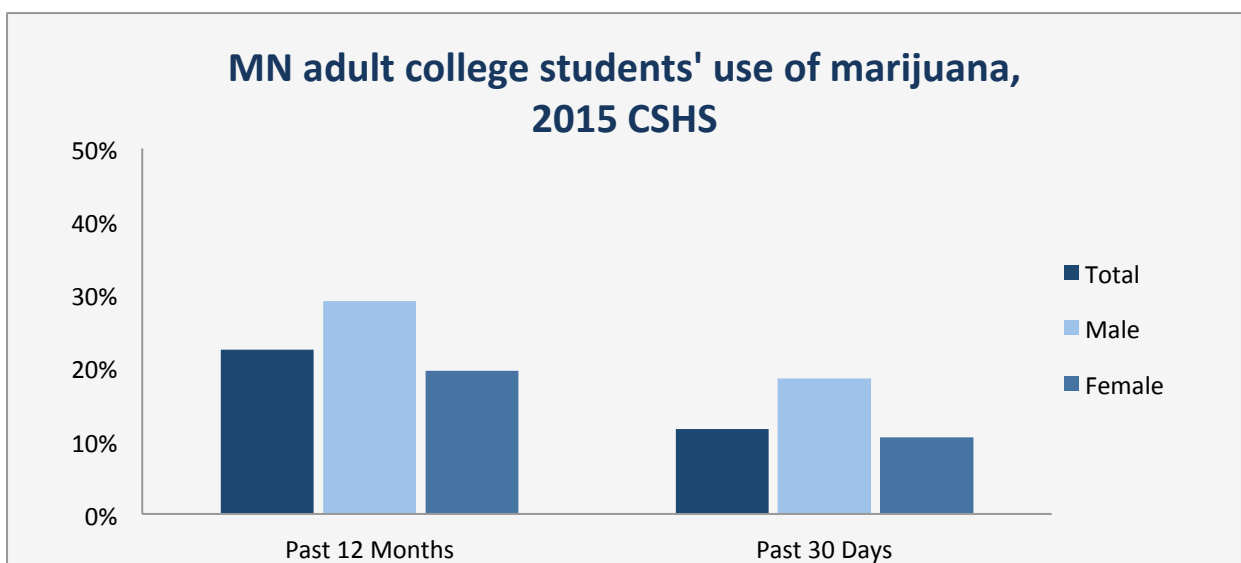
Adults Reporting Marijuana Use in the Past 30 Days, NSDUH

Minnesota	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Marijuana use 12+	5.9%	6.4%	6.3%	6.2%	7.3%	7.6%	7.3%
Ages 12 thru 17	6.1%	6.8%	7.3%	6.7%	6.8%	6.2%	5.9%
Ages 18 thru 25	16.8%	18.7%	17.6%	17.1%	19.7%	19.3%	17.4%
Ages 26 and Over	4.1%	4.3%	4.3%	4.4%	5.3%	5.9%	5.9%
United States	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Marijuana use 12+	6.8%	6.9%	7.1%	7.4%	8.0%	8.3%	8.6%
Ages 12 thru 17	7.4%	7.6%	7.6%	7.2%	7.2%	7.2%	6.8%
Ages 18 thru 25	18.4%	18.8%	18.9%	18.9%	19.3%	19.7%	20.3%
Ages 26 and Over	4.7%	4.8%	5.1%	5.5%	6.1%	6.6%	6.9%
MN:US rate ratio	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Marijuana use 12+	0.88	0.93	0.89	0.84	0.91	0.92	0.85

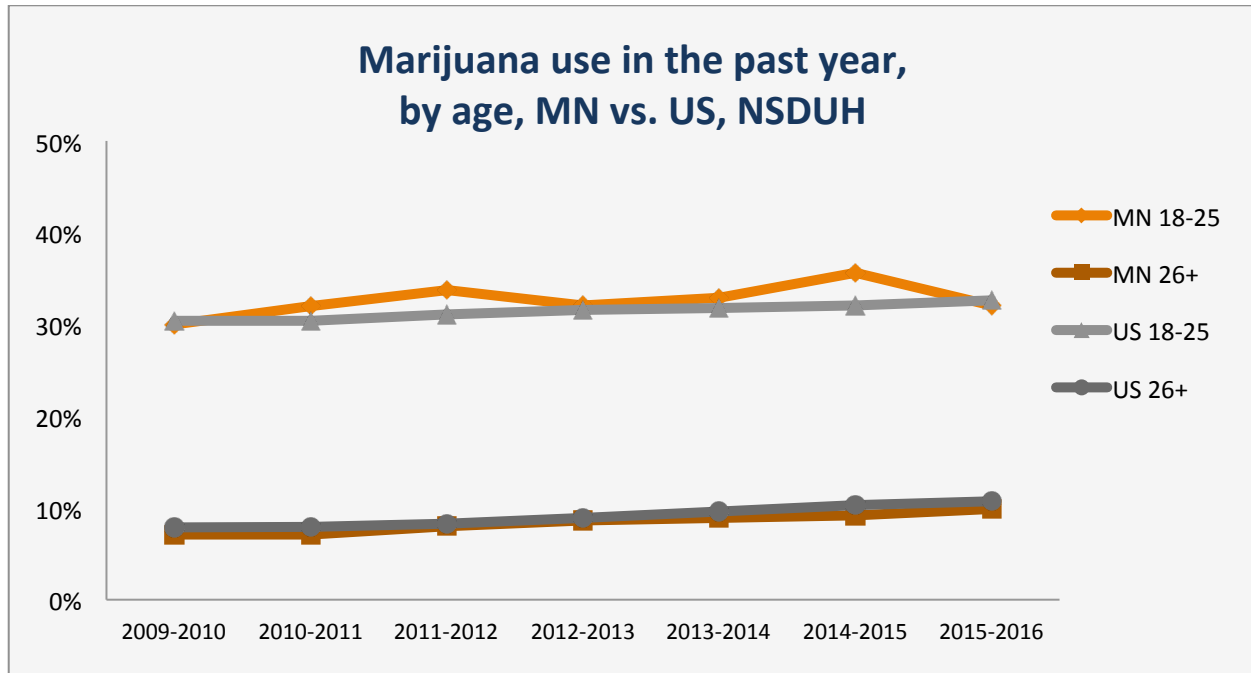
NOTE: Total percent represents the total number of survey respondents reporting use divided by the total number of survey respondents who answered the question. Percent within an age group, for example, represents the total number of survey respondents in the age group reporting use, divided by the total number of survey respondents in that age group who answered the question. Estimates are based on a survey-weighted hierarchical Bayes estimation approach.

Data Source: MNSASU and CSHS

Percent of Minnesota adults reporting marijuana use within the past 30 days, MNSASU		2004	2010	2015
Age	Ages 18 thru 24	22.40%	23.30%	13.00%
	Ages 25 thru 44	6.20%	9.80%	5.90%
	Ages 45 thru 64	3.80%	4.90%	3.10%
	Ages 65 and over	*	*	0.60%
Race/Ethnicity	African American or Black	9.60%	12.20%	5.50%
	American Indian	21.00%	20.50%	9.90%
	Asian American/Pacific Islander	*	4.00%	2.80%
	Hispanic/Latino	4.70%	7.10%	3.10%
	Bi-Racial/Multi-Racial	18.10%	24.80%	7.60%
	White	6.40%	7.90%	4.80%
Gender	Male	8.90%	10.60%	6.10%
	Female	4.50%	5.80%	3.60%
	Total	6.70%	8.10%	4.80%
Sexual Orientation	Lesbian, Gay, and Bisexual	N/A	N/A	*
	Heterosexual	N/A	N/A	*



Data Source: NSDUH

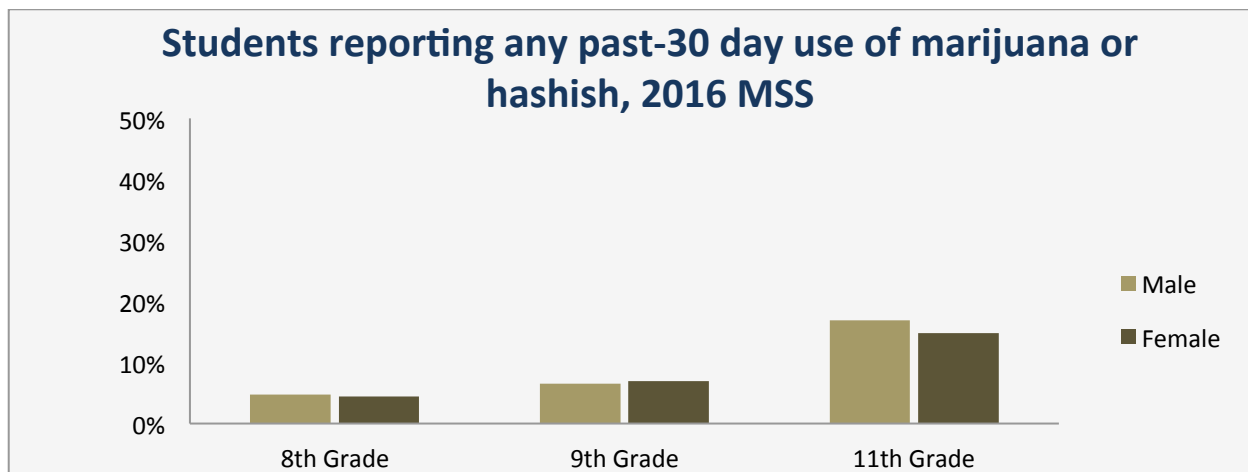


Adults Reporting Marijuana Use in the Past Year, NSDUH

Minnesota	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Marijuana use 12+	10.6%	10.9%	11.8%	11.9%	12.2%	12.7%	12.9%
Ages 12 thru 17	11.9%	13.2%	13.6%	12.0%	11.6%	11.4%	12.8%
Ages 18 thru 25	30.0%	32.0%	33.8%	32.1%	32.9%	35.6%	32.1%
Ages 26 and Over	7.1%	7.1%	8.0%	8.6%	8.9%	9.2%	9.9%
United States	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Marijuana use 12+	11.5%	11.6%	11.8%	12.3%	12.9%	13.4%	13.7%
Ages 12 thru 17	13.8%	14.1%	13.9%	13.5%	13.3%	12.9%	12.3%
Ages 18 thru 25	30.4%	30.4%	31.1%	31.6%	31.8%	32.1%	32.6%
Ages 26 and Over	7.9%	8.0%	8.3%	8.9%	9.6%	10.3%	10.7%
MN:US rate ratio	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Marijuana use 12+	0.92	0.94	1.00	0.97	0.95	0.95	0.94

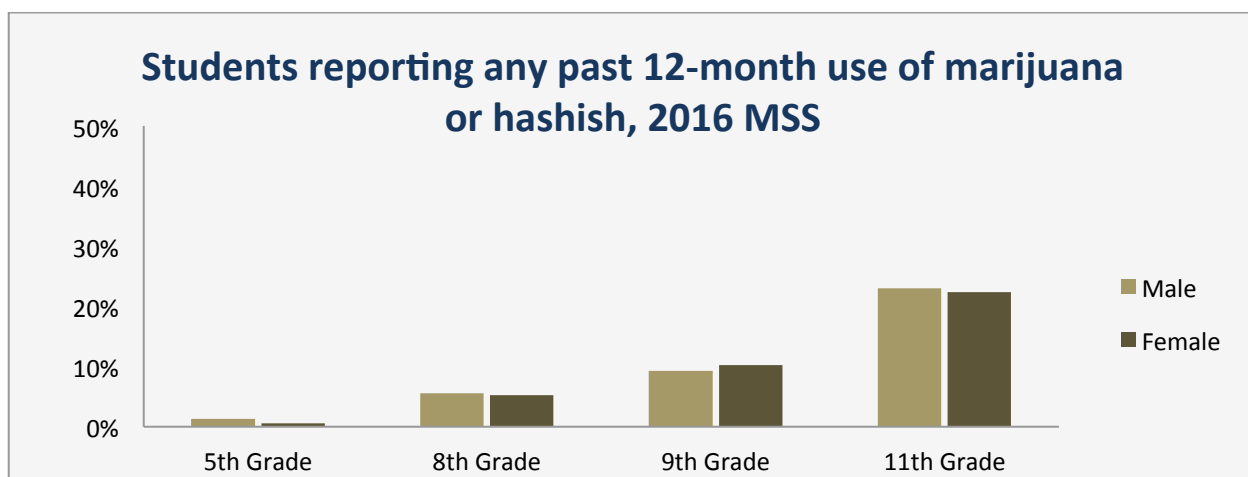
NOTE: Total percent represents the total number of survey respondents reporting use divided by the total number of survey respondents who answered the question. Percent within an age group, for example, represents the total number of survey respondents in the age group reporting use, divided by the total number of survey respondents in that age group who answered the question.

Data Source: MSS



Minnesota Students Reporting Marijuana Use in the Past 30 Days by Gender and Grade, 2016 MSS

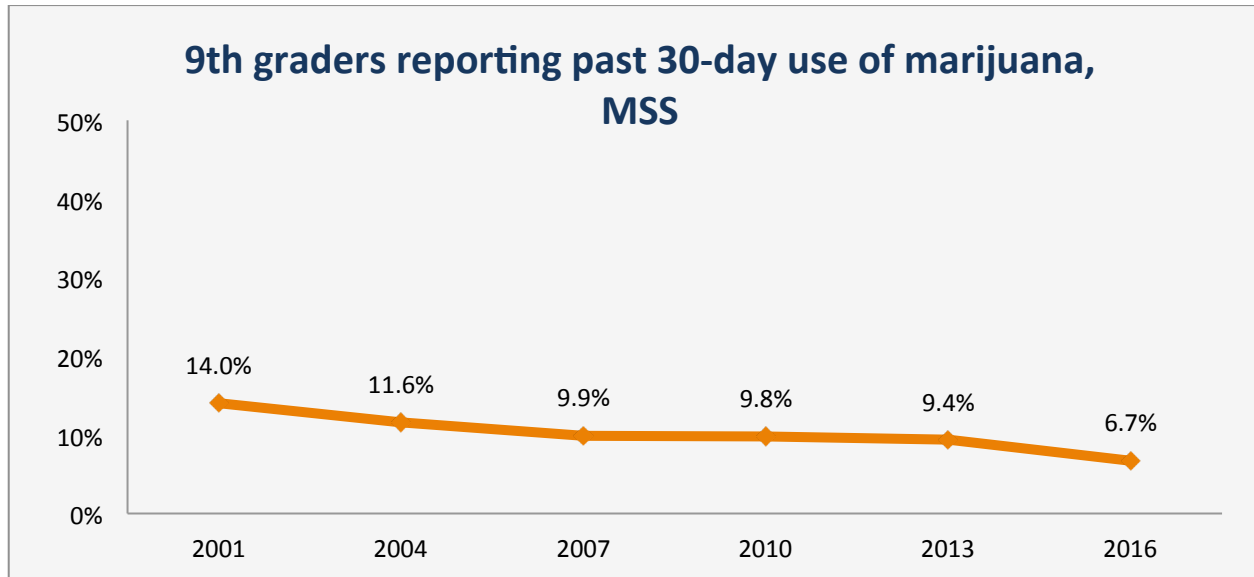
		Male		Female		Total	
		N (#)	%	N (#)	%	N (#)	%
Grade	8 th	972	4.8%	892	4.4%	1,864	4.6%
	9 th	1,283	6.5%	1,386	6.9%	2,669	6.7%
	11 th	2,712	16.9%	2,413	14.8%	5,125	15.8%
	Total	4,967	8.9%	4,691	8.6%	9,658	8.3%



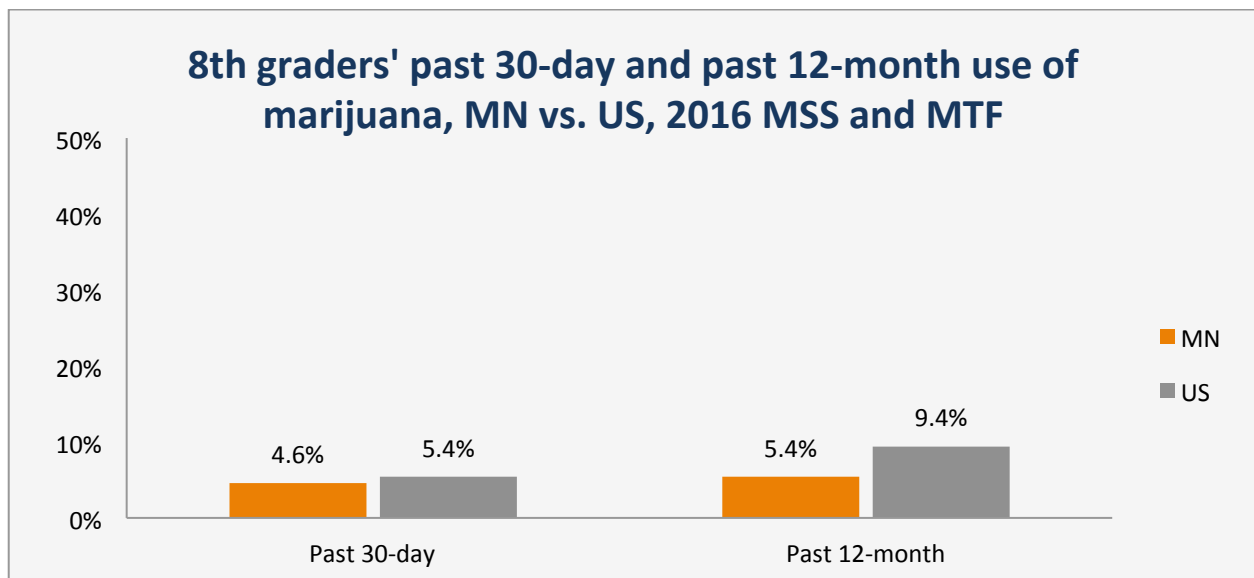
Minnesota Students Reporting Marijuana Use in the Past 12 Months by Gender and Grade, 2016 MSS

		Male		Female		Total	
		N (#)	%	N (#)	%	N (#)	%
Grade	5 th	253	1.3%	118	0.6%	371	0.9%
	8 th	1,177	5.6%	1,102	5.2%	2,279	5.4%
	9 th	1,921	9.3%	2,150	10.2%	4,071	9.8%
	11 th	3,840	23.0%	3,821	22.4%	7,661	22.7%

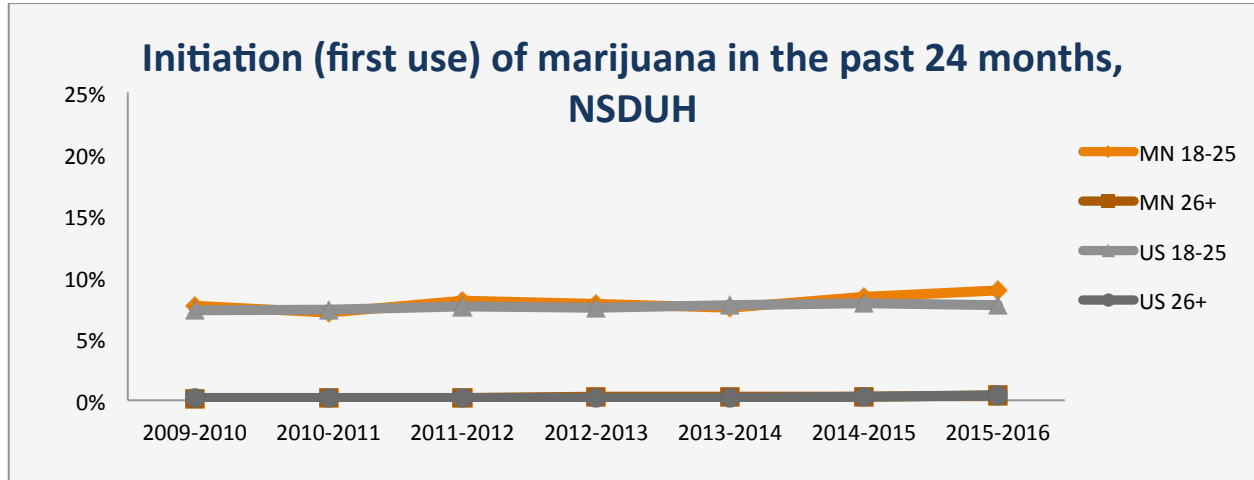
Data Source: MSS and MTF



*Both the past 30-day and 12-month use of marijuana is lower for Minnesota 8th graders than the national average.
Past 30-day use for 9th graders continues to decrease.*

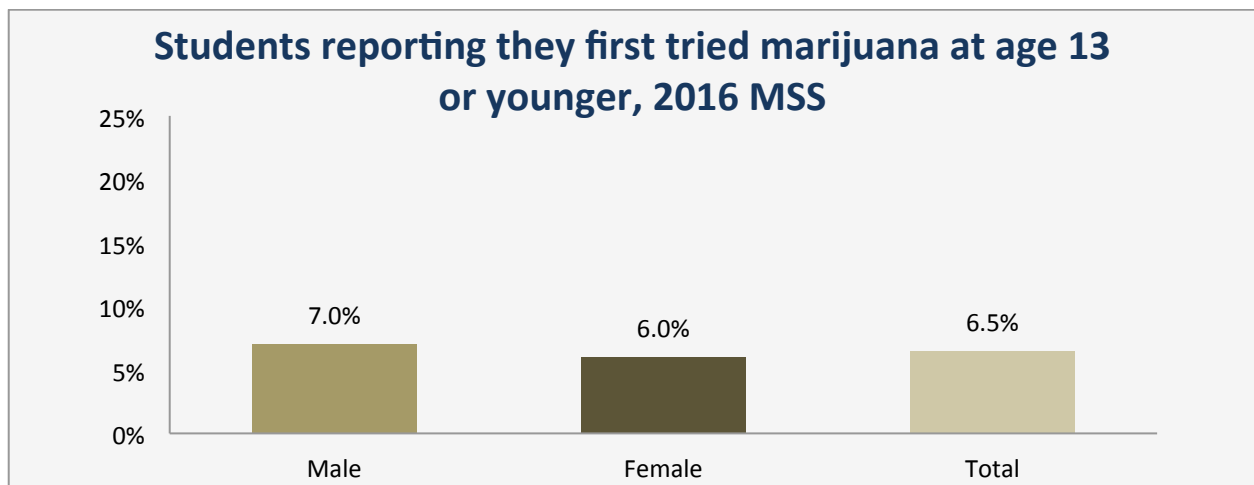


Data Source: NSDUH and MSS



First Use of Marijuana in the Past 24 Months, NSDUH

Minnesota	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Initiated 12+	1.9%	1.8%	1.9%	1.8%	1.8%	1.8%	2.2%
Ages 12 thru 17	5.4%	5.9%	5.6%	4.8%	4.7%	4.4%	5.4%
Ages 18 thru 25	7.7%	7.1%	8.1%	7.8%	7.5%	8.4%	8.9%
Ages 26 and Over	0.1%	0.2%	0.2%	0.3%	0.3%	0.3%	0.4%
United States	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Initiated 12+	1.8%	1.9%	1.9%	1.9%	1.9%	2.0%	2.0%
Ages 12 thru 17	5.9%	6.1%	6.0%	5.8%	5.6%	5.4%	5.3%
Ages 18 thru 25	7.3%	7.3%	7.6%	7.5%	7.7%	7.9%	7.7%
Ages 26 and Over	0.2%	0.2%	0.2%	0.2%	0.2%	0.3%	0.4%
MN:US rate ratio	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Initiated 12+	1.06	0.95	1.00	0.95	0.95	0.90	1.10



Other Illicit Drug Use

About the Indicator

Illicit drug use is measured here using reported 12-month use of any illicit drug other than marijuana.

Adults

- Any illicit drug use
- Non-medicinal use of prescription medications

Youth

- Inhalants
- Methamphetamine
- MDMA/ecstasy
- Crack/cocaine
- Psychedelics
- Heroin
- Over-the-counter drugs
- Synthetic drugs
- Misuse of prescription drugs

Data Source(s)

Adults National Survey on Drug Use and Health (NSDUH), the Minnesota Survey of Adult Substance Use (MNSASU), the College Student Health Survey (CSHS)

Youth Minnesota Student Survey (MSS)

Section Summary

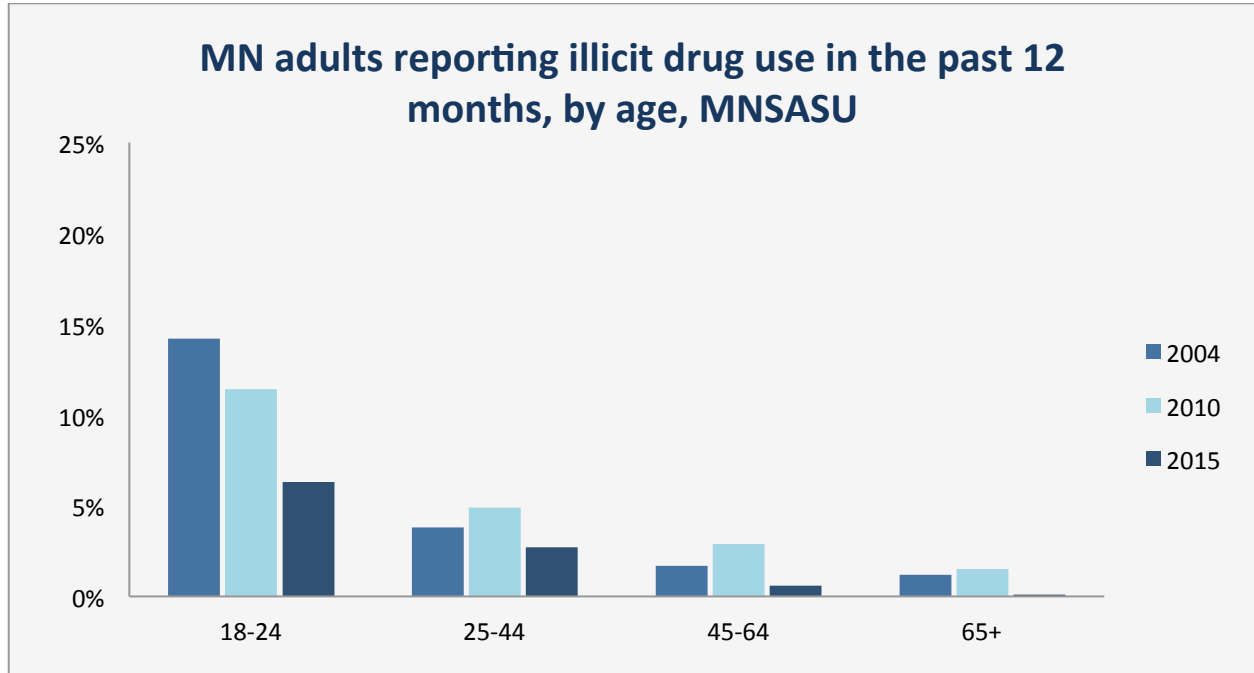
Adults

- Current illicit drug use in Minnesota has remained stable in recent years and is below national rates.
- Current illicit drug use is most common among adults age 18-25.
- Synthetic marijuana use was included on the MNSASU beginning in 2015, but only 0.1% of respondents reported using the substance.

Youth

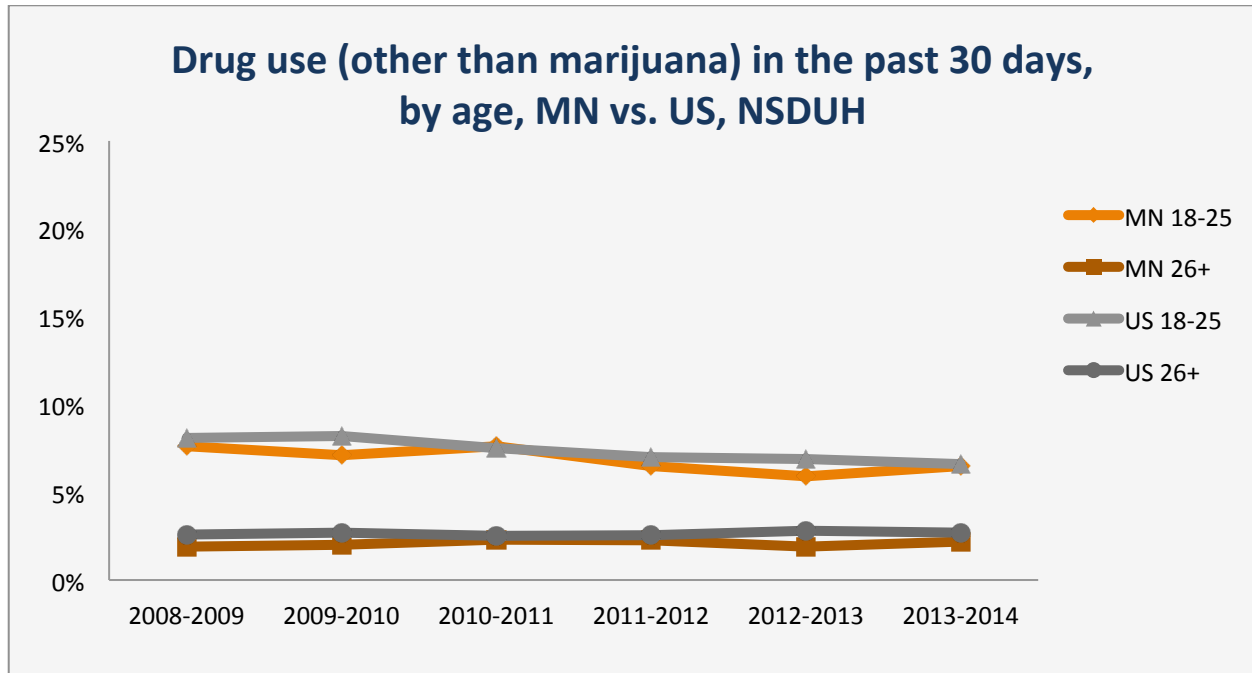
- There has been an overall decrease in reported use of inhalants, methamphetamine, MDMA/Ecstasy, crack/cocaine and psychedelics since 2001.
- Students were most likely to misuse prescription pain relievers, ADD/ADHD medications, and over-the-counter medications.

Data Source: MNSASU



Percent of Minnesota adults reporting any illicit drug use other than marijuana within the past 12 months, MNSASU				
		2004	2010	2015
Age	Ages 18 thru 24	14.20%	11.40%	6.30%
	Ages 25 thru 44	3.80%	4.90%	2.70%
	Ages 45 thru 64	1.70%	2.90%	0.60%
	Ages 65 and over	1.20%	1.50%	0.10%
Race/Ethnicity	African American or Black	6.30%	5.10%	*
	American Indian	16.60%	11.10%	*
	Asian American/Pacific Islander	1.70%	3.70%	*
	Hispanic/Latino	8.00%	7.80%	*
	Bi-Racial/Multi-Racial	12.10%	12.70%	*
	White	3.90%	4.30%	1.90%
Gender	Male	4.90%	5.30%	2.50%
	Female	3.50%	3.90%	1.40%
	Total	4.20%	4.60%	1.90%
Sexual Orientation	Lesbian, Gay, and Bisexual	N/A	N/A	6.60%
	Heterosexual	N/A	N/A	1.80%

Data Source: NSDUH



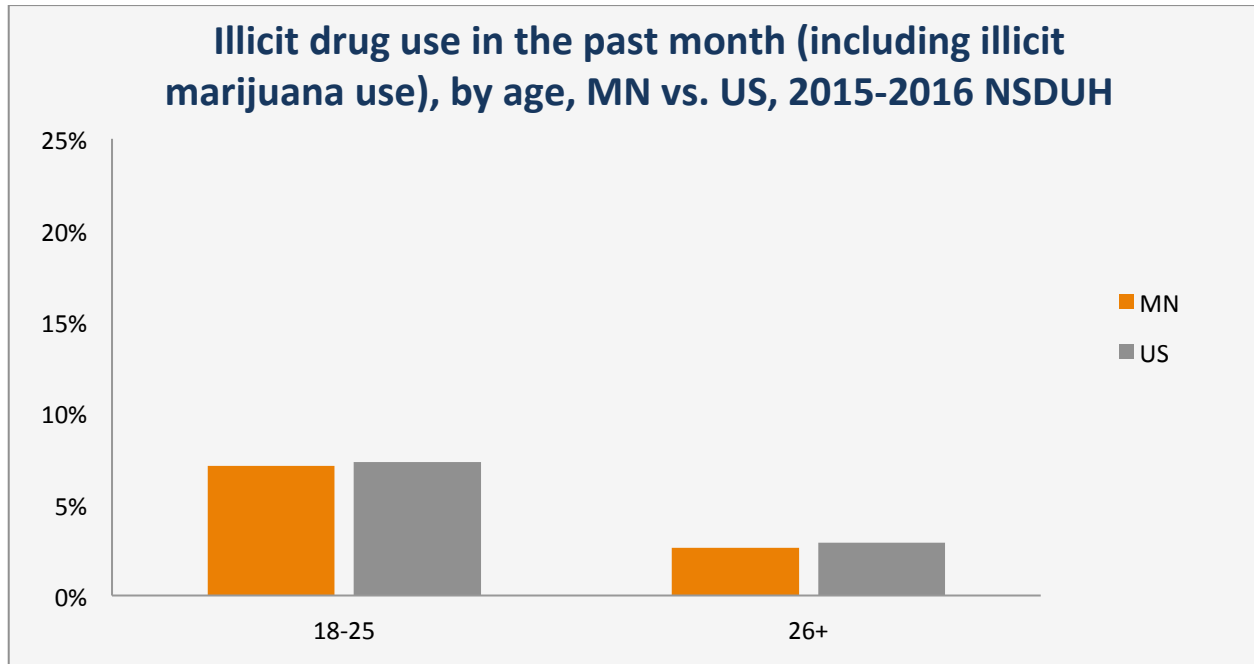
Percent of Population Reporting Drug Use (Other than Marijuana) in the Past 30 Days, NSDUH

Minnesota	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Drug use 12+	2.8%	2.8%	3.2%	2.9%	2.5%	2.8%
Ages 12 thru 17	3.7%	3.6%	3.8%	3.5%	2.5%	2.8%
Ages 18 thru 25	7.6%	7.1%	7.6%	6.5%	5.9%	6.5%
Ages 26 and Over	1.9%	2.0%	2.3%	2.3%	1.9%	2.2%
United States	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Drug use 12+	3.5%	3.6%	3.3%	3.3%	3.4%	3.3%
Ages 12 thru 17	4.5%	4.5%	4.3%	3.9%	3.4%	3.3%
Ages 18 thru 25	8.1%	8.2%	7.5%	7.0%	6.9%	6.6%
Ages 26 and Over	2.6%	2.7%	2.5%	2.5%	2.8%	2.7%
MN:US rate ratio	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Drug use 12+	0.80	0.79	0.95	0.88	0.74	0.85

NOTE: Due to changes in the 2015 National Survey on Drug Use and Health (NSDUH), the measure of past-month illicit drug use is not comparable after the 2013-2014 survey. In 2015 and beyond, marijuana is included in measures of past-month illicit drug use. Past trend data up to the 2013-2014 survey are presented separately from data from 2015 and later.

