

February | 2011

North Dakota Strategic Planning Framework State Incentive Grant (SPF-SIG)  
**NEEDS ASSESSMENT**

*A document describing the prioritization process used to identify the key substance abuse issues in North Dakota. Topics include an introduction to North Dakota culture, presentation of consumption, consequences, and perception data, and rationale.*



Division of Mental Health and Substance Abuse Services  
Substance Abuse Prevention

## INTRODUCTION to NORTH DAKOTA

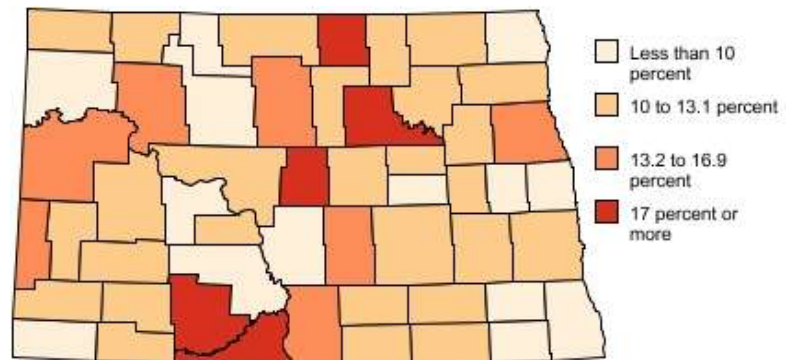
North Dakota is named after the Dakota Indian Tribes who were the early inhabitants of the region. Dakota is most often referred to mean “friends” or “allies.” It is home to the International Peace Garden that straddles the border between the United States and Manitoba, Canada. North Dakota covers 68,976 square miles and has a 2008-estimated population of 641,481 people, with 330,034 living in rural North Dakota (USDA-ERS).

One-fifth of the nation’s populace lives in rural areas making rural residents a sizeable minority group (Pruitt, 2009). As of 2009, North Dakota had 9 people per square mile compared to the United States at 87 people per square mile. According to the 2002 Census, North Dakota has 373 incorporated communities. Fifty-one percent of these communities have 200 people or less. Bismarck, the capital, is located in the south-central region of the state. The state’s largest cities are Fargo, Bismarck, Grand Forks, and Minot.

According to the U.S. Census Bureau, 91.6% of the state’s population is white, 5.4% is American Indian/Alaska Native, and 1.9% is of Hispanic/Latino origin (2007). North Dakota is aging, as reflected by the increase in the state’s median age from 36.2 years in 2000 to 38.8 years in 2004. By comparison, the 2004 U.S. median age was 36.2 years. In 1960, North Dakota’s median age was 26.2 years. A majority (51 percent) of counties have more than 20 percent of their population base being age 65 or older<sup>i</sup>.

As of 2008, North Dakota ranks 21st among the highest poverty rates in the nation at 11.5 percent (national average is 13.2%). The counties with the “critical” poverty rates (at least 50% above the state average poverty rate) are the following: Benson (27.9%), Rolette (27.9%) and Sioux (37.8%); all three counties are completely rural or less than 2,500 urban population but Benson and Rolette are adjacent to a metro area whereas Sioux is not adjacent to a metro area. These counties are very rural with the population density dropping as low as

3.7 people per square mile (although almost all of ND is relatively rural). Furthermore, Native American reservations are among the most affected by high rates of child poverty. For example in Sioux County that includes parts of Standing Rock Reservation, one out of every two children were impoverished in 2008



(52%), which is the 6th highest child poverty rate in the nation. There are no major cities (25,000 or more) in ND with a “critical” poverty rate (ND Kids Count Factbook). One of the contributing factors to critical poverty in ND is isolation and the problems associated with isolated rural life such as slow emergency response, unpaved or neglected roads, limited access to utilities, vulnerability to the elements, and a lack of access to services.

