2014



Substance Abuse in Minnesota: A State Epidemiological Profile

Prepared by: EpiMachine, LLC for the Minnesota Department of Human Services, Alcohol and Drug Abuse Division

# Acknowledgements

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# **Executive Summary**

# Overview and Key Findings

The 2014 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:

- **USE:** Information on ATOD consumption
- CONSEQUENCES: Negative outcomes associated with use
- 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 2013. Much of the data contained in the document will be familiar to potential users of the Epi Profile. 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 data over time

# **ALCOHOL**

# **Adult**

Minnesota overall annual per capita consumption has risen slightly, from 2.42 to 2.44 gallons, moving from the 4<sup>th</sup> decile among US states in consumption in 2009, to the 5<sup>th</sup> decile in 2011.

Overall, Minnesotans drink slightly more than the national average. Although they consume less beer than the US average, they consume much more alcohol in the form of hard alcohol, or spirits.

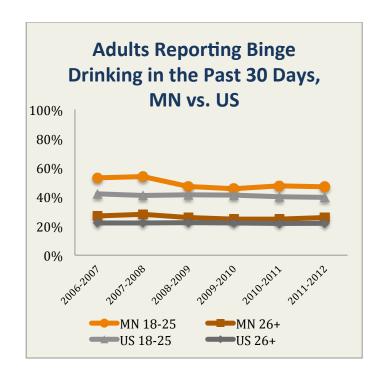
Minnesota adults report higher per capita alcohol consumption and more binge drinking than the national average, although rates are declining.

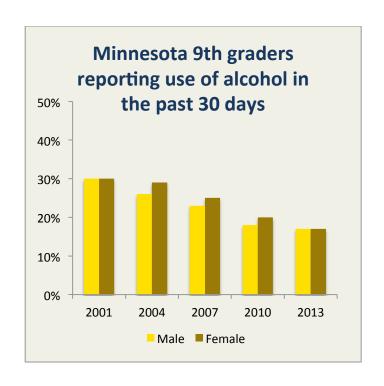
# Youth

Past 30-day alcohol use declined among 9th grade students from 2001 to 2013 (down by 47%).

Alcohol use varied by age: 9% of 8<sup>th</sup> graders reported recent alcohol use, while 28% of 11th graders reported use in 2013.

8<sup>th</sup> grade alcohol consumption in Minnesota is slightly below the national average.





# **TOBACCO**

# **Adult**

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

Young adults (25-44) tend to smoke more, and rates may be increasing.

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

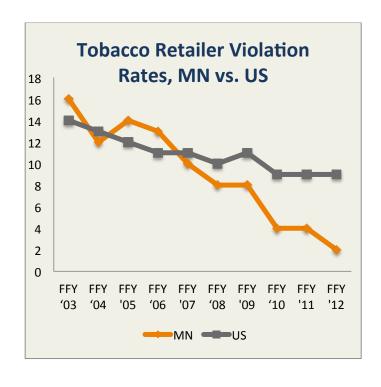
Minnesota's Tobacco Retailer Noncompliance rates have been lower than the national average since Federal Fiscal Year 2007.

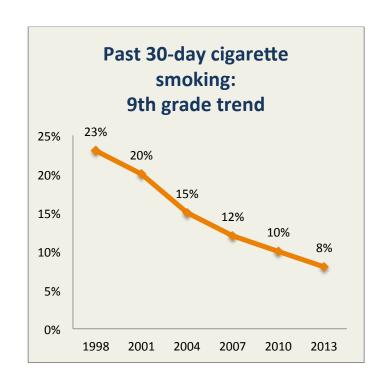
# Youth

Rates of 9<sup>th</sup> graders' 30-day smoking continue to decrease. Reported 30-day cigarette smoking dropped dramatically for 9<sup>th</sup> grade students from 1998 to 2013 (from 23% down to 8%).

The level of past 30-day smoking for 8<sup>th</sup> graders is slightly below 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.





# **Illicit Drugs**

# **Adult**

The rates of past 30-day marijuana use have remained slightly below national rates.

The rates for all other measured illicit drugs are also below the national average.

Illicit drug use is highest for persons aged 18-24 years.

The perception of risk of harm from smoking marijuana has slightly decreased, from 32% of Minnesotans aged 12+ perceiving great risk, in 2005-2006, to 28.6% in 2011-2012.

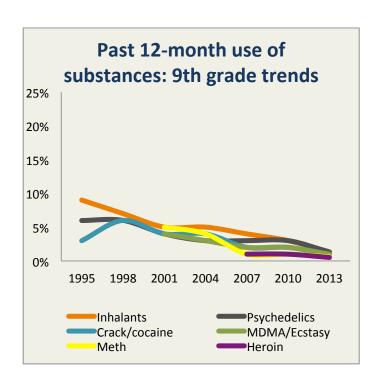
# Marijuana use in the past 30 days, by age, MN vs. US 100% 80% 60% 40% 20% 0% MN 18-25 MN 26+ US 18-25 US 26+

# Youth

Minnesota 9<sup>th</sup> graders' use of all illicit drugs have declined since 1995.

Minnesota 8<sup>th</sup> graders are below the national average for inhalants and crack/cocaine, but are slightly higher for MDMA/Ecstasy, methamphetamines, and heroin. However, rates are below 1% for all three.

Although 8<sup>th</sup> graders have a higher perception of risk of harm from smoking marijuana, the perception of risk in 9<sup>th</sup> graders has declined over 15% since 2007. Students in 9<sup>th</sup> grade also perceive less disapproval from friends and parents for smoking marijuana.



# **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 State Incentive Grant (SPF SIG) 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.

### Introduction

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 does our community compare with the region and the state), and time trends (is youth alcohol consumption 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 <a href="www.sumn.org">www.sumn.org</a>. 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 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

### Introduction

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 2007, 91% 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 a fraction, the numerator is the number on top—the number which is divided. The denominator is the number on the bottom—the number you are dividing by. 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 12<sup>th</sup> graders in the seven-county metro area who reported drinking any

### Introduction

alcohol in the past 30 days is based on the total number of male 12<sup>th</sup> 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**

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

# Legend

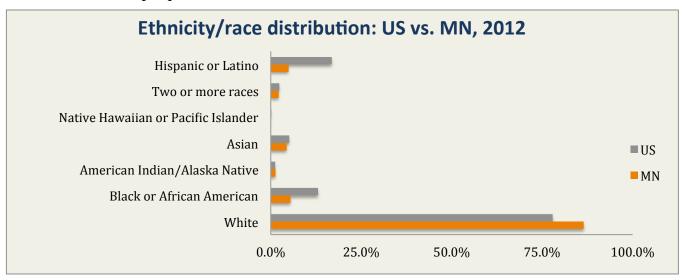
The following color scheme is used for the graphs in the Epi Profile:



# **Population Snapshot**

# **Population Snapshot**

Minnesota comprises 87 counties, and is the 21st largest state by population. In 2013, it was home to an estimated 5,420,380 people.



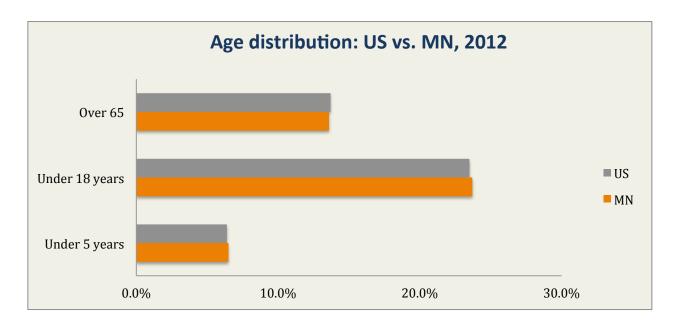
According to the 2010 US Census estimates, approximately 1% of persons living in Minnesota identify as American Indian/Alaska Native. There are two tribes located in Minnesota, the Sioux and Ojibwe: four nations in the Sioux tribe and seven nations in the Ojibwe tribe. Members of other tribes have moved to Minnesota as well. About 31 percent of Minnesota's approximately 55,000 American Indians reside on reservation lands, another 35 percent live in the central cities of Minneapolis and St. Paul, and the rest live in communities throughout the state.<sup>1</sup>

Approximately 5% 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 2010 the US Census Bureau estimated that there were over 110,000 individuals of Subsaharan African descent in Minnesota.

According to the US Census estimates, the percentage of persons living in Minnesota who identified as Hispanic/Latino grew from 3% in 2000 to 5% in 2010. The number grew from 143,382 to 250,258. Origin or descent of Hispanics and Latinos in Minnesota include Mexican, Cuban Puerto Rican, Central or South American, and others.

The percentage of persons living in Minnesota who identified as Asian/Pacific Islander grew from 3% in 2000 to 4% in 2010. The largest Asian communities in Minnesota in 2010 were: Hmong (27.0%), Asian Indian (15.5%), Chinese (11.7%), and Vietnamese (11.1%).

 $<sup>^{</sup>m 1}$  Council on Asian-Pacific Minnesotans. State of the Asian-Pacific Minnesotans. Retrieved on April 1, 2014 from



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 <a href="http://www.rpcmn.org/">http://www.rpcmn.org/</a>.

# 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, but in 2012, Minnesota rose back up to 3rd place, and staved there for 2013.

The Rankings report identified a high prevalence of binge drinking and obesity as concerns.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> United Health Foundation. America's Health Rankings 2010: Minnesota. Retrieved on April 1, 2014 from http://www.americashealthrankings.org/MN

**Alcohol: Use** 

# 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 consequences<sup>1</sup>. 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 5th, 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**

- In the US, per capita consumption of ethanol from all alcoholic beverages combined in 2011 was 2.28 gallons, representing a 0.9% increase from 2.26 gallons in 2010.
- Minnesota overall per capita consumption went up slightly, from 2.42 to 2.44 gallons, moving from the 4<sup>th</sup> decile among US states in consumption in 2009, to the 5<sup>th</sup> decile in 2011.

### Youth

- Past 30-day alcohol use declined among 9th grade students from 2001 to 2013 (down by 47%).
- Alcohol use varied by age: 9% of 8<sup>th</sup> graders reported recent alcohol use, while 28% of 11th graders reported use in 2013.
- Unlike adults, female students reported similar (or higher) rates of alcohol use as males.

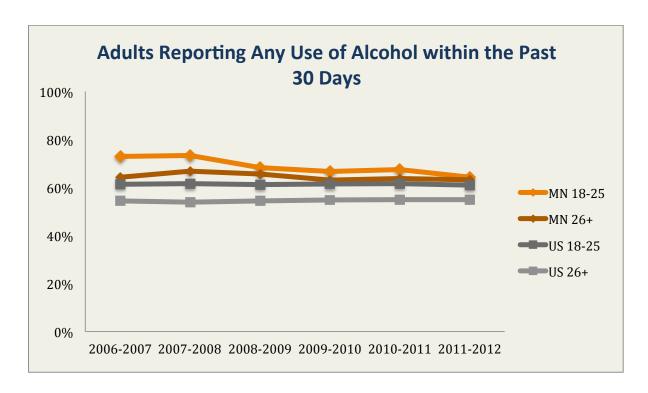
**Data Source: NIAAA** 

Overall, Minnesotans drink slightly more than the national average. Although they consume less beer than 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	2003	2004	2005	2006	2007	2008	2009	2010	2011
MN	1.21	1.23	1.18	1.15	1.16	1.21	1.19	1.10	1.09
US	1.22	1.21	1.19	1.19	1.21	1.20	1.17	1.14	1.12
Rate ratio	0.99	1.02	0.99	0.97	0.96	1.01	1.02	0.97	0.97
Wine	2003	2004	2005	2006	2007	2008	2009	2010	2011
MN	0.29	0.31	0.32	0.32	0.32	0.37	0.37	0.33	0.34
US	0.34	0.35	0.36	0.37	0.38	0.38	0.38	0.39	0.40
Rate ratio	0.85	0.89	0.89	0.86	0.84	0.97	0.97	0.85	0.85
Spirits	2003	2004	2005	2006	2007	2008	2009	2010	2011
MN	0.90	0.93	0.96	0.93	0.97	1.03	1.04	0.99	1.09
US	0.67	0.68	0.70	0.71	0.73	0.73	0.74	0.74	0.76
Rate ratio	1.34	1.37	1.37	1.31	1.33	1.41	1.41	1.34	1.43
Total	2003	2004	2005	2006	2007	2008	2009	2010	2011
MN	2.41	2.47	2.47	2.40	2.45	2.60	2.59	2.42	2.44
US	2.22	2.24	2.24	2.28	2.31	2.31	2.29	2.27	2.28
Rate ratio	1.09	1.11	1.10	1.06	1.06	1.12	1.13	1.07	1.07

Data Source: NSDUH



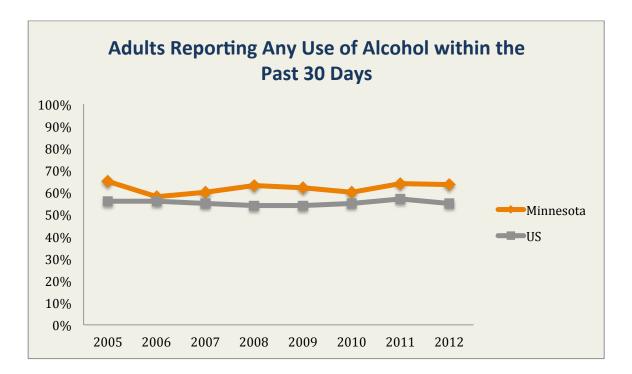
Adults Reporting Any Use of Alcohol within the Past 30 Days

Minnesota	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Alcohol use 12+	60.7%	62.7%	61.0%	58.9%	59.5%	58.6%
Ages 12 thru 17	17.2%	17.0%	14.6%	13.2%	13.1%	13.1%
Ages 18 thru 25	72.9%	73.3%	68.3%	66.7%	67.5%	64.2%
Ages 26 and Over	64.3%	66.8%	65.6%	63.1%	63.8%	63.2%
United States	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Alcohol use 12+	51.0%	51.4%	51.8%	51.8%	51.8%	51.9%
Ages 12 thru 17	16.3%	15.3%	14.7%	14.2%	13.5%	13.1%
Ages 18 thru 25	61.6%	61.2%	61.5%	61.6%	61.0%	60.5%
Ages 26 and Over	53.9%	54.4%	54.8%	54.9%	55.0%	55.3%
Total current alcohol*	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Alcohol use 12+	1.19	1.22	1.18	1.14	1.15	1.13

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.

<sup>\*</sup>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

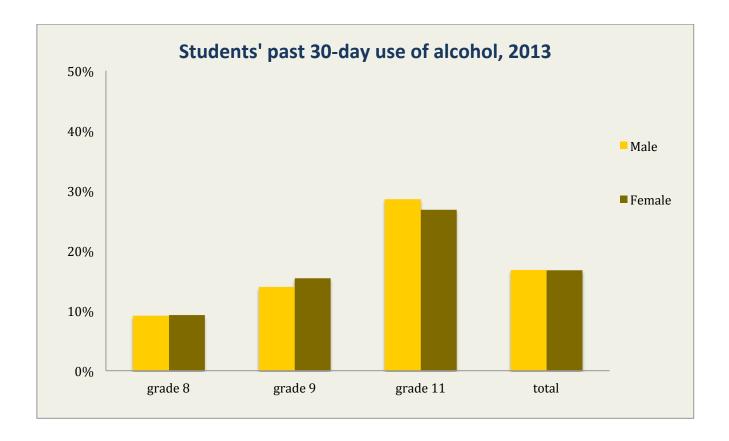
		2005	2006	2007	2008	2009	2010	2011	2012
Gender	Male	72%	64%	66%	70%	67%	64%	69%	69%
	Female	58%	54%	54%	56%	56%	55%	59%	58%
Age	Ages 18 thru 24	62%	46%	54%	52%	50%	N/A	57%	57%
	Ages 25 thru 34	70%	65%	69%	66%	66%	64%	71%	69%
	Ages 35 thru 44	71%	69%	65%	73%	70%	67%	68%	67%
	Ages 45 thru 54	68%	63%	63%	71%	70%	68%	69%	69%
	Ages 55 thru 64	63%	57%	58%	65%	65%	61%	63%	65%
	Ages 65 and over	51%	44%	47%	48%	44%	47%	52%	52%
Race/Ethnicity	White	67%	60%	62%	65%	63%	62%	66%	66%
	Black	N/A	N/A	N/A	N/A	N/A	N/A	50%	44%
	Hispanic	N/A	N/A	N/A	N/A	N/A	N/A	44%	46%
	Other	N/A	N/A	N/A	N/A	N/A	N/A	50%	48%
	MultiRacial	N/A	53%						

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.

Percent of Minnesota Adults Reporting Binge Drinking Within the Past 30 Days by Gender, Age, and Race/Ethnicity									
		2004	2010						
Age	Ages 18 thru 24	35.2%	33.4%						
	Ages 25 thru 44	24.0%	25.4%						
	Ages 45 thru 64	13.3%	13.2%						
	Ages 65 and over	2.7%	2.5%						
Race/Ethnicity									
	African American or Black	9.5%	9.8%						
	American Indian	30.5%	20.3%						
	Asian American/Pacific Islander	13.0%	5.8%						
	Hispanic/Latino	15.1%	13.3%						
	Bi-Racial/Multi-Racial	20.2%	25.1%						
	White	19.3%	15.0%						
Gender									
	Male	24.3%	23.4%						
	Female	13.4%	13.3%						
	Total	18.8%	18.2%						

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.



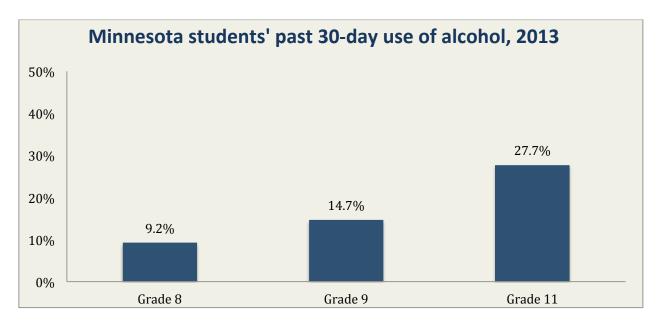
Students Reporting Any Use of Alcohol in the Past 30 Days, 2013

		N (#)	%
Gender	Male	9,320	16.8%
	Female	9,542	16.7%
Grade	8th	3,637	9.2%
	9th	5,695	14.7%
	11th	9,530	27.7%

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

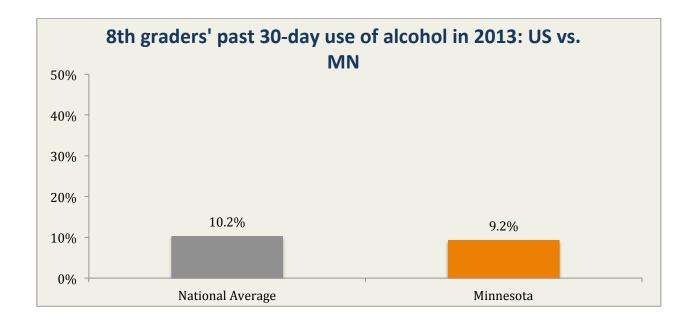
	2001	2004	2007	2010	2013
Male	30%	26%	23%	18%	17%
Female	30%	29%	25%	20%	17%
Total	30%	28%	24%	19%	17%

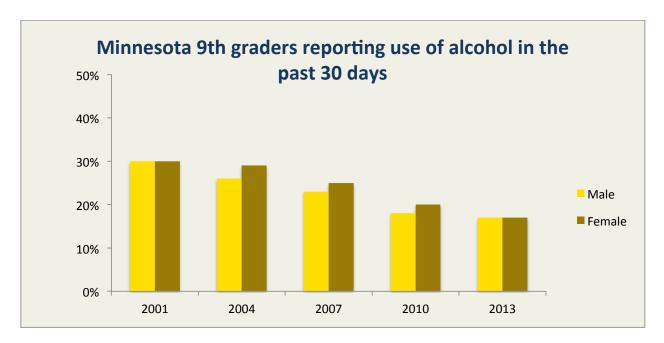
Data Source: MSS and MTF



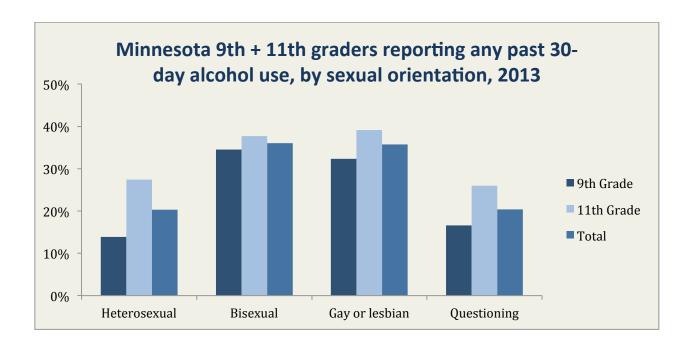
8th graders' past 30-day use of alcohol in 2013 was slightly lower than the national average (9.23% vs. 10.20%).

Past 30-day use by 9th graders is decreasing.