Total percent represents the total number of survey respondents reporting use divided by the total number of survey respondents who answered the question. Percent within an age group, for example, represents the total number of survey respondents in the age group reporting use, divided by the total number of survey respondents in that age group who answered the question. Estimates are based on a survey-weighted hierarchical Bayes estimation approach.

Data Source: NSDUH

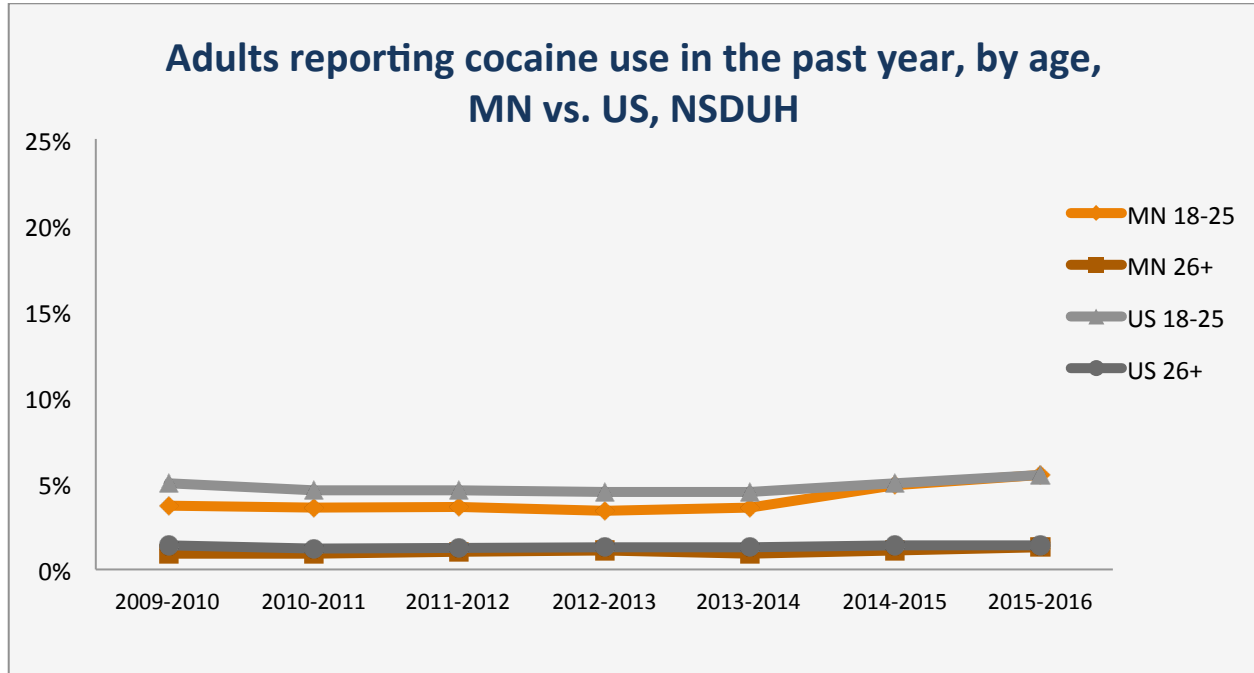


Percent of Population Reporting Illicit Drug Use (Including Illicit Marijuana Use) in the Past Month, NSDUH

Minnesota	2015-2016
Drug use 12+	3.20%
Ages 12 thru 17	3.10%
Ages 18 thru 25	7.10%
Ages 26 and Over	2.60%
United States	2015-2016
Drug use 12+	3.40%
Ages 12 thru 17	2.70%
Ages 18 thru 25	7.30%
Ages 26 and Over	2.90%
MN:US rate ratio	2015-2016
Drug use 12+	0.94

NOTE: Due to changes in the 2015 National Survey on Drug Use and Health (NSDUH), the measure of past-month illicit drug use is not comparable after the 2013-2014 survey. In 2015 and beyond, marijuana is included in measures of past-month illicit drug use. Past trend data up to the 2013-2014 survey are presented separately from data from 2015 and later.

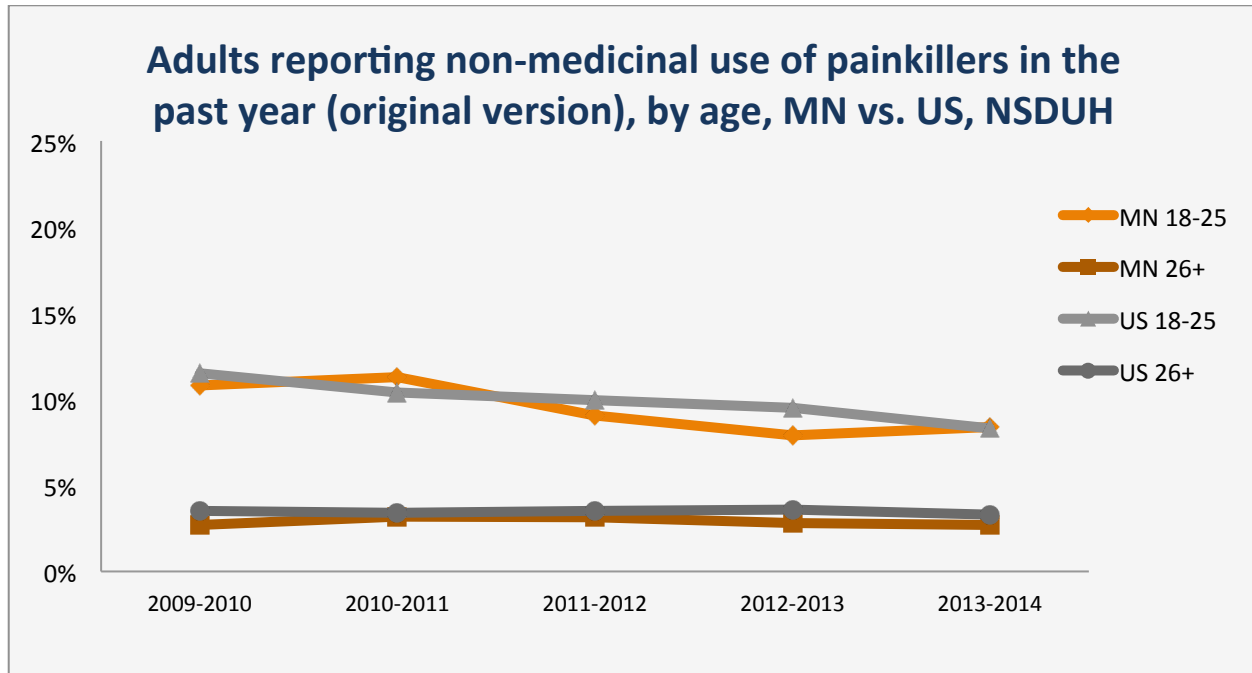
Data Source: NSDUH



Adults Reporting Any Cocaine Use in the Past Year, NSDUH

Minnesota	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Cocaine use 12+	1.3%	1.3%	1.3%	1.3%	1.2%	1.5%	1.8%
Ages 12 thru 17	0.9%	0.8%	0.6%	0.5%	0.5%	0.6%	0.7%
Ages 18 thru 25	3.7%	3.6%	3.6%	3.4%	3.6%	4.9%	5.5%
Ages 26 and Over	0.9%	0.9%	1.0%	1.1%	0.9%	1.1%	1.3%
United States	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Cocaine use 12+	1.9%	1.6%	1.7%	1.7%	1.7%	1.8%	1.8%
Ages 12 thru 17	1.0%	1.0%	0.8%	0.6%	0.6%	0.6%	0.6%
Ages 18 thru 25	5.0%	4.6%	4.6%	4.5%	4.5%	5.0%	5.5%
Ages 26 and Over	1.4%	1.2%	1.2%	1.3%	1.3%	1.4%	1.4%
MN:US rate ratio	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Cocaine use 12+	0.68	0.77	0.76	0.76	0.71	0.83	0.96

Data Source: NSDUH

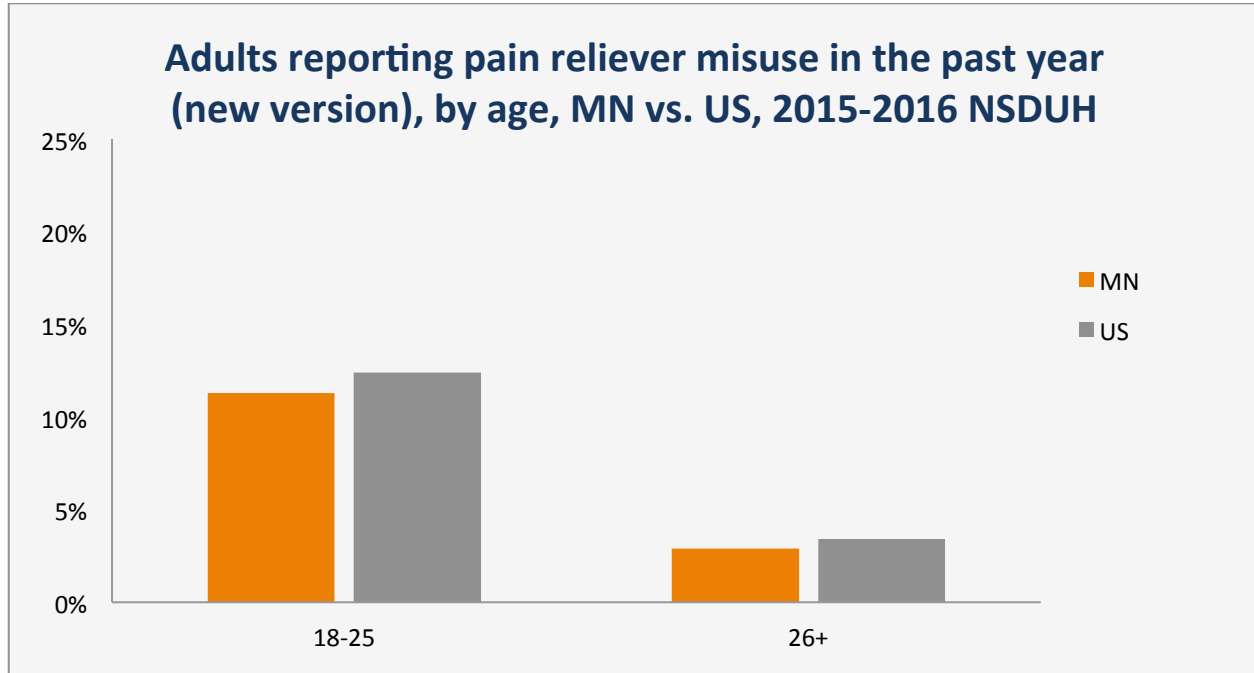


Adults Reporting Non-Medical Use of Painkillers in the Past Year (Original Version), NSDUH

Minnesota	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Painkiller use 12+	4.1%	4.6%	4.1%	3.6%	3.6%
Ages 12 thru 17	5.7%	6.2%	5.2%	4.0%	4.0%
Ages 18 thru 25	10.8%	11.3%	9.1%	7.9%	8.4%
Ages 26 and Over	2.7%	3.2%	3.2%	2.8%	2.7%
United States	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Painkiller use 12+	4.9%	4.6%	4.6%	4.5%	4.1%
Ages 12 thru 17	6.4%	6.1%	5.6%	5.0%	4.7%
Ages 18 thru 25	11.5%	10.4%	10.0%	9.5%	8.3%
Ages 26 and Over	3.5%	3.4%	3.5%	3.6%	3.3%
MN:US rate ratio	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Painkiller use 12+	0.84	1.00	0.89	0.80	0.88

NOTE: Due to changes in the 2015 National Survey on Drug Use and Health (NSDUH), the measure of past-year pain reliever misuse is not comparable after the 2013-2014 survey. Past trend data up to the 2013-2014 survey are presented separately from data from 2015 and later.

Data Source: NSDUH



Adults Reporting Pain Reliever Misuse in the Past Year (New Survey Version), NSDUH

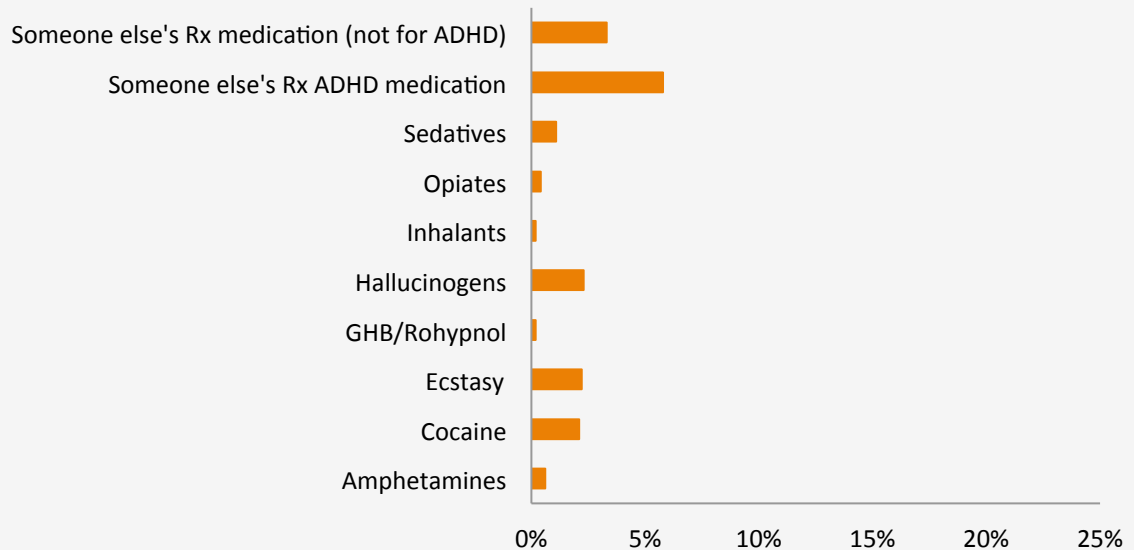
Minnesota	2015-2016
Painkiller use 12+	4.4%
Ages 12 thru 17	3.6%
Ages 18 thru 25	7.3%
Ages 26 and Over	4.0%
United States	2015-2016
Painkiller use 12+	4.5%
Ages 12 thru 17	3.7%
Ages 18 thru 25	7.8%
Ages 26 and Over	4.0%
MN:US rate ratio	2015-2016
Painkiller use 12+	0.98

NOTE: Due to changes in the 2015 National Survey on Drug Use and Health (NSDUH), the measure of past-year pain reliever misuse is not comparable after the 2013-2014 survey. Past trend data up to the 2013-2014 survey are presented separately from data from 2015 and later.

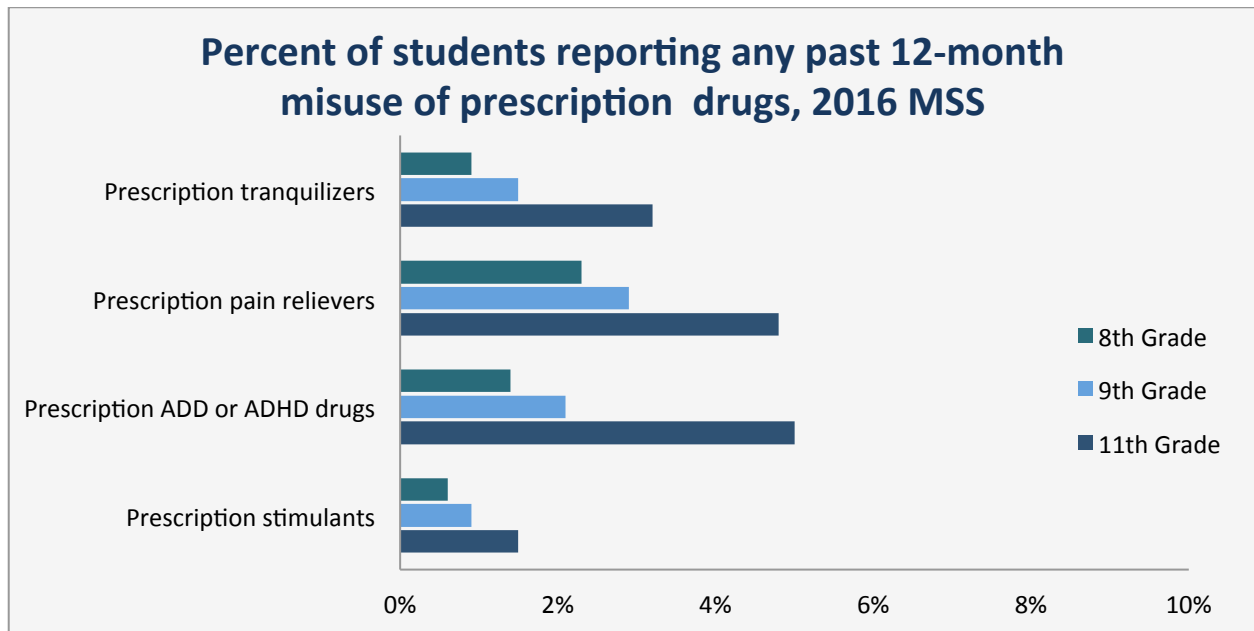
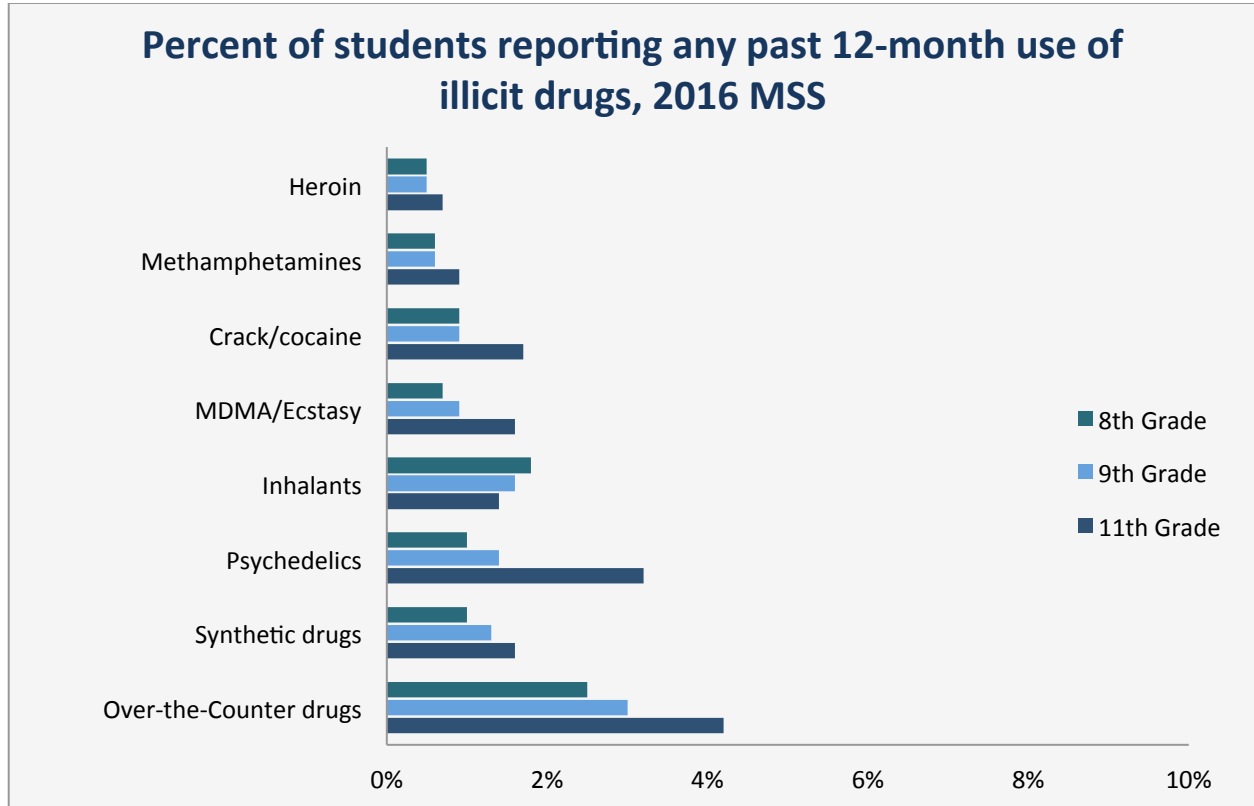
Data Source: MNSASU and CSHS

Percent of Minnesota adults reporting use of prescription drugs outside their prescribed use, within the past year, 2015 MNSASU		
		2015
Age	Ages 18 thru 24	0.70%
	Ages 25 thru 44	3.60%
	Ages 45 thru 64	1.50%
	Ages 65 and over	0.80%
Race/Ethnicity	African American or Black	*
	American Indian	9.20%
	Asian American/ Pacific Islander	*
	Hispanic/Latino	2.70%
	Bi-Racial/Multi-Racial	*
	White	2.80%
Gender	Male	3.10%
	Female	2.50%
	Total	3.20%
Sexual Orientation	Lesbian, Gay, and Bisexual	8.90%
	Heterosexual	2.50%

MN adult college students' drug use (other than marijuana), past 12 months, 2015 CSHS



Data Source: MSS



Data Source: MSS

Percent of Students Reporting any Past 12-Month Use of Illicit Drugs, by Gender, 2016 MSS

	Total (8 th , 9 th , and 11 th Grades)					
	Male		Female		Total	
	N (#)	%	N (#)	%	N (#)	%
Inhalants	997	1.7%	906	1.5%	1,903	1.6%
Psychedelics	1,231	2.1%	836	1.4%	2,067	1.8%
MDMA/Ecstasy	733	1.3%	464	0.8%	1,197	1.0%
Crack/cocaine	822	1.4%	482	0.8%	1,304	1.1%
Heroin	458	0.8%	195	0.3%	653	0.6%
Methamphetamines	514	0.9%	280	0.5%	794	0.7%
Over-the-Counter drugs	1,753	3.0%	1,914	3.3%	3,667	3.1%
Synthetic drugs	791	1.4%	697	1.2%	1,488	1.3%
Rx pain relievers (misuse)	1,747	3.0%	1,997	3.4%	3,667	3.2%
ADD/ADHD drugs (misuse)	1,663	2.9%	1,456	2.5%	3,119	2.7%
Tranquilizers/Sedatives (misuse)	990	1.7%	1,064	1.8%	2,054	1.8%
Stimulants/Diet Pills (misuse)	559	1.0%	545	0.9%	1,104	0.9%

Illicit Drug Use: Other Drugs

Data Source: MSS

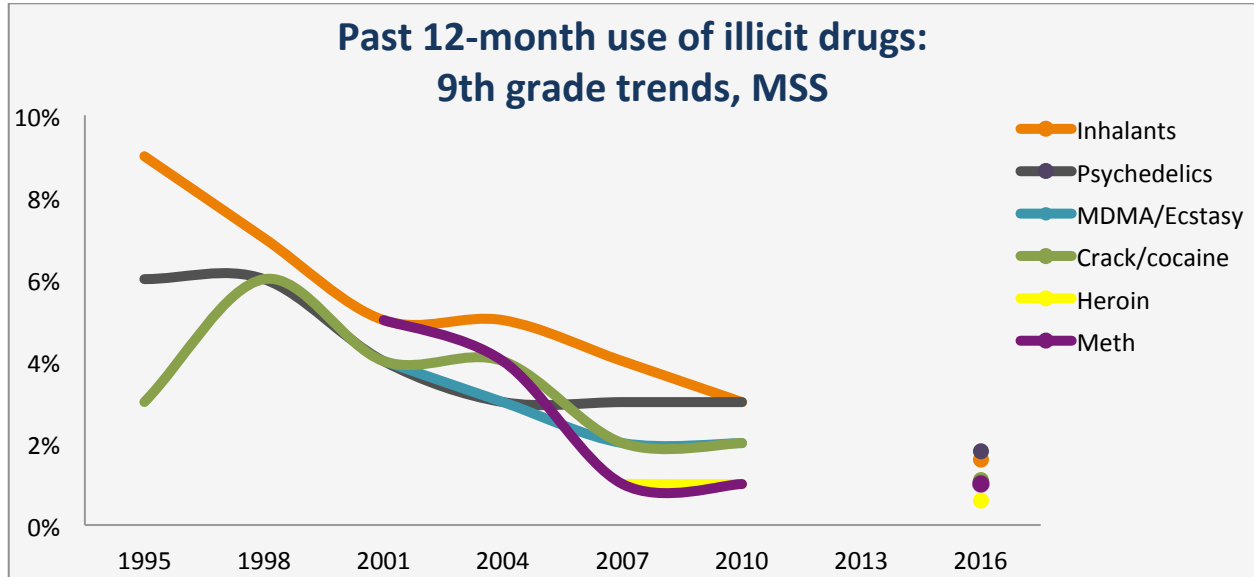
Percent of Students Reporting any Past 12-Month Use of Illicit Drugs, by Gender and Grade, 2016 MSS

	Male		Female		Total	
	N (#)	%	N (#)	%	N (#)	%
8th Grade						
Inhalants	383	1.7%	389	1.5%	772	1.6%
Psychedelics	250	2.1%	170	1.4%	420	1.8%
MDMA/Ecstasy	186	1.3%	107	0.8%	293	1.0%
Crack/cocaine	241	1.4%	133	0.8%	374	1.1%
Heroin	139	0.8%	73	0.3%	212	0.6%
Methamphetamines	163	0.9%	86	0.5%	249	0.7%
Over-the-Counter drugs	493	3.0%	544	3.3%	1,037	3.1%
Synthetic drugs	232	1.4%	198	1.2%	430	1.3%
Rx pain relievers (misuse)	443	3.0%	502	3.4%	945	3.2%
ADD/ADHD drugs (misuse)	337	2.9%	227	2.5%	564	2.7%
Tranquilizers/Sedatives (misuse)	177	1.7%	180	1.8%	357	1.8%
Stimulants/Diet Pills (misuse)	114	1.0%	120	0.9%	234	0.9%

9th Grade						
Inhalants	324	1.8%	329	1.8%	653	1.8%
Psychedelics	318	1.2%	255	0.8%	573	1.0%
MDMA/Ecstasy	204	0.9%	158	0.5%	362	0.7%
Crack/cocaine	213	1.2%	140	0.6%	353	0.9%
Heroin	150	0.7%	56	0.3%	206	0.5%
Methamphetamines	156	0.8%	89	0.4%	245	0.6%
Over-the-Counter drugs	540	2.4%	681	2.6%	1,221	2.5%
Synthetic drugs	258	1.1%	259	0.9%	517	1.0%
Rx pain relievers (misuse)	489	2.1%	689	2.4%	1,178	2.3%
ADD/ADHD drugs (misuse)	456	1.6%	413	1.1%	869	1.4%
Tranquilizers/Sedatives (misuse)	264	0.9%	354	0.9%	618	0.9%
Stimulants/Diet Pills (misuse)	170	0.6%	185	0.6%	355	0.6%

11th Grade						
Inhalants	290	1.6%	188	1.6%	478	1.6%
Psychedelics	663	1.6%	411	1.2%	1,074	1.4%
MDMA/Ecstasy	343	1.0%	199	0.8%	542	0.9%
Crack/cocaine	368	1.0%	209	0.7%	577	0.9%
Heroin	169	0.7%	66	0.3%	235	0.5%
Methamphetamines	195	0.8%	105	0.4%	300	0.6%
Over-the-Counter drugs	720	2.6%	689	3.3%	1,409	3.0%
Synthetic drugs	301	1.3%	240	1.2%	541	1.3%
Rx pain relievers (misuse)	815	2.4%	806	3.3%	1,621	2.9%
ADD/ADHD drugs (misuse)	870	2.2%	816	2.0%	1,686	2.1%
Tranquilizers/Sedatives (misuse)	549	1.3%	530	1.7%	1,079	1.5%
Stimulants/Diet Pills (misuse)	275	0.8%	240	0.9%	515	0.9%

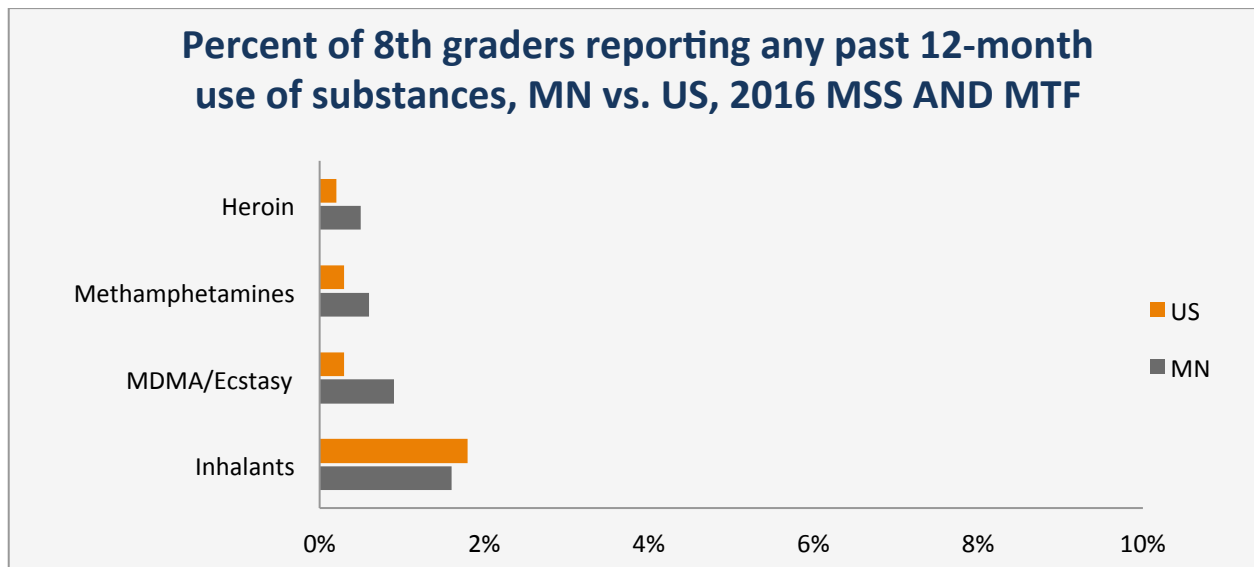
Data Source: MSS and MTF



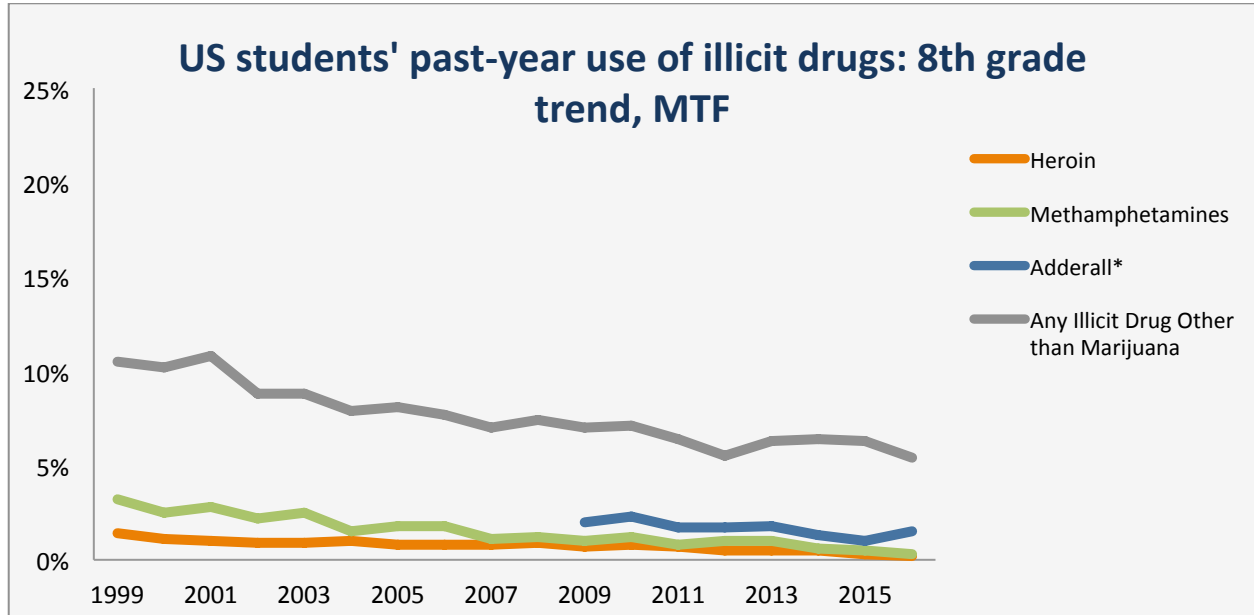
Percent of 9th Graders Reporting any Past 12-Month Use of Illicit Drugs, MSS

	1995	1998	2001	2004	2007	2010	2013	2016
Inhalants	9%	7%	5%	5%	4%	3%	*	2%
Psychedelics	6%	6%	4%	3%	3%	3%	*	1%
MDMA/Ecstasy	N/A	N/A	4%	3%	2%	2%	*	1%
Crack/cocaine	3%	6%	4%	4%	2%	2%	*	1%
Heroin	N/A	N/A	N/A	N/A	1%	1%	*	1%
Methamphetamines	N/A	N/A	5%	4%	1%	1%	*	1%
Over-the-Counter drugs	N/A	N/A	N/A	N/A	N/A	N/A	*	3%
Synthetic drugs	N/A	N/A	N/A	N/A	N/A	N/A	*	1%

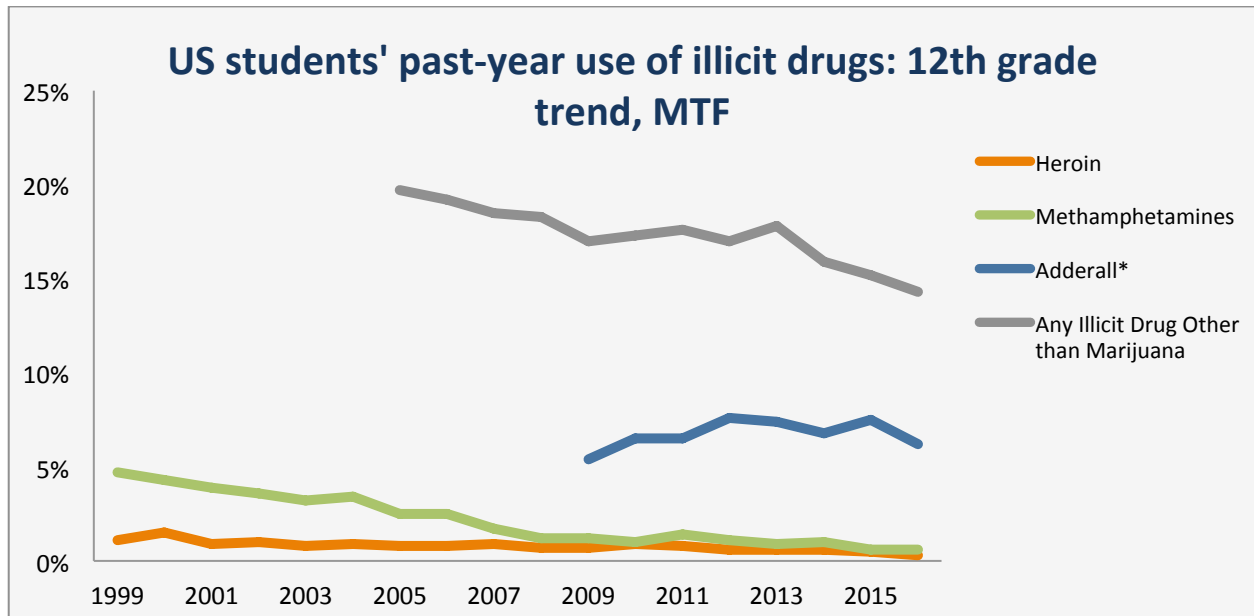
*As a result of skip-pattern irregularities with this set of questions on the 2013 survey, these data are not reliable.