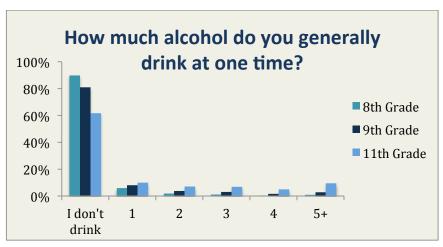


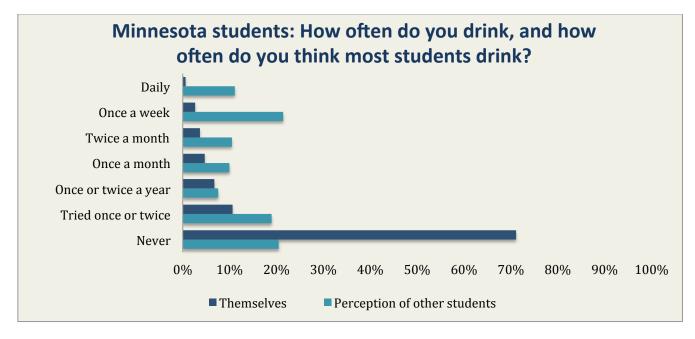
Bisexual, gay and lesbian students, and those questioning their sexual orientation, are all more likely to drink, compared to their heterosexual classmates.

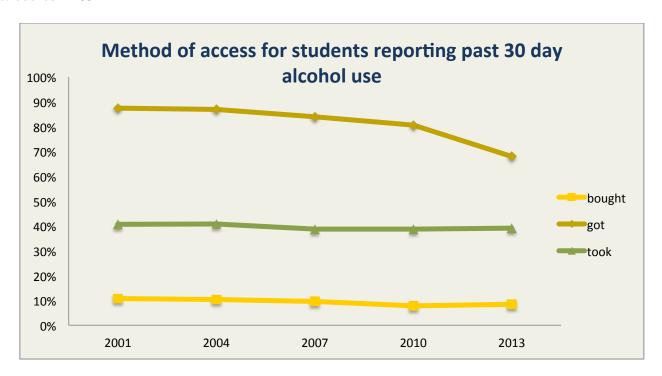


While Minnesota students tend to drink at a relatively low rate, their perception generally is that other students drink more than they actually do









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

	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%

Alcohol: Use

# 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 defined binge drinking as five 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. MSS defined 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 include 5<sup>th</sup>, 6th, 8<sup>th</sup>, 9th, 11<sup>th</sup>, and 12th graders, depending on the survey year.

### 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**

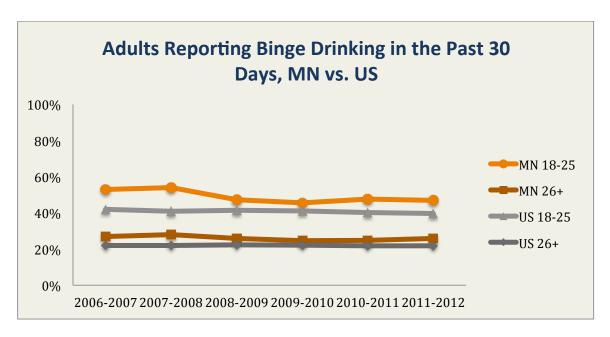
### **Adults**

- Minnesotans report higher rates of binge drinking than the national average, although the trend shows a slight decrease in rates over the past 6 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.

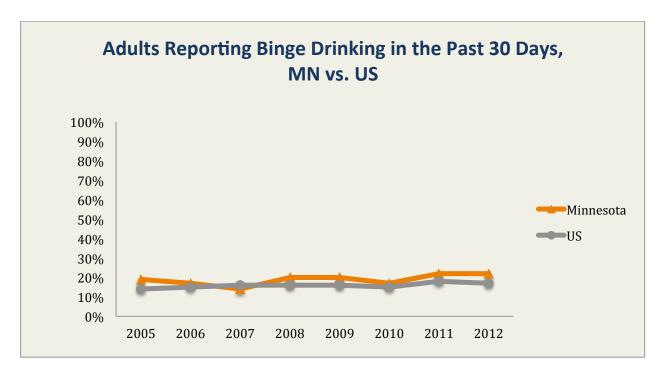
Data Source: NSDUH



### Adults Reporting Binge Drinking in the Past 30 Days

Minnesota	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Binge drinking 12+	28.8%	30.1%	26.9%	25.9%	26.2%	26.9%
Ages 12 thru 17	11.9%	10.5%	8.0%	7.9%	8.3%	7.9%
Ages 18 thru 25	52.6%	54.0%	47.2%	45.6%	47.7%	46.9%
Ages 26 and Over	26.7%	28.4%	25.8%	24.7%	24.7%	25.9%
United States	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Binge drinking 12+	23.2%	23.8%	23.5%	23.4%	22.9%	22.8%
Ages 12 thru 17	10.0%	9.3%	8.8%	8.4%	7.6%	7.3%
Ages 18 thru 25	42.0%	41.4%	41.4%	41.2%	40.2%	39.7%
Ages 26 and Over	21.7%	22.0%	22.3%	22.2%	21.8%	21.8%
MN:US rate ratio	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Binge drinking 12+	1.24	1.26	1.14	1.11	1.15	1.18

Data Source: BRFSS



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

		2005	2006	2007	2008	2009	2010	2011	2012
Gender	Male	29%	24%	19%	27%	25%	22%	29%	29%
	Female	9%	12%	10%	13%	15%	12%	16%	16%
Age	Ages 18 thru 24	32%	27%	19%	29%	28%	20%	33%	32%
	Ages 25 thru 34	31%	26%	23%	26%	28%	28%	34%	36%
	Ages 35 thru 44	21%	22%	19%	28%	24%	21%	26%	26%
	Ages 45 thru 54	16%	17%	12%	20%	23%	19%	22%	23%
	Ages 55 thru 64	9%	9%	9%	12%	14%	11%	14%	13%
	Ages 65 and over	3%	4%	3%	3%	4%	4%	5%	5%
Race/Ethnicity	White	19%	18%	14%	20%	21%	18%	23%	23%
	Black	N/A	12%	9%	N/A	N/A	8%	17%	12%
	Hispanic	N/A	N/A	7%	N/A	13%	7%	22%	22%
	Other	N/A	14%	N/A	N/A	N/A	N/A	19%	21%
	MultiRacial	N/A	25%						

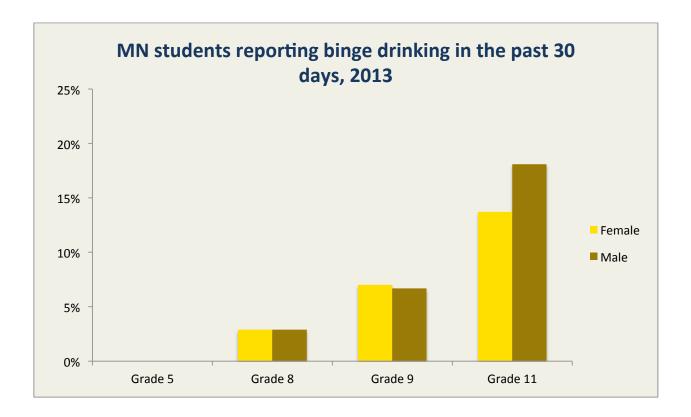
N/A = Not available if the un-weighted sample size for the denominator was < 30 or the indicator was unavailable for the year.

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.

Adults Reporting Binge Drinking in the Past 30 Days

•	ting Binge Drinking Within the Past 30 I ge, and Race/Ethnicity	Days by G	Gender,
		2004	2010
Age	Ages 18 thru 24	35.2%	33.4%
	Ages 25 thru 44	24.0%	25.4%
	Ages 45 thru 64	13.3%	13.2%
	Ages 65 and over	2.7%	2.5%
Race/Ethnicity			
	African American or Black	9.5%	9.8%
	American Indian	30.5%	20.3%
	Asian American/Pacific Islander	13.0%	5.8%
	Hispanic/Latino	15.1%	13.3%
	Bi-Racial/Multi-Racial	20.2%	25.1%
	White	19.3%	15.0%
Gender			
	Male	24.3%	23.4%
	Female	13.4%	13.3%
	Total	18.8%	18.2%

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.



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. While this disallows year-to-year comparison, it brings Minnesota in line with other national and state student surveys.

Minnesota Students Reporting Binge Drinking in the Past 30 Days, 2013								
		Male Female						
		N (#)	%	N (#)	%			
Grade	5th	N/A	N/A	N/A	N/A			
	8th	571	2.9%	586	2.9%			
	9th	1269	6.7%	1374	7.0%			
	11th	3074	18.1%	2361	13.7%			

**Alcohol: Use** 

# Heavy Alcohol Use

### **About the Indicator**

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 is defined as average daily alcohol consumption greater than 2 drinks for males and 1 drink for females.

These data are only available for adults. Adults are defined as persons aged 18 and older.

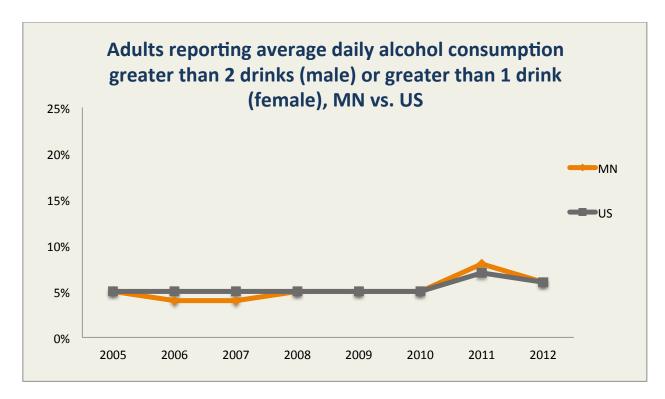
### Data Source(s)

Behavioral Risk Factor Surveillance System (BRFSS)

### **Section Summary**

- For the past 5 years, Minnesota's heavy drinking rate was similar to the national average.
- Minnesota women reported rates of heavy drinking as nearly as high as those of men in the state: 6% vs. 7%.
- Estimates of heavy drinking are highest among Minnesotans age 18-24, but have decreased since 2011.

Data Source: BRFSS



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

		2005	2006	2007	2008	2009	2010	2011	2012
Gender	Male	5%	4%	4%	5%	5%	5%	9%	7%
	Female	5%	4%	4%	4%	5%	5%	7%	6%
Age	Ages 18 thru 24	9%	4%	6%	3%	5%	7%	11%	8%
	Ages 25 thru 34	4%	3%	2%	5%	5%	4%	10%	7%
	Ages 35 thru 44	4%	5%	5%	5%	4%	4%	7%	6%
	Ages 45 thru 54	6%	5%	4%	6%	7%	6%	9%	7%
	Ages 55 thru 64	6%	4%	4%	5%	6%	5%	7%	6%
	Ages 65 and over	3%	2%	2%	3%	2%	3%	4%	4%
Race/Ethnicity	White	5%	4%	4%	5%	5%	5%	8%	6%
	Black	N/A	1%	2%	3%	4%	1%	7%	6%
	Hispanic	N/A	9%	N/A	6%	1%	3%	N/A	N/A
	Other	N/A	3%	2%	N/A	1%	5%	4%	7%
	MultiRacial	N/A							

**Alcohol: Use** 

# **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 5th, 8th, 9th, and 11th graders.

### Data Source(s)

Adults: Behavioral Risk Factor Surveillance System (BRFSS)

# **Section Summary**

### **Adults**

 From 1999 to 2011, 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

• 9th graders reporting impaired driving has decreased steadily since 1998.

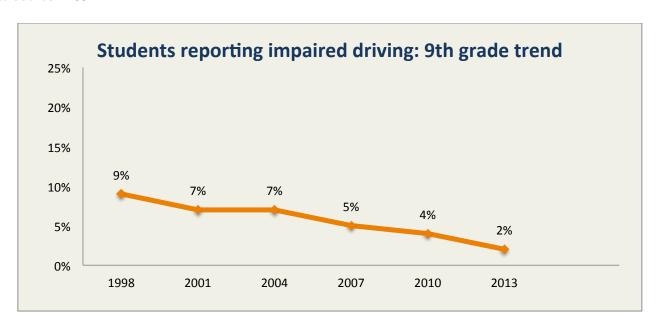
**Data Source: BRFSS** 

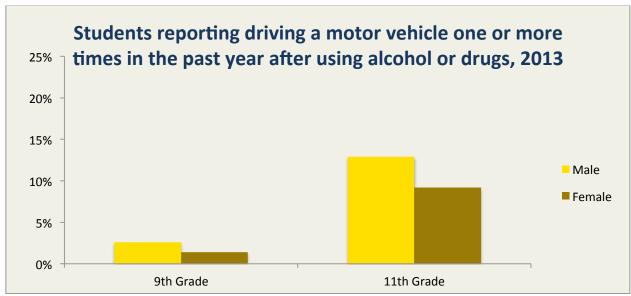


Adults Reporting Driving After Having Had "Perhaps Too Much to Drink" in the Past 30 Days

	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: 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.





Students Reporting Driving a Motor Vehicle 1 or More Times in the Last 12 Months
After Using Alcohol or Drugs, 2013

	Male		Fem	nale	Total	
Grade	N (#)	%	N (#)	%	N (#)	%
9th Grade	465	2.6%	263	1.4%	728	2.0%
11th Grade	2028	12.9%	1439	9.2%	3467	11.0%
Total	2493	7.5%	1702	5.0%	4195	6.2%

# Alcohol-Attributable Deaths

### **About the Indicator**

The Centers for Disease Control and Prevention (CDC) calculates 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)— 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.

# Data Source(s)

Alcohol-Related Disease Impact (ARDI)

## **Section Summary**

- Alcohol-attributable deaths among males are more than double that of females in both Minnesota and the US.
- A majority of alcohol-related deaths are from acute causes, particularly motor vehicle traffic crashes, fall injuries and suicides.

#### Alcohol Attributable Deaths Due to Excessive Alcohol Use, Average for 2006-2010, All Ages

	Minnesota	1		United States				
	Male	Female	Total	Male	Female	Total		
Total for All Causes	842	415	1,257	62104	25693	87,798		
Chronic Causes								
Acute pancreatitis	6	4	9	411	313	724		
Alcohol abuse	19	5	24	1,587	435	2,022		
Alcohol cardiomyopathy	5	0	5	441	73	514		
Alcohol dependence syndrome	56	18	74	2,892	836	3,728		
Alcohol polyneuropathy	0	0	0	7	0	7		
Alcohol-induced chronic pancreatitis	0	0	0	59	23	82		
Alcoholic gastritis	0	0	0	23	6	29		
Alcoholic liver disease	138	62	200	10,403	3,961	14,364		
Alcoholic myopathy	N/A	N/A	N/A	1	0	1		
Alcoholic psychosis	12	2	14	502	151	653		
Breast cancer (females only)	0	6	6	0	391	391		
Cholelithiases	0	0	0	0	0	0		
Chronic hepatitis	0	0	0	1	< 1	1		
Chronic pancreatitis	1	1	2	139	116	255		
Degeneration of nervous system due to alcohol	0	0	0	104	22	126		
Epilepsy	1	1	2	108	95	203		
Esophageal cancer	6	1	7	437	55	492		
Esophageal varices	0	0	0	47	18	65		
Fetal alcohol syndrome	N/A	N/A	N/A	3	1	4		
Fetus/newborn affected by maternal use of alcohol	N/A	N/A	N/A	1	1	2		
Gastroesophageal hemorrhage	< 1	0	< 1	19	12	31		
Hypertension	7	8	15	874	729	1,603		
Ischemic heart disease	4	2	6	516	223	739		
Laryngeal cancer	2	< 1	3	198	33	231		
Liver cancer	9	4	13	752	245	997		
Liver cirrhosis unspecified	51	40	91	4,592	3,255	7,847		
Low birth weight prematurity IUGR death	1	1	2	106	60	166		
Oropharyngeal cancer	3	1	4	309	56	365		
Portal hypertension	0	0	0	24	14	38		
Prostate cancer (males only)	4	0	4	202	0	202		
Psoriasis	0	< 1	< 1	< 1	< 1	< 1		
Spontaneous abortion (females only)	N/A	N/A	N/A	0	< 1	< 1		
Stroke hemorrhagic	19	4	23	1,357	286	1,643		
Stroke ischemic	7	2	9	329	118	447		
Superventricular cardiac dysrthymia	2	4	6	122	160	282		
Subtotal	352	165	517	26,564	11,689	38,253		

#### **Alcohol: Consequences**

	Minnesota			United Sta	tes	
	Male	Female	Total	Male	Female	Total
Acute Causes						
Air-space transport	1	0	1	81	15	96
Alcohol poisoning	36	14	50	1264	383	1647
Aspiration	2	1	3	125	94	220
Child maltreatment	1	1	2	98	70	167
Drowning	10	3	13	770	193	963
Excessive blood alcohol level	0	0	0	0	0	0
Fall injuries	103	120	223	3,853	3,688	7,541
Fire injuries	8	5	13	645	444	1,089
Firearm injuries	< 1	0	< 1	86	12	98
Homicide	37	12	49	6,221	1,535	7,756
Hypothermia	4	3	7	177	88	265
Motor-vehicle non-traffic crashes	5	1	6	171	49	220
Motor-vehicle traffic crashes	120	39	159	9,764	2,696	12,460
Occupational and machine injuries	3	0	3	126	8	134
Other road vehicle crashes	2	< 1	2	146	38	184
Poisoning (not alcohol)	51	25	76	5,457	2,947	8,404
Suicide	106	26	132	6,460	1,719	8,179
Suicide by and exposure to alcohol	0	0	0	28	14	42
Water transport	1	0	1	69	10	79
Subtotal	490	250	740	35,540	14,004	49,544

Note: Alcohol-Related Disease Impact (ARDI) software generates estimates of alcohol-related deaths and Years of Potential Life Lost (YPLL) 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.

Numbers may not sum exactly to totals due to rounding. ARDI assigns a value of <1 when there was exactly one death from a condition that is not 100% alcohol-attributable (i.e., a condition with an AAF <1).

#### Years of Potential Life Lost Due to Excessive Alcohol Use, Average for 2006-2010, All Ages

	Male	Female	Total
Minnesota	22,918	9,911	32,829
United States	1,847,072	713,218	2,560,290

Note: Total for all causes. Data on life expectancy are obtained from the National Vital Statistics System managed by the National Center for Health Statistics (<a href="http://www.cdc.gov/nchs">http://www.cdc.gov/nchs</a>). Life expectancy data were also stratified by age and gender using standard 5-year age groupings. These life expectancy data were, in turn, used to estimate the YPLL for alcohol-attributable deaths.

Since YPLL is based on the age at death, the YPLL for a particular alcohol-related condition is directly related to the age distribution of the persons who typically die of that condition. As a result, YPLL generally tends to be higher for conditions that disproportionately affect youth and young adults (e.g., motor-vehicle traffic deaths) and lower for conditions that primarily affect older adults (e.g., ischemic heart disease).

# 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.

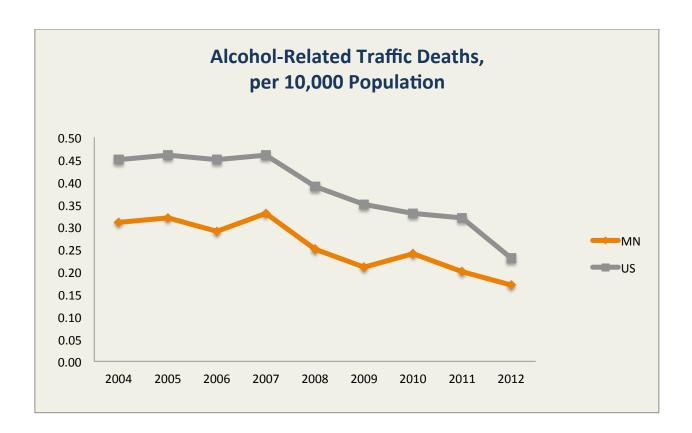
#### Data Source(s)

Minnesota Office of Traffic Safety, and US Fatality Analysis Reporting System

- Just under one-third of all fatal motor vehicle crashes in Minnesota are alcohol-related.
- Minnesota consistently had a lower rate of fatal alcoholrelated traffic crashes than the US.
- In 2012, of 394 Minnesotans killed in motor vehicle crashes; 129 deaths were alcohol-related.
- The number of drivers killed in alcohol-related crashes has generally been decreasing for the past 10 years and has remained steady for the past 4.