Data Source: MTF

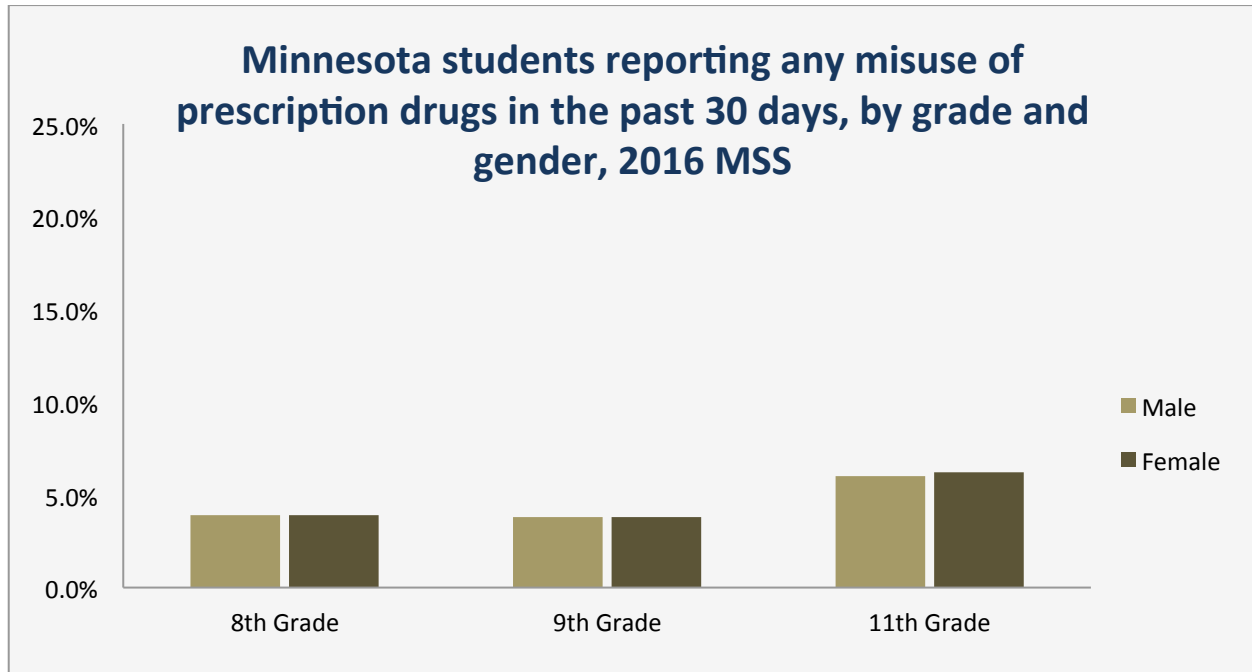


Although not directly comparable to MSS data, national trend data show that use of most illicit drugs has generally been declining, with the exception of Adderall for 12th graders.



NOTE: Data for Adderall are only available since 2009.

Data Source: MSS



Minnesota Students Reporting Any Misuse of Prescription Drugs (Taken Only to Get High) in the Past 30 Days, by Grade and Gender, 2016 MSS						
	Male		Female		Total	
	N	%	N	%	N	%
8 th Grade	770	3.9%	851	3.9%	1,621	4.0%
9 th Grade	730	3.8%	964	3.8%	1,694	4.3%
11 th Grade	958	6.0%	1,015	6.2%	1,973	6.1%
Total	2,458	4.5%	2,830	5.0%	5,288	4.7%

Illicit Drugs in Minnesota: Consequences

Drug-Related Deaths

About the Indicator

Statistics on drug-related mortality refer to deaths related to drug poisonings. According to the Safe States Injury Surveillance Workgroup Consensus Recommendations for National and State Poisoning Surveillance, a drug is defined as “any chemical compound that is chiefly used by or administered to humans or animals as an aid in the diagnosis, treatment, or prevention of disease or injury, for the relief of pain or suffering, to control or improve any physiologic or pathologic condition, or for the feeling it causes.” They define a poisoning as “an exposure to any extrinsic substance by ingestion, inhalation, injection, or absorption through the skin or mucous membranes that results in at least one related adverse clinical effect.”

The International Classification of Diseases (ICD-10) measures all deaths, including those exclusively related to drug poisoning.

The Centers for Disease Control and Prevention (CDC) note that opioid overdose deaths have increased rapidly in recent years, to 63,632 in 2016. The greatest increase in visits to hospital emergency departments for overdoses occurred in the Midwest region of the US.

<http://www.cdc.gov/drugoverdose/>

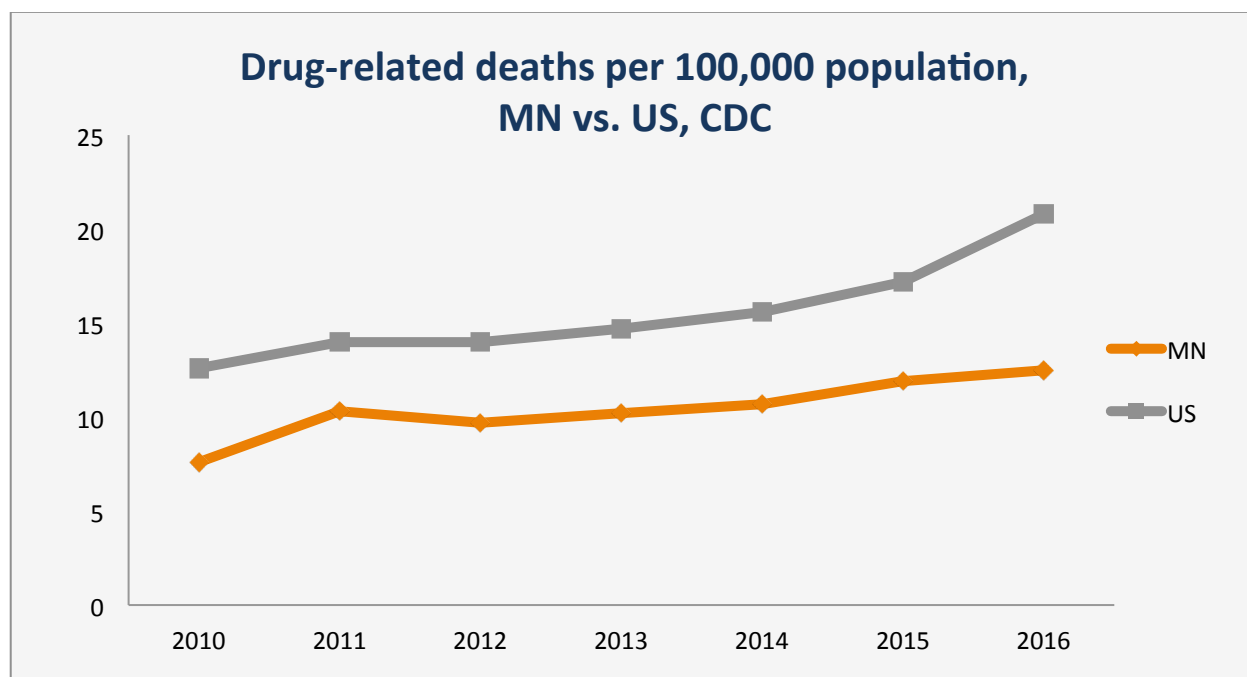
Data Source(s)

CDC Wonder

Section Summary

- Minnesota’s drug poisoning death rate has been consistently lower than the national average, but has risen concurrently.
- The drug poisoning death rate per 100,000 rose in Minnesota from 6.7 in 2007 to 12.5 in 2016.

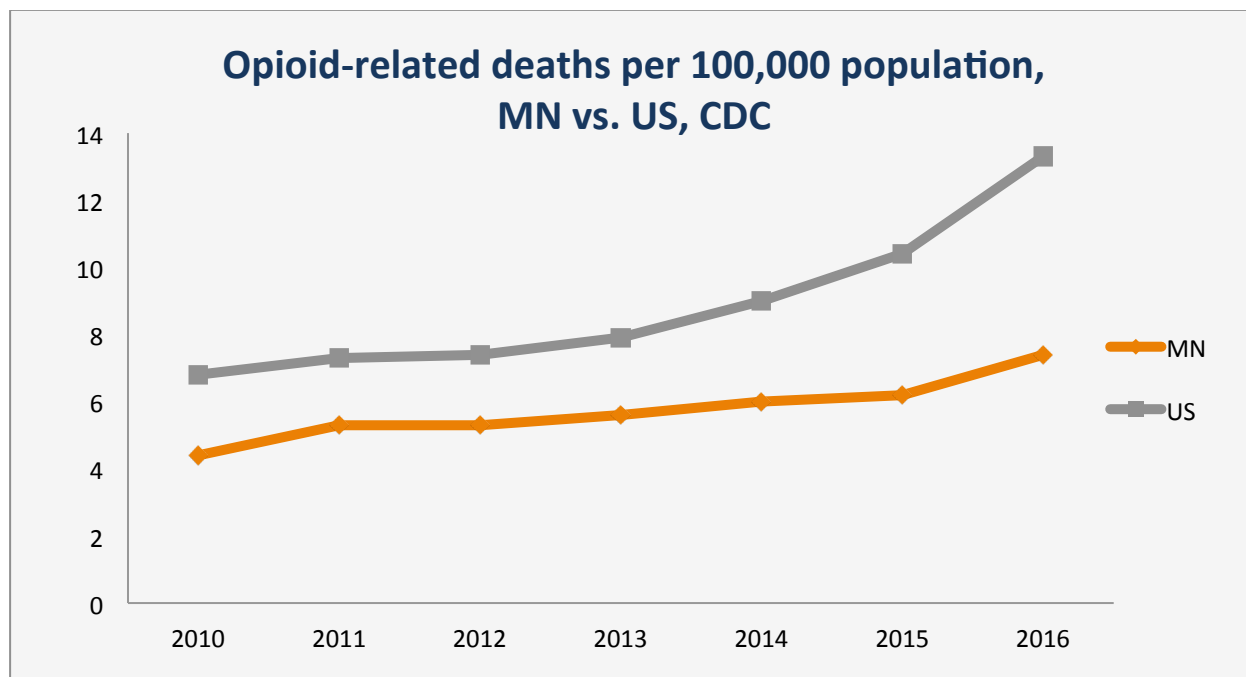
Data Source: CDC Wonder



Drug-Related Deaths per 100,000 Population, CDC Wonder

Minnesota	2010	2011	2012	2013	2014	2015	2016
Drug-related deaths	412	549	523	553	553	653	672
Rate per 100,000 pop	7.6	10.3	9.7	10.2	10.2	11.9	12.5
United States	2010	2011	2012	2013	2014	2015	2016
Drug-related deaths	39,320	43,544	39,615	46,471	46,471	55,403	67,265
Rate per 100,000 pop	12.6	14.0	14.0	14.7	14.7	17.2	20.8
MN:US	2010	2011	2012	2013	2014	2015	2016
Drug-related deaths	0.60	0.74	0.69	0.69	0.69	0.69	0.60

Data Source: CDC Wonder



Opioid-Related Deaths per 100,000 Population, CDC Wonder

Minnesota	2010	2011	2012	2013	2014	2015	2016
Opioid-related deaths	229	291	293	306	317	336	395
Rate per 100,000 pop	4.4	5.3	5.3	5.6	6.0	6.2	7.4
United States	2010	2011	2012	2013	2014	2015	2016
Opioid-related deaths	21089	22784	23157	25052	28647	33091	42249
Rate per 100,000 pop	6.8	7.3	7.4	7.9	9.0	10.4	13.3
MN:US	2010	2011	2012	2013	2014	2015	2016
Opioid-related deaths	0.65	0.73	0.72	0.71	0.67	0.60	0.56

HIV/AIDS Cases Involving Intravenous Drug Use

About the Indicator

The Minnesota HIV Surveillance Report describes the number of new occurrences and the prevalence of cases of reported HIV infections and AIDS in Minnesota to the Minnesota Department of Public Health by person, place, race/ethnicity, time, and mode of exposure. Such data provide information about where and among whom HIV transmission is likely occurring. This indicator specifically relates to the number of cases of Minnesotans living with HIV and AIDS for whom the mode of exposure was intravenous drug use.

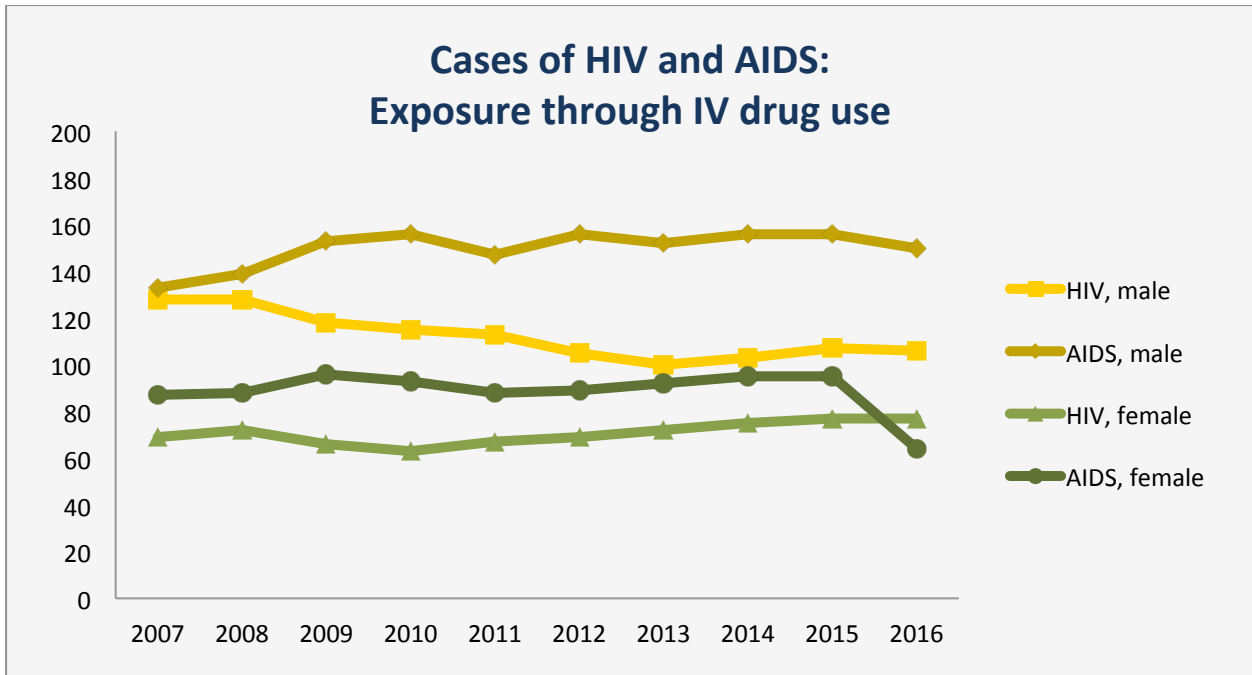
Data Source(s)

HIV/AIDS Surveillance Reports, Minnesota Department of Health

Section Summary

- More Minnesota males than females are living with HIV or AIDS contracted via intravenous drug use.
- The number of males with HIV contracted via intravenous drug use has gradually declined over the years, while the number of females has increased.

Data Source: MDH HIV/AIDS Surveillance Reports



Number of People Living with HIV and AIDS as a Result of Injecting Drug Use (IDU), MDH

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Male										
HIV	128	128	118	115	113	105	100	103	107	106
AIDS	133	139	153	156	147	156	152	156	156	150
Total	261	267	271	271	260	261	252	259	263	256
Female										
HIV	69	72	66	63	67	69	72	75	77	77
AIDS	87	88	96	93	88	89	92	95	95	64
Total	156	160	162	156	155	158	164	170	172	141
Total										
HIV	197	200	184	178	180	174	172	178	184	183
AIDS	220	227	249	249	235	245	244	251	251	214
Total	417	427	433	427	415	419	416	429	435	397

Drug Abuse Violations

About the Indicator

These data include all arrests for the violation of state and local ordinances, specifically those relating to the unlawful possession, sale, use, growing, manufacturing, and making of narcotic drugs.

Data Source(s)

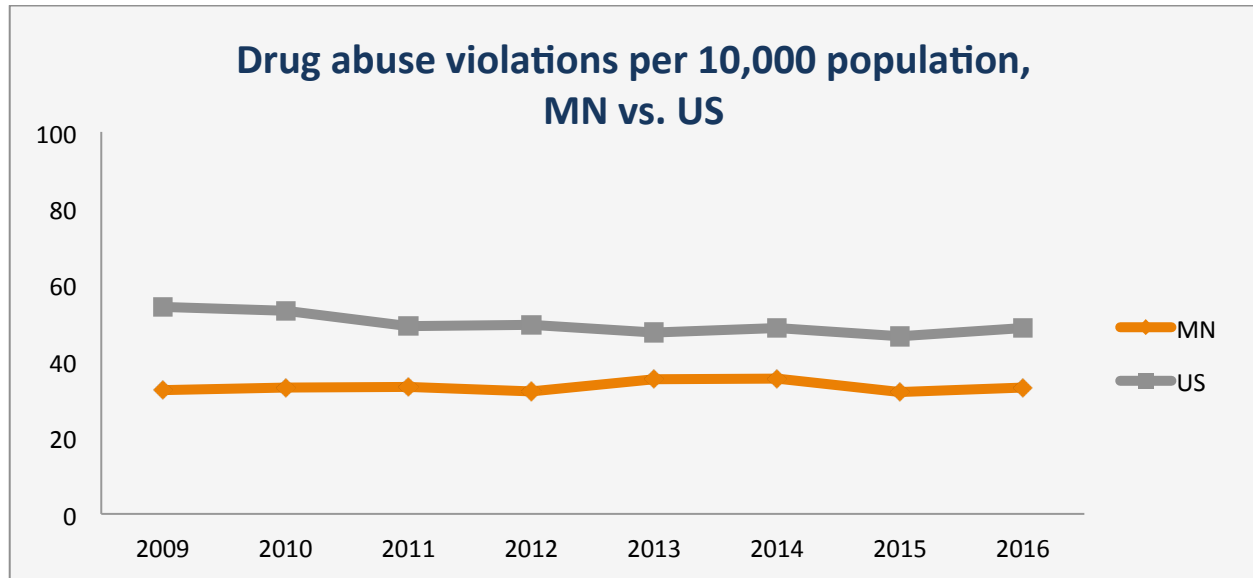
Uniform Crime Reports (UCR)

Section Summary

- The rate of narcotics arrests in Minnesota has been consistently lower than the national rate.
- From 2011 to 2016, approximately 13-17% of Minnesotans arrested for narcotics violations have been under the age of 18, and the proportion of juvenile arrests has decreased.

Illicit Drugs: Consequences

Data Source: UCR



Drug Abuse Violations per 10,000 Population, UCR

Minnesota	2009	2010	2011	2012	2013	2014	2015	2016
Narcotics arrests	17,040	17,572	17,727	15,087	19,056	19,203	17,478	18,267
Rate per 10,000 population	32.4	33.1	33.2	32.1	35.2	35.4	31.9	33.0
United States	2009	2010	2011	2012	2013	2014	2015	2016
Narcotics arrests	1,305,191	1,638,846	1,531,251	1,552,432	1,501,043	1,561,231	1,488,707	1,572,579
Rate per 10,000 population	54.1	53.1	49.1	49.5	47.5	48.6	46.5	48.7
MN:US rate ratio	2009	2010	2011	2012	2013	2014	2015	2016
Narcotics arrests	0.60	0.62	0.68	0.65	0.74	0.73	0.69	0.68

NOTE: St. Paul Police Department does not submit Part II arrest data to the BCA. Includes only arrests where the most serious offense was the Driving Under the Influence offense

Minnesota Drug Abuse Violations, UCR

		2012		2013		2014		2015		2016	
		N (#)	%	N (#)	%	N (#)	%	N (#)	%	N (#)	%
Age	Juvenile	2,901	15.6%	2,718	14.2%	2,547	13.3%	1,803	10.3%	1,874	10.3%
	Adult	15,730	84.4%	16,472	85.8%	16,656	86.7%	15,675	89.7%	16,393	89.7%
Race	White	13,564	73.0%	14,057	73.0%	14,047	73.2%	12,286	70.2%	13,380	73.2%
	African American	4,085	22.0%	4,009	21.0%	4,007	20.9%	1,717	9.8%	3,633	19.9%
	Indian/ Alaskan	498	3.0%	588	3.0%	584	3.0%	648	3.7%	752	4.1%
	Asian	484	2.0%	536	3.0%	565	2.9%	501	2.9%	502	2.7%

Persons in Prison for Drug Offenses

About the Indicator

Legal penalties for illicit drugs range from prison time to probation sentences.

It is important to recognize that these data capture the *governing offense* for which a person was convicted. Because persons are counted based on a conviction for the most serious offense, it is likely that these data alone underestimate the role of illicit drugs in all convictions and sentences.

In Minnesota, there are 8 prisons for adults (7 for males and 1 for females). In addition, two other facilities house small numbers of adults. MCF-Togo houses the Female Challenge Incarceration Program; MCF-Red Wing houses a small male population.

According to the Minnesota Department of Corrections, 90% of Minnesota inmates have been diagnosed as chemically abusive or dependent. MDC has instituted chemical dependency programs that have been shown to reduce recidivism by 23%. In an average year, 2,900 offenders are assessed as needing treatment, 1,200 enter a long-term program, and 64% of these successfully complete treatment.

In 2016, 83.7% of incarcerated drug offenders were male.

Data Source(s)

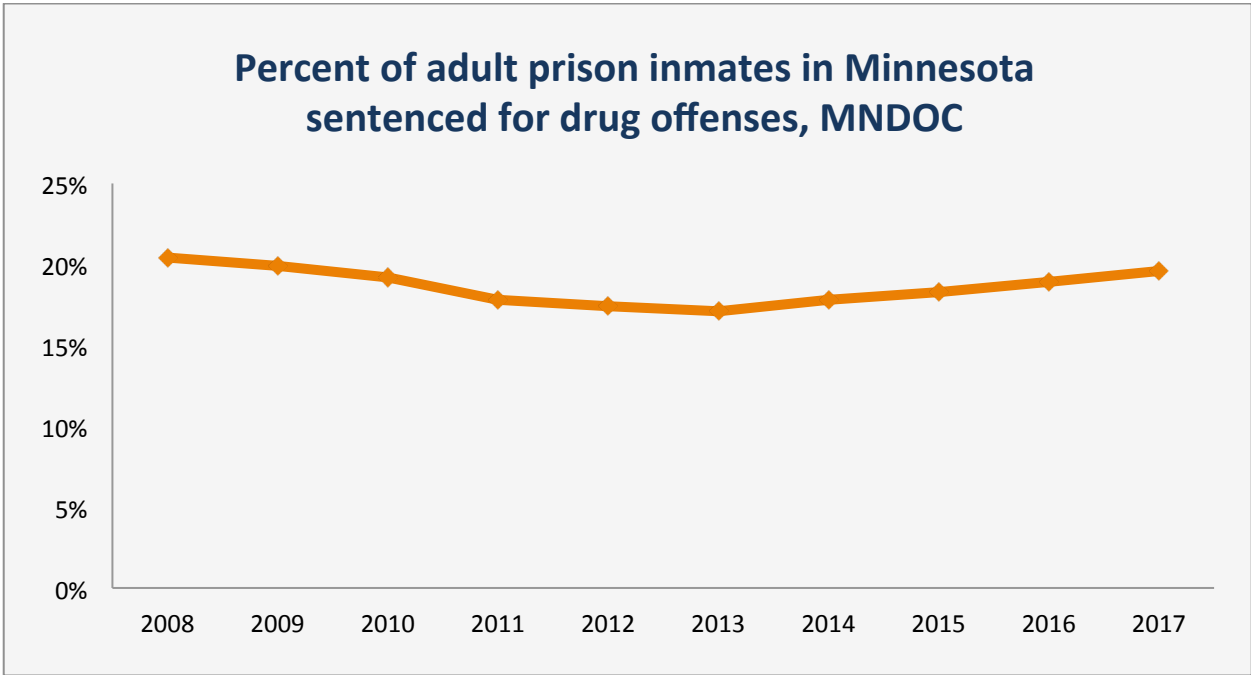
Minnesota Department of Corrections

Section Summary

- The percent of adult prison inmates in Minnesota sentenced for drug offenses has remained relatively stable—at, or just under 20%—while the overall prison population has increased slightly.

Illicit Drugs: Consequences

Data Source: Inmate Profile



Prison Inmates in Minnesota Sentenced for Drug Offenses, MNDOC

Minnesota	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Number of inmates	1,893	1,832	1,844	1,676	1,627	1,616	1,737	1,822	1,910	1,936
Percent of all inmates	20.4%	19.9%	19.2%	17.8%	17.4%	17.1%	17.8%	18.3%	18.9%	19.6%

Negative Consequences from Smoking Marijuana

About the Indicator

College students from 17 colleges and universities in Minnesota were asked about various possible negative consequences they've experienced in the past 12 months, after using marijuana. Responses were counted if the respondents indicated experiencing the consequence at least once in the past year.

Response rates for each consequence are reported for the student body as a whole, not only for those who have reported marijuana use.

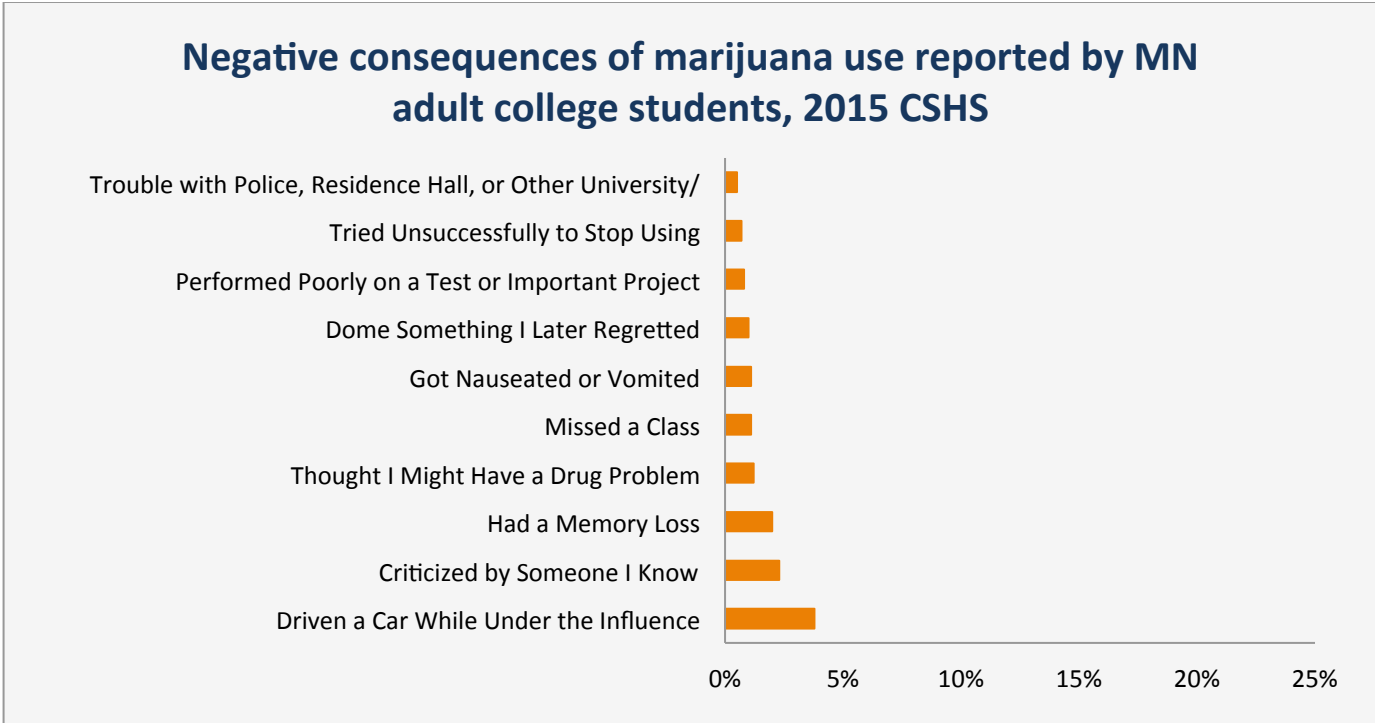
Data Source(s)

Minnesota College Student Health Survey (CSHS)

Section Summary

- The most commonly reported negative consequence was that the student had driven a vehicle while under the influence of marijuana

Data Source: College Student Health Survey



Illicit Drugs in Minnesota: Intervening Variables

Perceptions of Harm and Disapproval

About the Indicator

Beginning in 2007, students were asked how much they thought people risked harming themselves physically or in other ways if they smoke marijuana once or twice per week. The statistics presented here show the number and percent of students responding with either “great risk” or “moderate risk” of harm. The other two selection options on the survey were “slight risk” and “no risk.”