### **Alcohol: Consequences**

**Data Source: FARS** 

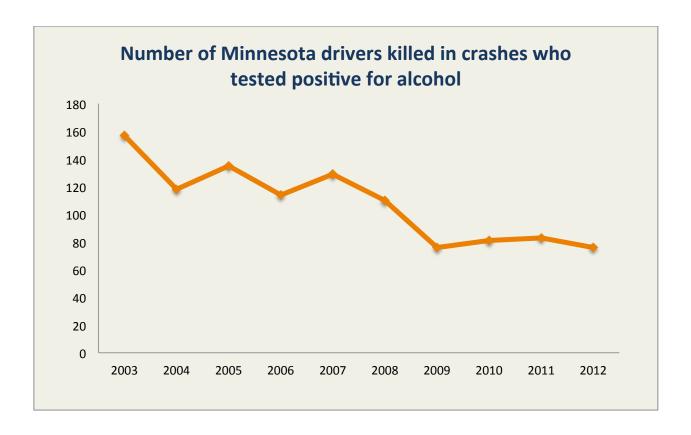


#### Alcohol-Related Traffic Deaths (0.08 BAC or higher) per 10,000 Population

	,,								
Minnesota	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of persons killed in fatal alcohol- related crashes	156	163	149	173	132	107	128	109	89
Percent of persons killed in all fatal crashes in MN	28%	29%	30%	34%	29%	25%	31%	30%	23%
Rate per 10,000 population	0.31	0.32	0.29	0.33	0.25	0.21	0.24	0.2	0.17
United States	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of persons killed in fatal alcohol- related crashes	13,099	13,582	13,491	13,841	11,711	10,759	10,228	9,878	7,116
Percent of persons killed in all fatal crashes in US	31%	31%	32%	32%	31%	32%	31%	31%	21%
Rate per 10,000 population	0.45	0.46	0.45	0.46	0.39	0.35	0.33	0.32	0.23
	2004	2005	2006	2007	2008	2009	2010	2011	2012
MN:US	0.69	0.69	0.64	0.73	0.66	0.58	0.72	0.64	0.74

### **Alcohol: Consequences**

Data Source: Minnesota Office of Traffic Safety



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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Drivers who tested 0.01 or higher (any alcohol)	157	118	135	114	129	110	76	81	83	76
Drivers who tested over the legal limit (0.08+)	139	107	118	99	114	95	63	75	72	71

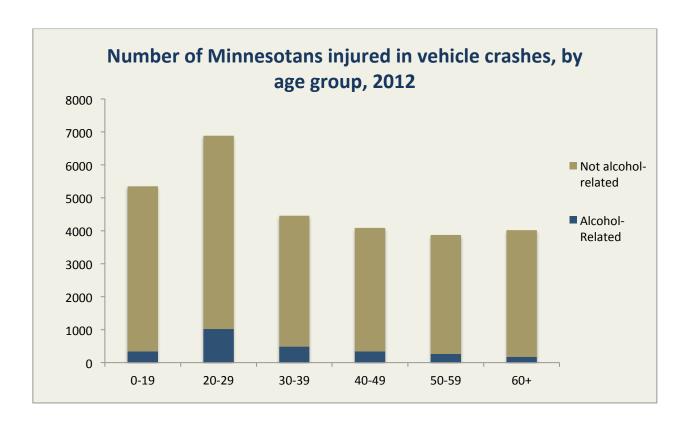
Data Source: Minnesota Office of Traffic Safety



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

	20	2007		07	2008		2009		2010		2011		2012	
Age	All	Alcohol-												
Group	Crashes	Related												
0-19	84	21	62	13	60	7	57	14	61	12	49	17	49	6
20-29	112	58	110	64	101	63	68	38	90	48	86	52	89	37
30-39	57	31	64	33	62	34	54	22	52	20	33	11	53	29
40-49	80	30	84	43	61	30	72	38	53	17	41	15	49	19
50-59	66	17	59	24	58	18	56	21	57	18	54	20	55	21
60+	95	9	131	13	113	11	114	8	98	11	105	21	99	17

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

	20	06	20	07	2008		2009		2010		2011		2012	
Age	All	Alcohol-												
Group	Crashes	Related												
0-19	7,885	605	7,505	580	6,779	429	6,258	355	6,053	353	5504	280	5354	340
20-29	8,404	1,420	8,534	1,223	8,125	1,138	7,495	1,017	7,469	926	7215	913	6890	1016
30-39	5,064	594	5,044	516	4,984	484	4,669	463	4,782	435	4744	429	4460	490
40-49	5,209	479	5,332	499	4,947	466	4,425	369	4,468	355	4405	344	4091	344
50-59	3,847	228	4,029	254	4,027	213	3,771	232	3,855	248	3847	241	3872	263
60+	3,574	131	3,861	122	4,517	166	2,474	76	3,841	134	3857	143	4018	172

### 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. DWIs, also called 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).

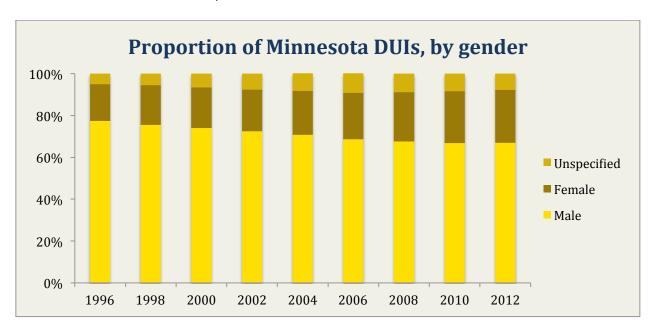
In 2012, the Minnesota Office of Traffic Safety reported 26,191 DWIs. According to Uniform Crime Reports, there were 25,537 arrests. The discrepancy is due to different reporting procedures for the two systems. The higher number is more accurate, as it is taken from driver license records. UCR counts 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).

- 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, achieved parity with national DUI arrest rates in 2010, and then rose slightly again in 2011 and 2012.

Data Source: MN Office of Traffic Safety



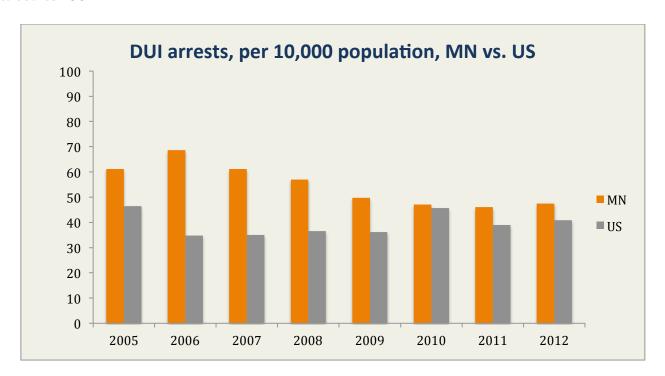
Minnesota Arrests for DUI, by Gender and Age: Violator Data

		20	07	20	08	20	09	20	10	20	11	20	12
		N (#)	%										
Gender	Male	26,643	68.2%	24,383	67.6%	22,181	67.4%	19,982	66.8%	19,851	67.8%	19,035	67.0%
	Female	8,896	22.8%	8,511	23.6%	7,943	24.1%	7,410	24.8%	19,851	24.9%	7,156	25.2%
Age	0-14	4	0.0%	6	0.0%	6	0.0%	4	0.0%	1	0.0%	4	0.0%
	15-19	2,238	5.8%	1,899	5.3%	1,603	4.9%	1,294	4.3%	1,154	3.9%	1,117	3.9%
	20-24	9,856	25.5%	8,609	24.1%	7,570	23.1%	6,821	22.8%	6,505	22.2%	6,413	22.6%
	25-29	7,398	19.1%	6,868	19.2%	6,394	19.5%	5,776	19.3%	5,837	20.0%	5,421	19.1%
	30-34	4,473	11.6%	4,502	12.6%	4,097	12.5%	3,934	13.1%	3,895	13.3%	3,950	13.9%
	35-39	3,948	10.2%	3,579	10.0%	3,386	10.3%	2,918	9.8%	2,778	9.5%	2,627	9.2%
	40-44	3,624	9.4%	3,278	9.2%	2,937	9.0%	2,671	8.9%	2,671	9.1%	2,665	9.4%
	45-49	3,171	8.2%	2,994	8.4%	2,873	8.8%	2,565	8.6%	2,393	8.2%	2,212	7.8%
	50-54	1,911	4.9%	1,937	5.4%	1,893	5.8%	1,914	6.4%	1,904	6.5%	1,839	6.5%
	55-59	1,100	2.8%	1,114	3.1%	1,055	3.2%	1,086	3.6%	1,084	3.7%	1,090	3.8%
	60-64	491	1.3%	554	1.6%	541	1.7%	543	1.8%	608	2.1%	613	2.2%
	65-69	262	0.7%	229	0.6%	225	0.7%	234	0.8%	231	0.8%	271	1.0%
	70-74	93	0.2%	101	0.3%	119	0.4%	98	0.3%	120	0.4%	135	0.5%
	75+	65	0.2%	66	0.2%	56	0.2%	60	0.2%	73	0.3%	61	0.2%

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.

### **Alcohol: Consequences**

**Data Source: UCR** 



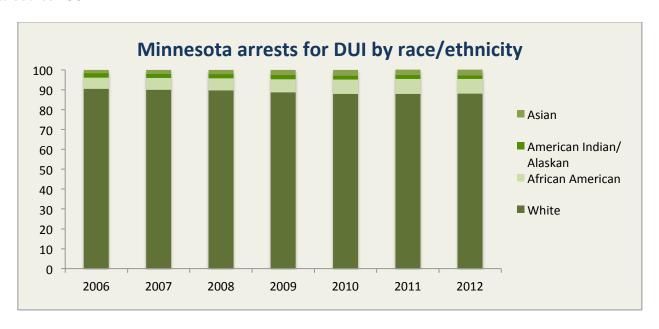
#### Arrests for DUI per 10,000 Population

Minnesota*	2005	2006	2007	2008	2009	2010	2011	2012
DUI arrests	31,268	35,349	31,735	29,832	26,240	24,978	24,548	25,537
Rate per 10,000 population	61.2	68.7	61.1	57	49.8	47.1	46	47.5
United States	2005	2006	2007	2008	2009	2010	2011	2012
DUI arrests	1,371,919	1,038,633	1,055,981	1,110,083	1,112,384	1,412,223	1,215,077	1,282,957
Rate per 10,000 population	46.4	34.8	35	36.5	36.2	45.7	39	40.9
	-	_	_	_	-			
	2005	2006	2007	2008	2009	2010	2011	2012
MN:US	1.3	2	1.8	1.6	1.4	1	1.18	1.16

<sup>\*</sup> 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

#### **Alcohol: Consequences**

#### **Data Source: UCR**



#### Minnesota Arrests for DUI by Age, Race and Ethnicity\*

		200	06	200	)7	200	08	200	)9	201	LO	201	l <b>1</b>	201	12
		N (#)	%	N (#)	%										
Age	Juvenile	834	2.4	666	2.1	536	1.8	399	1.89	310	1.2	283	1.2	260	1.1
	Adult	34,515	97.6	31,793	97.9	29,686	98.2	26,758	98.5	24,810	98.8	24,265	98.8	23,277	98.9
Race	White	31,976	90.5	29,181	89.9	27,073	89.6	24,050	88.6	22,074	87.9	21,566	87.9	20,725	88.1
	African American	1,997	5.6	1,940	6	1,868	6.2	1,842	6.7	1,815	7.2	1,867	7.6	1,738	7.4
	American Indian/ Alaskan	769	2.2	692	2.1	606	2	559	2.1	490	2	458	1.9	407	1.7
	Asian	607	1.7	646	2	675	2.2	706	2.6	741	2.9	657	2.7	667	2.8
Ethnicity	Hispanic	2,165	6.9	2,352	6.7	2,216	6.8	1,776	6.6	1,650	6.6	1,457	5.9	1,317	5.6
	Non-Hispanic	29,103	93.1	32,997	93.3	30,243	93.2	28,175	93.5	23,470	93.4	23,091	94.1	22,220	94.4

<sup>\*</sup> Persons of Hispanic ethnicity can be of any race. 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-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.

These data are from all reporting agencies combined.

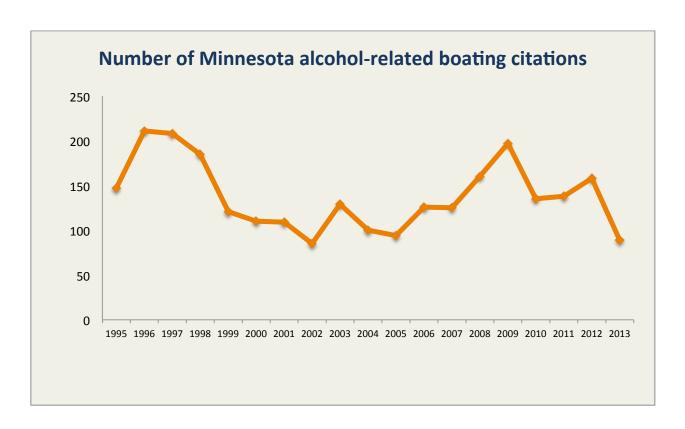
Citations do not include tickets for underage consumption, or those for which BAC was found to be under 0.08.

#### Data Source(s)

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

- The number of alcohol-related boating citations in Minnesota has declined since 2009.
- 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.

Data Source: Boat & Water Safety Section, DNR



#### Number of Minnesota Alcohol-Related Boating Citations

Year	Number of Citations	Year	Number of Citations	Year	Number of Citations
1995	147	2002	85	2009	197
1996	211	2003	129	2010	135
1997	208	2004	100	2011	138
1998	185	2005	94	2012	158
1999	121	2006	126	2013	89
2000	110	2007	125		
2001	109	2008	160		

# **Liquor Law Arrests**

#### **About the Indicator**

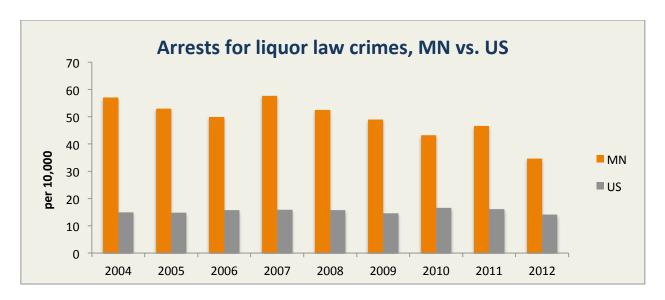
With the exception of drunkenness and driving under the influence, all state or local liquor law violations are placed in this class. Liquor laws include manufacturing, selling, transporting and furnishing as in maintaining unlawful drinking places. Bootlegging, operating a still, furnishing liquor to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

#### Data Source(s)

Uniform Crime Reports (UCR)

- Minnesota's liquor law arrest rate has been consistently higher than the U.S. average.
- The percent of liquor law arrestees in Minnesota who are juveniles has gradually declined, from 26.7% in 2006 to 21.3% in 2012.

**Data Source: UCR** 



#### Arrests for Liquor Law Crimes per 10,000 Population

Minnesota*	2004	2005	2006	2007	2008	2009	2010	2011	2012
Liquor law arrests	28,951	27,086	25,700	29,932	27,458	25,784	23,060	24,832	18,667
Rate per 10,000 population	57	53	49.9	57.7	52.5	49	43.2	46.6	34.7
United States	2004	2005	2006	2007	2008	2009	2010	2011	2012
Liquor law arrests	437,764	437,923	469,186	478,671	478,800	447,496	512,790	500,648	441,532
Rate per 10,000 population	14.9	14.8	15.7	15.9	15.7	14.6	16.6	16.1	14.1
	2004	2005	2006	2007	2008	2008	2010	2011	2012
MN:US	3.82	3.58	3.18	3.63	3.34	3.36	2.6	2.89	2.46

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

		20	08	20	09	20	10	20	11	20	12
		N (#)	%								
Age	Juvenile	6,473	23.1	5,745	21.6	4,305	18.7	4,398	21.3	3,979	21.3
	Adult	21,542	76.9	26,506	78.3	18,756	81.3	16,262	78.7	14,688	78.7
Race	White	23,768	84.8	21,875	82.5	18,398	79.8	16,599	80.3	14,305	76.6
	African American	2,592	9.3	1,552	10.7	2,921	12.7	2,495	12.1	2,859	15.3
	Indian/ Alaskan	1,205	4.3	1,307	5.9	1,362	5.9	1,188	5.8	1,073	5.7
	Asian	450	1.6	477	1.8	380	1.6	378	1.8	430	2.0
Ethnicity	Hispanic	1,181	4.2	1,187	4.5	986	4.3	1,111	5.4	953	5.1
	Non-Hispanic	26,834	95.8	25,319	95.5	22,075	95.7	19,549	94.6	17,714	94.9

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.

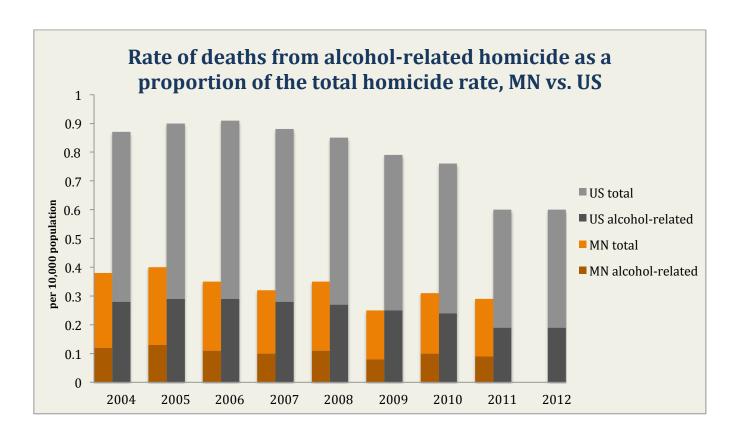
#### Data Source(s)

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

- Minnesota's homicide rate has been less than half that of the national average.
- The Minnesota homicide rate declined from 0.27 per 10,000 population in 2005 to 0.20 per 10,000 population in 2011.

#### **Alcohol: Consequences**

Data Source: Minnesota Department of Health and CDC Wonder



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

Minnesota	2004	2005	2006	2007	2008	2009	2010	2011
Deaths from <b>alcohol-related*</b> Homicide	62	65	59	55	60	42	51	49
Rate per 10,000 population	0.12	0.13	0.11	0.1	0.11	0.08	0.1	0.09
United States	2004	2005	2006	2007	2008	2009	2010	2011
Deaths from <b>alcohol-related*</b> Homicide	8158	8518	8729	8630	8263	7779	7524	5952
Rate per 10,000 population	0.28	0.29	0.29	0.28	0.27	0.25	0.24	0.19
	2004	2005	2006	2007	2008	2009	2010	2011
MN:US	0.43	0.41	0.38	0.38	0.43	0.31	0.4	0.47

 $<sup>\</sup>ensuremath{^{*}\text{=}}$  Alcohol-related suicide data are calculated using the AAF for homicide, 47%

# Alcohol in Minnesota: Intervening Variables

## Perception of Harm

#### **About the Indicator**

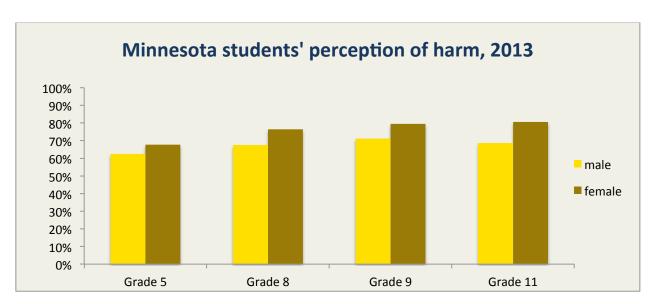
Beginning in 2007, students were asked how much they thought people risked harming themselves physically or in other ways if they have 5 or more alcoholic drinks in a row on one occasion, once or twice per week. The statistics presented here show the number and percent of students responding with either "great risk" or "moderate risk" of harm. The other two selection options on the survey were "slight risk" and "no risk."

#### Data Source(s)

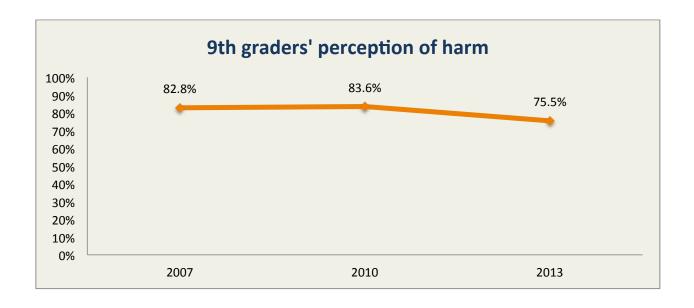
Minnesota Student Survey (MSS)

- Females were more likely than males to report that they believed people risked harming themselves by frequently binge drinking.
- Perception of harm from binge drinking is highest among 9<sup>th</sup> graders, but 11<sup>th</sup> grade girls are the most likely overall to perceive harm.

**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								
	Male		Female		Total			
	N (#)	%	N (#)	%	N (#)	%		
Grade 5	11270	62.5%	11877	67.8%	23147	65.1%		
Grade 8	12515	67.5%	14666	76.4%	27181	72.1%		
Grade 9	12726	71.2%	14735	79.5%	27461	75.5%		
Grade 11	11080	68.6%	13284	80.6%	24364	74.7%		



#### **Alcohol: Intervening Variables**

## 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)

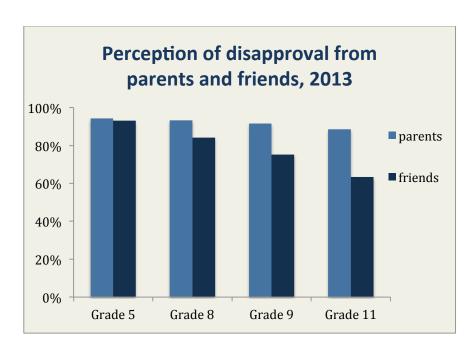
- Females were more likely than males to report that they believed their parents or guardians would disapprove of them drinking alcohol.
- Perception of parents' or guardians' disapproval decreased slightly with increasing grade level, while friends' disapproval decreased substantially, for both male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

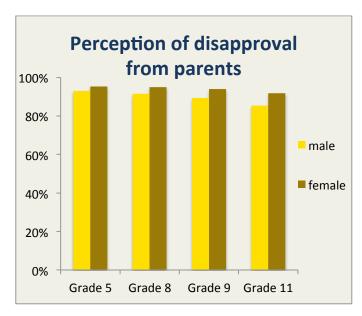
#### **Alcohol: Intervening Variables**

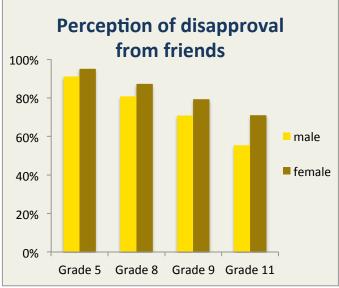
**Data Source: MSS** 

# 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







**Tobacco: Use** 

## **Tobacco In Minnesota: Use**

## **Adults Reporting Tobacco Use**

#### **About the Indicator**

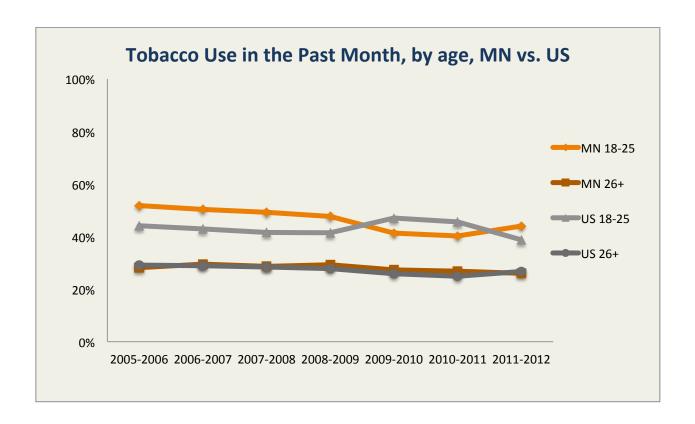
Current cigarette use is defined here as adults reporting smoking cigarettes on one or more days within the past 30 days. Daily cigarette use is defined here as persons 18 and over having smoked 100 or more cigarettes in their lifetime, and who now smoke cigarettes every day.

#### 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)

- 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.
- On average, Minnesotans smoking rates are on par with the national average.
- Young Minnesotans are more likely to smoke.

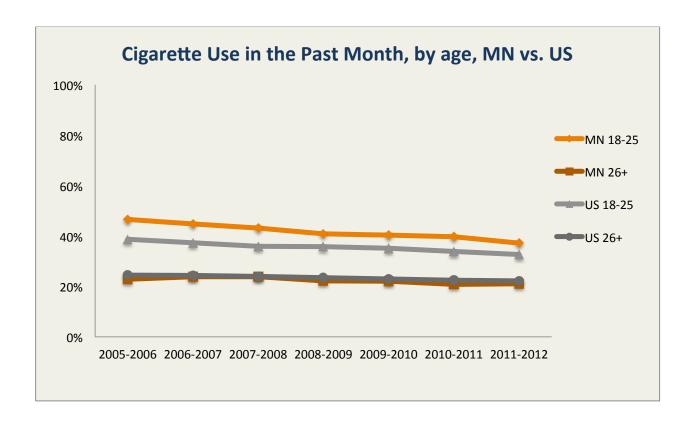
Data source: NSDUH



#### Adults Reporting any Tobacco Product Use in the Past Month

Minnesota	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Tobacco use 12+	30.1%	30.8%	29.9%	29.9%	27.6%	27.0%	26.8%
Ages 12 thru 17	15.3%	14.6%	13.8%	12.1%	11.3%	10.3%	10.6%
Ages 18 thru 25	51.8%	50.3%	49.2%	47.7%	41.3%	40.2%	44.0%
Ages 26 and Over	28.2%	29.5%	28.6%	29.3%	27.3%	26.8%	26.0%
United States	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Tobacco use 12+	29.5%	29.1%	28.5%	28.0%	27.3%	26.3%	26.6%
Ages 12 thru 17	13.0%	12.7%	11.9%	11.5%	11.2%	10.4%	9.3%
Ages 18 thru 25	44.1%	42.9%	41.6%	41.5%	47.0%	45.6%	38.8%
Ages 26 and Over	29.2%	28.9%	28.4%	27.8%	25.9%	24.9%	26.7%
MN:US rate ratio	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-1012
Tobacco use 12+	1.02	1.06	1.05	1.05	1.01	1.03	1.01

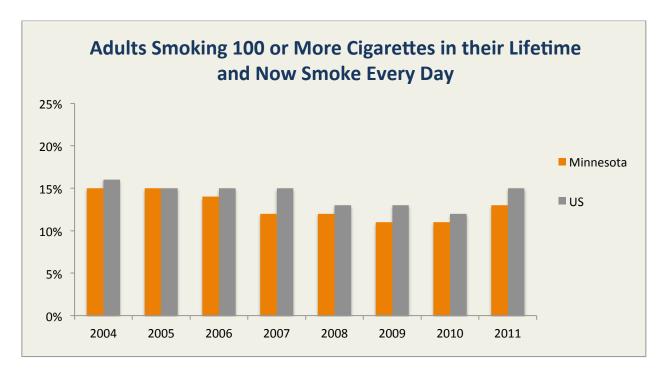
Data Source: NSDUH



#### Adults Reporting any Cigarette Use in the Past Month

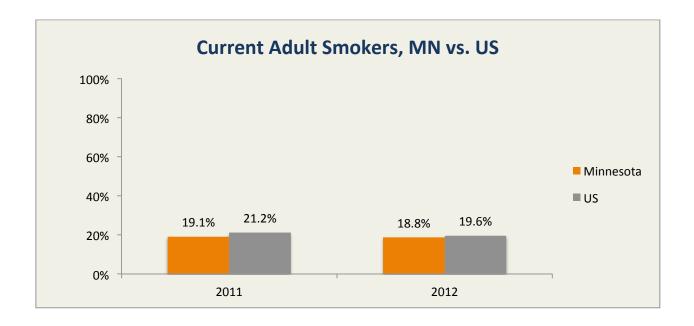
Minnesota	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Cigarette use 12+	25.0%	25.4%	25.2%	23.5%	23.2%	22.1%	22.0%
Ages 12 thru 17	12.4%	11.7%	11.1%	9.7%	8.9%	8.7%	8.9%
Ages 18 thru 25	46.6%	44.8%	43.1%	40.9%	40.4%	39.7%	37.1%
Ages 26 and Over	22.8%	23.8%	23.9%	22.2%	22.0%	20.8%	21.1%
United States	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Cigarette use 12+	25.0%	24.6%	24.1%	23.6%	23.2%	22.5%	22.1%
Ages 12 thru 17	10.6%	10.1%	9.5%	9.0%	8.7%	8.1%	7.2%
Ages 18 thru 25	38.7%	37.3%	35.9%	35.8%	35.1%	33.9%	32.7%
Ages 26 and Over	24.5%	24.4%	24.0%	23.4%	22.9%	22.4%	22.1%
MN:US rate ratio	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Tobacco use 12+	1	1.03	1.05	1	1	0.98	0.99

**Data Source: BRFSS** 

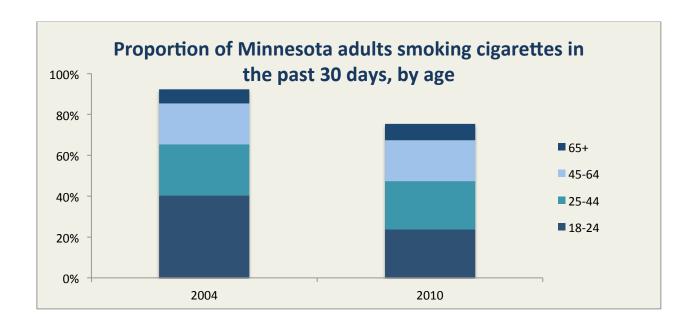


Adults Reporting Smoking 100 or More Cigarettes in Their Lifetime and Now Smoke Cigarettes Every Day

	2004	2005	2006	2007	2008	2009	2010	2011
Minnesota	15%	15%	14%	12%	12%	11%	11%	13%
US	16%	15%	15%	15%	13%	13%	12%	15%
MN:US	0.96	0.97	0.93	0.86	0.9	0.89	0.91	0.86



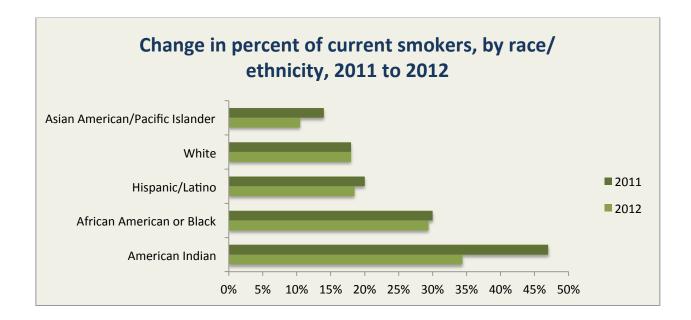
**Data Source: MNSASU** 



Adults Reporting Smoking Cigarettes on One or More Days within the Past 30 Days

Percent of Minnesota a	Percent of Minnesota adults reporting smoking cigarettes within the past 30 days by gender, age, and race/ethnicity								
		2004	2010						
Age	Ages 18 thru 24	40.3%	23.7%						
	Ages 25 thru 44	25.1%	23.7%						
	Ages 45 thru 64	20.0%	20.0%						
	Ages 65 and over	6.9%	7.9%						
Race/Ethnicity	African American or Black	27.1%	26.3%						
	American Indian	54.2%	58.9%						
	Asian American/Pacific Islander	18.2%	11.8%						
	Hispanic/Latino	23.5%	18.3%						
	Bi-Racial/Multi-Racial	46.9%	38.4%						
	White	22.2%	19.2%						
Gender	Male	24.2%	21.0%						
	Female	21.3%	18.7%						
	Total	22.7%	19.8%						

**Data Source: BRFSS** 



	Cigarette Use: Current smokers in Minnesota		
		2011	2012
Age	Ages 18 thru 24	24.7%	20.6%
	Ages 25 thru 44	22.7%	24.2%
	Ages 45 thru 64	18.9%	18.3%
	Ages 65 and over	8.6%	8.8%
Race/Ethnicity	African American or Black	29.8%	29.4%
	American Indian	47.1%	34.4%
	Asian American/Pacific Islander	13.7%	10.5%
	Hispanic/Latino	20.1%	18.5%
	White	18.2%	18.0%
Gender	Male	21.2%	21.7%
	Female	17.0%	16.0%
	Total	19.1%	18.8%

**Tobacco: Use** 

# 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.

According to Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC), Minnesota's maternal smoking prevalence was 9.8% in 2004 as compared to the nation's 10.2%.

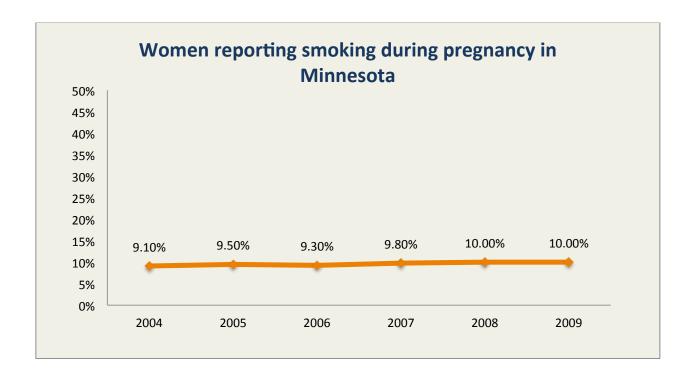
#### Data Source(s)

Minnesota Health Statistics Annual Summary, Minnesota Department of Health

#### **Section Summary**

• Over the six-year period from 2004 to 2009, an average of 9.6% of mothers reported smoking during pregnancy.

**Data Source: MDH** 



**Mothers Reporting Smoking during Pregnancy** 

		•		<del>,</del>		
	2004	2005	2006	2007	2008	2009
Number	6,849	6,681	6,810	7,138	7,238	6,991
Percent	9.10%	9.50%	9.30%	9.80%	10.00%	10.00%

**Tobacco: Use** 

# Youth Reporting Current Tobacco Use

#### **About the Indicator**

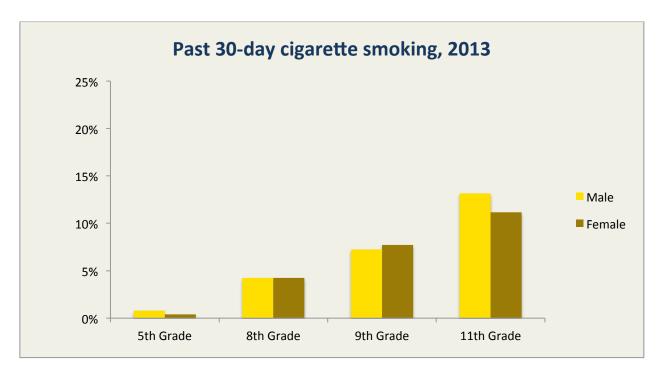
Reported tobacco use within the past 30 days ("30-day use") is a frequent measure of current use, especially among youth. Youth tobacco use is presented here using 3 statistics: smoking a cigarette on one or more days, smoking cigarettes on 20 or more days, and use of chewing tobacco or snuff.

#### Data Source(s)

Minnesota Student Survey (MSS), Monitoring the Future (MTF) **Section Summary** 

- Reported 30-day cigarette smoking dropped dramatically for 9<sup>th</sup> grade students from 1998 to 2013 (from 23% down to 8%).
- Older students are more likely to use tobacco.
- Male students are much more likely to use chewing tobacco; male and female students smoke at similar rates.

**Data Source: MSS** 



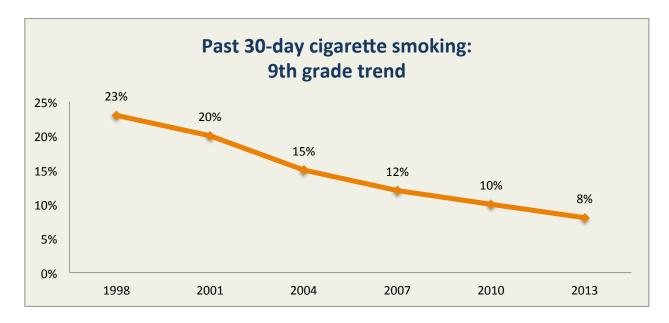
Students Reporting Smoking a Cigarette on One or More Days within the Past 30 Days, by Gender

		N (#)	%
Gender	Male	4,473	8.0%
	Female	4,330	7.6%

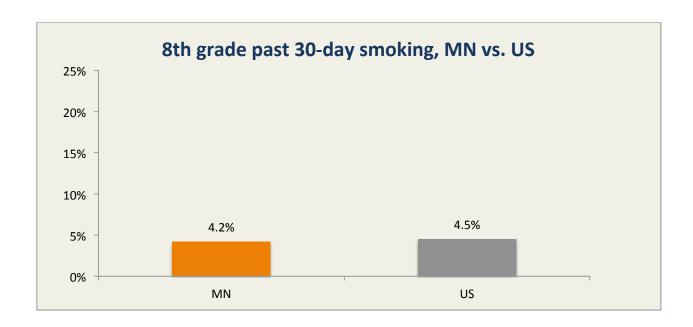
Students Reporting Smoking a Cigarette on One or More Days within the Past 30 Days, by Grade

			ale	Female		Total	
		N (#)	%	N (#)	%	N (#)	%
Grade	5th	156	0.8%	79	0.4%	235	0.6%
	8th	829	4.2%	855	4.3%	1,684	4.2%
	9th	1,386	7.3%	1,532	7.7%	2,918	7.5%
	11th	2258	13.2%	1,943	11.2%	4,201	12.2%

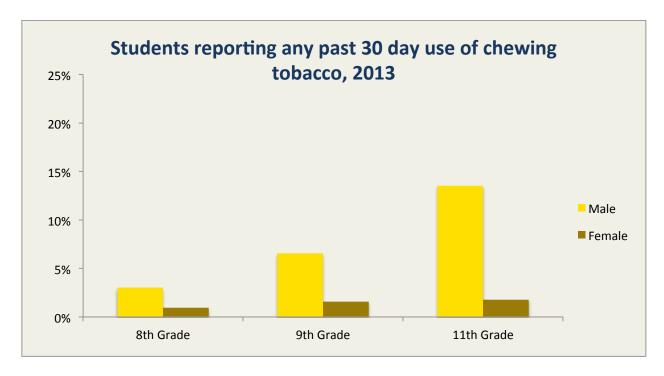
Data Source: MSS and MTF



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



Data Source: MSS



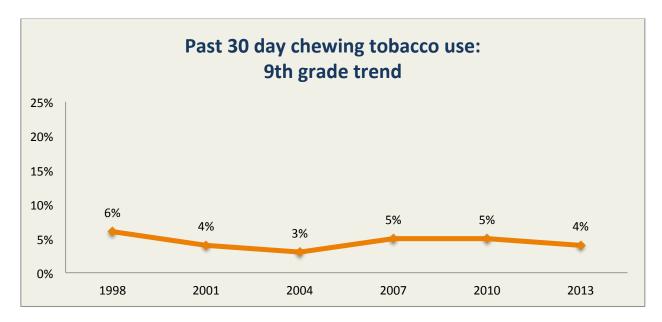
Students Reporting Use of Chewing Tobacco on One or More Days within the Past 30 Days, by Gender

		N (#)	%
Gender	Male	4,165	7.5%
	Female	816	1.4%

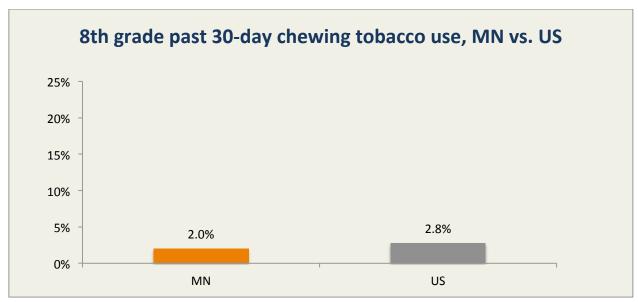
#### Students Reporting Use of Chewing Tobacco on One or More Days within the Past 30 Days, by Grade

		Male		Fem	nale	Total		
		N (#)	%	N (#)	%	N (#)	%	
Grade	8th	592	3.0%	192	1.0%	784	2.0%	
	9th	1,255	6.6%	315	1.6%	1,570	4.0%	
	11th	2,318	13.5%	309	1.8%	2,627	7.6%	

Data Source: MSS and MTF

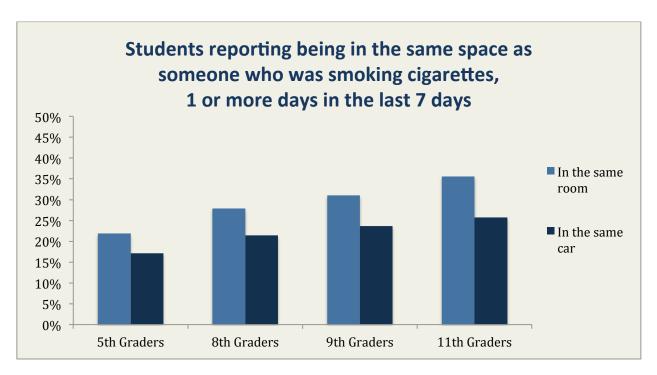


9th graders' 30-day chewing tobacco use has remained steady.
The level for 8th graders is slightly below the 8th grade national average.



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

**Data Source: MSS** 



Minnesota Students Reporting Being in the Same Space as Someone who was Smoking Cigarettes in the Past 7

Days, by Grade, 2013

	5th Grade		8th Grade		9th Grade		11th Grade		Total	
	N (#)	%	N (#)	%	N (#)	%	N (#)	%	N (#)	%
In the same <b>room</b> as someone who was smoking cigarettes one or more days in the last 7 days	8072	21.9%	11001	27.9%	12091	31.1%	12281	35.6%	43445	29.0%
Rode in a <b>car</b> with someone who was smoking cigarettes one or more days in the last 7 days	6382	17.1%	8444	21.4%	9206	23.7%	8876	25.7%	32908	21.9%

**Tobacco: Consequences** 

# **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.

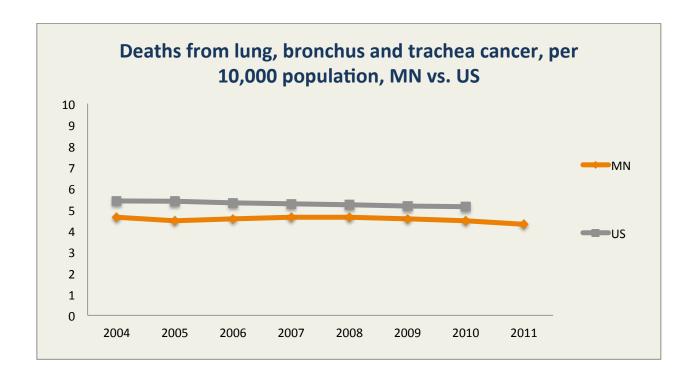
In addition to lung cancer rates, the disease impact of smoking can be assessed using Smoking Attributable Mortality figures calculated by the Centers for Disease Control and Prevention (CDC).

#### Data Source(s)

Minnesota Department of Health, CDC Wonder, and SAMMEC

- Lung, bronchus and trachea cancer death rates have declined over time, both in Minnesota and nationally. Rates in Minnesota have been consistently lower than nationwide rates.
- In 2004, the smoking-attributable mortality (SAM) rate for Minnesota was 201.2 per 100,000 population. This includes deaths from cancers, cardiovascular diseases and respiratory diseases.