Data Source(s)

Adults National Survey on Drug Use and Health (NSDUH)

Youth Minnesota Student Survey (MSS)

Section Summary

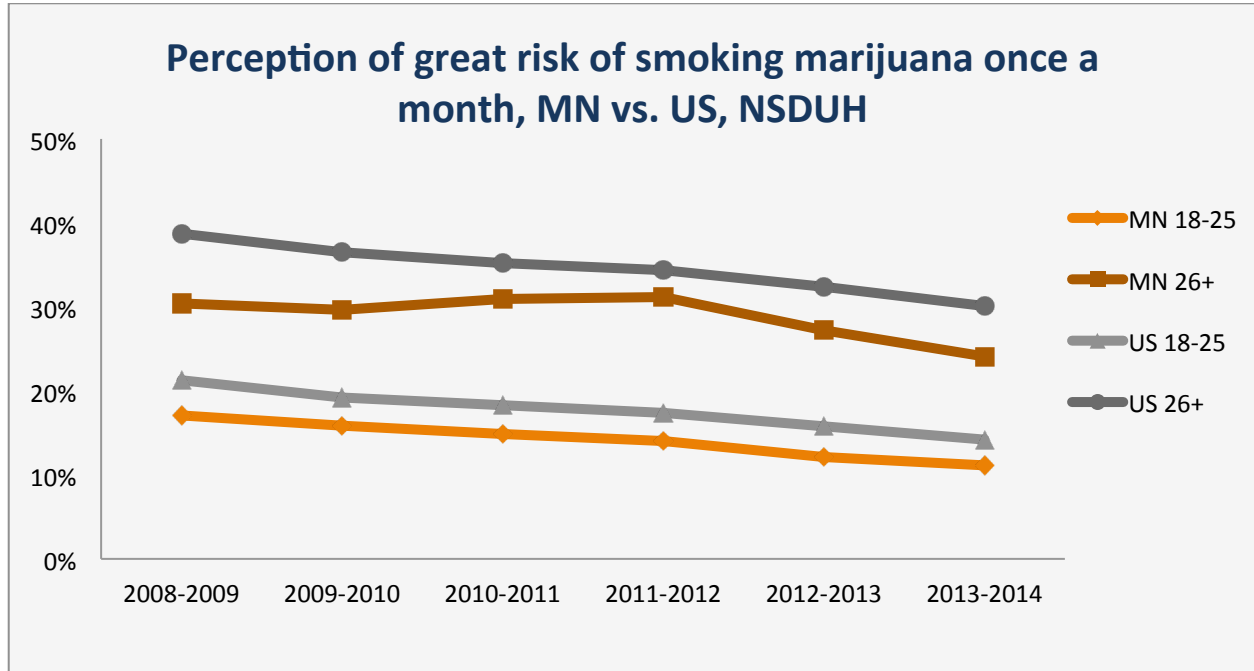
Adults

- Perception of harm from smoking marijuana is consistently lower in Minnesota than the national average.

Youth

- Female students were more likely than male to report that they believed people risked harming themselves by smoking marijuana once or twice per week.
- Perception of marijuana harm decreased with grade level.

Data Source: NSDUH

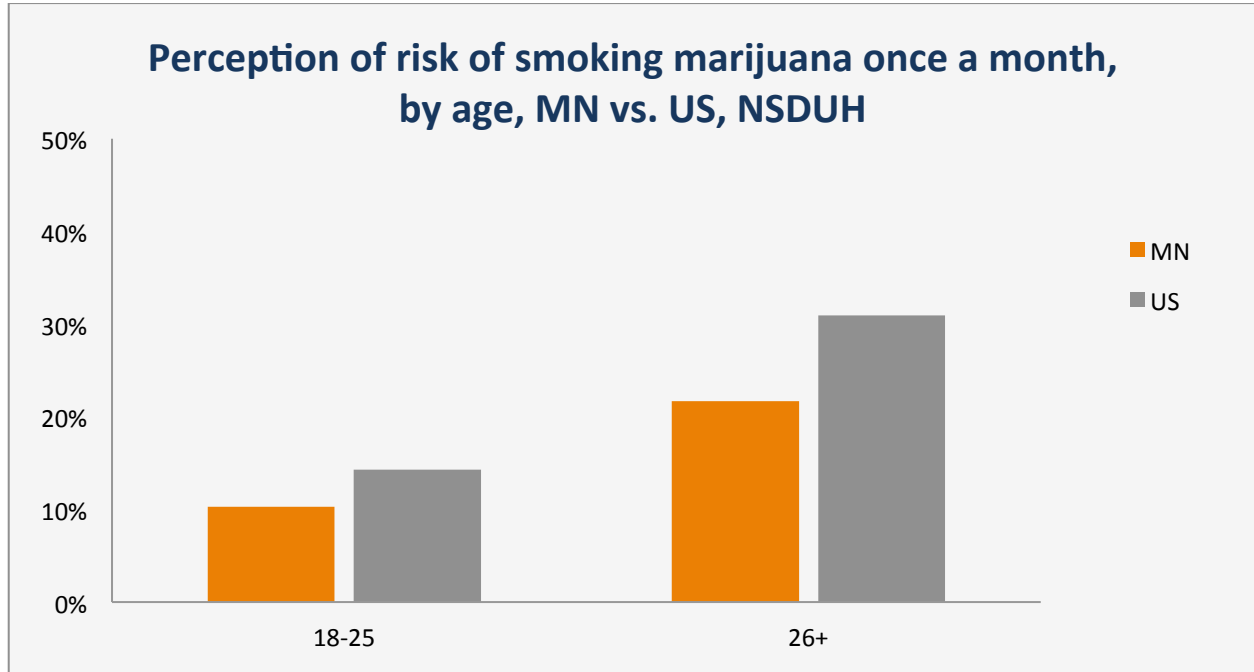


Adults: Perception of Great Risk of Smoking Marijuana Once a Month, NSDUH

Minnesota	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Perceive great risk 12+	28.5%	27.7%	28.7%	28.6%	25.0%	22.3%
Ages 12 thru 17	28.6%	28.7%	29.1%	27.1%	24.6%	22.5%
Ages 18 thru 25	17.1%	15.8%	14.8%	14.1%	12.1%	11.1%
Ages 26 and Over	30.4%	29.7%	31.0%	31.2%	27.2%	24.1%
United States	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Perceive great risk 12+	35.8%	33.6%	32.3%	31.4%	29.5%	27.4%
Ages 12 thru 17	31.8%	29.9%	28.6%	27.0%	25.3%	23.5%
Ages 18 thru 25	21.3%	19.2%	18.3%	17.4%	15.8%	14.2%
Ages 26 and Over	38.8%	36.5%	35.2%	34.4%	32.4%	30.1%
MN:US rate ratio	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Perceive great risk 12+	0.80	0.82	0.89	0.91	0.85	0.81

NOTE: Due to changes in the 2015 National Survey on Drug Use and Health (NSDUH), the measure of perception of risk of marijuana use is not comparable after the 2013-2014 survey. Past trend data up to the 2013-2014 survey are presented separately from data from 2015 and later.

Data Source: NSDUH

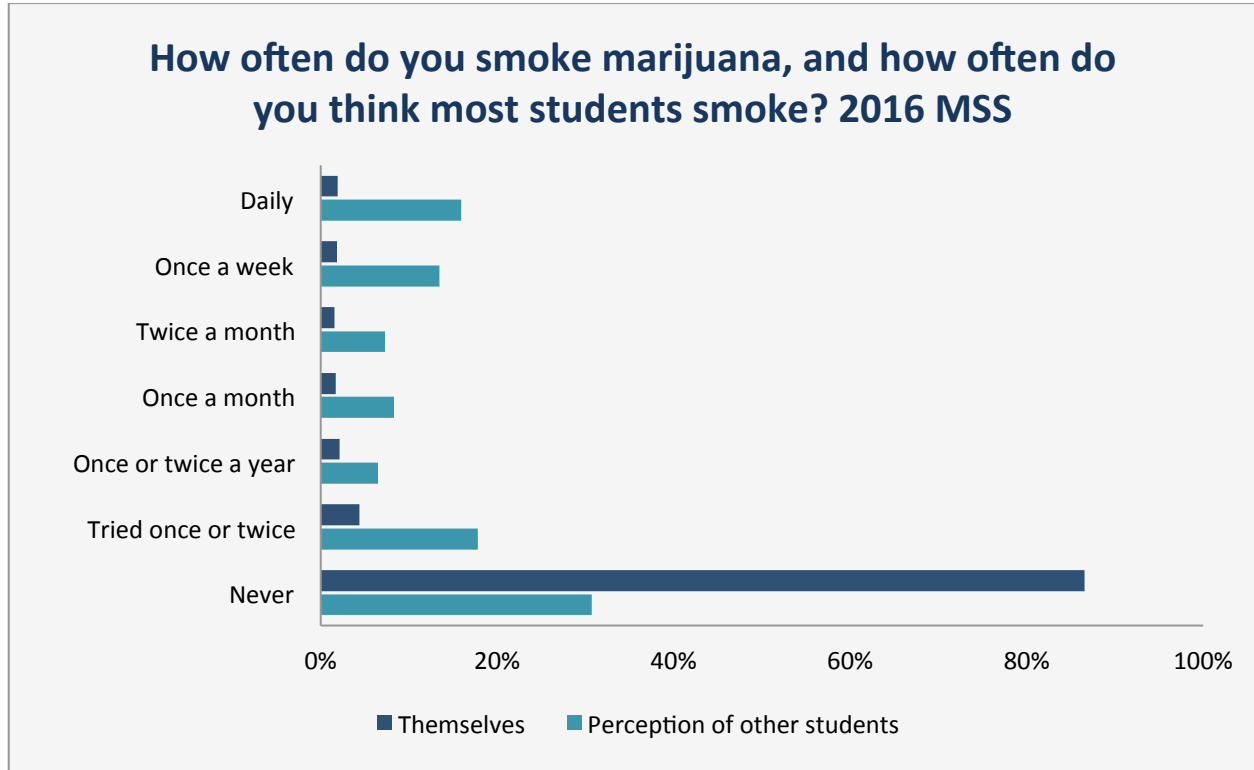


Adults: Perception of Great Risk of Smoking Marijuana Once a Month, NSDUH

Minnesota		2015-2016
Perceive great risk 12+		20.5%
Ages 12 thru 17		24.0%
Ages 18 thru 25		10.3%
Ages 26 and Over		21.7%
United States		2015-2016
Perceive great risk 12+		28.4%
Ages 12 thru 17		27.2%
Ages 18 thru 25		14.3%
Ages 26 and Over		30.9%
MN:US rate ratio		2015-2016
Perceive great risk 12+		0.72

NOTE: Due to changes in the 2015 National Survey on Drug Use and Health (NSDUH), the measure of perception of risk of marijuana use is not comparable after the 2013-2014 survey. Past trend data up to the 2013-2014 survey are presented separately from data from 2015 and later.

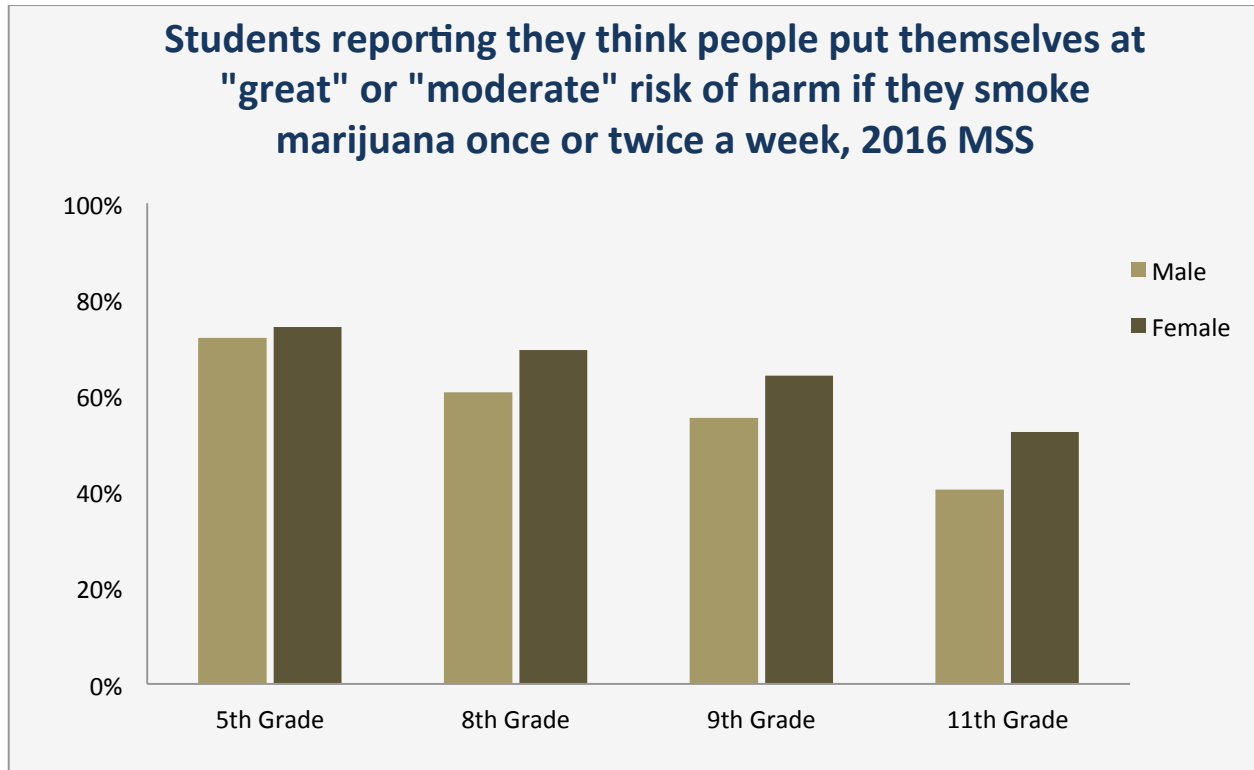
Data Source: MSS



Minnesota Students Reporting Smoking Marijuana, and their Perceptions of Other Students' Frequency of Marijuana Use, 8th, 9th, and 11th Grade Students, 2016 MSS

	How often do you think MOST STUDENTS smoke marijuana?		How often do YOU smoke marijuana?	
	N (#)	%	N (#)	%
Never	35,078	30.7%	99,401	86.5%
Tried once or twice	20,366	17.8%	5,017	4.4%
Once or twice a year	7,428	6.5%	2,429	2.1%
Once a month	9,459	8.3%	1,956	1.7%
Twice a month	8,320	7.3%	1,781	1.6%
Once a week	15,361	13.5%	2,092	1.8%
Daily	18,154	15.9%	2,193	1.9%

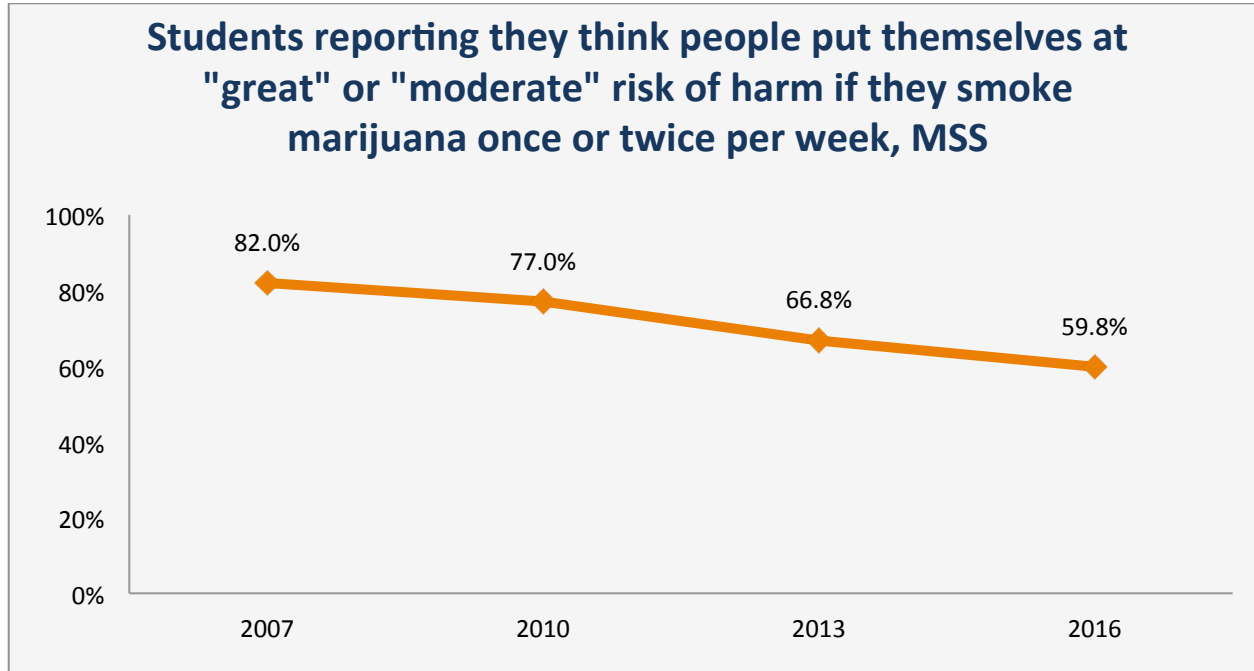
Data Source: MSS



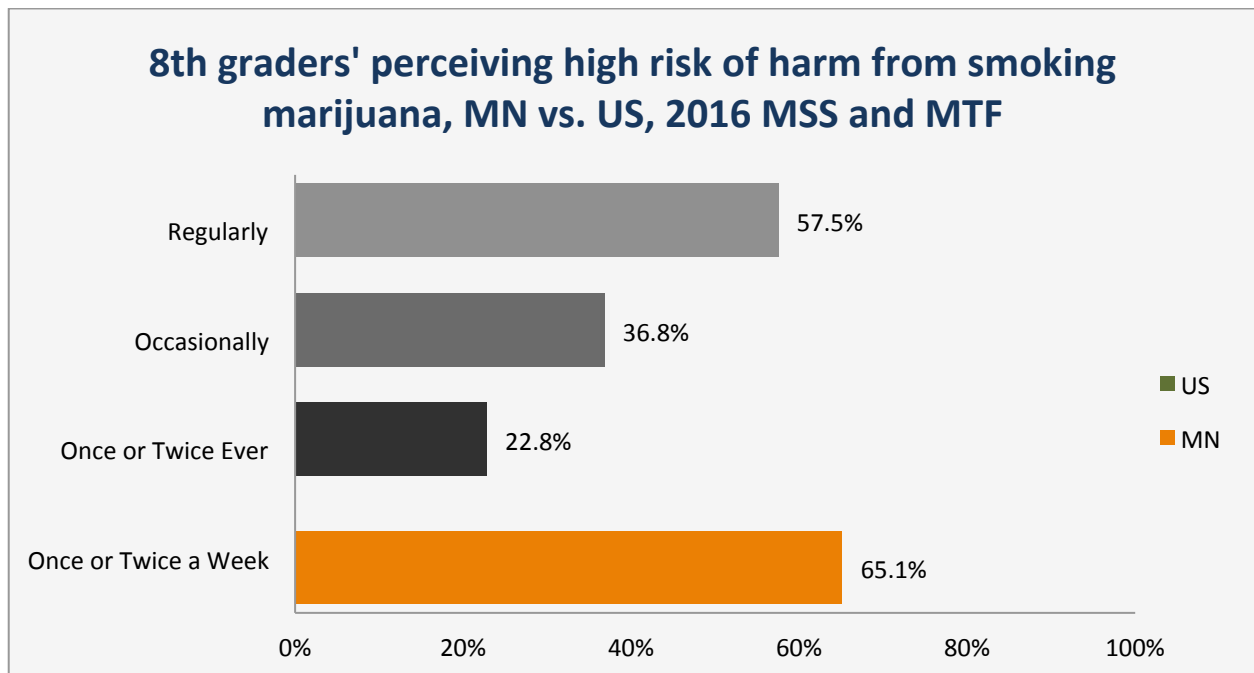
Students Reporting They Think People Put Themselves at "Great" or "Moderate" Risk of Harming Themselves Physically or in Other Ways if They Smoke Marijuana Once or Twice Per Week, 2016 MSS

		Male		Female		Total	
		N (#)	%	N (#)	%	N (#)	%
Grade	5 th	13,486	72.0%	13,607	74.2%	27,093	73.1%
	8 th	11,962	60.7%	13,880	69.4%	25,842	65.1%
	9 th	10,570	55.4%	12,573	64.1%	23,143	59.8%
	11 th	6,354	40.5%	8,435	52.4%	14,789	46.6%
	Total	42,372	57.9%	48,495	65.5%	90,867	61.7%

Data Source: MSS and MTF

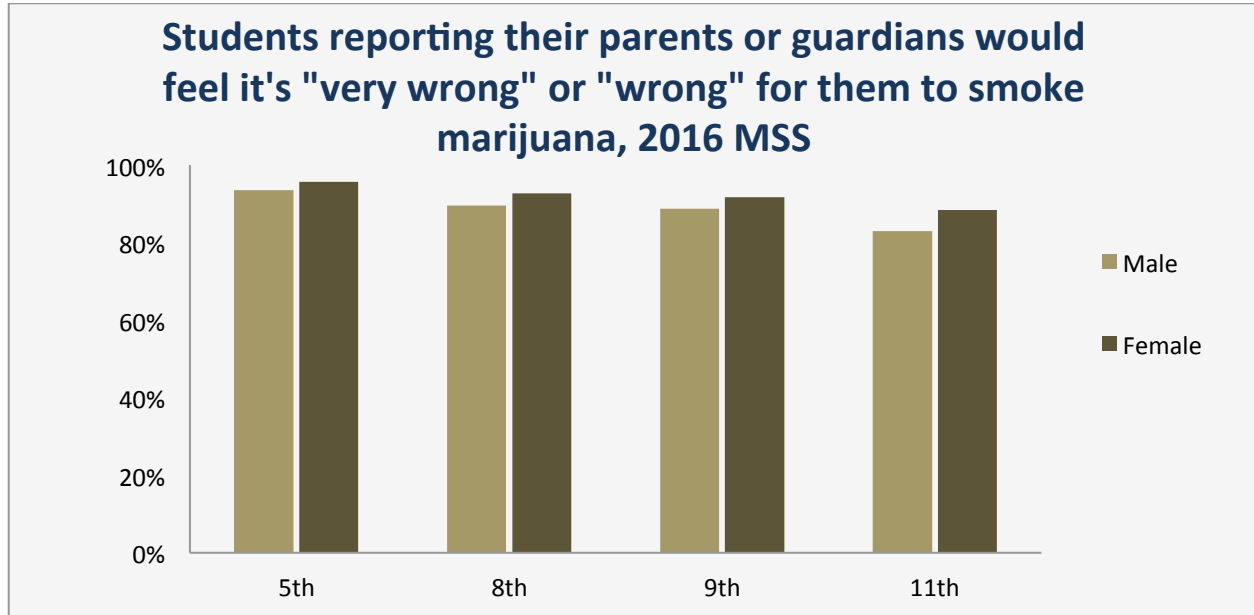


Minnesota students have a relatively high perception of risk of harm from smoking marijuana, but the perception of risk is declining.

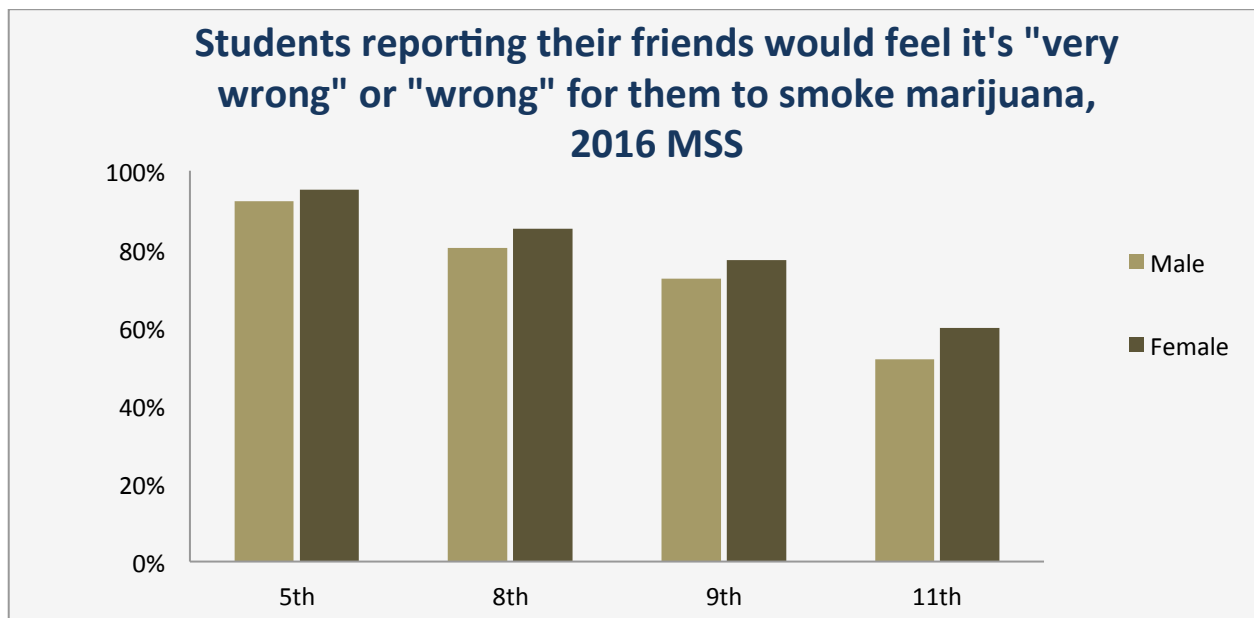


NOTE: The MTF survey questions asking about perception of harm used different frequencies of use than the MSS survey.

Data Source: MSS



Students' perception of disapproval has declined with both the age of students, and over time.



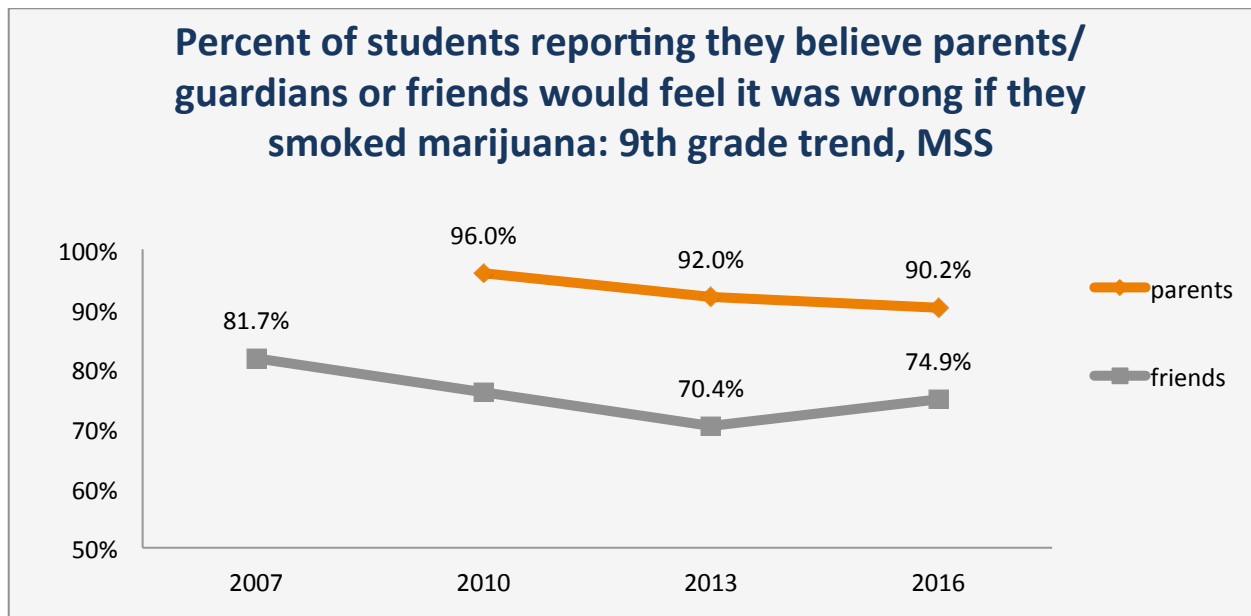
Data Source: MSS

Students Reporting They Think Their Parents Would Feel it's "Very Wrong" or "wrong" for Them to Smoke Marijuana, 2016 MSS

		Male		Female		Total	
		N (#)	%	N (#)	%	N (#)	%
Grade	5 th	17,731	93.5%	17,959	95.7%	35,690	94.6%
	8 th	17,683	89.6%	18,639	92.7%	36,322	91.2%
	9 th	16,938	88.7%	17,985	91.7%	34,923	90.2%
	11 th	13,022	82.9%	14,210	88.4%	27,232	85.7%

Students Reporting They Think Their Friends Would Feel it's "Very Wrong" or "Wrong" for Them to Smoke Marijuana, 2016 MSS

		Male		Female		Total	
		N (#)	%	N (#)	%	N (#)	%
Grade	5 th	17,355	92.2%	17,765	95.2%	35,120	93.7%
	8 th	15,795	80.3%	17,055	85.1%	32,850	82.7%
	9 th	13,750	72.4%	15,077	77.2%	28,827	74.9%
	11 th	8,102	51.8%	9,583	59.7%	17,685	55.8%



2018



Substance Abuse in Minnesota:
A State Epidemiological Profile
Section 6. Mental Health and Shared Factors

Prepared by: EpiMachine, LLC

**for the Minnesota Department of Human Services, Alcohol
and Drug Abuse Division**

Substance Abuse in Minnesota

Section 6. Mental Health and Shared Factors

The 2018 Minnesota State EpiProfile is divided into eight parts:

1. Introduction (which includes a profile overview, population snapshot, and acknowledgements)
2. Executive Summary
3. Alcohol: Use, Consequences, and Intervening Variables
4. Tobacco and Nicotine: Use, Consequences, and Intervening Variables
5. Drugs: Use, Consequences, and Intervening Variables
6. Mental Health and Shared Factors
7. Socioeconomic Factors
8. Appendix (which includes technical notes and data sources)

Substance Abuse in Minnesota: Mental Health and Shared Factors

Suicide and Mental Illness

About the Indicator

Suicide is closely associated with alcohol and drug abuse. The International Classification of Diseases (ICD-10) measures all suicides, many of which are attributable to substance abuse.

The Centers for Disease Control and Prevention (CDC) provides a measure of Alcohol-Attributable Fractions (AAFs). AAFs are estimates based on direct observations about the relationship between alcohol and a given health outcome. The AAF for suicide for both males and females is 23%.

In order to provide comprehensive data on suicides, both measures are presented.

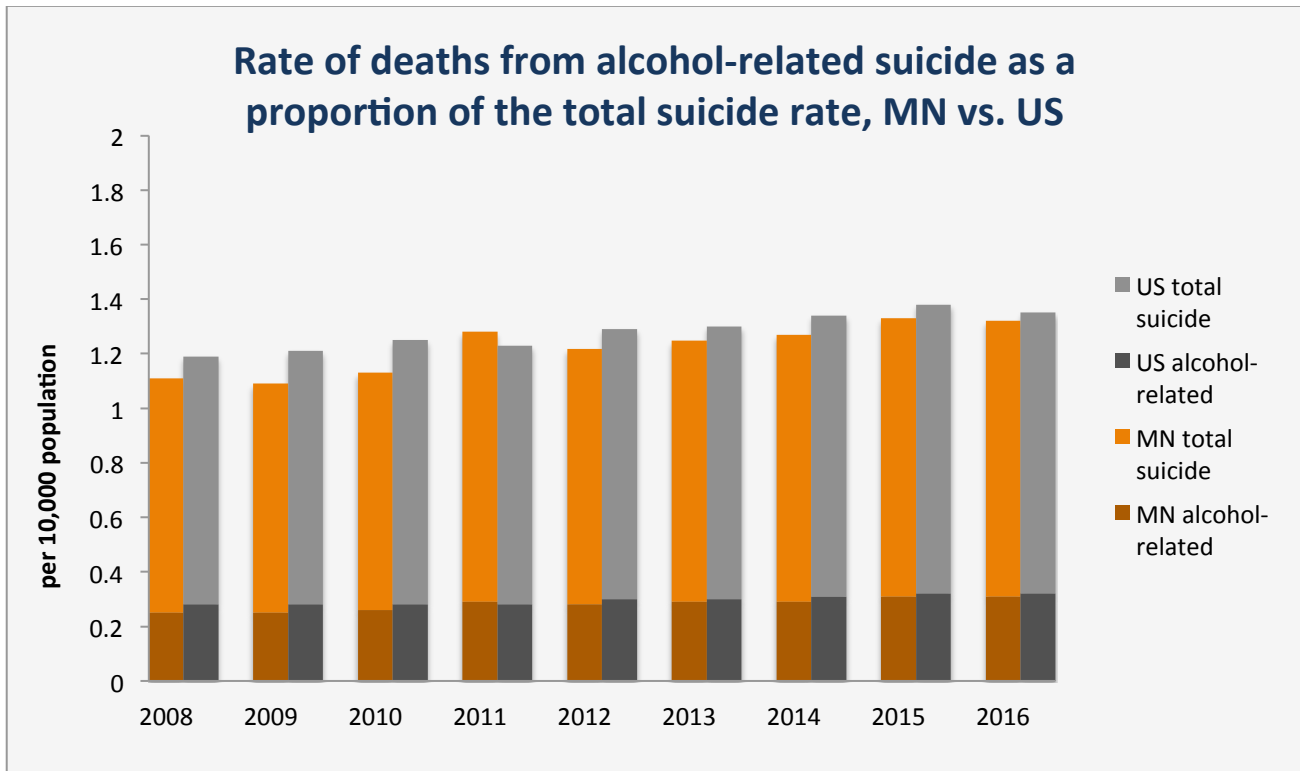
Data Source(s)

Minnesota Center for Health Statistics, Minnesota Department of Health (MDH), CDC Wonder Compressed Mortality Data, the Alcohol-Related Disease Impact (ARDI), and National Survey on Drug Use and Health (NSDUH)

Section Summary

- Minnesota's suicide rate is very close to the national average.
- Males are significantly more likely than females to commit suicide.

Data Source: Minnesota Department of Health, CDC Wonder, ARDI

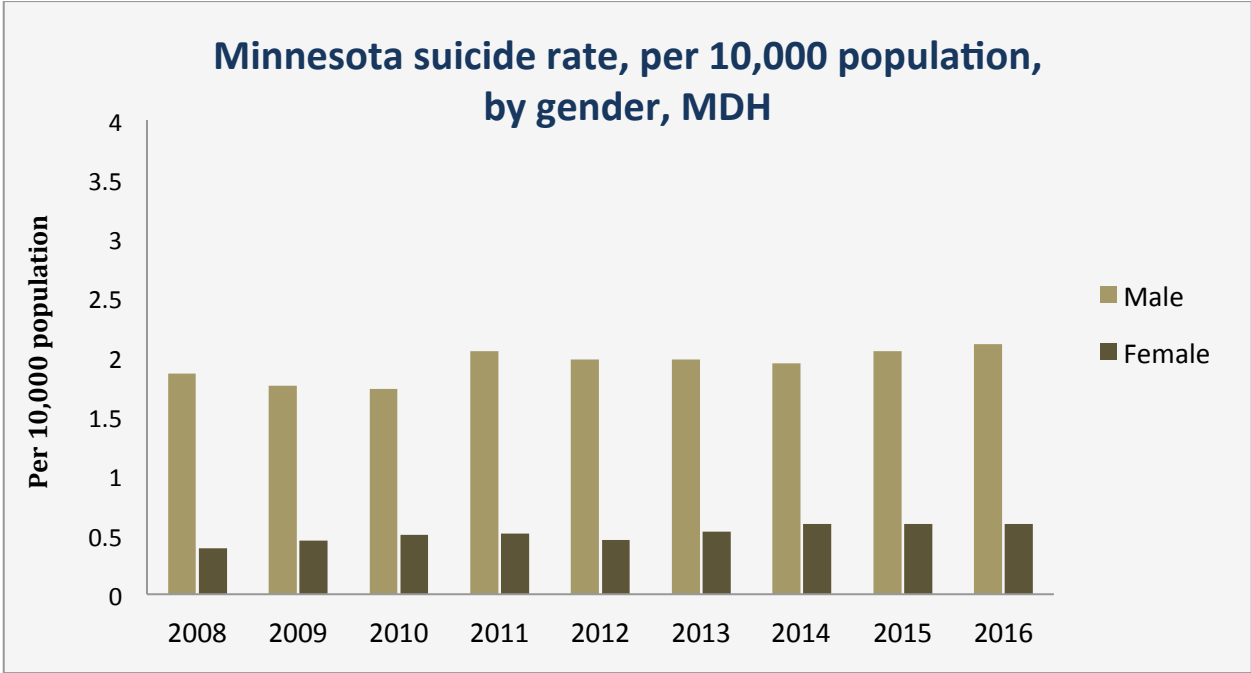


Deaths from Alcohol-Related Suicide per 10,000 Population, CDC Wonder

Minnesota	2008	2009	2010	2011	2012	2013	2014	2015	2016
Deaths from alcohol-related* suicide	137	134	139	157	151	155	157	168	171
Rate per 10,000 population	0.25	0.25	0.26	0.29	0.28	0.29	0.29	0.31	0.31
United States	2008	2009	2010	2011	2012	2013	2014	2015	2016
Deaths from alcohol-related* suicide	8,273	8,473	8,811	8,806	9,322	9,444	9,838	10,164	10,332
Rate per 10,000 population	0.28	0.28	0.28	0.28	0.3	0.3	0.31	0.32	0.32
MN:US rate ratio	2008	2009	2010	2011	2012	2013	2014	2015	2016
Deaths from alcohol-related* suicide	0.89	0.89	0.93	1.04	0.93	0.97	0.95	0.97	0.97

* Alcohol-related suicide data are calculated using the AAF for suicide, 23%

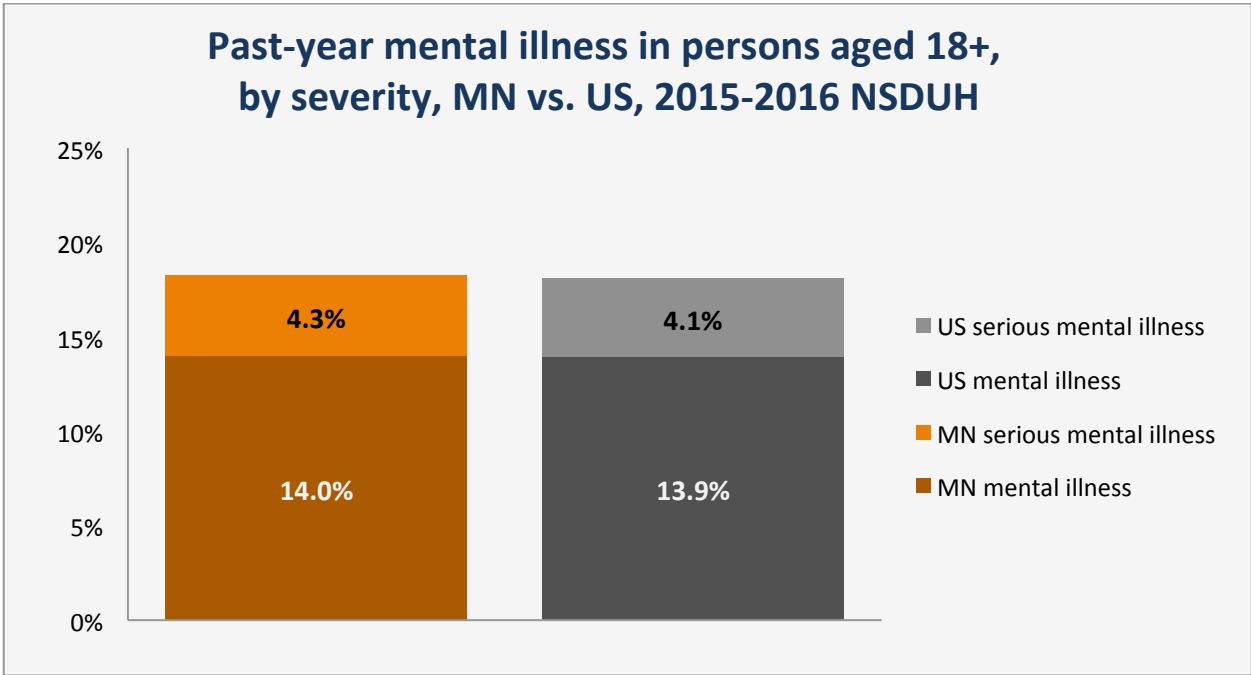
Data Source: Minnesota Department of Health



Total Minnesota Suicide Deaths by Gender, Number, and Age-Adjusted Rate per 10,000 Population, MDH

		2008	2009	2010	2011	2012	2013	2014	2015	2016
Male	Number	490	468	464	544	530	532	522	563	581
	Rate	1.88	1.79	1.76	2.05	1.98	1.98	1.95	2.05	2.11
Female	Number	105	115	139	137	125	144	161	163	164
	Rate	0.4	0.43	0.52	0.51	0.46	0.53	0.59	0.59	0.59

Data Source: NSDUH



Serious Mental Illness in the Past Year, NSDUH					
MN	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
18+	3.90%	4.20%	4.50%	4.3%	4.3%
18-25	4.40%	4.30%	5.00%	5.5%	6.0%
26+	3.80%	4.20%	4.40%	4.2%	4.0%
US	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
18+	4.00%	4.10%	4.20%	4.1%	4.1%
18-25	4.00%	4.20%	4.50%	4.9%	5.5%
26+	4.00%	4.10%	4.10%	3.9%	3.9%
MN:US	2011-2012	2011-2012	2013-2014	2014-2015	2015-2016
12+	0.98	1.02	1.07	1.05	1.05

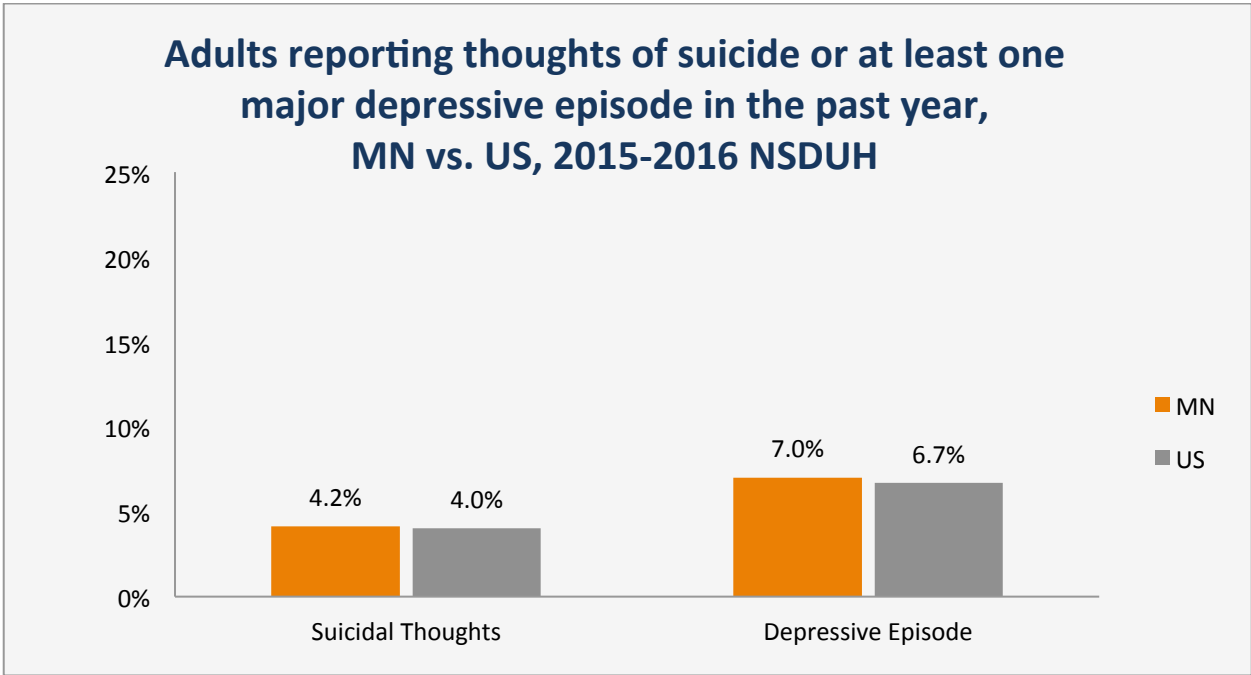
Mental Health and Shared Factors

Data Source: NSDUH

Any Mental Illness in the Past Year, NSDUH					
MN	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
18+	17.2%	18.0%	19.7%	18.8%	18.2%
18-25	20.1%	19.8%	21.3%	22.6%	24.5%
26+	16.7%	17.7%	19.4%	18.2%	17.2%
US	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
18+	18.2%	18.5%	18.3%	18.0%	18.1%
18-25	19.1%	19.5%	19.8%	20.9%	21.9%
26+	18.0%	18.4%	18.1%	17.5%	17.4%
MN:US	2011-2012	2011-2012	2013-2014	2014-2015	2015-2016
12+	0.95	0.97	1.08	1.04	1.01

Had Serious Thoughts of Suicide in the Past Year, NSDUH					
MN	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
18+	3.6%	3.9%	4.2%	4.1%	4.2%
18-25	7.3%	7.1%	7.4%	8.2%	8.8%
26+	3.0%	3.4%	3.7%	3.4%	3.4%
US	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
18+	3.8%	3.9%	3.9%	4.0%	4.0%
18-25	7.0%	7.3%	7.4%	7.9%	8.6%
26+	3.2%	3.3%	3.3%	3.3%	3.3%
MN:US	2011-2012	2011-2012	2013-2014	2014-2015	2015-2016
12+	0.95	1.00	1.08	1.03	1.05

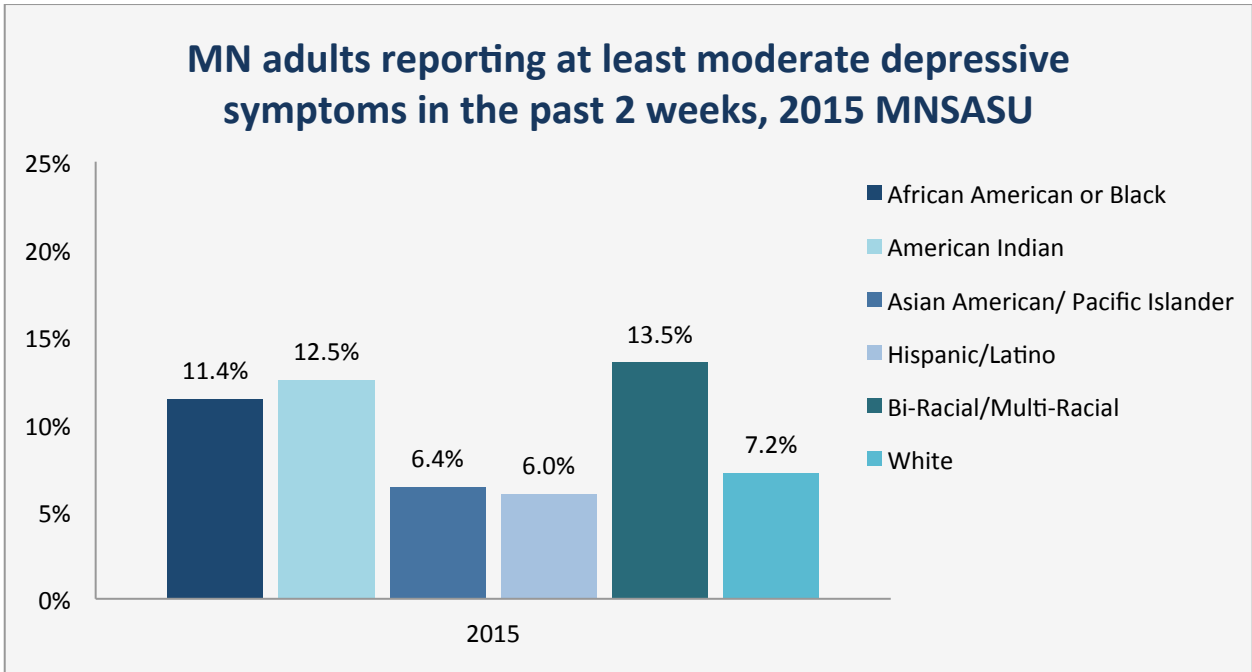
Data Source: NSDUH



At Least 1 Major Depressive Episode in the Past Year, NSDUH					
MN	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
18+	6.1%	6.6%	7.3%	7.4%	7.0%
12-17	8.3%	8.2%	11.0%	12.6%	13.4%
18-25	8.8%	8.8%	10.1%	9.8%	11.1%
26+	5.7%	6.2%	6.8%	7.0%	6.4%
US	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
18+	6.7%	6.8%	6.6%	6.6%	6.7%
12-17	8.7%	9.9%	11.0%	11.9%	12.6%
18-25	8.6%	8.8%	9.0%	9.8%	10.6%
26+	6.4%	6.4%	6.2%	6.1%	6.1%
MN:US	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
12+	0.91	0.97	1.11	1.12	1.04

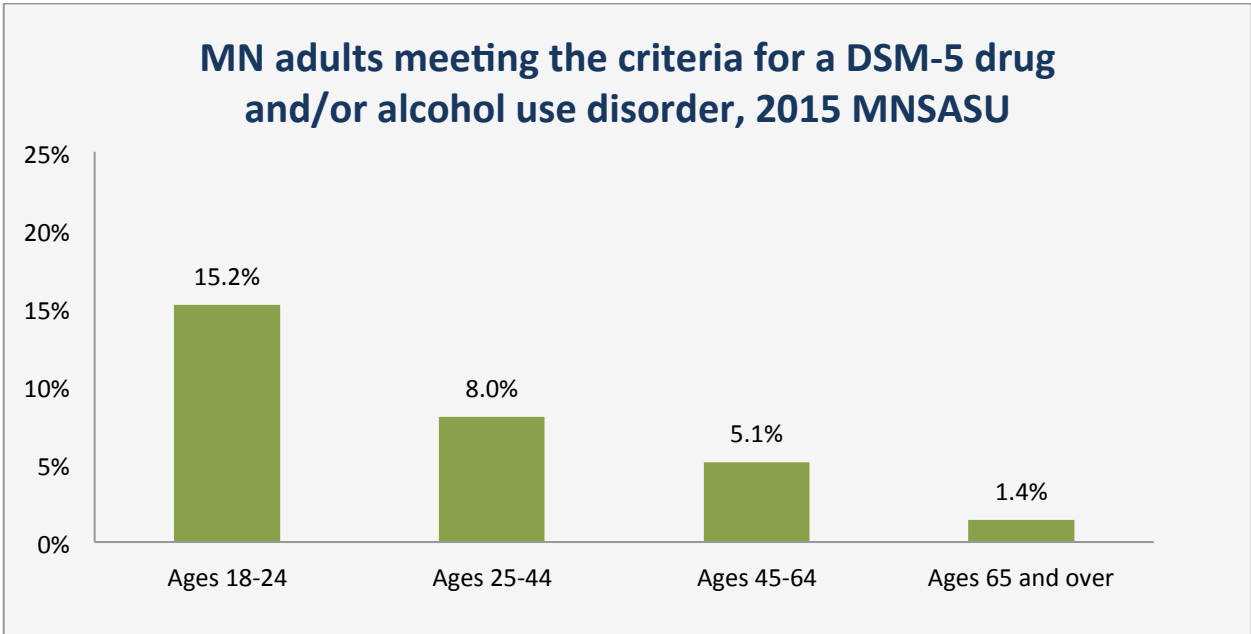
Data Source: MNSASU

Adults reporting at least moderate depressive symptoms in the past 2 weeks, 2015 MNSASU			
		2010	2015
Age	Ages 18 thru 24	9.8%	8.8%
	Ages 25 thru 44	8.2%	7.3%
	Ages 45 thru 64	9.5%	7.6%
	Ages 65 and over	5.6%	6.4%
Race/Ethnicity	African American or Black	14.6%	11.4%
	American Indian	21.0%	12.5%
	Asian American/ Pacific Islander	5.7%	6.4%
	Hispanic/Latino	10.2%	6.0%
	Bi-Racial/Multi-Racial	25.0%	13.5%
	White	7.9%	7.2%
Gender	Male	6.9%	7.1%
	Female	9.9%	7.6%
	Total	8.4%	7.4%
Sexual Orientation	Lesbian, Gay, and Bisexual	N/A	16.5%
	Heterosexual	N/A	7.1%

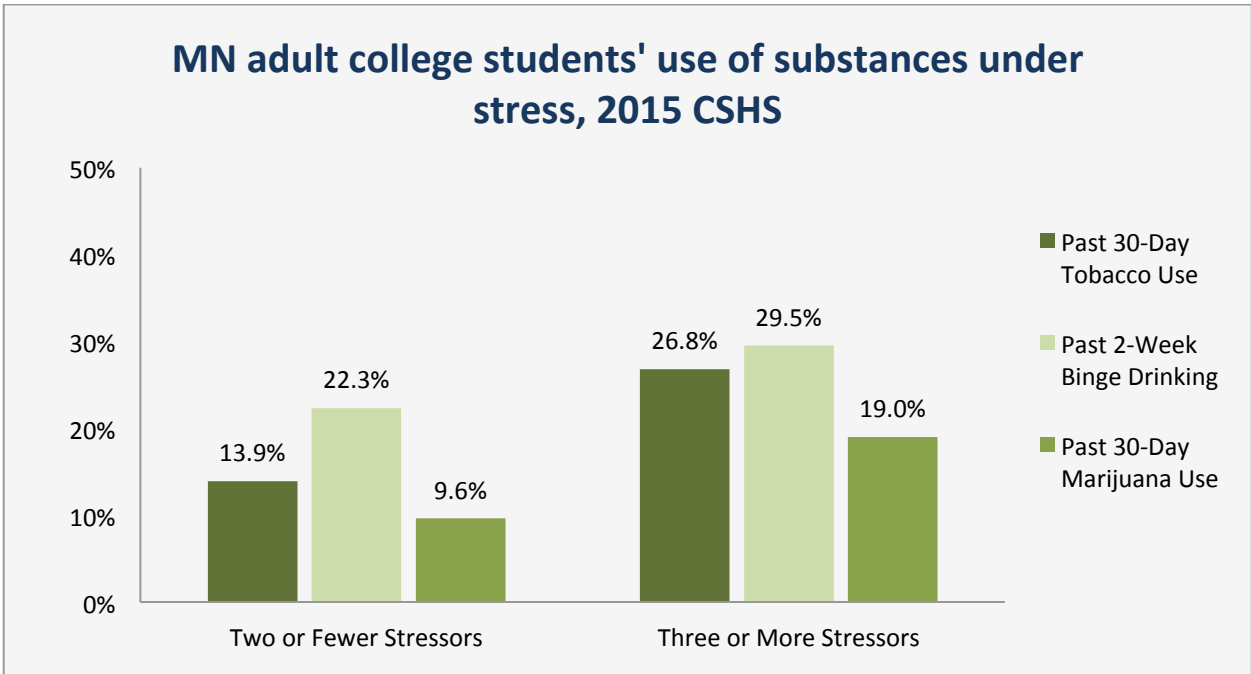
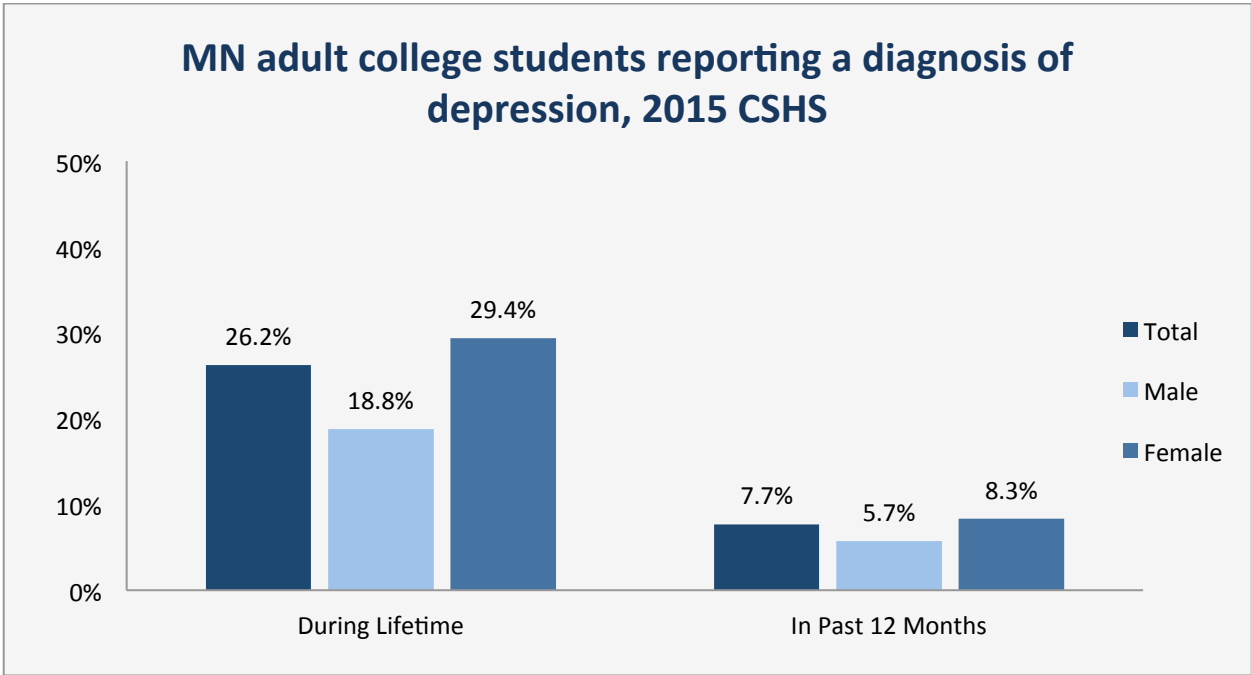


Data Source: MNSASU

Adults meeting the criteria for a DSM5 drug and/or alcohol use disorder, 2015 MNSASU		
		2015
Age	Ages 18 thru 24	15.2%
	Ages 25 thru 44	8.0%
	Ages 45 thru 64	5.1%
	Ages 65 and over	1.4%
Race/Ethnicity	African American or Black	6.5%
	American Indian	13.8%
	Asian American/ Pacific Islander	6.3%
	Hispanic/Latino	7.3%
	Bi-Racial/Multi-Racial	9.5%
	White	6.6%
Gender	Male	8.6%
	Female	4.8%
	Total	6.7%
Sexual Orientation	Lesbian, Gay, and Bisexual	12.1%
	Heterosexual	6.6%



Data Source: CSHS



Youth: Mental Health, Substance Use, and Shared Risk and Protective Factors

About the Indicator

This section of the profile examines risk and protective factors that influence substance use and abuse behaviors.

Risk factors are characteristics at the biological, psychological, family, community, or cultural level that precede and are associated with a higher likelihood of problem outcomes; protective factors are characteristics associated with a lower likelihood of problem outcomes or that reduces the negative impact of a risk factors on problem outcomes.¹ Some risk factors are specifically associated with substance use, such as perceived risk of harm. On the other hand, some risk and protective factors are association with both substance use/abuse and with mental health. We also know from the research that substance use is a risk factor for mental health problems, and vice versa². Finally, many Minnesotans suffer from co-occurring substance use and mental health disorders.

While factors and behaviors are cross-linked across categories, data are organized and presented here in the following sections:

- Introduction to Adverse Childhood Experiences (ACEs)
- College Student Health Survey: Adult Students' ACE Scores
- Minnesota Student Survey: Youth ACE Scores
 - Alcohol Use
 - Mental Health
 - Family and Community
 - School

In 2013 and 2016, the MSS was administered to students in 5th, 8th, 9th, and 11th grades. Unless otherwise noted, data here are for students in 8th, 9th, and 11th grades.

For more information on the ACE questionnaire, please see:
www.health.state.mn.us/divs/cfh/program/ace/

Data Source(s)

College Student Health Survey (CSHS), Minnesota Student Survey (MSS)

Section Summary

- ACE scores are highly correlated with substance use and depression
- Protective factors for youth include feeling safe at school and in the community; being able to talk with parents about problems; and school engagement
- Risk factors for youth include being in an abusive relationship; experiencing bullying; and skipping class

1. National Research Council and Institute of Medicine. (2009). *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities* (O'Connell, M.E., Boat, T., & Warner, K. E., Eds.) Washington, D.C: National Academies Press.
2. Gilbertson, L. & Dillon, K. (2012). *Integration of mental health, substance use, and primary care: opportunities and challenges*. Wilder Research: Saint Paul, MN

Introduction: the Adverse Childhood Events Score

The Adverse Childhood Experiences (ACE) Study was a collaboration between the Centers for Disease Control and Prevention (CDC) and Kaiser Permanente's Health Appraisal Clinic in San Diego. Members of the Kaiser Health Maintenance Organization provided detailed information about their childhood experiences of abuse, neglect, and family dysfunction. Study findings linked ACEs to leading causes of illness and death as well as poor quality life. The original ten ACEs used to calculate an "ACE Score" (score calculated by adding 1 point for each ACE experienced) included:

- Emotional abuse
- Physical abuse
- Sexual abuse
- Emotional neglect
- Physical neglect
- Mother treated violently
- Household substance abuse
- Household mental illness
- Parental separation or divorce
- Incarcerated household member

In 2008, the CDC developed a set of ACE questions for states to use in the Behavioral Risk Factors Surveillance System (BRFSS). The ACEs module was added to the 2011 Minnesota Behavioral Risk Factor Surveillance System survey for adults in order to examine the relationships between such exposures and subsequent behavior, mental, and physical health outcomes. The Minnesota questions did not include the two neglect items, but did include separate questions for household alcohol abuse and household drug abuse. In 2015, the College Student Health Survey (CSHS) included the same indicators included on the BRFSS. Find more information about them here: <http://www.health.state.mn.us/divs/cfh/program/ace/>

In 2013, some ACE questions were added to the Minnesota Student Survey and others were revised to better align with national surveys. Students' ACE scores, together with their responses to other questions in the MSS, provide insight into protective and risk factors associated with health, academic success, and substance use and abuse.

Note: Although ACEs can be used as a general measurement of household dysfunction, survey instruments can use a variety of different indicators; therefore, ACE scores should not be compared between surveys.

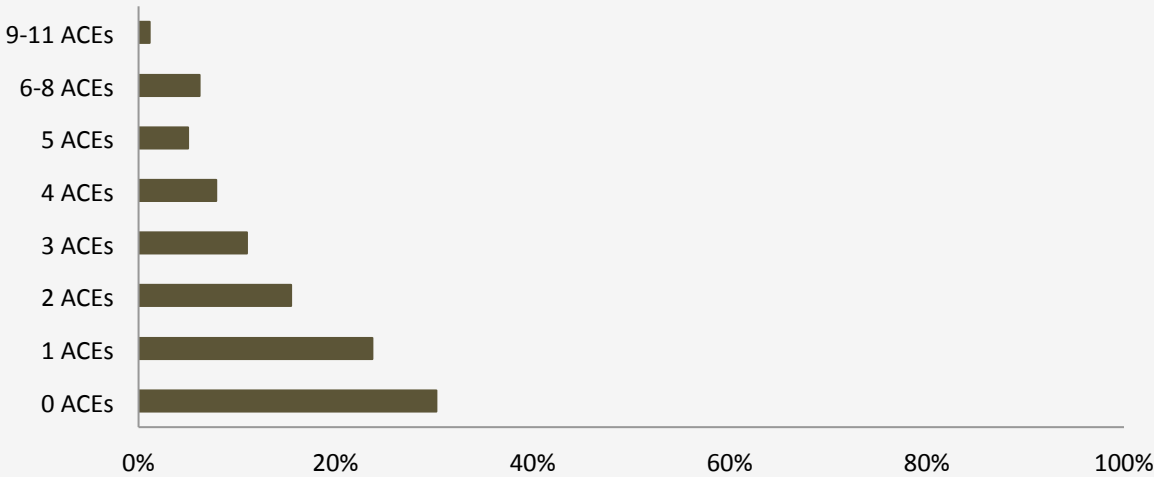
Data Source: CSHS

College Student Health Survey: The Adverse Childhood Events (ACE) Scale

The 11 ACE questions used in the College Student Health Survey ask about conditions that may have been experienced by students in childhood. Students reported whether...

- ...they lived with anyone who was depressed, mentally ill, or suicidal
- ...they lived with anyone who was a problem drinker or an alcoholic
- ...they lived with anyone who used illegal street drugs or abused prescription medications
- ...they lived with anyone who served time or was sentenced to serve time in prison, jail, or other correctional facility
- ...their parents were divorced or separated
- ...their parents or adults in the home hit, beat, kicked, or physically hurt them in any way
- ...their parents or an adult ever swore at them, insulted them, or put them down
- ...anyone at least 5 years older than them, or an adult, ever touched them sexually
- ...anyone at least 5 years older than them, or an adult, tried to make the student touch them sexually
- ...anyone at least 5 years older than them, or an adult, ever forced them to have sex

Percent of MN adult college students with adverse childhood experiences (ACEs), 2015 CSHS



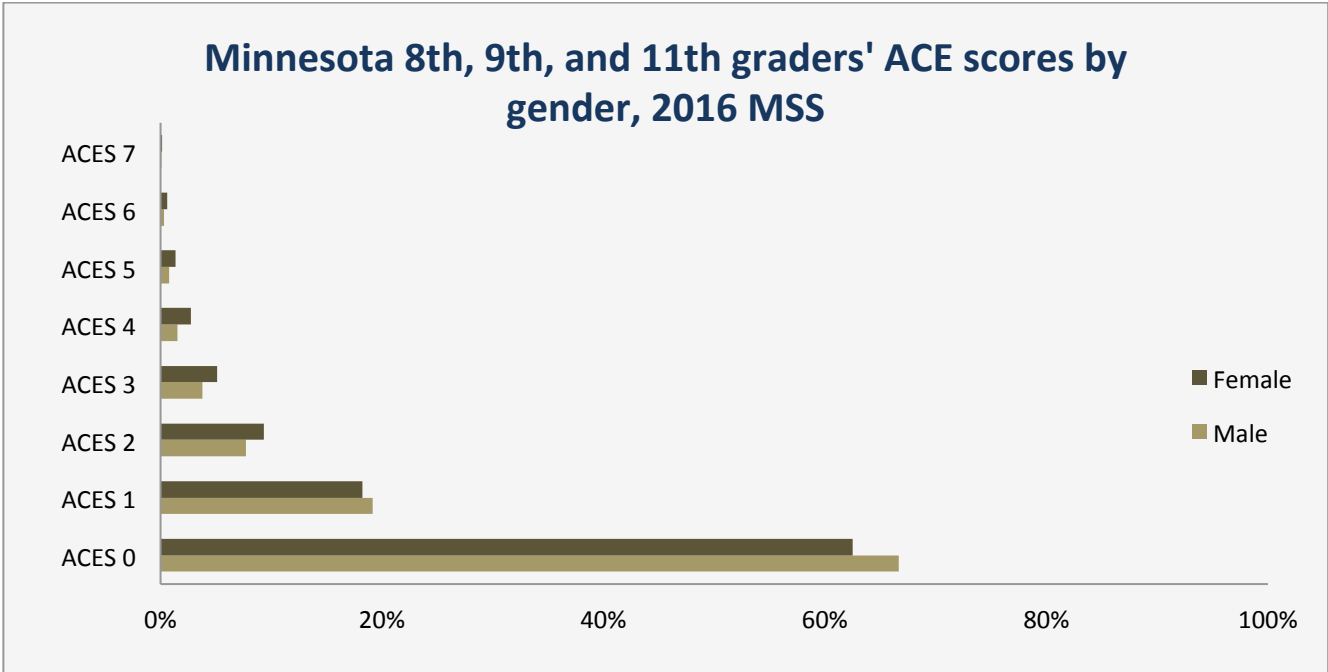
Data Source: MSS

Minnesota Student Survey: The Adverse Childhood Events (ACE) Scale

The ACE score, as used in the Minnesota Student Survey, ranges from 0 to 7, and is based on the number of the following conditions experienced by the student. They include students reporting...