Data source: Minnesota Department of Health and CDC Wonder



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

Minnesota	2004	2005	2006	2007	2008	2009	2010	2011
Deaths from lung, bronchus, and trachea cancer	2,355	2,282	2,356	2,418	2,433	2,401	2,373	2,316
Rate per 10,000 population	4.63	4.46	4.56	4.64	4.64	4.55	4.47	4.3
United States	2004	2005	2006	2007	2008	2009	2010	2011
Deaths from lung, bronchus, and trachea	158,091	159,292	158,664	158,760	158,656	158,158	158,318	N/A
Rate per 10,000 population	5.4	5.39	5.32	5.27	5.22	5.16	5.13	N/A
MN:US rate ratio	2004	2005	2006	2007	2008	2009	2010	2011
Deaths from lung, bronchus, and trachea cancer	0.86	0.83	0.86	0.88	0.89	0.88	0.87	N/A

**Data Source: SAMMEC** 

2004 Age-Adjusted Smoking-Attributable Mortality (SAM) Rate per 100,000\*

		Minnesota			<b>United Stat</b>	es
Disease Category	Male	Female	Total	Male	Female	Total
Malignant Neoplasms						
Lip, Oral Cavity, Pharynx	4.3	1.3	2.6	5.5	1.3	3.2
Esophagus	11.8	1.4	5.9	10.6	1.9	5.7
Stomach	2.8	0.5	1.5	2.8	0.6	1.5
Pancreas	4.6	3.2	3.9	4.6	4.2	4.4
Larynx	2.6	0.4	1.3	3.6	0.6	1.9
Trachea, Lung, Bronchus	101.3	49.8	71.6	119.0	56.0	82.8
Cervix Uteri	0.0	0.3	0.1	0.0	0.5	0.3
Kidney and Renal Pelvis	4.4	0.1	2.0	4.2	0.2	1.9
Urinary Bladder	6.6	0.9	3.2	6.6	1.2	3.4
Acute Myeloid Leukemia	1.7	0.4	0.9	1.3	0.4	0.8
Sub-total	140.1	58.3	93.0	158.2	66.9	105.9
Cardiovascular Diseases						
Ischemic Heart Disease	47.3	13.2	28.0	69.5	28.8	46.5
Other Heart Disease	18.4	6.2	10.8	19.9	8.2	12.9
Cerebrovascular Disease	8.9	5.8	7.0	10.8	8.3	9.3
Atherosclerosis	1.2	0.1	0.5	1.9	0.5	1.0
Aortic Aneurysm	9.2	3.7	5.9	8.0	2.9	5.0
Other Arterial Disease	0.6	0.7	0.7	0.7	0.8	0.8
Sub-total	85.6	29.7	52.9	110.8	49.5	75.5
Respiratory Diseases						
Pneumonia, Influenza	6.9	2.2	3.9	9.5	4.2	6.2
Bronchitis, Emphysema	6.6	3.6	4.8	10.8	6.4	8.1
Chronic Airway Obstruction	64.7	35.3	46.6	66.0	43.6	52.1
Sub-total	78.2	41.1	55.3	86.3	54.2	66.4
Total	303.9	129.1	201.2	355.3	170.6	247.8

<sup>\*</sup>Among adults aged 35 years and older. Does not include burn or second hand smoke deaths.

**Data Source: SAMMEC** 

## Maternal and Child Health Smoking-Attributable Health Outcomes, 2004

	Minn	Minnesota		d State
Maternal Smoking Prevalence	9	.8	10	).2
	Male	Female	Male	Female
Smoking-Attributable Fraction (SAF)				
Short Gestation/Low Birth Weight	7.52%	7.52%	7.81%	7.81%
Sudden Infant Death Syndrome	11.22%	11.22%	11.63%	11.63%
Respiratory Distress (Syndrome)—newborn	2.86%	2.86%	2.97%	2.97%
Other Respiratory Conditions—perinatal	3.86%	3.86%	4.01%	4.01%
			•	
Smoking-Attributable Mortality (SAM)				
Short Gestation/Low Birth Weight	1	1	206	156
Sudden Infant Death Syndrome	2	1	154	107
Respiratory Distress (Syndrome)—newborn	0	0	15	11
Other Respiratory Conditions—perinatal	0	0	28	20
			•	
Smoking-Attributable Years of Potential Life Lost	(YPLL)			
Short Gestation/Low Birth Weight	75	80	15,491	12,542
Sudden Infant Death Syndrome	150	80	11,581	8,603
Respiratory Distress (Syndrome)—newborn	0	0	1,128	884
Other Respiratory Conditions—perinatal	0	0	2,106	1,608

Note: Smoking status is obtained through maternal self reports, and the prevalence of maternal smoking may be substantially understated

# **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).

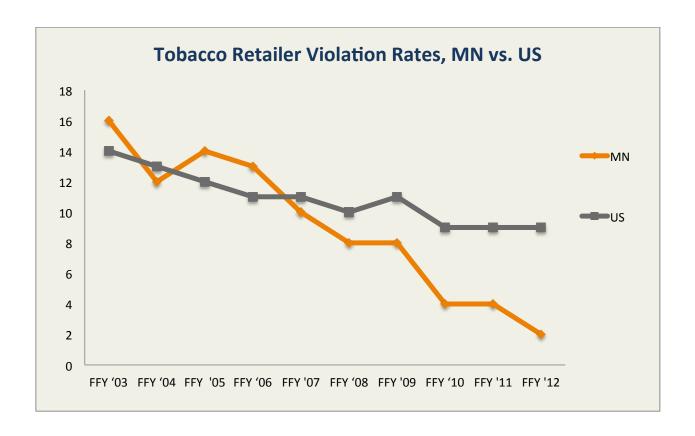
## Data Source(s)

Center for Substance Abuse Prevention (CSAP)
Section Summary

- Minnesota retailer violation rates have steadily declined, from 16% in Federal Fiscal Year 2003 to 2% in Federal Fiscal Year 2012.
- Minnesota's retailer violation rates have been lower than the national average since Federal Fiscal Year 2007.

# **Tobacco: Intervening Variables**

**Data source: SYNAR** 



#### SYNAR Tobacco Retailer Violation Rates (RVR)

	FFY '03	FFY '04	FFY '05	FFY '06	FFY '07	FFY '08	FFY '09	FFY '10	FFY '11	FFY '12
Minnesota	16%	12%	14%	13%	10%	8%	8%	4%	4%	2%
United States	14%	13%	12%	11%	11%	10%	11%	9%	9%	9%
MN:US	1.14	0.92	1.17	1.18	0.91	0.8	0.73	0.44	0.48	0.22

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

## **Tobacco: Intervening Variables**

# Perceptions of Disapproval and Harm

#### **About the Indicator**

#### Perception of Harm

Beginning in 2007, students 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 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."

#### 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.

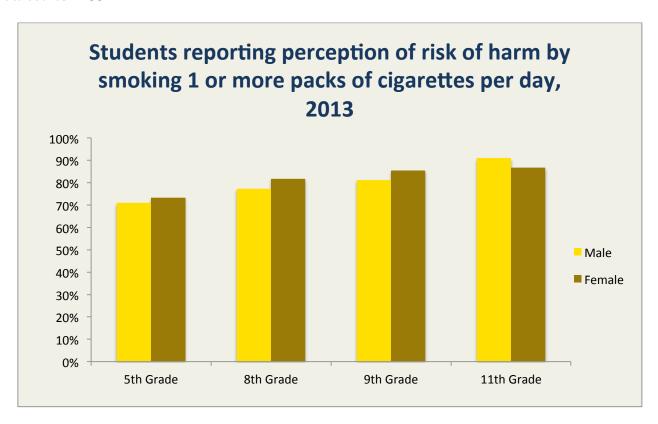
If you would like to see those data, they are available on the SUMN.org website.

# **Data Source(s)**

Minnesota Student Survey (MSS), Monitoring the Future (MTF) **Section Summary** 

- Perception of harm of smoking is higher among female students than among male students until 11<sup>th</sup> grade.
- In 2013, 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.

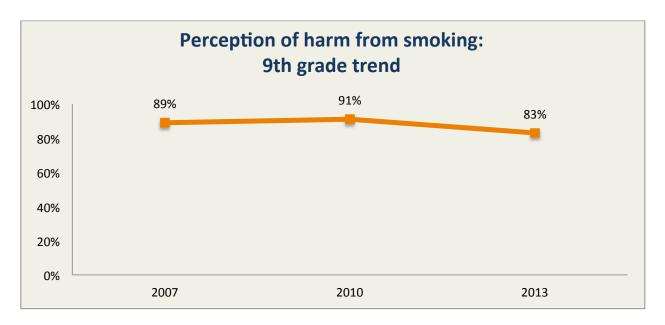
**Data source: MSS** 



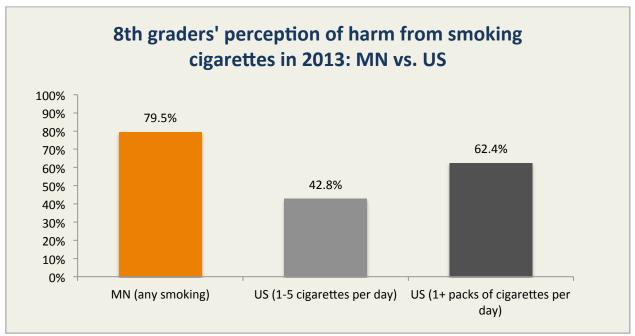
Students reporting they think people put themselves at "great" or "moderate" risk of harming themselves physically or in other ways by smoking 1 or more packs of cigarettes per day, 2013

	Male		Female		Total	
	N (#)	%	N (#)	%	N (#)	%
5th Grade	12861	70.9%	12900	73.3%	25761	72.1%
8th Grade	14346	77.3%	15723	81.7%	30069	79.5%
9th Grade	14568	81.2%	15889	85.4%	30457	83.4%
11th Grade	14731	91.0%	14315	86.7%	29046	88.9%
Total	55157	77.9%	58827	81.8%	113984	79.8%

Data source: MSS and MTF

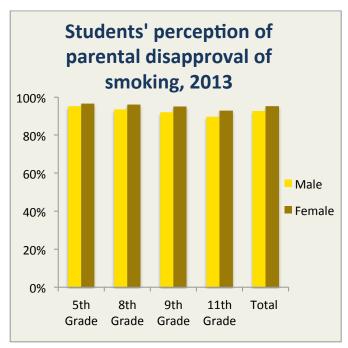


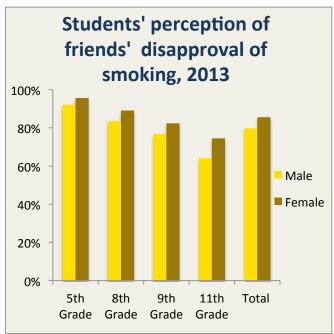
Minnesota's 8<sup>th</sup> graders' perception of risk of harm from smoking cigarettes is higher than the US average, and Minnesota 9<sup>th</sup> graders' perception of risk is even higher than that of the 8<sup>th</sup> graders'.



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

**Data source: MSS** 





Minnesota students reporting their parents or guardians would feel it is "wrong" or "very wrong" for them to smoke cigarettes, 2013

	Male		Fem	ale	Total	
	N (#)	%	N (#)	%	N (#)	%
5th Grade	17,542	95.2%	17,409	96.5%	34,951	95.8%
8th Grade	17,424	93.6%	18,592	96.0%	36,016	94.8%
9th Grade	16,437	92.0%	17,707	95.0%	34,144	93.5%
11th Grade	14,492	89.6%	15,343	92.9%	29,835	91.2%
Total	65,895	92.7%	69,051	95.2%	134,946	93.9%

Minnesota students reporting their friends would feel it is "wrong" or "very wrong" for them to smoke cigarettes, 2013

		ergur ettee,				
	Ma	ile	Fem	ale	Total	
	N (#)	%	N (#)	%	N (#)	%
5th Grade	16,888	92.1%	17,160	95.5%	34,048	93.8%
8th Grade	15,406	83.4%	17,130	89.0%	32,536	86.3%
9th Grade	13,623	76.8%	15,261	82.4%	28,884	79.7%
11th Grade	10,304	64.2%	12,239	74.5%	22,543	69.4%
Total	56,221	79.6%	61,790	85.6%	118,011	82.7%

Illicit Drug Use: Marijuana

# 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). 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)

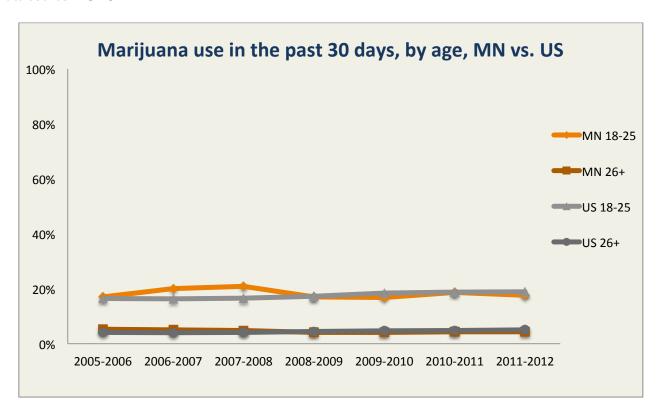
#### **Section Summary**

#### **Adults**

- Since 2005/2006 Minnesota's rates of marijuana use have remained relatively flat, decreasing slightly compared to national rates (NSDUH).
- Males, young adults, American Indians and individuals reporting more than one race reported higher levels of past 30-day marijuana use (MNSASU).

#### Youth

- The use of marijuana by 9<sup>th</sup> grade students decreased from 14% in 2001 to 9.4% in 2013.
- Almost 17% of 11th graders reported past 30-day marijuana use in 2013. 25% reported usage in the past year.



Adults Reporting Marijuana Use in the Past 30 Days

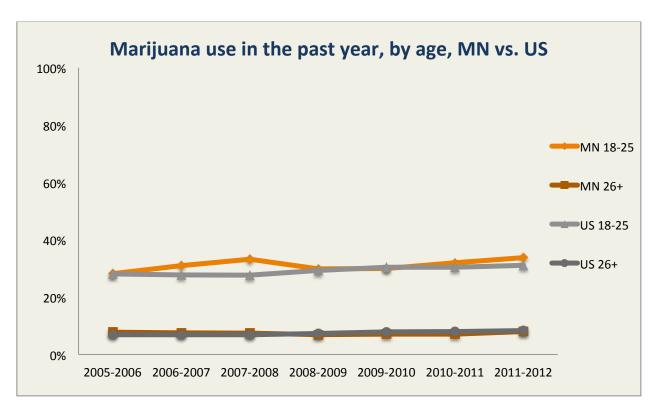
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Minnesota	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Marijuana use 12+	7.2%	7.3%	7.1%	6.0%	5.9%	6.4%	6.3%
Ages 12 thru 17	7.5%	7.1%	6.6%	5.6%	6.1%	6.8%	7.3%
Ages 18 thru 25	17.0%	20.1%	20.9%	17.0%	16.8%	18.7%	17.6%
Ages 26 and Over	5.3%	5.0%	4.8%	4.1%	4.1%	4.3%	4.3%
United States	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Marijuana use 12+	6.0%	5.9%	6.0%	6.4%	6.8%	6.9%	7.1%
Ages 12 thru 17	6.7%	6.7%	6.7%	7.0%	7.4%	7.6%	7.6%
Ages 18 thru 25	16.4%	16.3%	16.5%	17.3%	18.4%	18.8%	18.9%
Ages 26 and Over	4.1%	4.0%	4.1%	4.4%	4.7%	4.8%	5.1%
MN:US rate ratio	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Marijuana use 12+	1.2	1.24	1.18	0.94	0.88	0.93	0.89

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

# Adults Reporting Marijuana Use in the Past 30 Days

Percent of Minneson	ta adults reporting Marijuana use within the race/ethnicity	past 30 days by ge	nder, age, and
		2004	2010
Age	Ages 18 thru 24	22.4%	23.3%
	Ages 25 thru 44	6.2%	9.8%
	Ages 45 thru 64	3.8%	4.9%
	Ages 65 and over	N/A	N/A
Race/Ethnicity	African American or Black	9.6%	12.2%
	American Indian	21.0%	20.5%
	Asian American/ Pacific Islander	N/A	4.0%
	Hispanic/Latino	4.7%	7.1%
	Bi-Racial/Multi-Racial	18.1%	24.8%
	White	6.4%	7.9%
Gender	Male	8.9%	10.6%
	Female	4.5%	5.8%
	Total	6.7%	8.1%



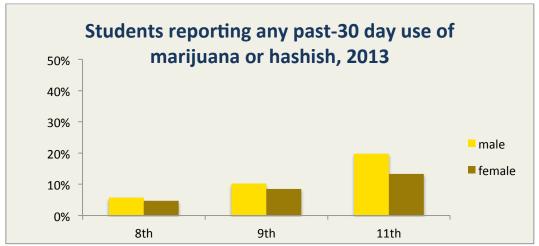
#### Adults Reporting Marijuana Use in the Past Year

NOTE: Total percent represents the total number of survey respondents reporting use divided by the total number of survey respondents who answered

Minnesota	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Marijuana use 12+	11.2%	11.3%	11.3%	10.4%	10.6%	10.9%	11.8%
Ages 12 thru 17	13.3%	12.7%	12.3%	11.3%	11.9%	13.2%	13.6%
Ages 18 thru 25	28.2%	30.9%	33.2%	29.9%	30.0%	32.0%	33.8%
Ages 26 and Over	7.8%	7.6%	7.4%	6.9%	7.1%	7.1%	8.0%
United States	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Marijuana use 12+	10.4%	10.2%	10.3%	10.9%	11.5%	11.6%	11.8%
Ages 12 thru 17	13.3%	12.9%	12.8%	13.4%	13.8%	14.1%	13.9%
Ages 18 thru 25	28.1%	27.8%	27.7%	29.3%	30.4%	30.4%	31.1%
Ages 26 and Over	6.9%	6.9%	6.9%	7.4%	7.9%	8.0%	8.3%
MN:US rate ratio	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Marijuana use 12+	1.08	1.11	1.10	0.95	0.92	0.94	1.00

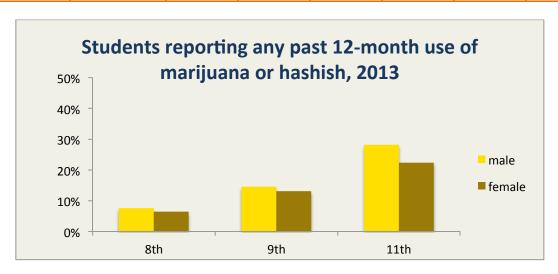
the question. Percent within an age group, for example, represents the total number of survey respondents in the age group reporting use, divided by the total number of survey respondents in that age group who answered the question.

Data Source: MSS



Minnesota Students Reporting Marijuana Use in the Past 30 Days by Gender and Grade, 2013

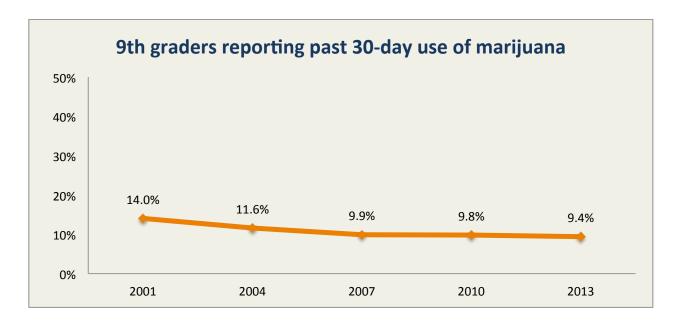
		M	Male		nale	Total	
		N (#)	%	N (#)	%	N (#)	%
Grade	5th	0	0%	0	0%	0	0%
	8th	1106	5.7%	932	4.7%	2038	5.2%
	9th	1925	10.2%	1674	8.6%	3599	9.4%
	11th	3360	19.8%	2296	13.3%	5656	16.6%



Minnesota Students Reporting Marijuana Use in the Past 12 Months by Gender and Grade, 2013

		Male		Fen	nale	Total	
		N (#)	%	N (#)	%	N (#)	%
Grade	5th	0	0%	0	0%	0	0%
	8th	1458	7.6%	1269	6.4%	2727	7.0%
	9th	2732	14.5%	2554	13.1%	5286	13.8%
	11th	4760	28.1%	3849	22.4%	8609	25.2%

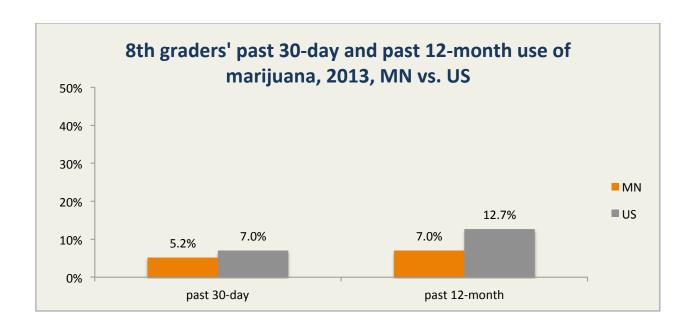
Data Source: MSS and MTF



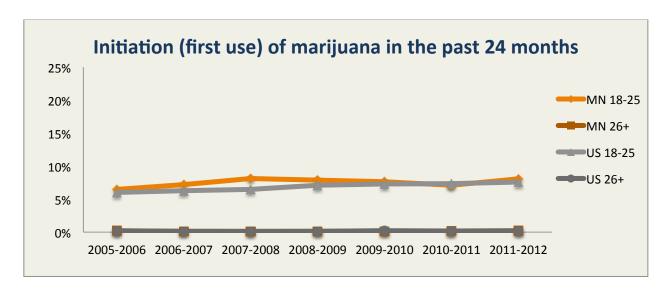
Both the past 30-day and 12-month use of marijuana is lower for Minnesota 8th graders than the national average.

Past 30-day use for 9th graders continues to

decrease.

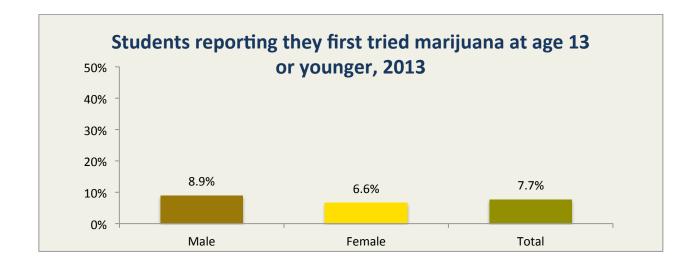


Data Source: NSDUH and MSS



First Use of Marijuana in the Past 24 Months

Minnesota	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Initiated 12+	1.8%	1.8%	1.8%	1.8%	1.9%	1.8%	1.9%
Ages 12 thru 17	5.7%	5.5%	4.9%	4.9%	5.4%	5.9%	5.6%
Ages 18 thru 25	6.5%	7.2%	8.1%	7.9%	7.7%	7.1%	8.1%
Ages 26 and Over	0.2%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%
United States	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Initiated 12+	1.6%	1.6%	1.7%	1.8%	1.8%	1.9%	1.9%
Ages 12 thru 17	5.6%	5.6%	5.5%	5.7%	5.9%	6.1%	6.0%
Ages 18 thru 25	6.0%	6.3%	6.5%	7.1%	7.3%	7.3%	7.6%
Ages 26 and Over	0.2%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%
MN:US rate ratio	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Initiated 12+	1.13	1.13	1.06	1	1.06	0.95	1



# 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
- Crack/cocaine
- Non-medicinal use of painkillers

#### Youth

- Inhalants
- Methamphetamine
- MDMA/ecstasy
- Crack/cocaine
- Psychedelics
- Heroin
- Over-the-counter drugs
- Synthetic drugs
- Prescription drugs

# 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)

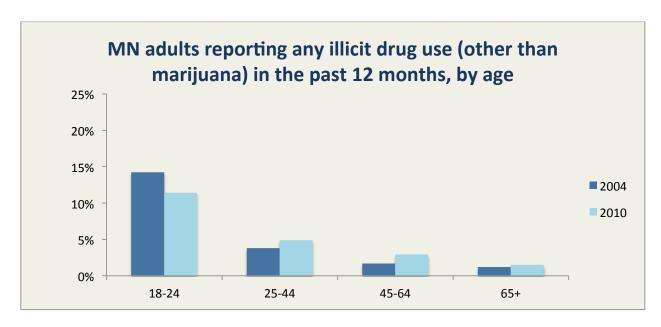
# **Section Summary**

#### **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, compared to other age groups.

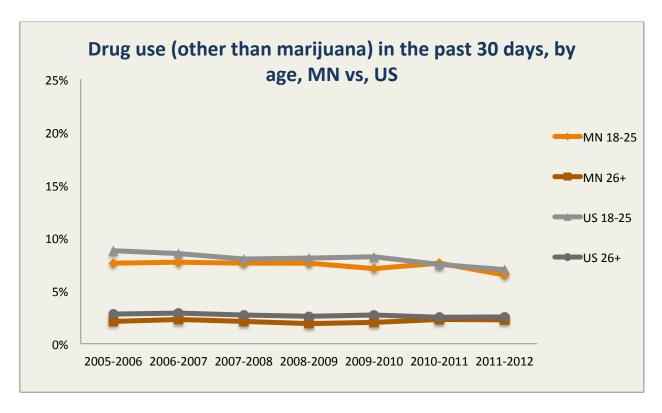
#### Youth

 There has been an overall decrease in reported use of inhalants, methamphetamine, MDMA/Ecstasy, crack/cocaine and psychedelics since 2001.
 The largest decline is for inhalants, from 9% in 1995 to 1% in 2013. **Data Source: MNSASU** 



Adults Reporting Any Illicit Drug Use Other than Marijuana in the Past 12 Months

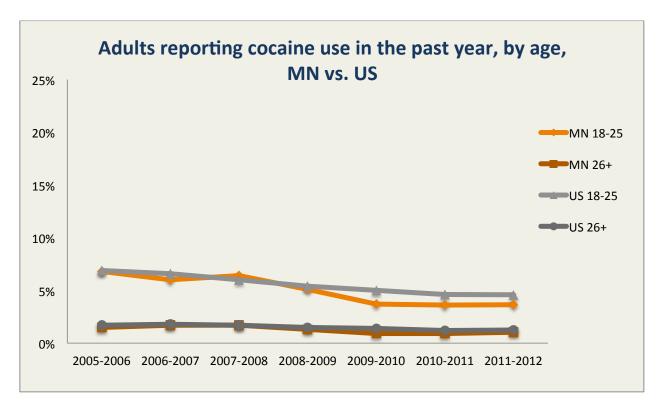
Percent of Minneso	ta adults reporting any illicit drug use other t months by gender, age, and race/eth	•	hin the past 12
		2004	2010
Age	Ages 18 thru 24	14.2%	11.4%
	Ages 25 thru 44	3.8%	4.9%
	Ages 45 thru 64	1.7%	2.9%
	Ages 65 and over	1.2%	1.5%
Race/Ethnicity	African American or Black	6.3%	5.1%
	American Indian	16.6%	11.1%
	Asian American/Pacific Islander	1.7%	3.7%
	Hispanic/Latino	8.0%	7.8%
	Bi-Racial/Multi-Racial	12.1%	12.7%
	White	3.9%	4.3%
Gender	Male	4.9%	5.3%
	Female	3.5%	3.9%
	Total	4.2%	4.6%



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

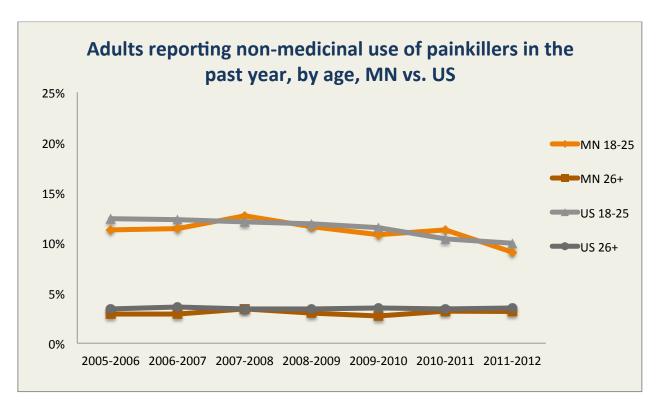
Minnesota	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Drug use 12+	3.2%	3.2%	3.1%	2.8%	2.8%	3.2%	2.9%
Ages 12 thru 17	5.2%	4.6%	4.3%	3.7%	3.6%	3.8%	3.5%
Ages 18 thru 25	7.6%	7.7%	7.6%	7.6%	7.1%	7.6%	6.5%
Ages 26 and Over	2.1%	2.3%	2.1%	1.9%	2.0%	2.3%	2.3%
United States	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Drug use 12+	3.8%	3.8%	3.6%	3.5%	3.6%	3.3%	3.3%
Ages 12 thru 17	4.9%	4.8%	4.5%	4.5%	4.5%	4.3%	3.9%
Ages 18 thru 25	8.8%	8.5%	8.0%	8.1%	8.2%	7.5%	7.0%
Ages 26 and Over	2.8%	2.9%	2.7%	2.6%	2.7%	2.5%	2.5%
MN:US rate ratio	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Drug use 12+	0.84	0.84	0.86	0.8	0.79	0.95	0.88

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



Adults Reporting Any Cocaine Use in the Past Year

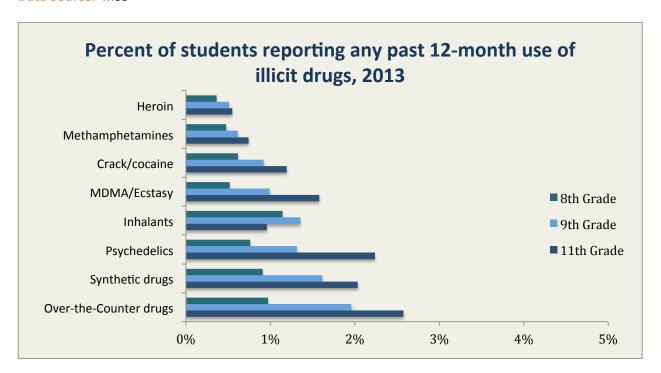
Minnesota	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Cocaine use 12+	2.3%	2.2%	2.3%	1.8%	1.3%	1.3%	1.3%
Ages 12 thru 17	1.9%	1.7%	1.6%	1.1%	0.9%	0.8%	0.6%
Ages 18 thru 25	6.8%	6.0%	6.4%	5.1%	3.7%	3.6%	3.6%
Ages 26 and Over	1.5%	1.7%	1.7%	1.3%	0.9%	0.9%	1.0%
United States	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Cocaine use 12+	2.4%	2.4%	2.2%	2.0%	1.9%	1.6%	1.7%
Ages 12 thru 17	1.6%	1.6%	1.4%	1.1%	1.0%	1.0%	0.8%
Ages 18 thru 25	6.9%	6.6%	6.0%	5.4%	5.0%	4.6%	4.6%
Ages 26 and Over	1.7%	1.8%	1.7%	1.5%	1.4%	1.2%	1.2%
MN:US rate ratio	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Cocaine use 12+	0.96	0.92	1.05	0.9	0.68	0.77	0.76



Adults Reporting Non-Medical Use of Painkillers in the Past Year

Minnesota	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Painkiller use 12+	4.4%	4.4%	4.9%	4.4%	4.1%	4.6%	4.1%
Ages 12 thru 17	6.3%	5.8%	6.5%	6.1%	5.7%	6.2%	5.2%
Ages 18 thru 25	11.3%	11.4%	12.7%	11.6%	10.8%	11.3%	9.1%
Ages 26 and Over	2.9%	2.9%	3.4%	3.0%	2.7%	3.2%	3.2%
United States	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Painkiller use 12+	5.0%	5.1%	4.9%	4.8%	4.9%	4.6%	4.6%
Ages 12 thru 17	7.0%	6.9%	6.6%	6.5%	6.4%	6.1%	5.6%
Ages 18 thru 25	12.4%	12.3%	12.1%	11.9%	11.5%	10.4%	10.0%
Ages 26 and Over	3.4%	3.6%	3.4%	3.4%	3.5%	3.4%	3.5%
MN:US rate ratio	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Painkiller use 12+	0.88	0.86	1	0.92	0.84	1	0.89

**Data Source: MSS** 



Percent of Students Reporting any Past 12-Month Use of Illicit Drugs, by Gender, 2013

		To	otal (8th, 9	th, and 11t	h)	
	Male		Female		To	tal
	N (#)	%	N (#)	%	N (#)	%
Inhalants	596	1.1%	683	1.2%	1279	1.2%
Psychedelics	963	1.8%	586	1.0%	1549	1.4%
MDMA/Ecstasy	661	1.2%	447	0.8%	1108	1.0%
Crack/cocaine	583	1.1%	408	0.7%	991	0.9%
Heroin	336	0.6%	184	0.3%	520	0.5%
Methamphetamines	389	0.7%	278	0.5%	667	0.6%
Over-the-Counter drugs	960	1.8%	1027	1.8%	1987	1.8%
Synthetic drugs	901	1.7%	749	1.3%	1650	1.5%
Rx pain relievers (misuse)	1003	1.8%	914	1.6%	1917	1.8%
ADD/ADHD drugs (misuse)	1005	1.9%	952	1.7%	1957	1.8%
Tranquilizers/Sedatives (misuse)	574	1.1%	493	0.9%	1067	1.0%
Stimulants/Diet Pills (misuse)	424	0.8%	444	0.8%	868	0.8%

**Data Source: MSS** 

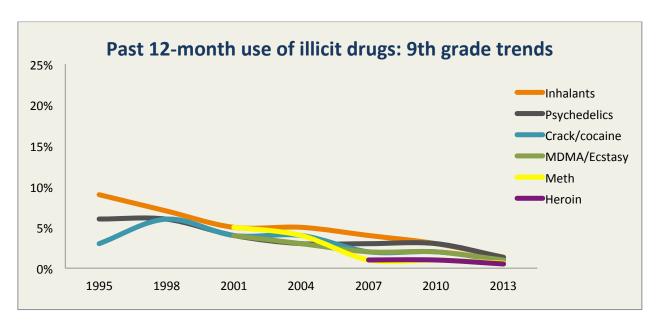
Percent of Students Reporting any Past 12-Month Use of Illicit Drugs, by Gender and Grade, 2013

<u> </u>						-
			8th G	Grade		
	M	Male		Female		tal
	N (#)	%	N (#)	%	N (#)	%
Inhalants	182	1.0%	260	1.3%	442	1.1%
Psychedelics	175	0.9%	120	0.6%	295	0.8%
MDMA/Ecstasy	115	0.6%	85	0.4%	200	0.5%
Crack/cocaine	133	0.7%	106	0.5%	239	0.6%
Heroin	89	0.5%	52	0.3%	141	0.4%
Methamphetamines	109	0.6%	76	0.4%	185	0.5%
Over-the-Counter drugs	160	0.8%	216	1.1%	376	1.0%
Synthetic drugs	185	1.0%	167	0.9%	352	0.9%
Rx pain relievers (misuse)	137	0.7%	161	0.8%	298	0.8%
ADD/ADHD drugs (misuse)	135	0.7%	138	0.7%	273	0.7%
Tranquilizers/Sedatives (misuse)	88	0.5%	78	0.4%	166	0.4%
Stimulants/Diet Pills (misuse)	82	0.4%	103	0.5%	185	0.5%

		9th Grade							
Inhalants	221	1.2%	292	1.5%	513	1.4%			
Psychedelics	273	1.5%	225	1.2%	498	1.3%			
MDMA/Ecstasy	202	1.1%	173	0.9%	375	1.0%			
Crack/cocaine	188	1.0%	161	0.8%	349	0.9%			
Heroin	113	0.6%	81	0.4%	194	0.5%			
Methamphetamines	120	0.6%	112	0.6%	232	0.6%			
Over-the-Counter drugs	317	1.7%	425	2.2%	742	2.0%			
Synthetic drugs	300	1.6%	311	1.6%	611	1.6%			
Rx pain relievers (misuse)	310	1.7%	359	1.9%	669	1.8%			
ADD/ADHD drugs (misuse)	303	1.6%	346	1.8%	649	1.7%			
Tranquilizers/Sedatives (misuse)	178	1.0%	183	0.9%	361	1.0%			
Stimulants/Diet Pills (misuse)	146	0.8%	180	0.9%	326	0.9%			

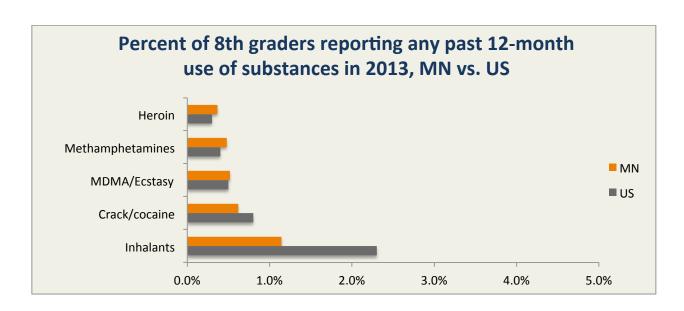
	11th Grade						
Inhalants	193	1.2%	131	0.8%	324	1.0%	
Psychedelics	515	3.1%	241	1.4%	756	2.2%	
MDMA/Ecstasy	344	2.1%	189	1.1%	533	1.6%	
Crack/cocaine	262	1.6%	141	0.8%	403	1.2%	
Heroin	134	0.8%	51	0.3%	185	0.5%	
Methamphetamines	160	1.0%	90	0.5%	250	0.7%	
Over-the-Counter drugs	483	2.9%	386	2.3%	869	2.6%	
Synthetic drugs	416	2.5%	271	1.6%	687	2.0%	
Rx pain relievers (misuse)	556	3.3%	394	2.3%	950	2.8%	
ADD/ADHD drugs (misuse)	567	3.4%	468	2.7%	1035	3.1%	
Tranquilizers/Sedatives (misuse)	308	1.8%	232	1.4%	540	1.6%	
Stimulants/Diet Pills (misuse)	196	1.2%	161	0.9%	357	1.1%	

Data Source: MSS and MTF

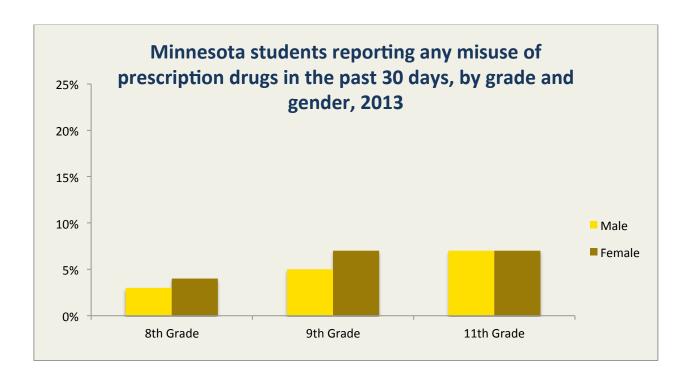


Percent of 9<sup>th</sup> Graders Reporting any Past 12-Month Use of Illicit Drugs, 2013

· · · · · · · · · · · · · · · · · · ·									
	1995	1998	2001	2004	2007	2010	2013		
Inhalants	9%	7%	5%	5%	4%	3%	1%		
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	2%		
Synthetic drugs	N/A	N/A	N/A	N/A	N/A	N/A	2%		



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, 2013									
	Ma	ale	Fen	nale	Total				
	N	%	N	%	N	%			
8th Grade	627	3%	806	4%	1,433	4%			
9th Grade	866	5%	1,268	7%	2,134	6%			
11th Grade	1,254	7%	1,135	7%	2,389	7%			
Total	2,747	5%	3,209	6%	5,956	5%			

**Illicit Drugs: Consequences** 

# 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 Poising 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 substance2 by ingestion, inhalation, injection, or absorption through the skin or mucous membranes that results in at least one related adverse clinical effect."

The Centers for Disease Control and Prevention (CDC) note that deaths from drug overdose have been on the rise, and have become the leading cause of injury death in the U.S. In 2010, drug overdose caused more deaths than motor vehicle traffic crashes among people ages 25 to 64.

 $\frac{http://www.cdc.gov/homeandrecreationalsafety/overdose/fa}{cts.html}$ 

## **Illicit Drugs: Consequences**

The International Classification of Diseases (ICD-10) measures all deaths, including those exclusively related to drug poisoning. The following ICD-10 codes were included in these estimates:

D52.1, D59 (.0, .2), D61.1, D64.2, E06.4, E16.0, E23.1, E24.2, E27.3, E66.1, F11-F16, F19.0, G21.1, G24.0, G25 (.1, .4, .6), G44.4, G62.0, G72.0, I95.2, J70 (.2-.4), K85.3, L10.5, L27 (.0, .1), M10.2, M32.0, M80.4, M81.4, M83.5, M87.1, R50.2, X40-X44, X60-X64, X85, Y10-Y14, Y40-Y59 (T-Codes were not included)

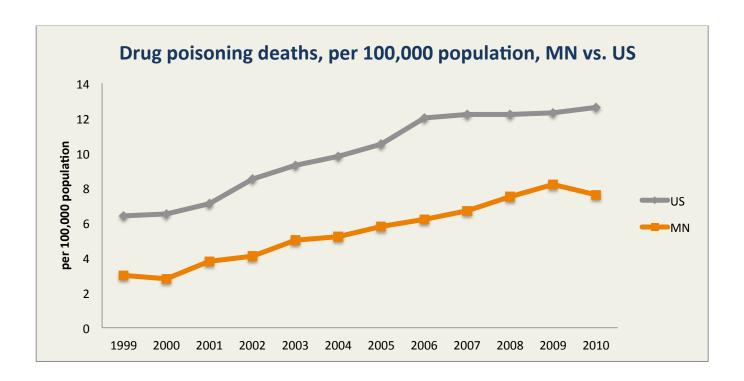
### Data Source(s)

**CDC** Wonder

### **Section Summary**

- Minnesota's drug poisoning death rate has been consistently lower than the national average.
- The age-adjusted drug poisoning death rate per 100,000 rose in Minnesota from 2.8 in 2000 to 8.2 in 2009, then dipped to 7.6 in 2010.

**Data Source:** CDC Wonder



Drug-Related Deaths per 100,000 Population

					•			
Minnesota	2003	2004	2005	2006	2007	2008	2009	2010
Drug-related deaths	256	270	302	326	358	398	438	412
Rate per 100,000 population	5.0	5.2	5.8	6.2	6.7	7.5	8.2	7.6
United States	2003	2004	2005	2006	2007	2008	2009	2010
Drug-related deaths	26,976	28,830	31,243	35,938	37,046	37,491	38,005	39,320
Rate per 100,000 population	9.3	9.8	10.5	12.0	12.2	12.2	12.3	12.6
MN:US	2003	2004	2005	2006	2007	2008	2009	2010
Drug-related deaths	0.54	0.53	0.55	0.52	0.55	0.61	0.67	0.60

<sup>\*</sup>Extremely low counts may result in unreliable estimates

# 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.

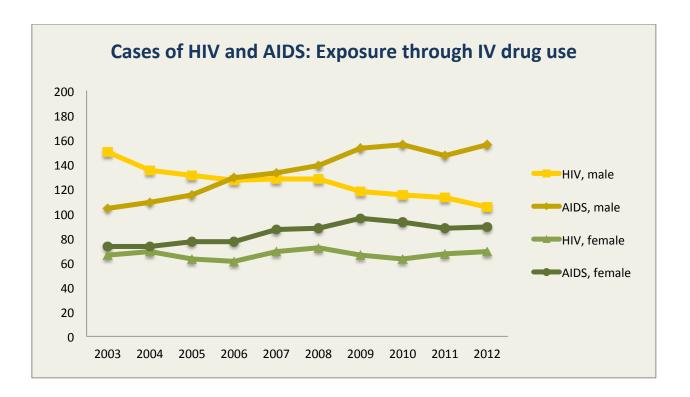
## Data Source(s)

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.