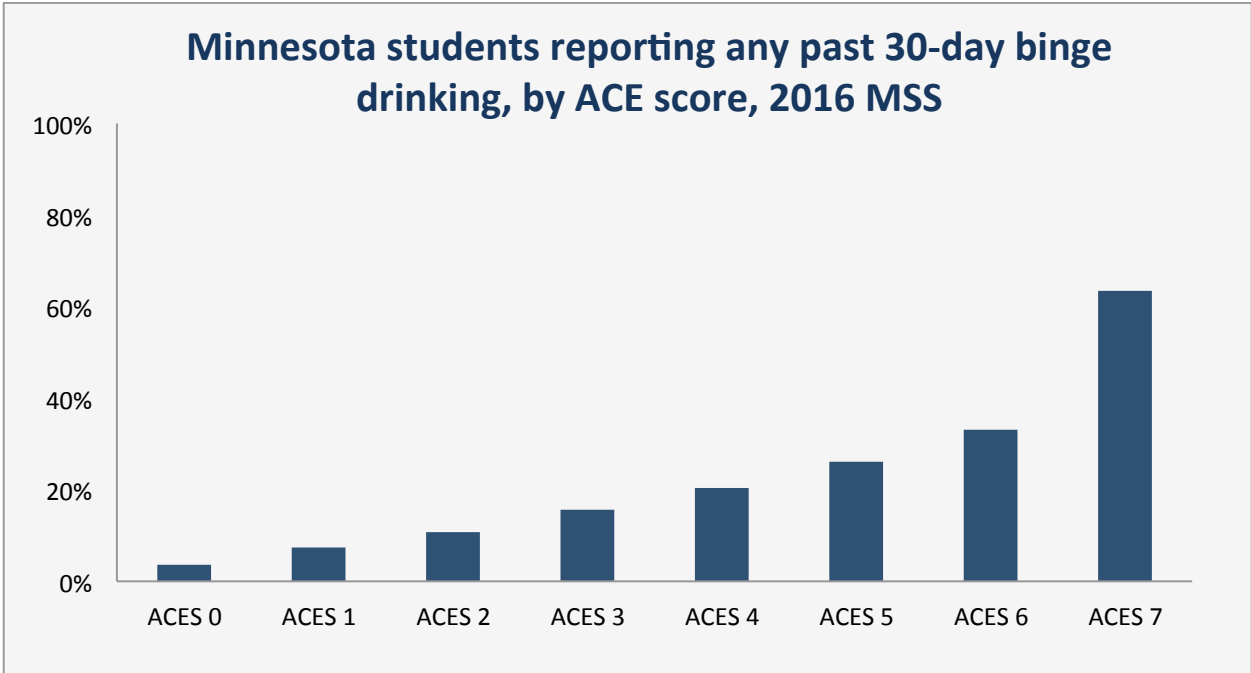
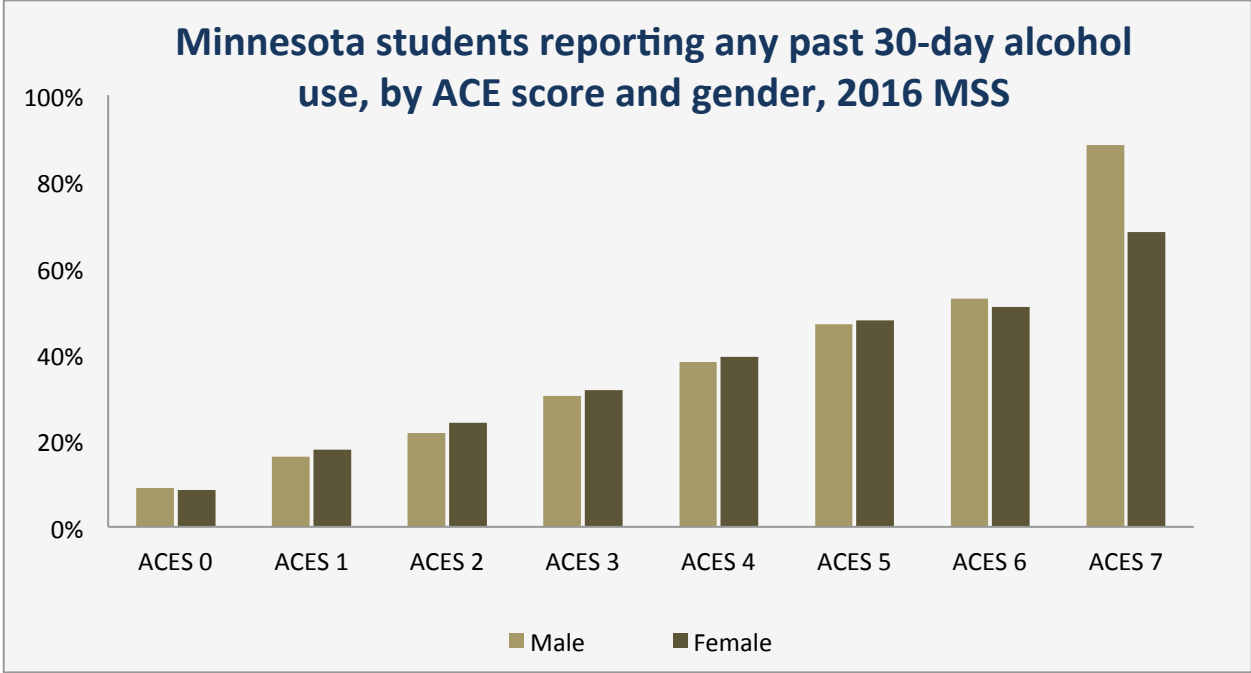
- ...they have a parent or guardian who is currently in jail, **and/or** who has been in jail in the past
- ...they live with someone who drinks too much alcohol
- ...they live with someone who uses illegal drugs or abuses prescription drugs
- ...a parent or other adult in the household has verbally abused them
- ...a parent or other adult in the household has physically abused them
- ...parents or other adults in the home physically abuse each other
- ...an adult or other person outside the family, **and/or** an older or stronger family member, has ever sexually abused them

33% of male students and 38.1% of female students had an ACE score of 1+



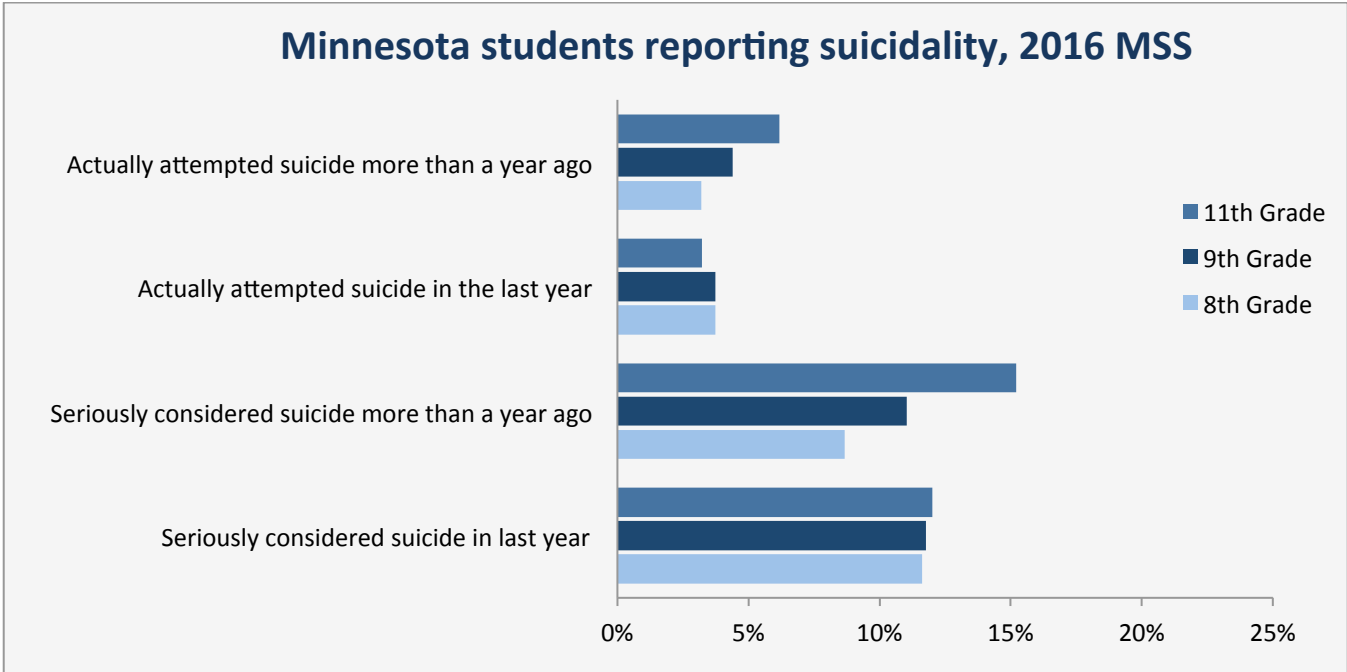
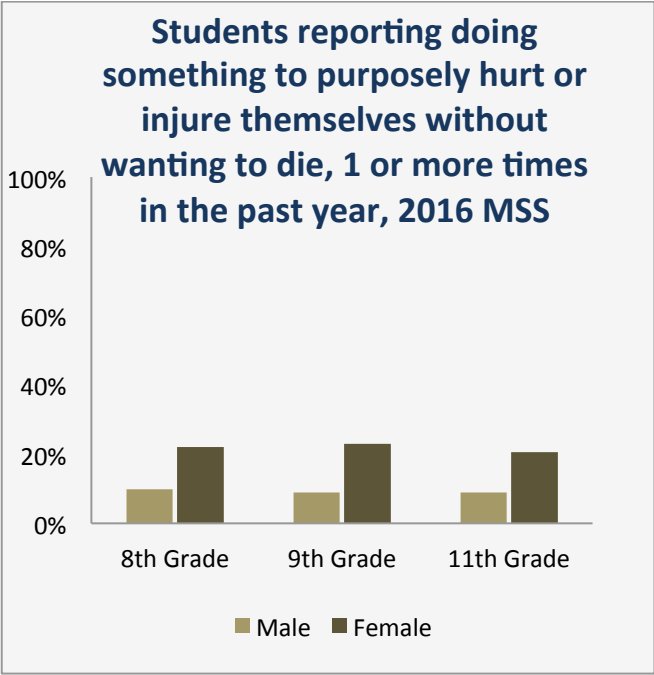
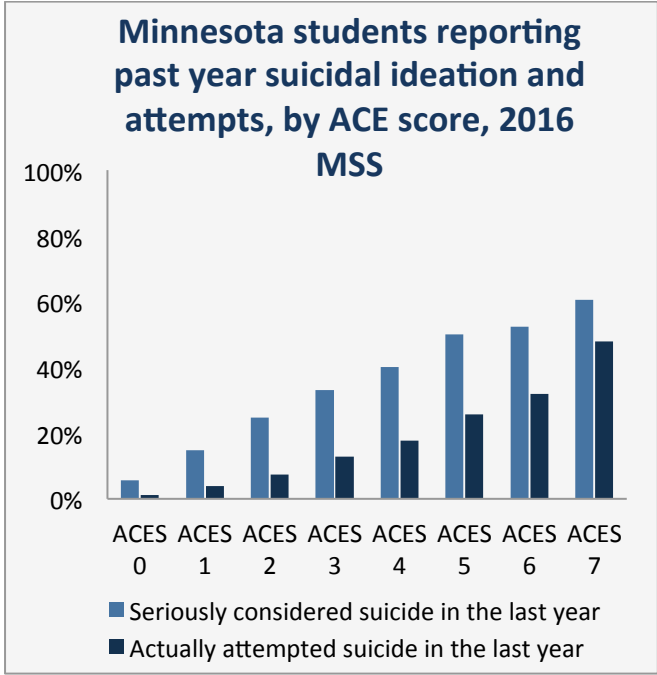
Data Source: MSS

Alcohol Use

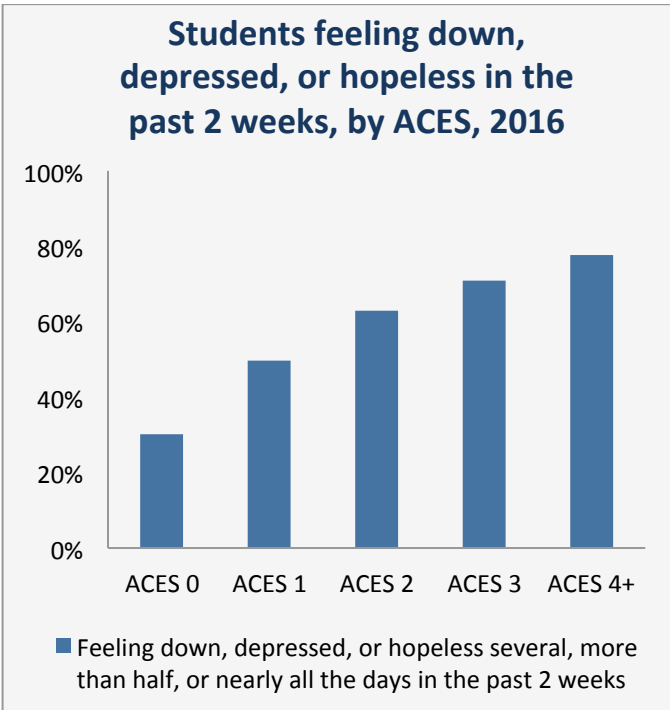
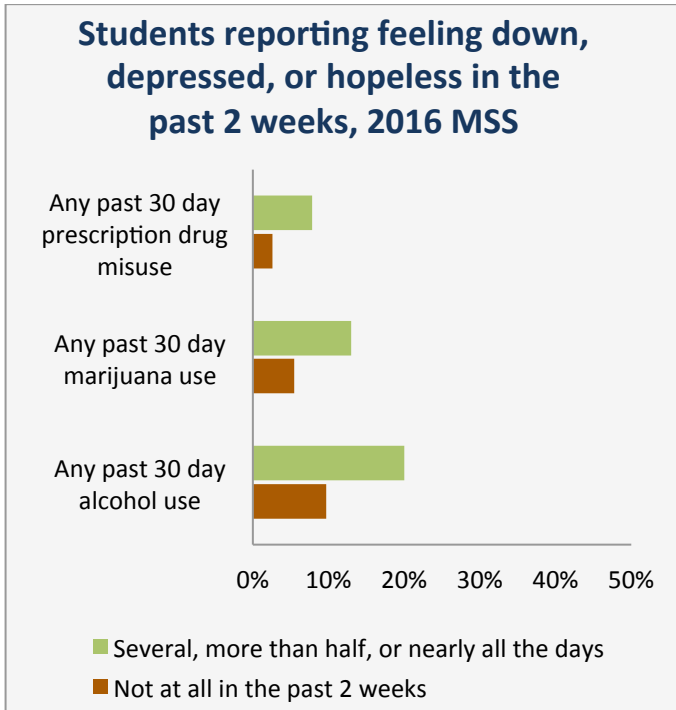
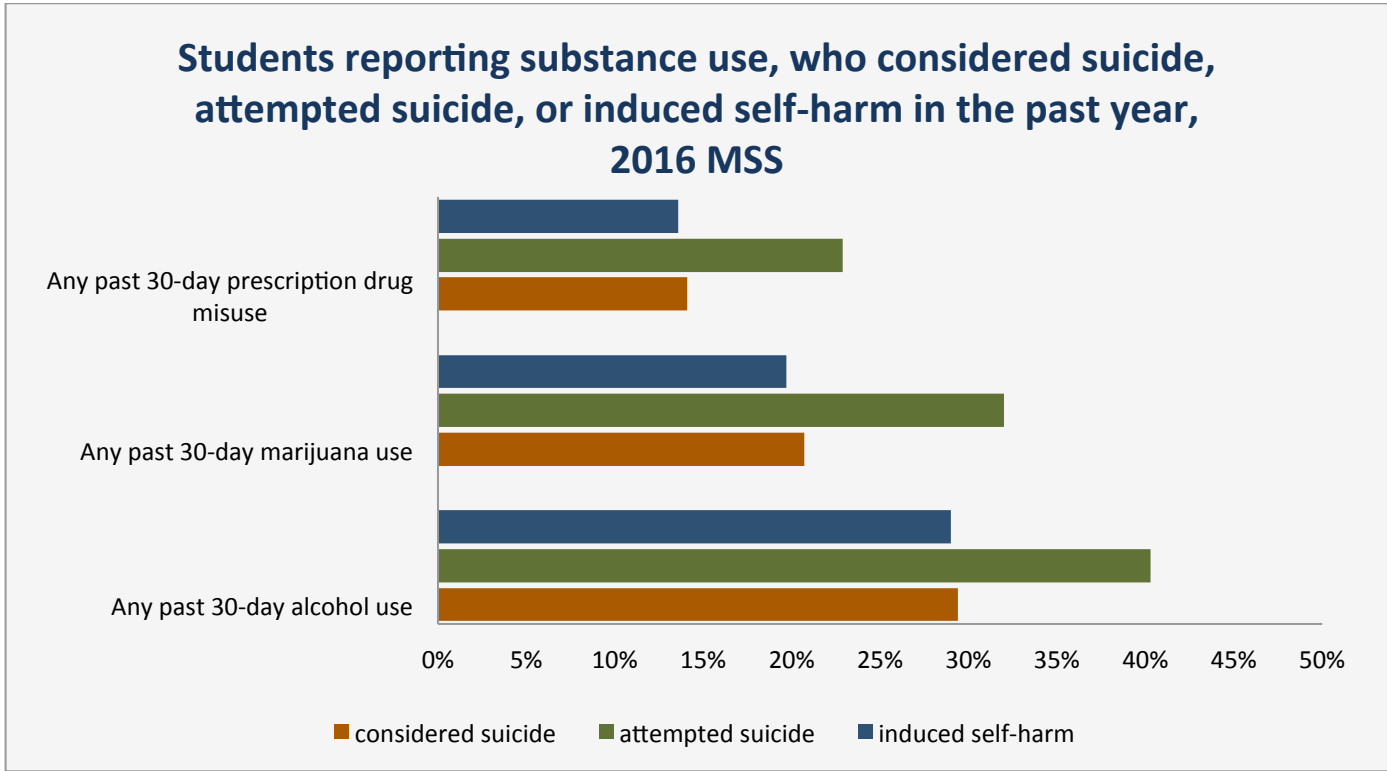


Data Source: MSS

Mental Health

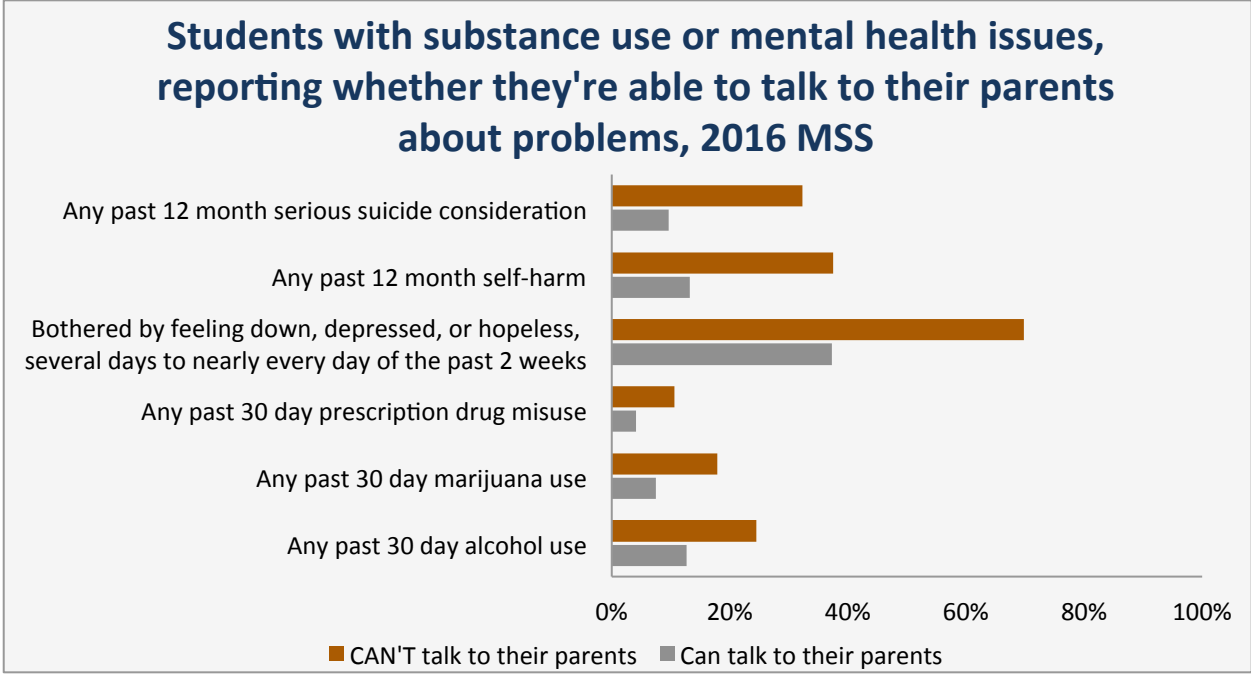


Data Source: MSS

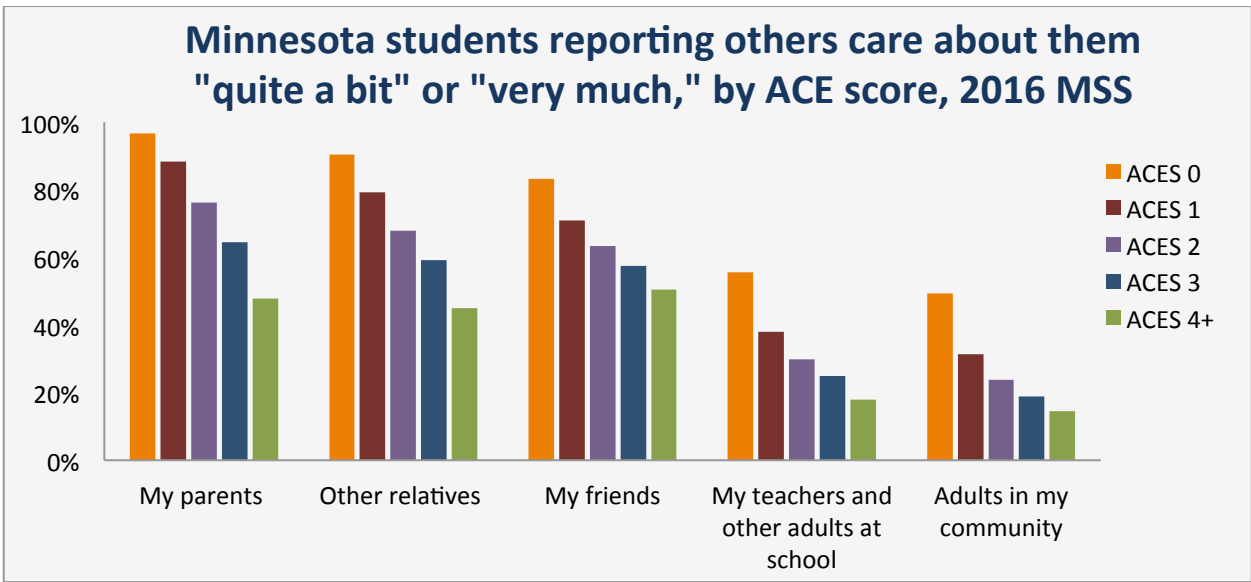


Data Source: MSS

Family and Community

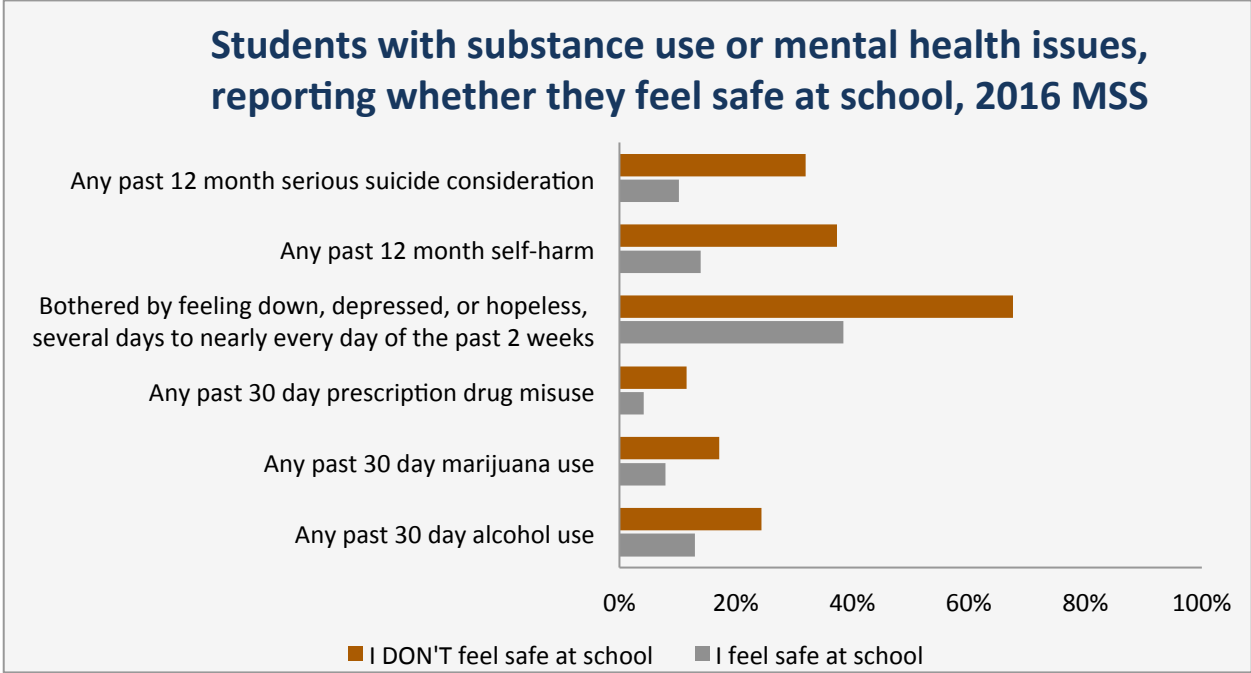


*Protective factor:
Students who feel that adults care for them are less likely to engage in harmful behaviors*

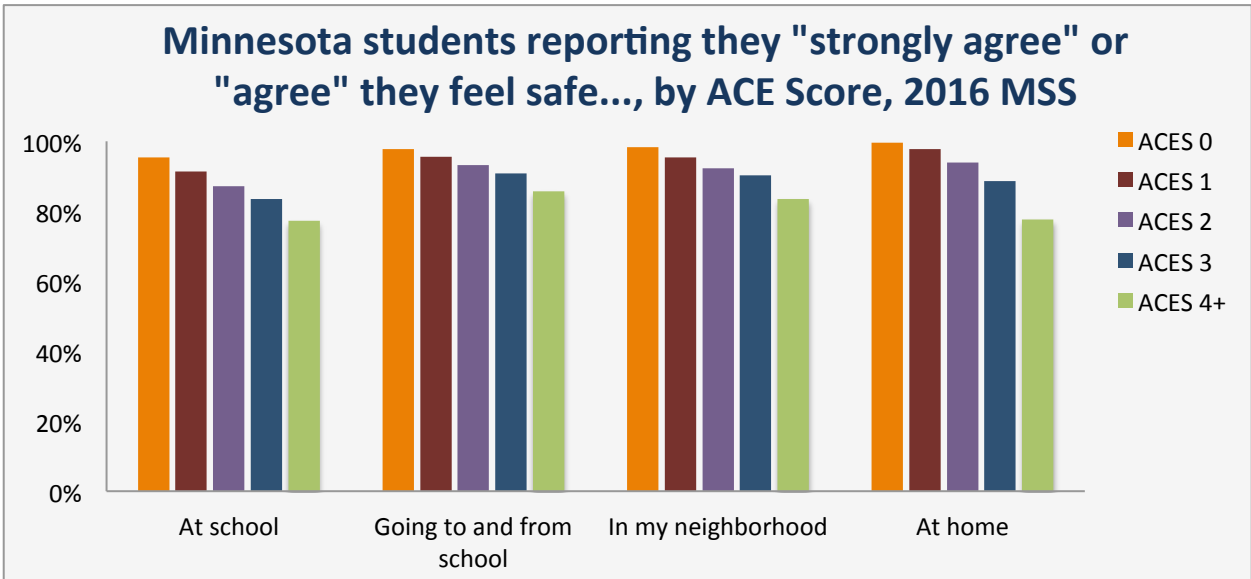


Data Source: MSS

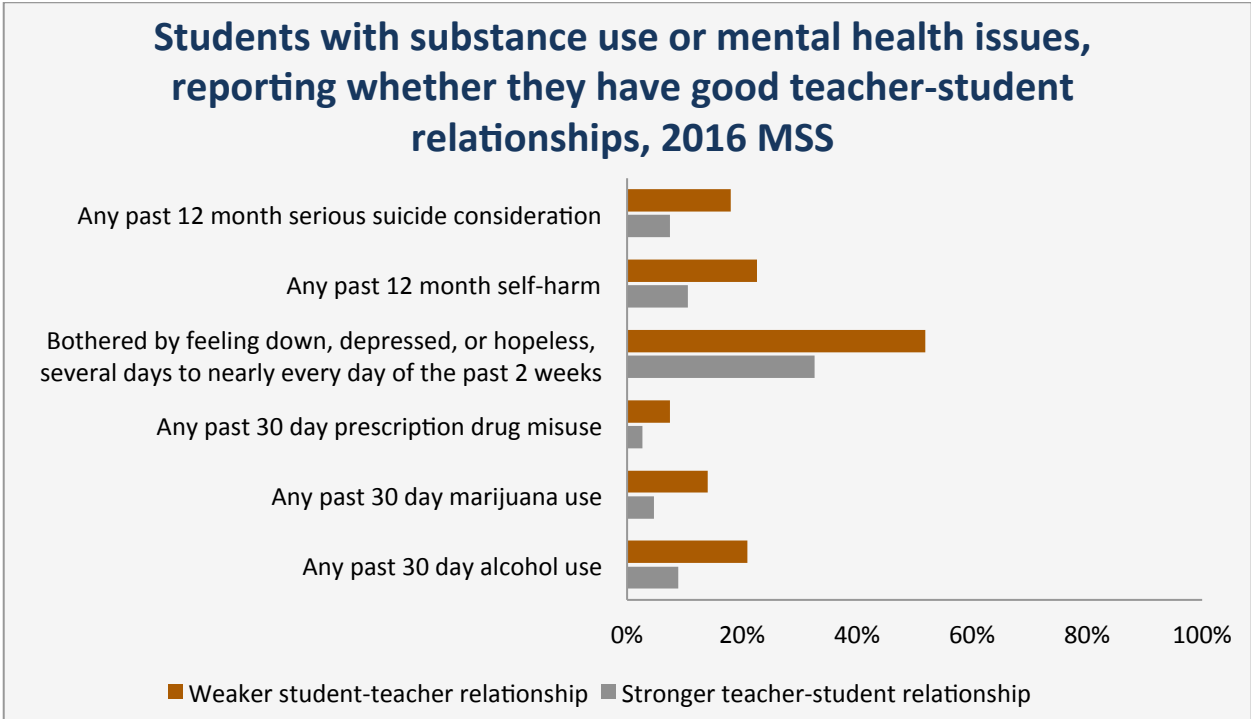
School



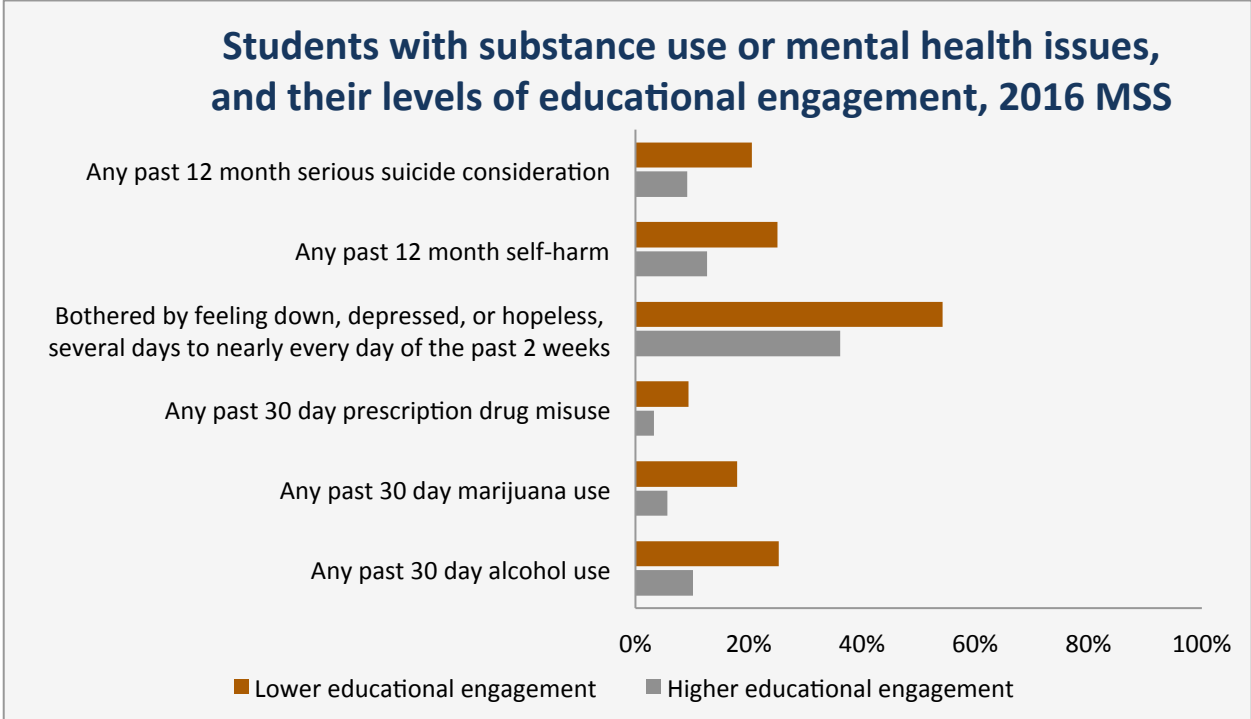
*Protective factor:
Students who feel safe at school are less likely to engage in harmful behaviors*



Data Source: MSS



Protective factor: School engagement



Data Source: MSS

One risk factor for students' substance use is experiencing bullying. For the purposes of the Minnesota Student Survey, bullying is defined as the following:

VICTIM

Students reporting, during the last 30 days, ANY times other students at school:

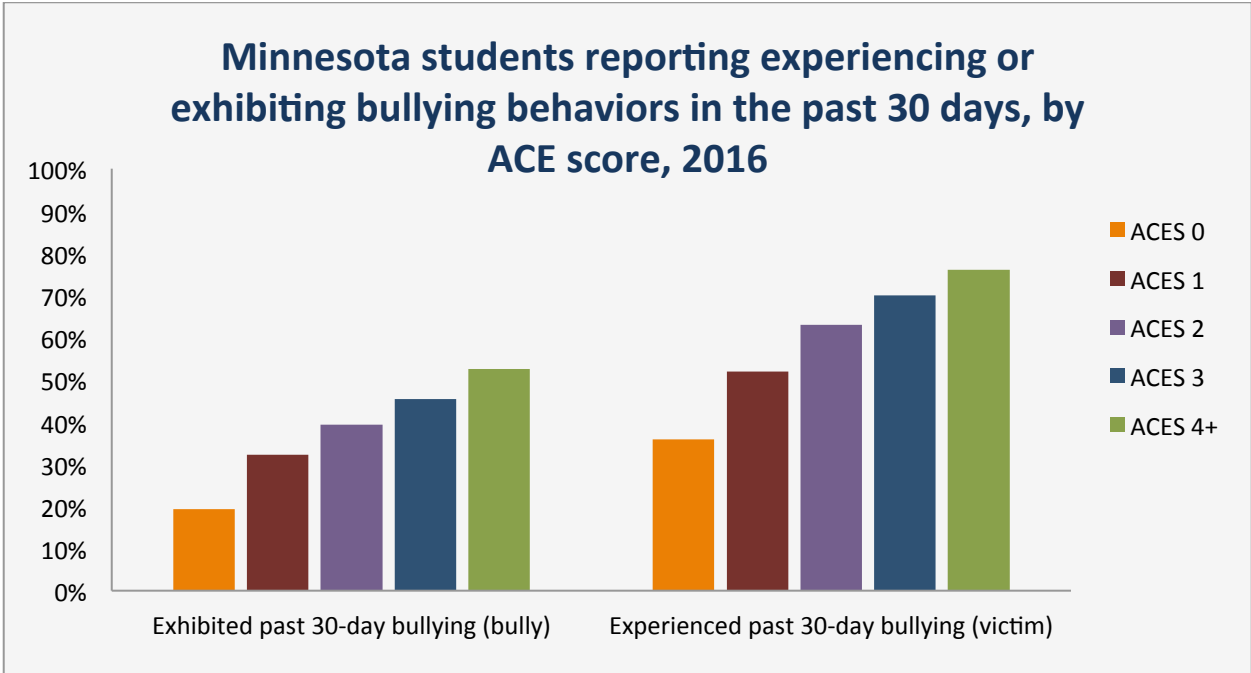
- Pushed, shoved, slapped, hit or kicked you when they weren't kidding around, *and/or*
- Threatened to beat you up, *and/or*
- Spread mean rumors or lies about you, *and/or*
- Made sexual jokes, comments or gestures toward you, *and/or*
- Excluded you from friends, other students, or activities

BULLY

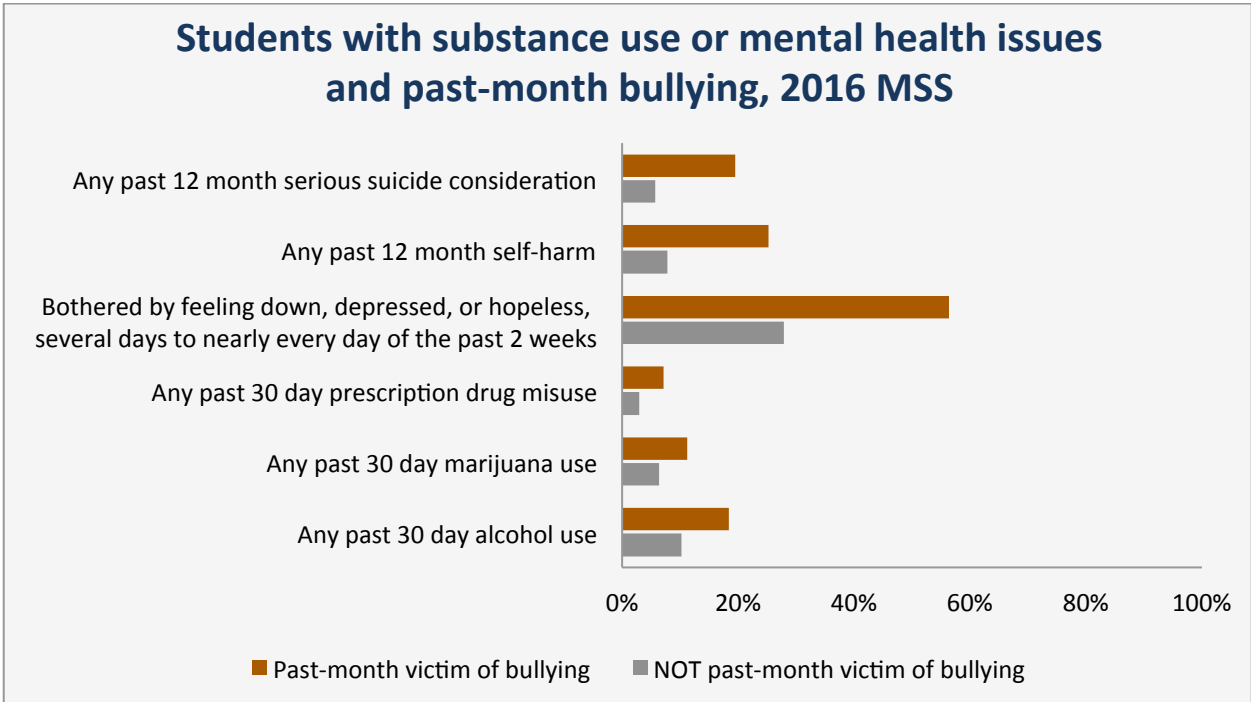
Students reporting, during the last 30 days, ANY times at school THEY:

- Pushed, shoved, slapped, hit or kicked someone when you weren't kidding around, *and/or*
- Threatened to beat someone up, *and/or*
- Spread mean rumors or lies about someone, *and/or*
- Made sexual jokes, comments or gestures toward someone, *and/or*
- Excluded someone from friends, other students, or activities

Data Source: MSS



Risk factor: Experiencing bullying



2018



Substance Abuse in Minnesota:
A State Epidemiological Profile
Section 7. Socioeconomic Factors

Prepared by: EpiMachine, LLC

**for the Minnesota Department of Human Services, Alcohol
and Drug Abuse Division**

Substance Abuse in Minnesota

Section 7. Socioeconomic Factors

The 2018 Minnesota State EpiProfile is divided into eight parts:

1. Introduction (which includes a profile overview, population snapshot, and acknowledgements)
2. Executive Summary
3. Alcohol: Use, Consequences, and Intervening Variables
4. Tobacco and Nicotine: Use, Consequences, and Intervening Variables
5. Drugs: Use, Consequences, and Intervening Variables
6. Mental Health and Shared Factors
7. Socioeconomic Factors
8. Appendix (which includes technical notes and data sources)

Substance Use in Minnesota: Socioeconomic Factors

Substance Use and Median Household Income

About the Indicator

Socioeconomic factors are related to substance use, but perhaps in unexpected ways; the relationship is not as clear as it is for some other risk or protective factors.

According to data from BRFSS, adults in higher-income households ($\geq \$75,000$) were more likely to report binge drinking; however, of adults in the lowest income group ($< \$25,000$), those who did engage in binge drinking, did so more often, and drank more.

Adults in lower-income households are 3.4 times more likely to report cigarette use, but are slightly less likely to report using smokeless tobacco (although total use is relatively low).

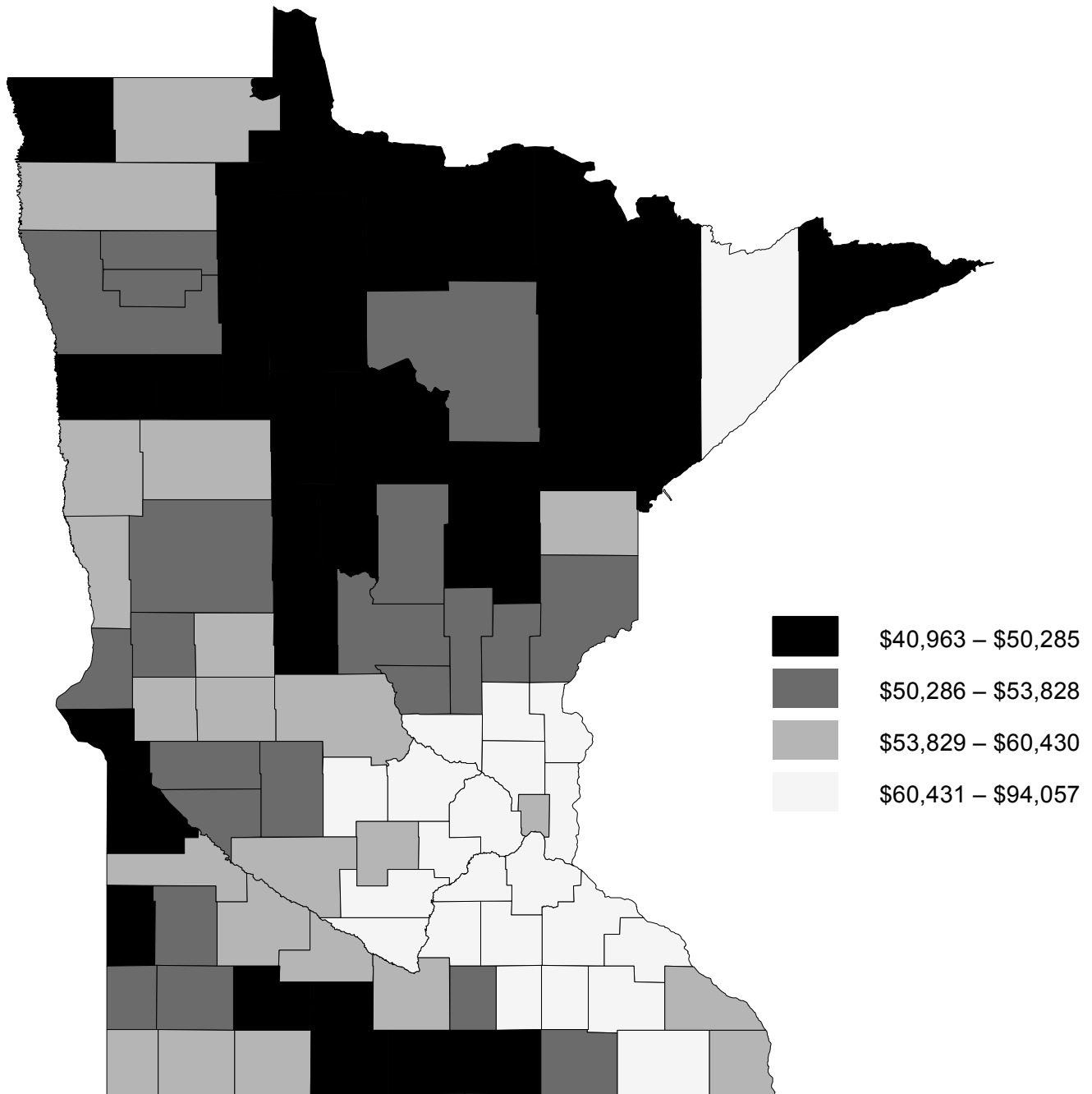
Data Source(s)

US Census
BRFSS

Section Summary

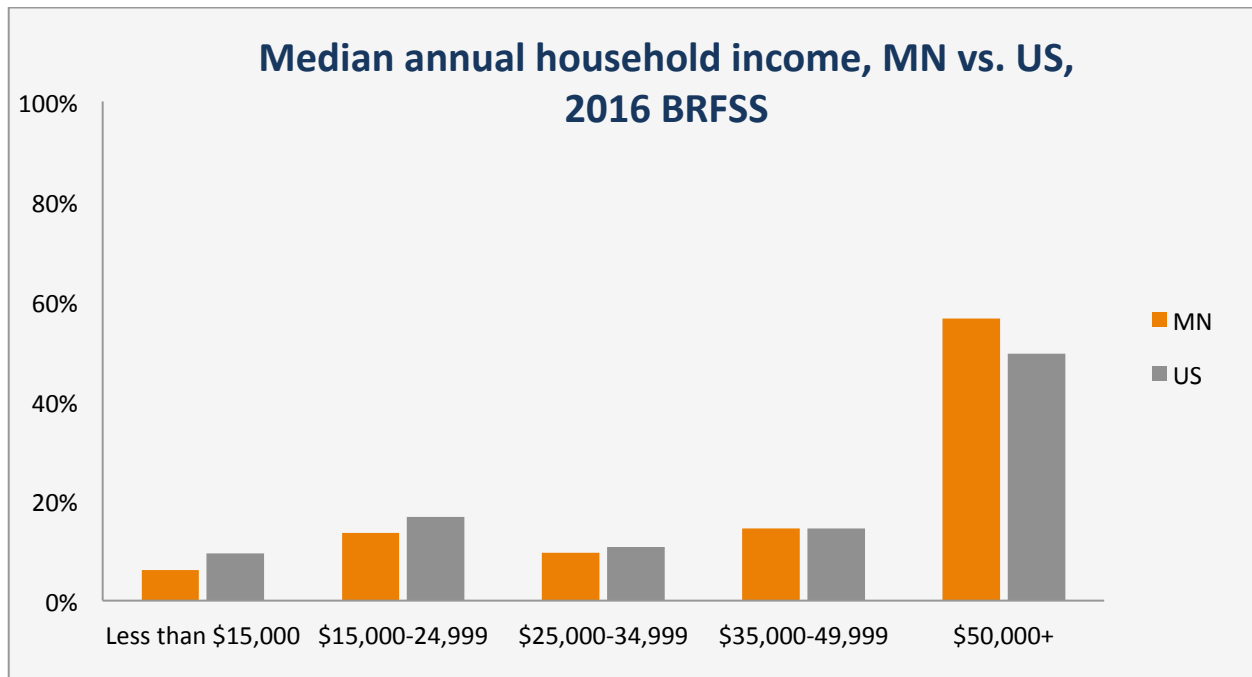
- The median household income is slightly higher in Minnesota than in the US as a whole.
- Minnesota median household income ranges from \$40,963 to \$94,057, depending on the county.
- Minnesotans in higher-income households are more likely to report alcohol consumption, but less likely to report cigarette use.

Data Source: US Census



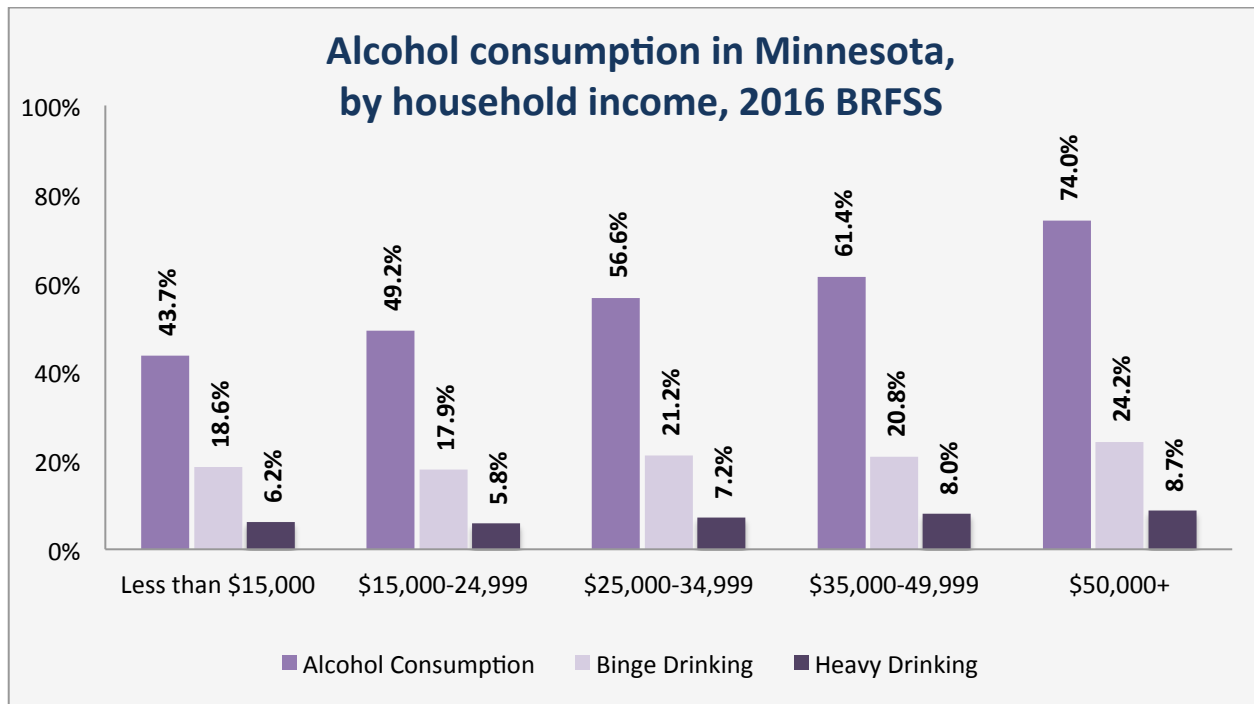
Median Household Income, by County, US Census: Small Area Income and Poverty Estimates, 2016

Data Source: BRFSS

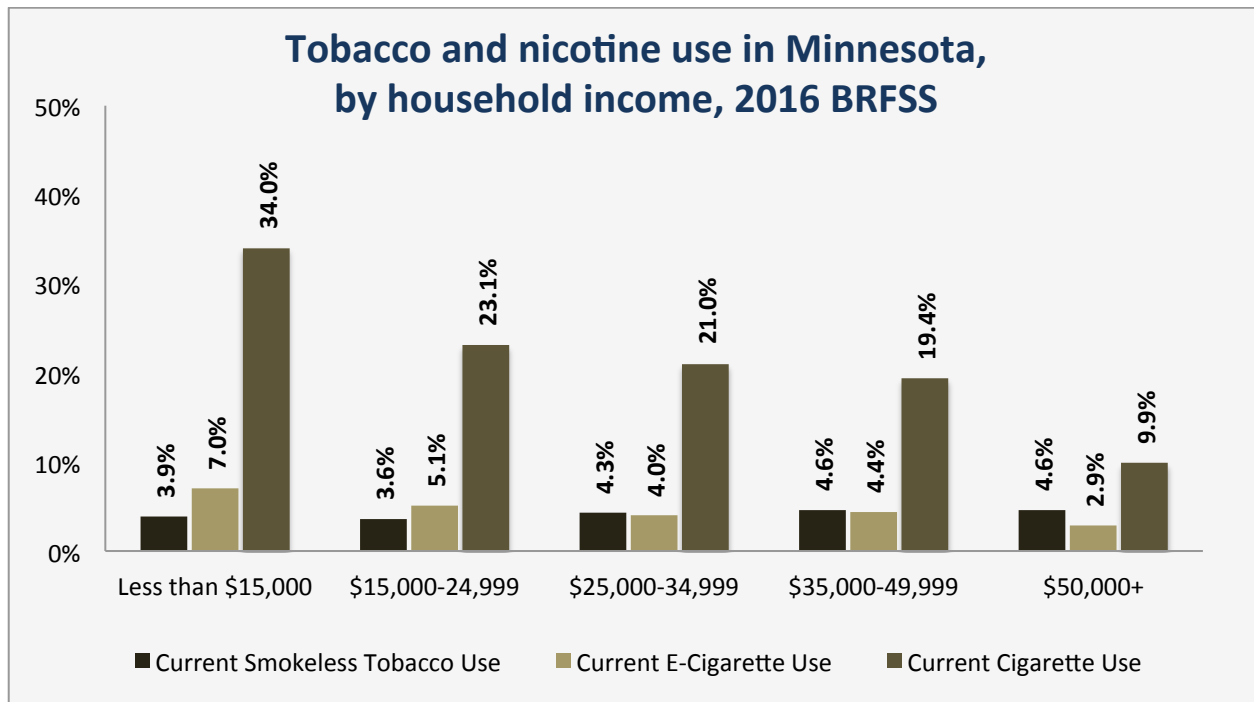


Median Annual Household Income, BRFSS						
MN	2011	2012	2013	2014	2015	2016
Less than \$15,000	7.6%	7.7%	7.4%	6.7%	6.2%	6.1%
\$15,000-24,999	15.5%	15.2%	14.6%	14.3%	13.6%	13.5%
\$25,000-34,999	11.7%	10.3%	10.7%	10.6%	9.7%	9.6%
\$35,000-49,999	15.8%	15.0%	15.3%	14.8%	14.7%	14.4%
\$50,000+	49.4%	51.8%	52.1%	53.6%	55.9%	56.5%
US	2011	2012	2013	2014	2015	2016
Less than \$15,000	12.4%	11.5%	11.5%	10.7%	9.9%	9.4%
\$15,000-24,999	18.5%	18.1%	17.9%	17.1%	16.0%	16.8%
\$25,000-34,999	11.7%	11.7%	11.7%	11.3%	11.1%	10.8%
\$35,000-49,999	15.0%	14.9%	14.7%	14.6%	14.6%	14.4%
\$50,000+	41.7%	43.5%	44.1%	45.2%	48.4%	49.4%

Data Source: BRFSS



NOTE: "Alcohol consumption" is defined as any alcohol in the past month. "Binge drinking" is 5 drinks for men and 4 drinks for women, consumed on one occasion. "Heavy drinking" is 14 or more drinks per week for men, or 7 per week for women.



Substance Use in Minnesota: Socioeconomic Factors

Youth Substance Use in Relation to Socioeconomic Indicators

About the Indicator

Just as the data for adults show a complicated relationship between socioeconomic status and substance use, so do the data for youth.

In many studies, young people from lower socioeconomic backgrounds were more likely to report cigarette smoking. However, marijuana and alcohol use (especially binge drinking) often increases with socioeconomic status.

The Minnesota Student Survey (MSS) uses 3 indicators as proxies for socioeconomic status:

- Having to skip meals in the past month because the family didn't have enough money
- Receiving free or reduced-price lunch at school
- Staying at a shelter, somewhere people were not intended to live, or in someone else's home because they had nowhere else to stay—either on their own, or with parent(s)

These three indicators are associated with substance use to varying degrees.

Data Source(s)

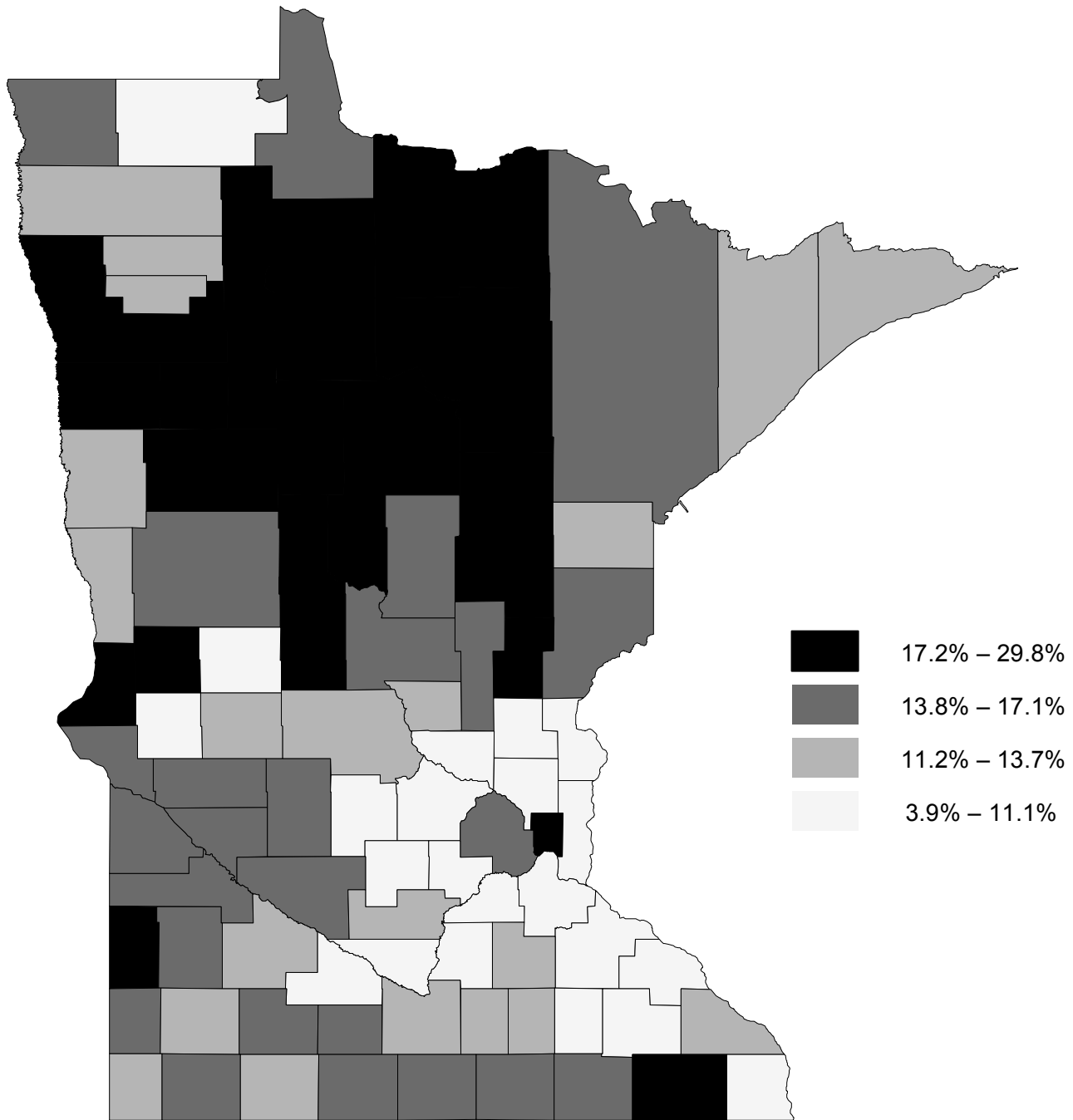
US Census

Minnesota Student Survey (MSS)

Section Summary

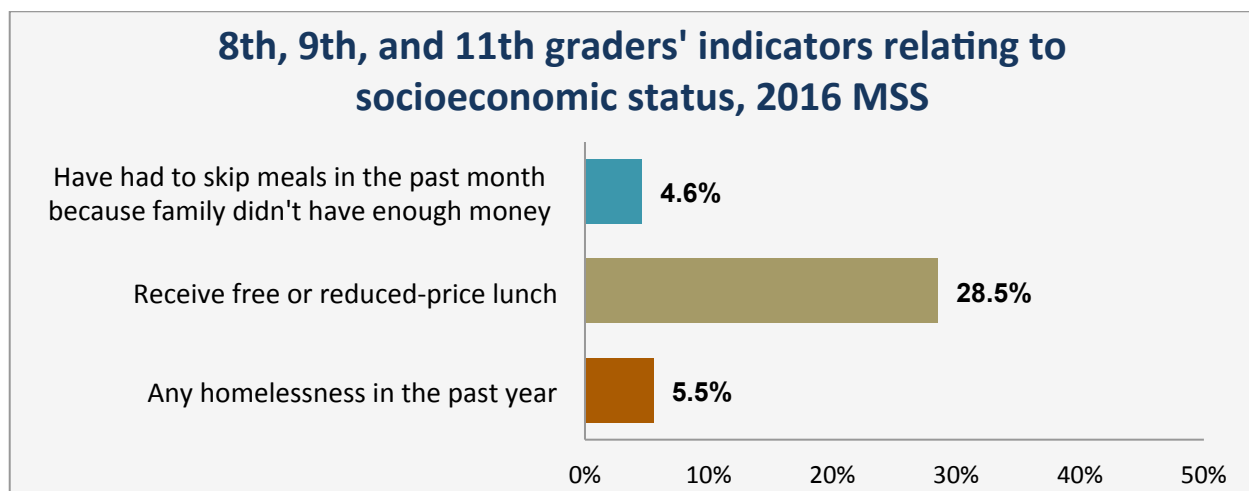
- An average of 11.8% of Minnesota children live in poverty, with the state ranking 8th in the nation.
- Alcohol does not show a strong relationship to socioeconomic status for Minnesota's 8th, 9th, and 11th graders.
- Students who've had to skip meals in the past month are much more likely to have reported past-month use of substances.

Data Source: US Census

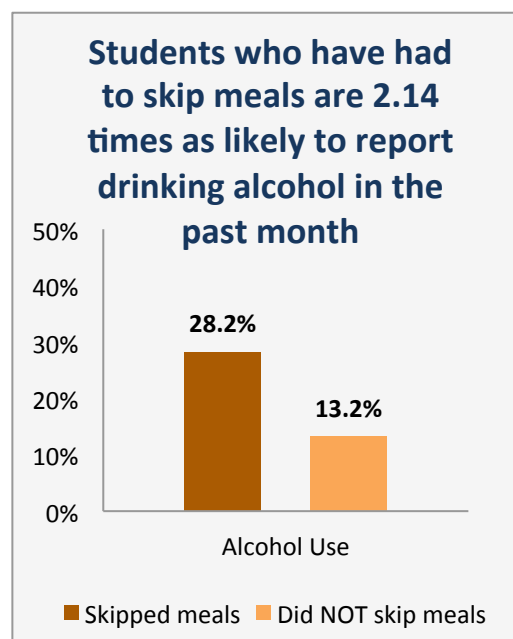


Percentage of Children in Poverty, by County, US Census: Small Area Income and Poverty Estimates, 2016

Data Source: MSS



Students whose families have had to skip meals are much more likely to use substances—twice as likely to have drunk alcohol in the past month (28.2% vs. 13.2%), and 3.6 times as likely to have misused prescription drugs in the past month (15.1% vs. 4.2%).



Factor by which 8 th , 9 th , and 11 th Graders are More Likely to Report Substance Use, 2016 MSS				
	Past-Month Alcohol	Past-Month Tobacco Use	Past-Month Marijuana Use	Past-Month Rx Drug Misuse
Skipped Meals	2.1x	2.5x	3.0x	3.6x
Free or Reduced-Price Lunch	--	1.4x	1.7x	1.7x
Homelessness	1.8x	2.0x	2.4x	3.7x

Substance Use in Minnesota: Socioeconomic Factors

Substance Use and Homelessness

About the Indicator

Wilder Research performs a statewide survey of the persons in Minnesota who are experiencing homelessness. The survey takes place every 3 years, on the last Thursday of October. The survey comprises over 300 questions, and provides valuable information about Minnesotans without homes.

The number of people experiencing homelessness in Minnesota has increased since the study began in 1991, although a slight decrease was seen between 2012 and 2015.

Of homeless adults in Minnesota, 21% have substance abuse disorder (SA); 1% have both SA and a chronic health condition; 7% have both SA and a serious mental illness; and 11% have all three conditions. Almost one-fifth (19%) cite a drinking or drug problem as a reason they left their last regular housing.

Of young people who are homeless alone (without parents), 24% say their own use of drugs or alcohol is part of the cause or the main cause of their homelessness. 31% of youth cite their parents' use as a cause of homelessness. Further, when asked about adverse childhood experiences (ACEs), 61% said they lived with a substance abuser as a child. Further, 18% have lived in a drug or alcohol treatment facility, 7% have been told in the past 2 years that they have a drug abuse disorder, and 12% have been diagnosed with an alcohol abuse disorder.