Data Source: MDH HIV/AIDS Surveillance Reports



Number of Cases of HIV and AIDS: Mode of Exposure Intravenous Drug Use (IDU)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	
Males											
HIV	150	135	131	127	128	128	118	115	113	105	
AIDS	104	109	115	129	133	139	153	156	147	156	
Total	254	244	246	256	261	267	271	271	260	261	
Females											
HIV	66	69	63	61	69	72	66	63	67	69	
AIDS	73	73	77	77	87	88	96	93	88	89	
Total	139	142	140	138	156	160	162	156	155	158	
Total	Total										
HIV	216	204	194	188	197	200	184	178	180	174	
AIDS	177	182	192	206	220	227	249	249	235	245	
Total	393	386	386	394	417	427	433	427	415	419	

# **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.

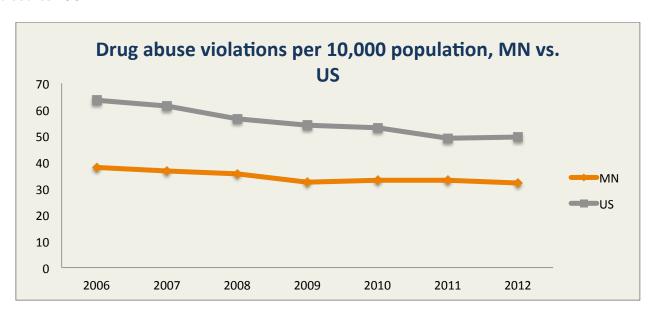
## Data Source(s)

Uniform Crime Reports (UCR)

### **Section Summary**

- The rate of narcotics arrests in Minnesota has been consistently lower than the national rate.
- From 2009 to 2012, approximately 15-17% of Minnesotans arrested for narcotics violations have been under the age of 18.

**Data Source: UCR** 



#### Drug Abuse Violations per 10,000 Population

Minnesota	2006	2007	2008	2009	2010	2011	2012
Narcotics arrests	18,186	18,814	18,196	17,040	17,572	17,727	15,087
Rate per 10,000 population	38	36.7	35.6	32.4	33.1	33.2	32.1
United States	2006	2007	2008	2009	2010	2011	2012
Narcotics arrests	1,379,887	1,386,394	1,304,098	1,305,191	1,638,846	1,531,251	1,552,432
Rate per 10,000 population	63.5	61.3	56.5	54.1	53.1	49.1	49.5
MN:US rate ratio	2006	2007	2008	2008	2010	2011	2012
Narcotics arrests	0.6	0.6	0.63	0.6	0.62	0.68	0.65

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**

		2009		2010		2011		20	12	
		N (#)	%							
Age	Juvenile	2,780	16.0%	2,889	17.0%	3,146	15.1%	2,901	15.6%	
	Adult	14,566	84.0%	14,683	83.0%	17,729	84.9%	15,730	84.4%	
Race	White	12,042	69.4%	12,421	71.0%	12,981	73.0%	13,564	73.0%	
	African American	4,484	25.9%	4,264	24.0%	3,886	22.0%	4,085	22.0%	
	Indian/ Alaskan	425	2.5%	446	2.5%	446	3.0%	498	3.0%	
	Asian	395	2.3%	441	2.5%	416	2.0%	484	2.0%	
Ethnicity	Hispanic	1,318	7.6%	N/A	N/A	N/A	N/A	N/A	N/A	
	Non- Hispanic	16,028	92.4%	N/A	N/A	N/A	N/A	N/A	N/A	

# Persons in Prison or on Probation for Drug Offenses

#### About the Indicator

Legal penalties for illicit drugs range from prison time to probation sentences. Both measures are presented here.

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.

Probation is supervision in the community by probation officers who enforce court-ordered conditions designed to protect the public. Offenders on probation often serve jail time and may be required to make restitution, participate in treatment and/or pay fines. Many probationers are required to meet with probation officers on a regular basis and may be tested for drug or alcohol use.

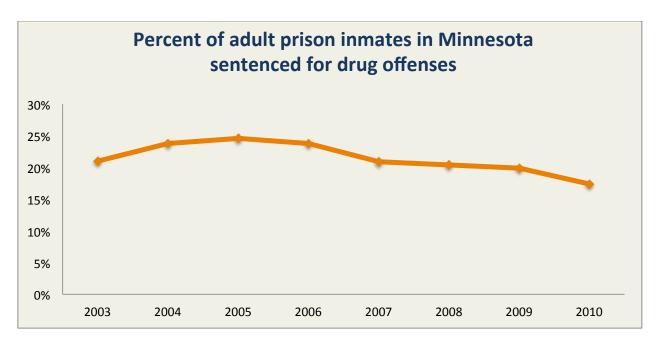
## Data Source(s)

Minnesota Department of Corrections

# **Section Summary**

- The rate of juveniles on probation for drug offenses increased between 2007 and 2010 in the non-metro area.
- The percent of adult prison inmates in Minnesota sentenced for drug offenses decreased from 24.6% in 2005 to 17.4% in 2010.

#### **Data Source:** Inmate Profile



## Prison Inmates in Minnesota Sentenced for Drug Offenses

Minnesota	2003	2004	2005	2006	2007	2008	2009	2010
Number of inmates	1,483	1,859	2,090	2,109	1,858	1,893	1,832	1627
Percent of all inmates	21.0%	23.8%	24.6%	23.8%	20.9%	20.4%	19.9%	17.4%

Adult Prison Inmates in Minnesota Sentenced for Drug Offenses by Race/Ethnicity									
		2004	2005	2006	2007	2008	2009	2010	
sad to	N (#)	1,018	1,174	1,233	1,051	1,008	922	1,131	
White	%	54.8%	56.2%	58.5%	56.6%	53.2%	50.3%	61.3%	
Black	N (#)	524	575	558	509	559	586	605	
DIACK	%	28.2%	27.6%	26.5%	27.4%	29.5%	32.0%	32.8%	
American Indian	N (#)	63	66	57	46	52	65	68	
	%	3.4%	3.2%	2.7%	2.5%	2.7%	3.5%	3.7%	
Hienonie	N (#)	234	246	230	224	239	221	N/A	
Hispanic	%	12.6%	11.8%	10.9%	12.1%	12.6%	12.1%	N/A	

# 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**

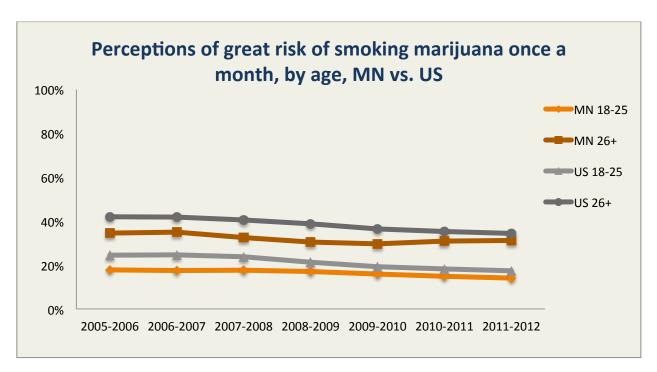
 Perception of harm from smoking marijuana is lower in Minnesota than the national average.

#### Youth

- Females were more likely than males 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.

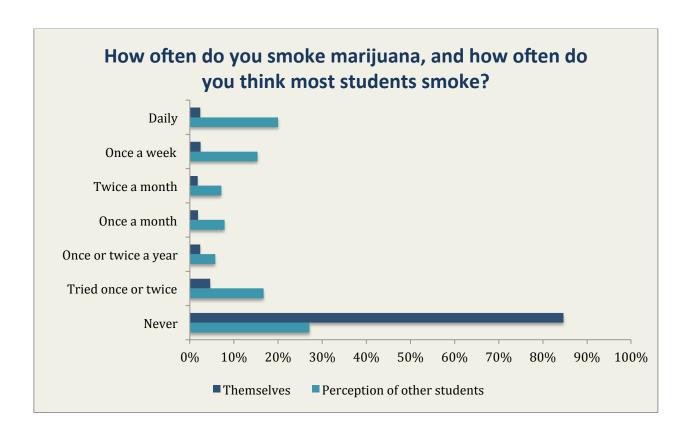
# **Illicit Drugs: Intervening Variables**

Data Source: NSDUH



Adult: Perceptions of Great Risk of Smoking Marijuana Once a Month

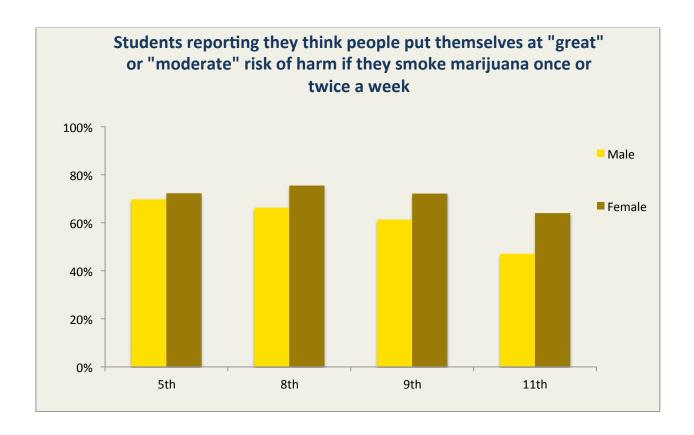
Minnesota	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Perceive risk 12+	32.0%	32.6%	30.5%	28.5%	27.7%	28.7%	28.6%
Ages 12 thru 17	31.7%	34.0%	32.1%	28.6%	28.7%	29.1%	27.1%
Ages 18 thru 25	17.7%	17.6%	17.7%	17.1%	15.8%	14.8%	14.1%
Ages 26 and Over	34.6%	35.0%	32.5%	30.4%	29.7%	31.0%	31.2%
United States	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Perceive risk 12+	38.8%	38.9%	37.7%	35.8%	33.6%	32.3%	31.4%
Ages 12 thru 17	34.3%	34.5%	33.9%	31.8%	29.9%	28.6%	27.0%
Ages 18 thru 25	24.5%	24.6%	23.7%	21.3%	19.2%	18.3%	17.4%
Ages 26 and Over	42.0%	41.9%	40.6%	38.8%	36.5%	35.2%	34.4%
MN:US rate ratio	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Perceive risk 12+	0.82	0.84	0.81	0.8	0.82	0.89	0.91



## Minnesota Students Reporting Smoking Marijuana, and their Perceptions of Other Students' Frequency of Marijuana Use, 2013

Includes 8<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> grade male and female students

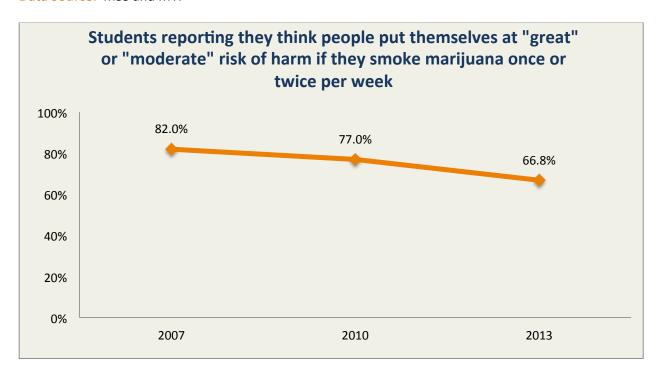
	How often o MOST STUD marij		How often do you smoke marijuana?		
	N (#)	%	N (#)	%	
Never	28487	27.1%	89526	84.7%	
Tried once or twice	17599	16.7%	4860	4.6%	
Once or twice a year	6072	5.8%	2493	2.4%	
Once a month	8284	7.9%	1954	1.8%	
Twice a month	7494	7.1%	1878	1.8%	
Once a week	16110	15.3%	2537	2.4%	
Daily	21032	20.0%	2504	2.4%	



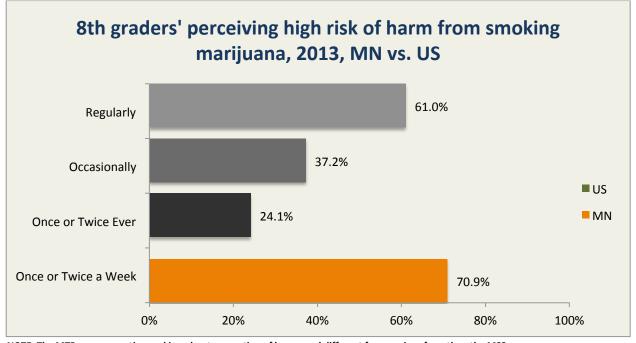
Students Reporting They Think People Put Themselves at "Great" or "moderate" Risk of Harming Themselves
Physically or in Other Ways if They Smoke Marijuana Once or Twice Per Week, 2013

		Ma	Male		nale	Total		
		N (#)	%	N (#)	%	N (#)	%	
Grade	5th	12498	69.7%	12566	72.3%	25064	71.0%	
	8th	12238	66.2%	14445	75.5%	26683	70.9%	
	9th	10924	61.3%	13316	72.1%	24240	66.8%	
	11th	7572	47.1%	10511	64.0%	18083	55.6%	

Data Source: MSS and MTF



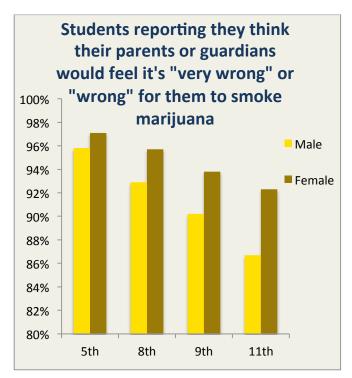
Minnesota students have a relatively high perception of risk of harm from smoking marijuana, but the perception of risk is declining.

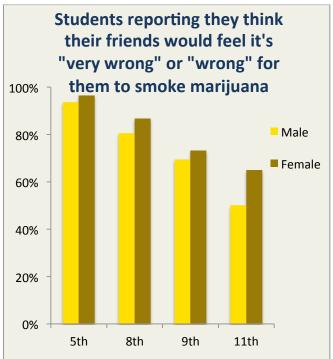


NOTE: The MTF survey questions asking about perception of harm used different frequencies of use than the MSS survey.

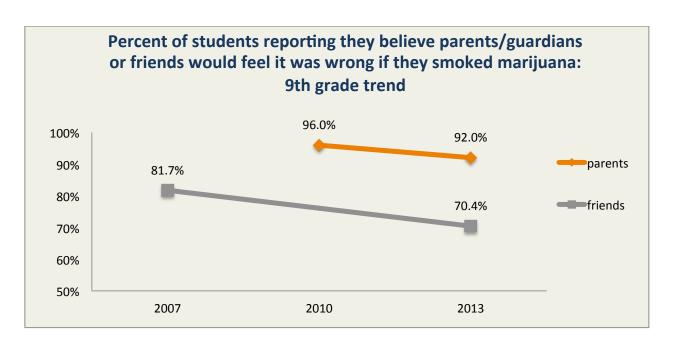
## **Illicit Drugs: Intervening Variables**

Data Source: MSS





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



## **Illicit Drugs: Intervening Variables**

**Data Source: MSS** 

## Students Reporting They Think Their Parents Would Feel it's "Very Wrong" or "wrong" for Them to Smoke Marijuana, 2013

		Male		Fen	nale	Total		
		N (#)	%	N (#)	%	N (#)	%	
Grade	5th	17580	96%	17408	97%	34988	96%	
	8th	17252	92.9%	18474	95.7%	35726	94.3%	
	9th	16061	90.2%	17421	93.8%	33482	92.0%	
	11th	13979	86.7%	15209	92.3%	29188	89.5%	

# Students Reporting They Think Their Friends Would Feel it's "Very Wrong" or "Wrong" for Them to Smoke Marijuana, 2013

		Male		Female		Total	
		N (#)	%	N (#)	%	N (#)	%
Grade	5th	17122	94%	17263	97%	34385	95%
	8th	14847	80.5%	16699	86.8%	31546	83.7%
	9th	12277	69.5%	14248	73.3%	26525	70.4%
	11th	8009	50.1%	10662	65.0%	18671	57.6%

# **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.

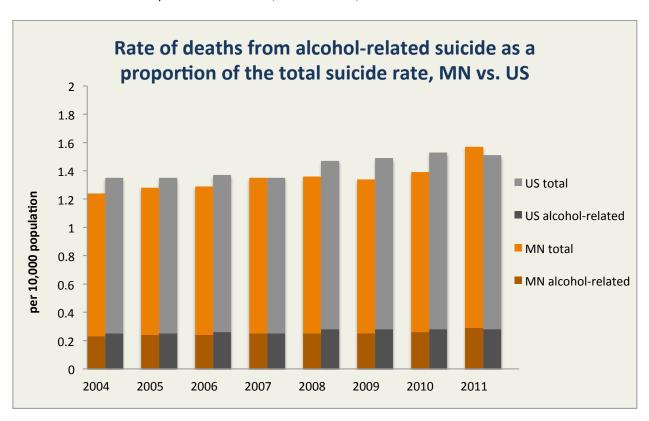
### Data Source(s)

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

## **Section Summary**

- Approximately one in every 10,000 Minnesotans commits suicide annually.
- 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

Minnesota	2004	2005	2006	2007	2008	2009	2010	2011
Deaths from <b>Alcohol-related*</b> Suicide	120	125	127	132	137	134	139	157
Rate per 10,000 population	0.23	0.24	0.24	0.25	0.25	0.25	0.26	0.29
United States	2004	2005	2006	2007	2008	2009	2010	2011
Deaths from <b>Alcohol-related*</b> Suicide	7,461	7,507	7,659	7,942	8,273	8,473	8,811	8,806
Rate per 10,000 population	0.25	0.25	0.26	0.25	0.28	0.28	0.28	0.28
MN:US rate ratio	2004	2005	2006	2007	2008	2009	2010	2011
Deaths from <b>Alcohol-related*</b> Suicide	0.92	0.96	0.92	1	0.89	0.89	0.93	1.04

 $<sup>^{*}</sup>$  = Alcohol-related suicide data are calculated using the AAF for suicide, 23%

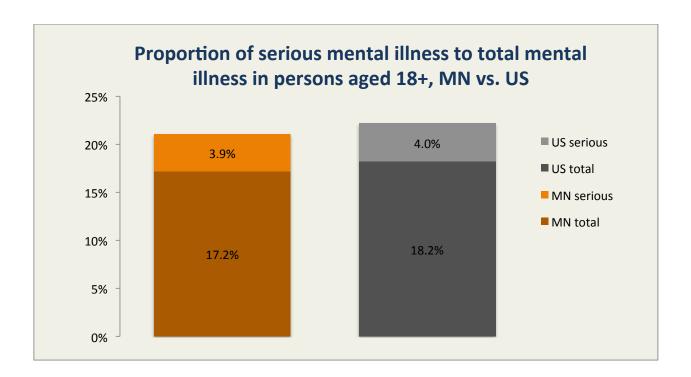
Data Source: Minnesota Department of Health

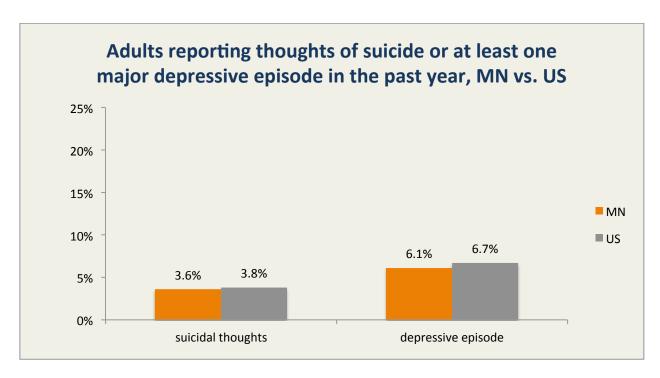


Total Minnesota Suicide Deaths by Gender, Number and Age-Adjusted Rate per 10,000 Population

		2004	2005	2006	2007	2008	2009	2010	2011
Male	Number	425	440	441	462	488	468	461	545
iviale	Rate	1.67	1.7	1.71	1.78	1.86	1.76	1.73	1.28
Famala	Number	97	104	109	109	105	121	138	137
Female	Rate	0.37	0.4	0.41	0.41	0.39	0.45	0.5	0.51

**Data Source: NSDUH** 





Data Source: NSDUH

Adult Suicide and Mental Illness in the Past Year

Serious Mental Illness i	n the Past Year	Any Mental Illness in the Past Year			
Minnesota	2011-2012	Minnesota	2011-2012		
18+	3.9%	18+	17.2%		
18-25	4.4%	18-25	20.1%		
26+	3.8%	26+	16.7%		
United States	2011-2012	United States	2011-2012		
18+	4.0%	18+	18.2%		
18-25	4.0%	18-25	19.1%		
	4.00/	26+	18.0%		
26+	4.0%	201	10.070		
26+	4.0%	201	10.070		
26+ MN:US rate ratio	2011-2012	MN:US rate ratio	2011-2012		

Had Serious Thoughts of S Year	Suicide in the Past	Had at Least 1 Major Depressive Episode in the Past Year			
Minnesota	2011-2012	Minnesota	2011-2012		
18+	3.6%	18+	6.1%		
18-25	7.3%	12-17	8.3%		
26+	3.0%	18-25	8.8%		
		26+	5.7%		
United States	2011-2012	United States	2011-2012		
18+	3.8%	18+	6.7%		
18-25	7.0%	12-17	8.7%		
26+	3.2%	18-25	8.6%		
		26+	6.4%		
MN:US rate ratio	2011-2012	MN:US rate ratio	2011-2012		
12+	0.95	12+	0.91		