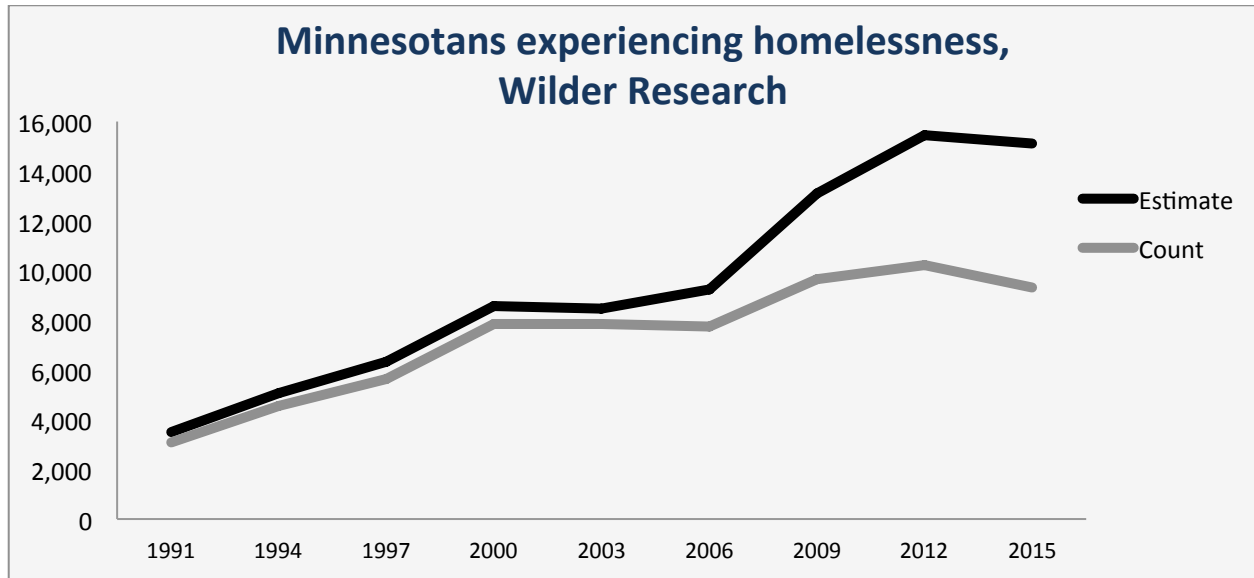
Data Source(s)

Wilder Research Minnesota Homeless Study
<http://mnhomeless.org/>

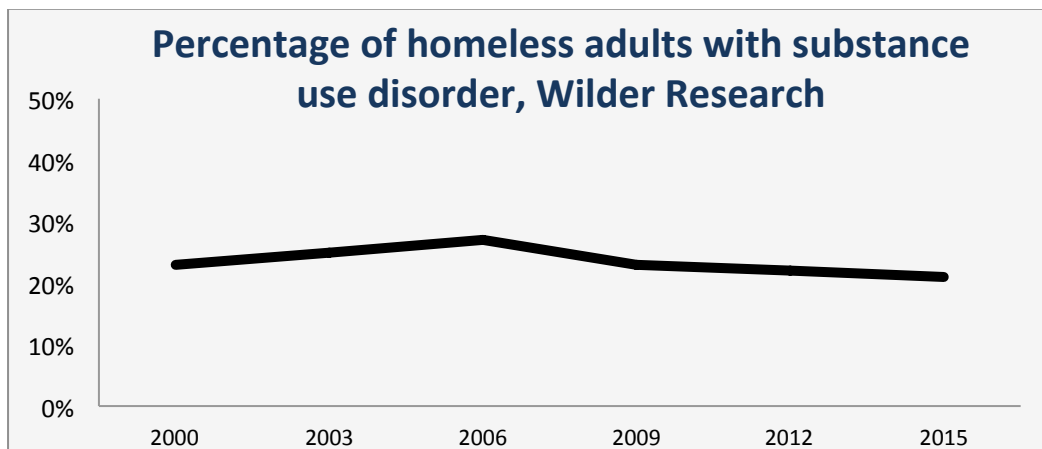
Section Summary

- About one-fifth of adults experiencing homelessness have a substance use disorder.
- Youth and young adults experiencing homelessness are most likely to use nicotine, at rates higher than their peers.

Data Source: Wilder Research

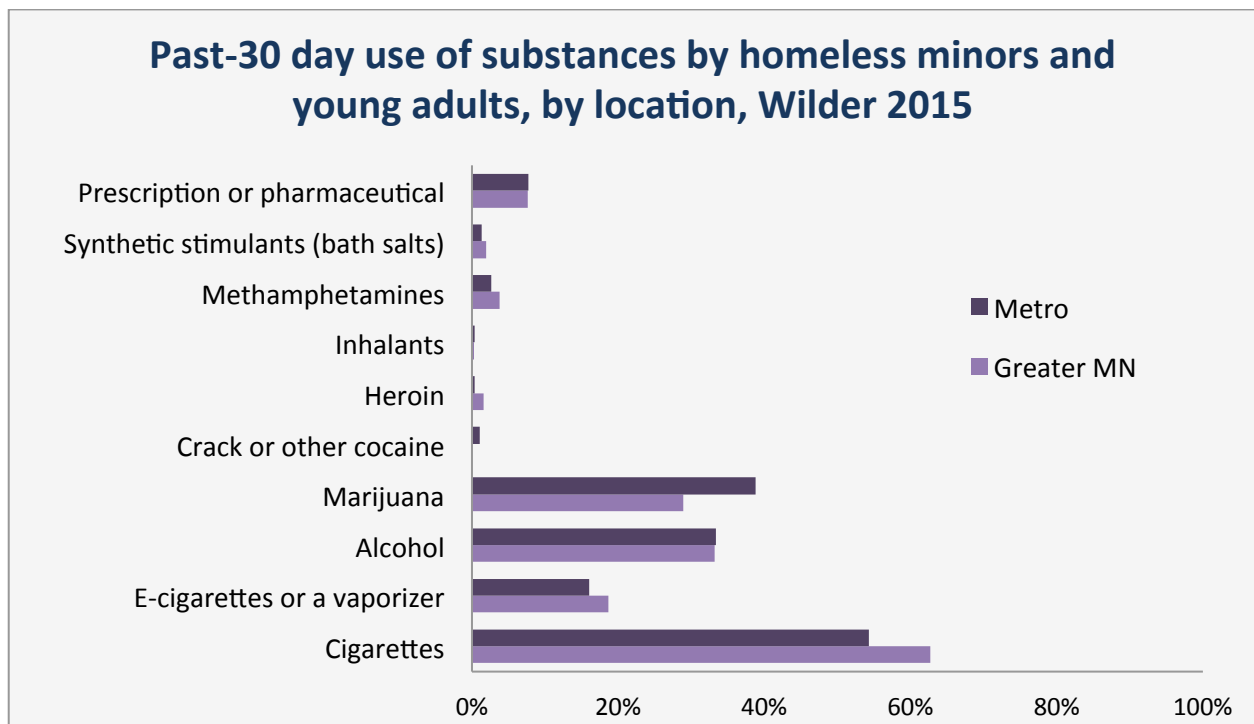
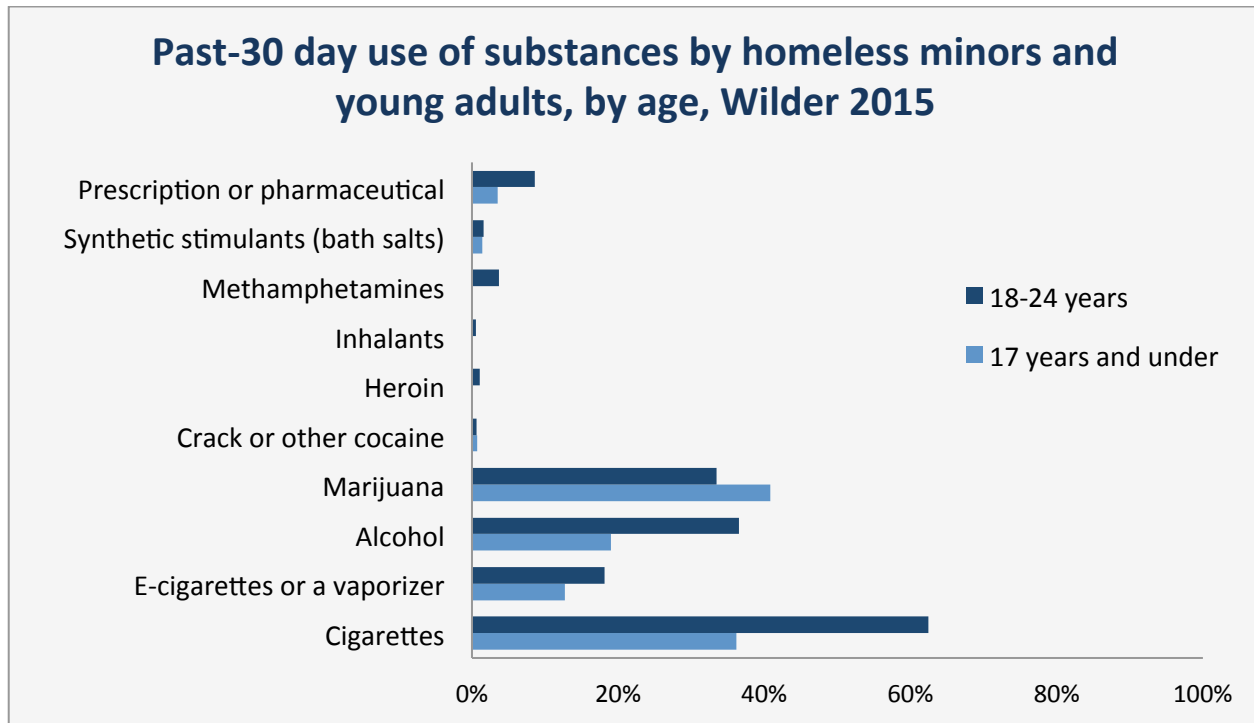


Persons Experiencing Homelessness in Minnesota, Wilder Research									
	1991	1994	1997	2000	2003	2006	2009	2012	2015
Estimate	3,500	5,061	6,341	8,569	8,461	9,244	13,100	15,455	15,109
Count	3,079	4,553	5,645	7,854	7,854	7,751	9,654	10,214	9,312



Percentage of Homeless Adults with Substance Abuse Disorder					
2000	2003	2006	2009	2012	2015
23%	25%	27%	23%	22%	21%

Data Source: Wilder Research



2018



Substance Abuse in Minnesota: A State Epidemiological Profile

Section 8. Appendix

Prepared by: EpiMachine, LLC

**for the Minnesota Department of Human Services, Alcohol
and Drug Abuse Division**

Substance Abuse in Minnesota

Section 8. Appendix

The 2018 Minnesota State EpiProfile is divided into eight parts:

1. Introduction (which includes a profile overview, population snapshot, and acknowledgements)
2. Executive Summary
3. Alcohol: Use, Consequences, and Intervening Variables
4. Tobacco and Nicotine: Use, Consequences, and Intervening Variables
5. Drugs: Use, Consequences, and Intervening Variables
6. Mental Health and Shared Factors
7. Socioeconomic Factors
8. Appendix (which includes technical notes and data sources)

Appendix

Definitions and Technical Notes

For more detailed explanations of survey sample, census, rate, count, and other definitions please see the “Tools” section of the SEOW website: www.sumn.org.

Survey Sample

In a sample survey, only part of the total population is approached for information. The data are then 'expanded' or 'weighted' to make inferences about the whole population. The survey sample is the set of observations taken from a subset of

the population for the purpose of obtaining information about the entire population. The Minnesota Survey of Adult Substance Use and the Behavioral Risk Factor Surveillance System survey use samples to represent the state population at large.

In cases where data is presented from such studies, the reader is provided with the percent of the population only, not raw number of respondents.

Census

A census is an enumeration of people at a particular time. Unlike a sample-based survey, a census surveys an entire population. The Minnesota Student Survey (MSS) is a census of all schools in Minnesota. In a census, schools may decline to participate. In 2016, 85% of publicly operating school districts participated in the MSS.

Because answers to MSS questions were derived from a census of all schools, data is presented both in raw number and in percent terms.

Rate

Rates are ratios, calculated by dividing the numerator by the denominator. In epidemiology, a rate is the frequency with which a health event occurs in a defined population. The components of the rate are the raw number (numerator) and the population (denominator). In the Profile, rates are presented per 1,000 or 100,000 of the population and are noted accordingly. Be sure to reference each data sheet for the denominator.

Incidence rates differ from prevalence rates. Incidence refers to the frequency of development of a *new* illness in a population in a certain period of time, normally one year. **Prevalence** refers to the current number of people

suffering from an illness in a given year; this number includes all those who may have been diagnosed in prior years, as well as in the current year.

A percent is the ratio of a number to 100; percent means “per hundred.” Proportions are a part, share, or portion of its relation to a whole often expressed as a percentage. Percentages in this profile based on Minnesota Student Survey data or Minnesota Survey of Adult Substance Use data were calculated using a demographic-specific denominator. For example, the percent of male 12th graders in the seven-county metro area who reported drinking any alcohol in the past 30 days is based on the total number of male 12th graders in the seven-county metro area who responded to the survey question about 30-day alcohol use (not based on the total number of students in Minnesota who responded to this question).

Rate ratios are presented in the Epi Profile, often comparing a Minnesota rate to a US rate (calculated by simply dividing the Minnesota rate by the US rate). A rate ratio of 1.00 indicates that the Minnesota rate equals the US rate. Over 1.00 indicates higher use, while less than 1.00 indicates lower use.

Counts

Many data sources in the Profile present official count data. These include, but are not limited to, death, arrest and corrections data. These data provide actual raw numbers reported to and collected by various state agencies. Whenever possible, raw numbers are provided along with percentages.

Data Sources

Data Source: Alcohol-Related Disease Impact (ARDI)

Description: The Centers for Disease Control and Prevention (CDC) calculate Alcohol-Related Disease Impact (ARDI) estimates of alcohol-related deaths due to alcohol consumption. To do this, ARDI either calculates or uses pre-determined estimates of Alcohol-Attributable Fractions (AAFs)—that is, the proportion of deaths from various causes that are due to alcohol. These AAFs are then multiplied by the number of deaths caused by a specific condition (e.g., liver cancer) to obtain the number of alcohol-attributable deaths.

Sponsored by: Centers for Disease Control and Prevention (CDC)

Geographic level: National, State

Frequency: Latest: 2006-2010 average

Strengths/weaknesses:

Strengths

- Provides alcohol-attributable mortality estimates for a number of diseases in addition to the total alcohol-related deaths
- Minnesota-specific alcohol-related deaths are available by gender, by age group, and by alcohol consumption levels

Weaknesses

- Based on BRFSS data, which is self-report
- BRFSS prevalence estimates are based on alcohol use during the past 30 days; former drinkers are not included in the calculations
- ARDI exclusively uses the underlying cause of death from vital statistics
- Age-specific estimates of AAFs were only available for motor-vehicle traffic deaths

Link to source: <https://apps.nccd.cdc.gov/ardi/HomePage.aspx>

Data Source: Behavioral Risk Factor Surveillance System (BRFSS)

Description: The BRFSS is a confidential telephone survey of adults age 18 years and older. Respondents are randomly selected in order to reflect the population of Minnesota.

Sponsored by: Centers for Disease Control and Prevention (CDC)

Geographic level: National, State

Frequency: Data collected and reported annually

Suppressed values: Un-weighted denominator counts below 30 are omitted from the Profile to avoid inaccurate representation of gender, age or racial and ethnic groups and to ensure the reliability of estimates.

Strengths/weaknesses:

Strengths

- Standardized and comparable across states
- Trend data available since 1984

Weaknesses

- Non-response bias; bias is reduced by weighting.
- Self-report/response bias
- The recent addition of a cell phone sample, while improving the validity of estimates overall, has made comparisons over time unreliable

Link to source: <http://www.cdc.gov/brfss>

Data Source: Boat & Water Safety Division

Description: The Boat & Water Safety Division collects data on alcohol-related boating citations as well as boating fatalities. Data were obtained upon request.

Sponsored by: Minnesota Department of Natural Resources

Geographic level: State

Frequency: Data collected annually

Strengths/weaknesses:

Strengths

- Trend data available since 1986

Weaknesses

- Arrest data reflect levels of enforcement as opposed to actual frequency of boating under the influence

Data Source: CDC Wonder Compressed Mortality Data

Description: The Compressed Mortality database contains mortality and population counts for all U.S. counties for the years 1979 to 2005. Counts and rates of death can be obtained by underlying cause of death, state, county, age, race, sex, and year. The International Classification of Diseases 9th Revision (ICD 9) codes are used to specify underlying cause of death for 1979 - 1998. Beginning in 1999, cause of death is specified with the International Classification of Diseases 10th Revision (ICD 10) codes.

Sponsored by: Centers for Disease Control and Prevention (CDC)

Geographic level: National, State, County

Frequency: Data collected and reported annually

Strengths/weaknesses:

Strengths

- Standardized and comparable across states
- Trend data available since 1979

Weaknesses

- Race categories are limited to White, Black or African American and Other
- ICD 10 codes differ substantially from ICD 9 codes

Link to source: <http://wonder.cdc.gov/mortSQL.html>

Data Source: College Student Health Survey (CSHS)

Description: The College Student Health Survey was designed by Boynton Health Service, University of Minnesota. The survey is administered to self-selected colleges and universities in Minnesota; in 2015, 17 schools participated. Students are asked about health care and insurance access, general health, mental health, substance use, financial health, nutrition and physical health, and sexual health. Reports are prepared for special populations, including veterans and LGB students.

Sponsored by: Boynton Health Service, University of Minnesota

Geographic level: State

Frequency: Data collected and reported annually since 2007 (except 2014)

Strengths/weaknesses:

Strengths

- Snapshot of college students in Minnesota
- Questions are designed to be comparable to national data

Weaknesses

- The number of colleges participating changes from year to year

Link to source: <http://www.bhs.umn.edu/surveys/>

Data Source: Fatality Analysis Reporting System (FARS)

Description: FARS data are derived from a census of fatal traffic crashes within the 50 States, District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a trafficway customarily open to the public and result in the death of a person (occupant of a vehicle or a non-motorist) within 30 days of the crash.

Sponsored by: National Center for Statistics and Analysis (NCSA) of the National Highway Traffic Safety Administration (NHTSA)

Geographic level: National, State, County

Frequency: Data collected and reported annually

Strengths/weaknesses:

Strengths

- Standardized and comparable across states
- Data are gathered from the State's own source documents and are coded on standard FARS forms
- Trend data available since 1975

Weaknesses

- Includes fatalities only, not all crashes from impaired driving

Link to source: <http://www.fars.nhtsa.dot.gov>

Data Source: Minnesota Center for Health Statistics Data

Description: Mortality data, including lung, bronchus and trachea cancer deaths, cirrhosis deaths, suicides and homicides are obtained upon request. Statistics on smoking during pregnancy are from the Minnesota County Health Tables. Statistics on HIV/AIDS cases involving intravenous drug use (IDU) as the mode of exposure are from the HIV/AIDS Prevalence and Mortality Tables.

Sponsored by: Minnesota Department of Health

Geographic level: State, County

Frequency: Collected and reported annually

Strengths/weaknesses:

Strengths

- Collected consistently by the state
- Trend data available

Weaknesses

- The MN Center for Health Statistics does not report on details on which lung, bronchus and trachea cancer deaths were caused by cigarette smoking, which cirrhosis deaths were caused by alcohol consumption, or which suicide and homicide deaths were caused by alcohol or other drug consumption.
- Data on smoking during pregnancy is self-reported

Link to source: http://www.health.state.mn.us/divs/chs/top_2.htm and <http://www.health.state.mn.us/divs/idepc/diseases/hiv/hivsurvrpts.html>

Data Source: Minnesota Department of Corrections Data

Description: The probation survey is designed to collect data on Minnesota probationers. The definition of probationer is: “All probationers, regardless of conviction status, who were under the supervision of a probation agent as part of a court order at any time including those ordered to pay restitution, complete community service or monitoring.”

The inmate profile captures the number of incarcerated persons in the state of Minnesota twice a year.

Sponsored by: Minnesota Department of Corrections

Geographic level: State, County

Frequency: Probation survey data are collected and reported annually. The inmate profile is compiled bi-annually.

Strengths/weaknesses:

Strengths

- Trend data available since 1981 for inmate profile and 1983 for probation survey

Weaknesses

- Both the probation survey and the inmate profile count offenders only once and may exclude cases that involve drug or chemical convictions. The probation survey counts an offender once in the most serious category. The inmate profile counts an inmate once, by governing sentence, which is typically the sentence with the greatest release date (and may or may not be the most serious offense).

Link to source: <http://www.doc.state.mn.us>

Data Source: Minnesota Office of Traffic Safety Data—Minnesota Motor Vehicle Crash Facts and Minnesota Impaired Driving Facts

Description: Crash Facts provides summary statistical information on crashes, deaths and injuries in Minnesota. Impaired Driving Facts provides similar statistics, but is focused on DWI violations and consequences of impaired driving in Minnesota.

Cost of Alcohol Related Traffic Crashes, Fatalities and Injuries are based on estimates provided by the National Safety Council.

They do not attempt to include “comprehensive costs” but just direct costs of traffic crashes, deaths and injuries due to medical expense, property damage and lost productivity. Other procedures that attempt to include comprehensive costs (e.g. those used by US Department of Transportation) result in total cost estimates about 3 times greater than those calculated here.

Sponsored by: Minnesota Office of Traffic Safety

Geographic level: State, County

Frequency: Data collected and reported annually

Strengths/weaknesses:

Strengths

- Although traffic crash reporting thresholds vary somewhat from state to state, all states produce an annual report summarizing traffic crash statistics. Minnesota’s “Crash Facts” has some comparability to similar reports in all other states.
- Impaired Driving Facts provides detailed information about DWIs, alcohol-related crashes, and injuries and fatalities resulting from those crashes.
- Alcohol-related traffic death statistics are available since 1984; DWI statistics are available since 1990.

Weaknesses

- Alcohol-related injuries are less well documented than fatalities

Link to source: <http://www.dps.state.mn.us/ots>

Data Source: Minnesota Student Survey (MSS)

Description: The MSS is a confidential and anonymous self-administered survey given to 5th, 8th, 9th and 11th grade students attending Minnesota public, charter and tribal schools. Most schools elect to participate in the survey; in 2016, this included 85% of eligible school districts, comprising about 169,000 Minnesota students in those grades.

Although the data are not presented here, the survey is also administered to area learning centers, juvenile correction facilities and private schools electing to participate.

Sponsored by: Minnesota schools, the Minnesota Department of Education, the Minnesota Department of Health, the Minnesota Department of Human Services, and the Minnesota Department of Public Safety

Geographic level: State, County, 7-County Metro and Non-Metro Regions

Frequency: Data collected and reported every three years

Missing Values: The Profile omits values where the number of total respondents for each question, and for each demographic category, is less than 30. For example, if fewer than 30 female, Hispanic 5th graders respond to a particular question, we will suppress the results. This is a rule imposed by the SEOW in order to protect the confidentiality of the survey respondents.

The results of the Minnesota Student Survey are also available at a county level. Data Privacy requirements mandate that data are presented in a manner such that no individual student can be identified through the presentation of the results. As part of the Data Privacy practices, the results are also presented in a manner that no individual school district could be identified through the results. Therefore, for counties that have only one school district, the results are not presented. Results are also withheld for counties in which the minimum number for student participation was not met.

Strengths/weaknesses:

Strengths

- “Census” of schools, not sample
- School districts get their own data
- Trend data available since 1992 on some questions

Weaknesses

- 5th graders not asked all drug questions
- Some school districts do not participate.
- Student participation within the school district can vary widely.
- Reporting biases associated with self-report data
- Format changed in 2013; previously, 6th, 9th, and 12th graders were surveyed. Thus, trend data for Minnesota students is available only for 9th graders.

Link to source:

http://education.state.mn.us/mde/Learning_Support/Safe_and_Healthy_Learners/Minnesota_Student_Survey/index.html

Demographics: As the only statewide survey of youth, the Profile relies heavily on data collected from the Minnesota Student Survey. Characteristics of students who participated in the 2016 Minnesota student survey are follows:

All Minnesota Student Survey Respondents (2016)							
		Male		Female		Total	
		N (#)	%	N (#)	%	N (#)	%
Total		84912	50.5%	83300	49.5%	168212	100.0%
Grade	5th	21,094	50.6%	20,623	49.4%	41,717	100.0%
	8th	22,595	50.4%	22,254	49.6%	44,849	100.0%
	9th	22,829	50.5%	22,346	49.5%	45,175	100.0%
	11th	18,394	50.4%	18,077	49.6%	36,471	100.0%
Race/Ethnicity	White				120748	74.0%	
	African-American, African or Black				12504	6.0%	
	Native American				3624	2.0%	
	Native Hawaiian or Pacific Islander				836	0.0%	
	Asian only				10029	5.0%	
	Multiple Race				13647	7.0%	
	Don't know/No Answer				2865	5.0%	
Ethnic /Cultural Group	Hispanic/Latino				15942	9.4%	
	Somali				3619	2.1%	
	Hmong				4815	2.9%	

Data Source: Minnesota Survey of Adult Substance Use (MNSASU)

Description: The MNSASU is a statewide telephone survey conducted by DHS, in 2004, 2010, and 2014. The primary objective of this project is to obtain current estimates of the number of adults in the general population in Minnesota who are abusing or dependent on alcohol or other drugs and are in need of treatment. The prevalence of *substance* abuse and dependence and need for treatment were assessed for the total population, and by region, race and ethnicity, gender, age group, and immigration status. The population for this survey included Minnesota residents 18 years of age or older and non-institutionalized. The study employed a random digit dial mode of contact, with over 16,000 adults in Minnesota completing the survey.

The sample was stratified by region, and African Americans, American Indians, Latinos, Hmong and other Asian Americans were over-sampled to ensure adequate numbers of respondents to provide reliable estimates for these sub-groups. The survey was administered by the University of Minnesota, School of Public Health in both English and Spanish. In 2010 the weighted response rate was 47%. These data are self-reported.

Sponsored by: Minnesota Department of Human Services, Performance Measurement and Quality Improvement

Geographic level: State, 7-County Metro and Non-Metro Regions, Prevention Regions

Frequency: Next year data will be available: 2018

Strengths/weaknesses:

Strengths

- The survey methods employed over-sampling and weighting to accurately reflect the Minnesota population
- Trends can be observed with the recently available 2010 data

Weaknesses

- Telephone non-coverage-(e.g., 2000 Census estimates that MN had 1.1% households with no phone).
- Non-response bias; bias is reduced by weighting.
- Self-report/response bias
- Small subpopulation sizes limit the comparisons that are possible across groups.

Link to source: <http://dhs.state.mn.us/mnsasu/>

Data Source: National Institute on Alcohol Abuse and Alcoholism (NIAAA)

Description: The NIAAA collects data on volume beverage and ethanol consumption in gallons for states, as well as per capita ethanol consumption. Data are presented for beer, wine, spirits, and all three combined.

Sponsored by: National Institutes of Health

Geographic level: National, State, and Census Regions

Frequency: Data are collected and reported annually

Strengths/weaknesses:

Strengths

- Trend data available since 1970
- Collected consistently

Weaknesses

- Data not available by county or by demographic group

Link to source: <http://pubs.niaaa.nih.gov/publications/surveillance.htm>

Data Source: National Survey on Drug Use and Health (NSDUH)

Description: The NSDUH is a nationwide survey involving in-home interviews with approximately 70,000 randomly selected individuals age 12 and older. Data are presented as two-year averages. Accordingly, the Profile presents combined data from 2003/2004, 2004/2005, 2005/2006, etc.

Sponsored by: Substance Abuse and Mental Health Services Administration (SAMHSA)

Geographic level: National, State

Frequency: Data are presented as two-year averages

Strengths/weaknesses:

Strengths

- Trend data available between 1972 and 2014

Weaknesses

- No state data by Race/Ethnicity
- Changes to the survey in 2015 limit trend data for some indicators

Link to source: <http://oas.samhsa.gov/stateTrends.htm>

Data Source: Safe and Healthy Minnesota Schools (SAHMS)

Description: The SAHMS Portal contains data, by school district, on disciplinary incidents involving alcohol, tobacco and other drugs. Districts report all disciplinary incidents that result in an out-of-school suspension/removal of one day or longer, and expulsions/exclusions. In addition, SAHMS contains Minnesota Students Survey data and data on ATOD programs provided by each district.

Sponsored by: Minnesota Department of Education

Geographic level: State, Region, County, School District

Frequency: Data collected and reported annually

Strengths/weaknesses:

Strengths

- Data collected consistently
- Trend data available since the 2004/2005 school year
- Data available at the sub-state level

Weaknesses

- Does not reflect the actual number of youth possessing or using alcohol, tobacco or other drugs at school—only those caught and disciplined

Link to source (You must create an account, if you don't currently have one, to view this portal):

<https://education.state.mn.us/MIDMS/login.jsf?Appld=EDPPublic>

Data Source: Shoveling Up II: The Impact of Substance Abuse on Federal, State, and Local Budgets

Description: The Shoveling UP II report, based on three years of research and analysis, assess the costs of tobacco, alcohol and illegal and prescription drug abuse to all levels of government using the most conservative assumptions.

Sponsored by: The National Center on Addiction and Substance Abuse (CASA) at Columbia University

Geographic level: National and State

Frequency: Published in 2009, using 2005 data.

Strengths/weaknesses:

Strengths

- Shows spending for each sector

Weaknesses

- Spending is not broken down by substance

Link to source: http://www.casacolumbia.org/templates/publications_reports.aspx

Data Source: Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC)

Description: SAMMEC derives smoking-attributable mortality (SAM) using an attributable-fraction formula. The Adult SAMMEC module provides the smoking-attributable fractions (SAFs) of deaths for 19 smoking-related diseases are calculated using sex-specific smoking prevalence and relative risk (RR) of death data for current and former smokers aged 35 and older. The Adult module also provides the average annual smoking-attributable productivity losses in dollars. The MCH Smoking Attributable Health Outcomes report displays the smoking-attributable fraction (SAF), smoking-attributable mortality (SAM), and smoking-attributable years of potential life lost (YPLL) for each of the diseases for which maternal smoking is a significant risk factor. The MCH module also provides smoking-attributable neonatal expenditures in dollars.

Sponsored by: Centers for Disease Control and Prevention (CDC)

Geographic level: National, State

Frequency: Adult module—five year reports: 1997-2001 and 2000-2004; MCH module—single year reports for 1999 through 2004

Strengths/weaknesses:

Strengths

- Provides smoking attributable mortality rate (SAM) for each of the 19 diseases in addition to the total SAM rate
- Minnesota-specific smoking-attributable deaths are available by gender

Weaknesses

- The attributable-fraction methodology calculates smoking-attributable deaths using smoking prevalence and number of deaths for the current year. However, most smoking-attributable deaths are the result of smoking in previous decades, during which smoking rates were higher. During periods where smoking prevalence is declining, the attributable-fraction (AF) methodology will tend to understate the number of deaths caused by smoking.
- The estimates in Adult SAMMEC do not account for deaths from cigar smoking, pipe smoking, and smokeless tobacco use.
- The productivity loss estimates are also understated because they do not include the value of work missed because of smoking-related illness, other smoking-related absenteeism, excess work breaks, or the effects of secondhand smoke.
- Smoking status is obtained through maternal self-reports.

Link to source: <http://www.healthdata.gov/dataset/smoking-attributable-mortality-morbidity-and-economic-costs-sammec-smoking-attributable-6>

Data Source: SYNAR Data

Description: The Synar Amendment requires states to have laws prohibiting the sale of tobacco products to those younger than 18 and to conduct annual random, unannounced inspections of a valid sample of tobacco retailers to ensure compliance. Statistics presented are the retailer violation rates (RVR) by Federal Fiscal Year (FFY).

Sponsored by: Center for Substance Abuse Prevention (CSAP)

Geographic level: National, State

Frequency: Data collected and reported annually

Strengths/weaknesses:

Strengths

- Compliance checks are conducted uniformly from state to state
- Trend data are available since 1997

Weaknesses

- There may be some variation in how compliance checks are conducted

Link(s) to source: Minnesota data: <http://prevention.samhsa.gov/tobacco/01synartable.aspx>

National data: <http://www.samhsa.gov/synar>

Data Source: Uniform Crime Reports (UCR)

Description: The Minnesota Bureau of Criminal Apprehension collects activity information from law enforcement agencies throughout the State of Minnesota. Uniform Crime Reports measure the amount of criminal activity within the State as collected and prepared from data submitted by individual law enforcement agencies.

The offense categories presented in the Profile are Part II offenses: liquor laws and narcotics arrests. The St. Paul Police Department does not submit Part II arrest data to the BCA

Sponsored by: Minnesota Bureau of Criminal Apprehension (BCA)

Geographic level: State, County

Frequency: Data collected and reported annually

Strengths/weaknesses:

Strengths

- Trend data available since 1935; change in format means some data not available after 2015.
- UCR data for Minnesota are captured nationally in Crime in the United States, an annual publication of the Federal Bureau of Investigation (FBI)

Weaknesses

- "Criminal activity" consists of measurements involving offenses, clearances, and arrests all of which are subject to reporting biases
- Race/ethnicity is often determined by law enforcement and therefore may not be as accurate as self-reported status.

Link to source: Minnesota Uniform Crime Reports:

<https://dps.mn.gov/divisions/bca/bca-divisions/mnjis/Pages/uniform-crime-reports.aspx>

Crime in the United States: <http://www.fbi.gov/ucr/ucr.htm>