# 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<sup>1</sup>. 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 versa<sup>2</sup>. 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: the ACE Score
- Alcohol Use
- Mental Health
- Family and Community
- School

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

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

#### Data Source(s)

Minnesota Student Survey (MSS)

#### **Section Summary**

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

- 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. http://www.health.state.mn.us/divs/cfh/program/ace/

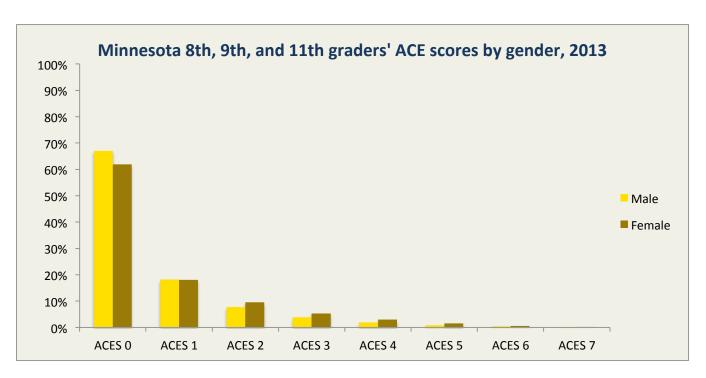
In 2013, some ACE questions were added to the Minnesota Student Survey and some were revised to better align with national surveys. Students' ACE scores, together with their responses to other questions in the MSS, provide insight into protective and risk factors associated with health, academic success,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

## Introduction: the Adverse Childhood Events Score

## The ACE score, as used in the Minnesota Student Survey, ranges from 0 to 7, and is based on the number of following conditions experienced by the student:

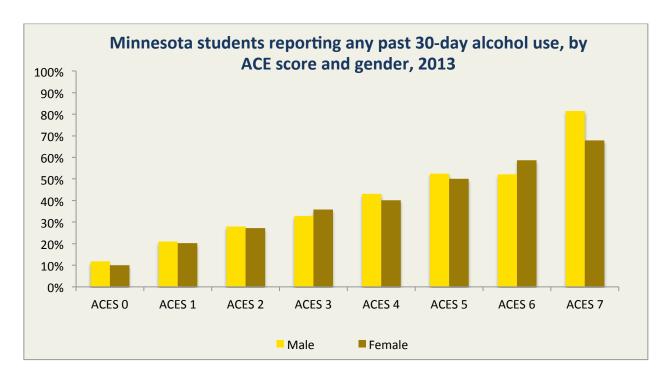
- Students reporting that they have a parent or guardian who is currently in jail, **and/or** who has been in jail in the past
- Students reporting they live with someone who drinks too much alcohol
- Students reporting they live with someone who uses illegal drugs or abuses prescription drugs
- Students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

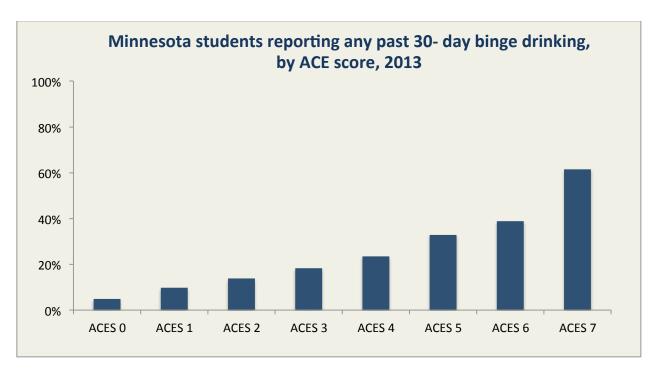
# 33% of male students and 38.1% of female students had an ACE score of 1+



**Data Source: MSS** 

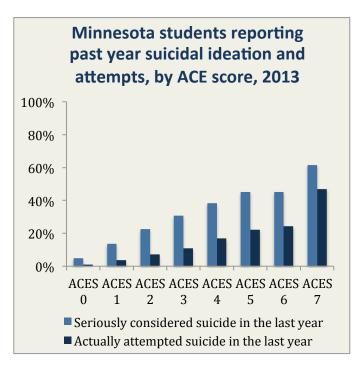
## Alcohol Use

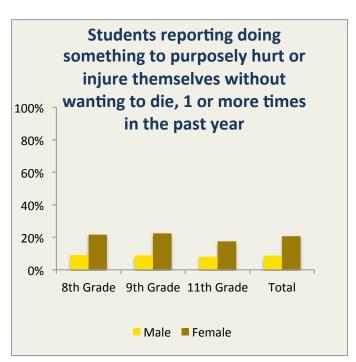


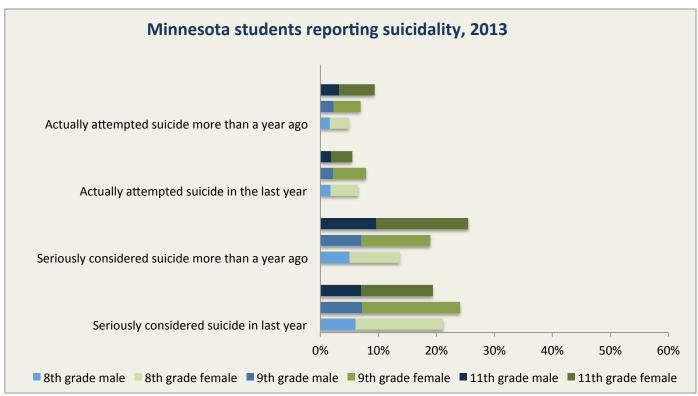


Data Source: MSS

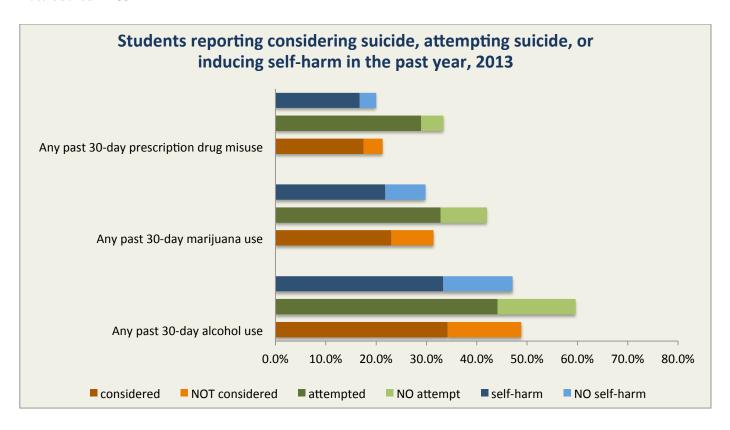
## Mental Health

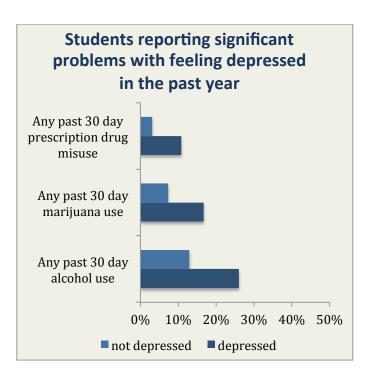


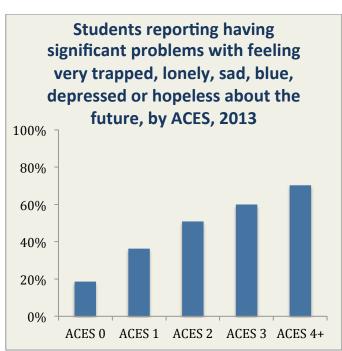




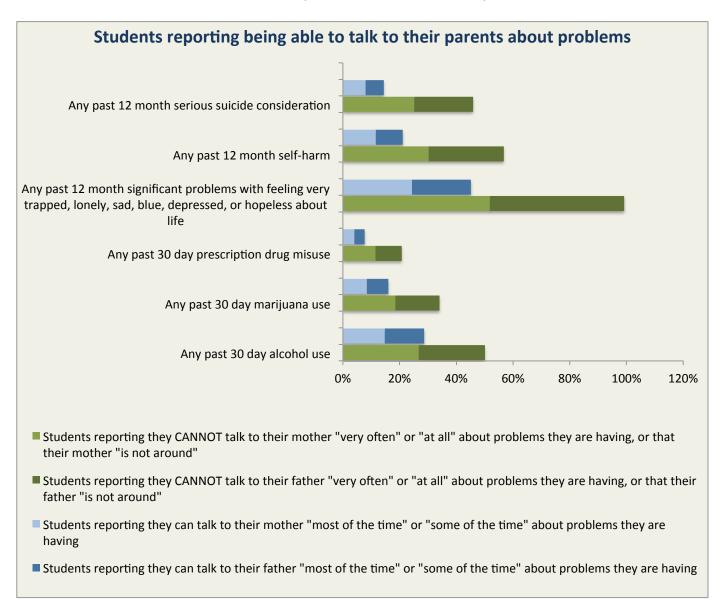
Data Source: MSS





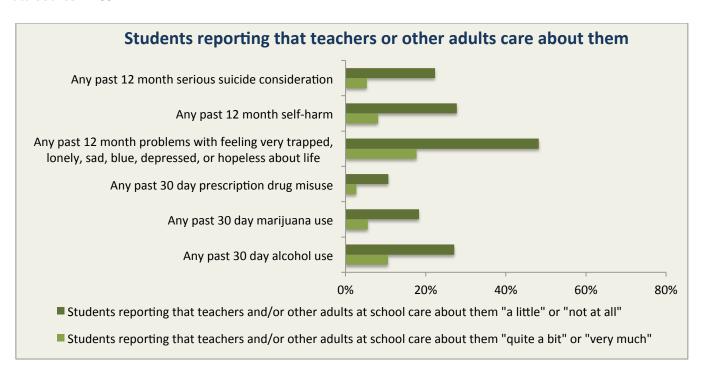


## Family and Community

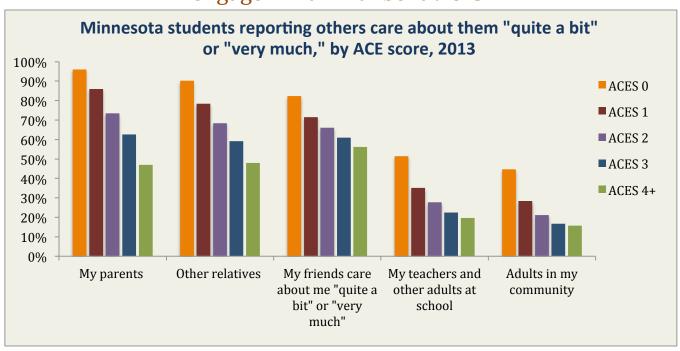


## Protective factor:

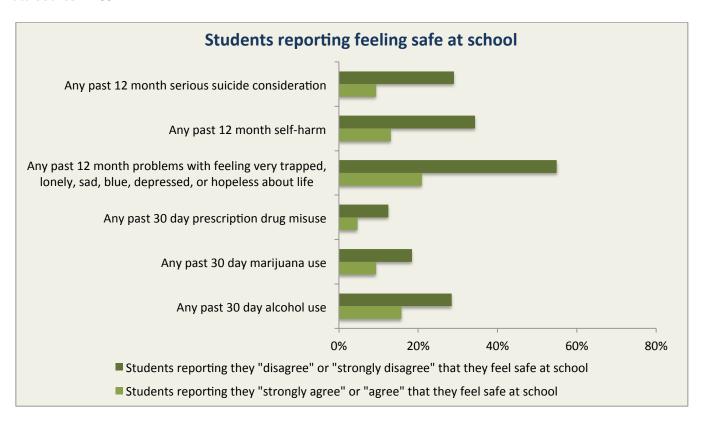
Students who report they can talk to their mothers or fathers about problems they're having are less likely to engage in a number of harmful behaviors



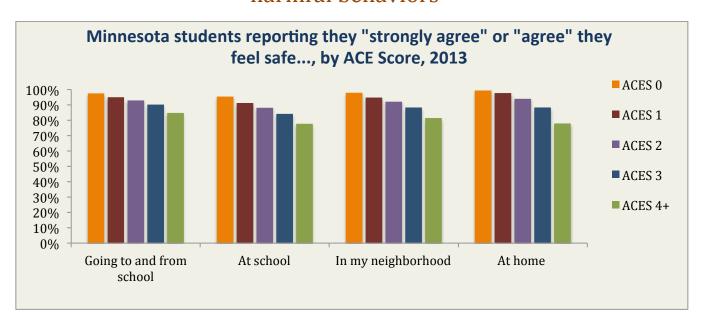
Protective factor:
Students who feel that adults care for them are less likely to engage in harmful behaviors



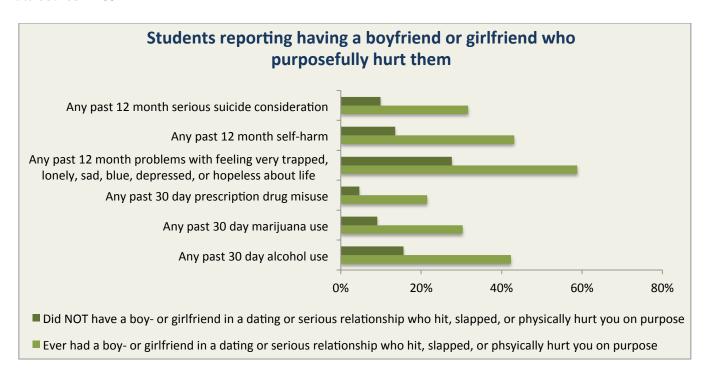
Data Source: MSS



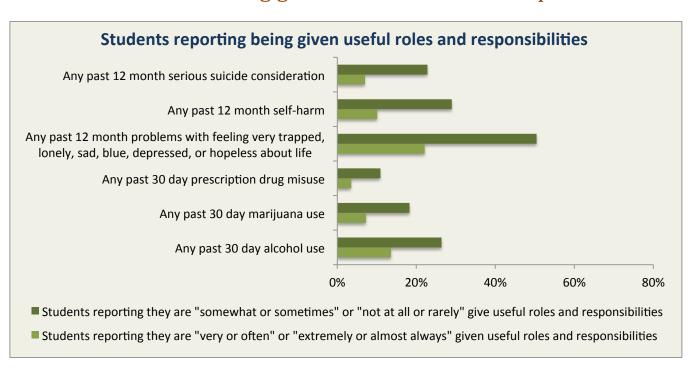
Protective factor:
Students who feel safe at school are less likely to engage in harmful behaviors



**Data Source: MSS** 

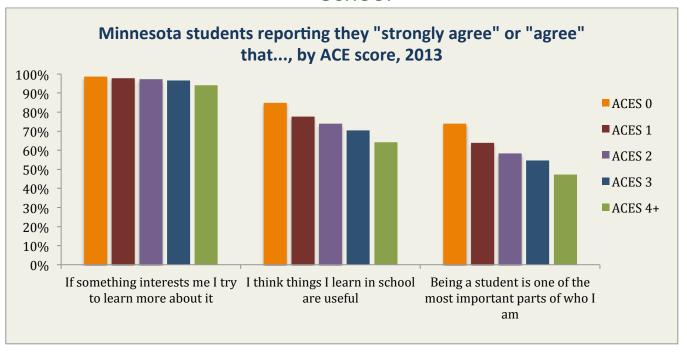


## Risk factor: Having had an abusive relationship Protective factor: Being given useful roles and responsibilities



Data Source: MSS

School



## Protective factor: School engagement



One risk factor for students 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:

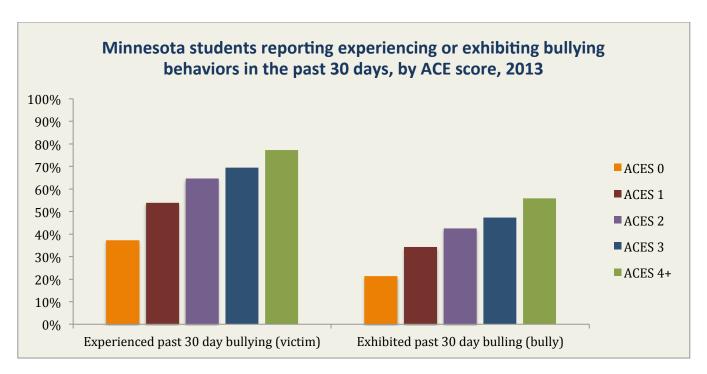
- Pushed, shoved, slapped, hit or kicked you when they weren't kidding around, *and/or*
- Threatened to beat you up, and/or
- Spread mean rumors or lies about you, and/or
- Made sexual jokes, comments or gestures toward you, and/or
- Excluded you from friends, other students, or activities

#### **BULLY**

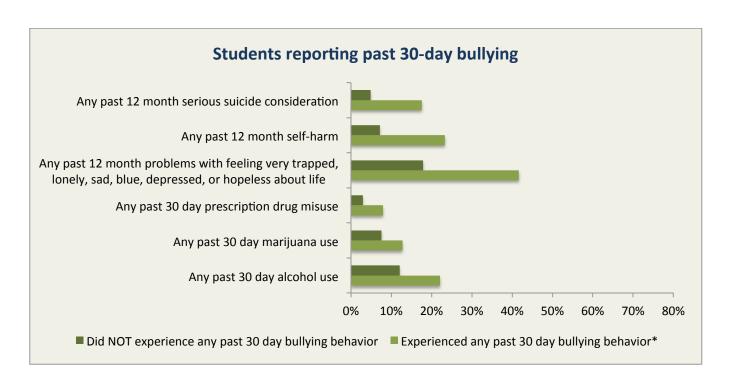
Students reporting, during the last 30 days, ANY times at school THEY:

- 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



**Appendix: Data Sources** 

## **Appendix**

## **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:** 2001-2005 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

**Appendix: Data Sources** 

#### Data Source: Boat & Water Safety Division

**Description:** The Boart & 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: 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/AID 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: <a href="http://www.health.state.mn.us/divs/chs/top\_2.htm">http://www.health.state.mn.us/divs/chs/top\_2.htm</a> and <a href="http://www.health.state.mn.us/divs/idepc/diseases/hiv/hivsurvrpts.html">http://www.health.state.mn.us/divs/idepc/diseases/hiv/hivsurvrpts.html</a>

#### 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 (which 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 Dept 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: <a href="http://www.dps.state.mn.us/ots">http://www.dps.state.mn.us/ots</a>

#### Data Source: Minnesota Student Survey (MSS)

**Description:** The MSS is a confidential and anonymous self-administered survey given to 5<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> and 11<sup>th</sup> grade students attending Minnesota public, charter and tribal schools. Most schools elect to participate in the survey; in 2013, this included 84% of eligible school districts, comprising about 67% of all 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 less than 30 female, Hispanic 5<sup>th</sup> 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

- 5<sup>th</sup> 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, 6<sup>th</sup>, 9<sup>th</sup>, and 12<sup>th</sup> graders were surveyed. Thus, trend data for Minnesota students is available only for 9<sup>th</sup> 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 2013 Minnesota student survey are follows:

All Minnesota Student Survey Respondents (2013)									
		Ma	ale	Fem	nale	Total			
		N (#)	%	N (#)	%	N (#)	%		
Total		81,634	50.0%	80,400	50.2%	162,034	100.0%		
Grade	5th	20,293	51.0%	19,561	49.0%	39,854	100.0%		
	8th	21,548	50.0%	21,293	50.0%	42,841	100.0%		
	9th	21,183	50.0%	21,198	50.0%	42,381	100.0%		
	11th	18610	50.0%	18348	50.0%	36,958	100.0%		
Race/Ethnicity	White	119,958	74.0%						
Nace/ Limitity	African-Am	erican, Africar	9,850	6.0%					
	Native Ame	rican	3,067	2.0%					
	Native Haw	aiian or Pacifi	639	0.0%					
	Asian only					8,781	5.0%		
	Multiple Ra	ce		11,766	7.0%				
	Don't know	/No Answer				7,973	5.0%		
Ethnic /Cultural	Hispanic/La	11,818	7.0%						
Group	Somali					2,024	1.0%		
	Hmong	4,253	3.0%						

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

**Description:** The MNSASU is a statewide telephone survey conducted by DHS, once in 2004 and once in 2010. 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://www.dhs.state.mn.us/main/idcplg?IdcService=GET\_FILE&RevisionSelectionMethod=LatestReleased&Rendition=Primary&allowInterrupt=1&noSaveAs=1&dDocName=dhs\_id\_055443

#### 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://www.niaaa.nih.gov/Resources/DatabaseResources/QuickFacts/AlcoholSales/default.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, and 2006/2007.

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 since 1972

#### Weaknesses

No state data by Race/Ethnicity

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?AppId=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 sexspecific 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 attributablefraction (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://apps.nccd.cdc.gov/sammec/index.asp

#### **Appendix: Data Sources**

#### 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: <a href="http://prevention.samhsa.gov/tobacco/01synartable.aspx">http://prevention.samhsa.gov/tobacco/01synartable.aspx</a> National data (CESAR Fax Vol. 16, Issue 41):

http://www.cesar.umd.edu/cesar/cesarfax.asp?Date=&Topic=&Drug=&Pop=&Page=1

#### 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
- 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: <a href="http://www.dps.state.mn.us/bca/CJIS/Documents/Page-15-02.html">http://www.dps.state.mn.us/bca/CJIS/Documents/Page-15-02.html</a> Crime in the United States: <a href="http://www.fbi.gov/ucr/ucr.htm">http://www.fbi.gov/ucr/ucr.htm</a>