## *Native American Population*

American Indians represent the largest minority population in North Dakota (5.6% or 36,223 race alone). Census data estimates indicate that the American Indian population (race alone or in combination) in North Dakota has increased 12 percent from 35,228 in 2000 to 39,525 in 2008. Furthermore, it is projected that the American Indian population (one race only) in ND will be 47,000 in 2015 and 59,000 in 2025. According to ND Indian Affairs Commission, "...almost 60 percent (of the current population) lives on reservations and over 40 percent of these American Indians are under the age of 20."

There are four federally recognized Indian tribes represented in the state\*: Mandan, Hidatsa, & Arikara Nation (Three Affiliated Tribes) consisting of six segments with a total population of 5,915 on Fort Berthold Reservation; Spirit Lake Sioux Tribe consisting of four districts with a total population of 6,223 on Spirit Lake Reservation; Standing Rock Sioux Tribe (bestrides North Dakota and South Dakota)



consisting of eight districts with a total population of 8,250 on Standing Rock Reservation (4,044 ND side only), and Turtle Mountain Band of Chippewa Indians consisting of four districts with a total population of 14,500 residing on or adjacent to the Turtle Mountain Reservation. <sup>ii</sup>

North Dakota Department of Human Services, Division of Mental Health and Substance Abuse Services, contracts with local Tribal organizations to provide a full-time Tribal Prevention Coordinator on each reservation. The

overall role of the North Dakota Substance Abuse Tribal Prevention Coordinator is to help tribal communities enhance their capacity to address community-specific issues related to Alcohol and Other Drugs using culturally appropriate strategies and efforts. Tribal Prevention Coordinators also serve as a liaison to the North Dakota Department of Human Services Division of Mental Health and Substance Abuse Services to provide current prevention information, access to resources and technical assistance from State Prevention Specialists.

## *Western North Dakota*

The western half of North Dakota consists of many small communities spread across thousands of acres of farmland, with farming as one of the main sources of income. A "Virginia-sized", 24,000 square mile oil reserve of an estimated 4.3 billion barrels lies 10,000 feet below the surface of western North Dakota creating an "oil boom." Production rates of ND oil began to rise in 2004, but increased dramatically in 2007 with advancements in technology and higher oil prices. With all the royalties from the produced oil, it is calculated by the University of North Dakota that two millionaires are made each day. According to Job Service North Dakota, the state employment agency, the annual salary of employees in ten oil-patch counties has increased to an average of \$79,624.

The oil boom has brought with it a number of challenges. Thousands of new workers are coming to the western half of the state from all over the world. Local residents are leaving their current jobs to work

in the oil fields, which has created a shortage in lower paid laborer positions in restaurants, fast-food establishments, department stores, gas stations, grocery stores, construction, etc.

With the influx of oilfield workers, housing has become extremely difficult to find. People have been living in hotels, campers, vehicles, and tents. Rent in some areas has more than quadrupled, going from \$200 per month to over \$1000 per month. People who could once afford their rent are being evicted due to the inability to pay the recent hikes. Homeless rates have increased by 19% (Advocates for the Homeless, 2009).

The police departments, fire departments, and emergency personal are struggling to keep up with the demand from the recent increases in population. The rates of crime, traffic accidents, and violations overall have increased. Risk factors that have come with the transient oilfield population include the availability of alcohol and other drugs, transitions and mobility, and low neighborhood attachment and community disorganization.

### *Military*

North Dakota has 13,788 military personnel which make up about 2.1% of its total population – 52.3% of whom are military personnel on active duty, 13.9% are civilian, and 33.9% consist of Reserve and National Guard. There are approximately 57,700 veterans in North Dakota that served in times of war and peace.

For every 10,000 citizens in North Dakota, 65 serve in the North Dakota National Guard, a rate that is more than four times the national average. Nationally, for every 10,000 citizens, 15 serve in the National Guard. More than half of all those currently serving in the North Dakota National Guard joined the military since the terrorist attacks on Sept. 11, 2001. Since the 2001 terrorist attacks on America, the North Dakota National Guard has mobilized more than 3,500 Soldiers and more than 1,800 Airmen in support of the Global War on Terrorism. North Dakota has two Air Force Bases which consist of 7,618 active duty and civilian personnel.

## EPIDEMIOLOGICAL PROFILE

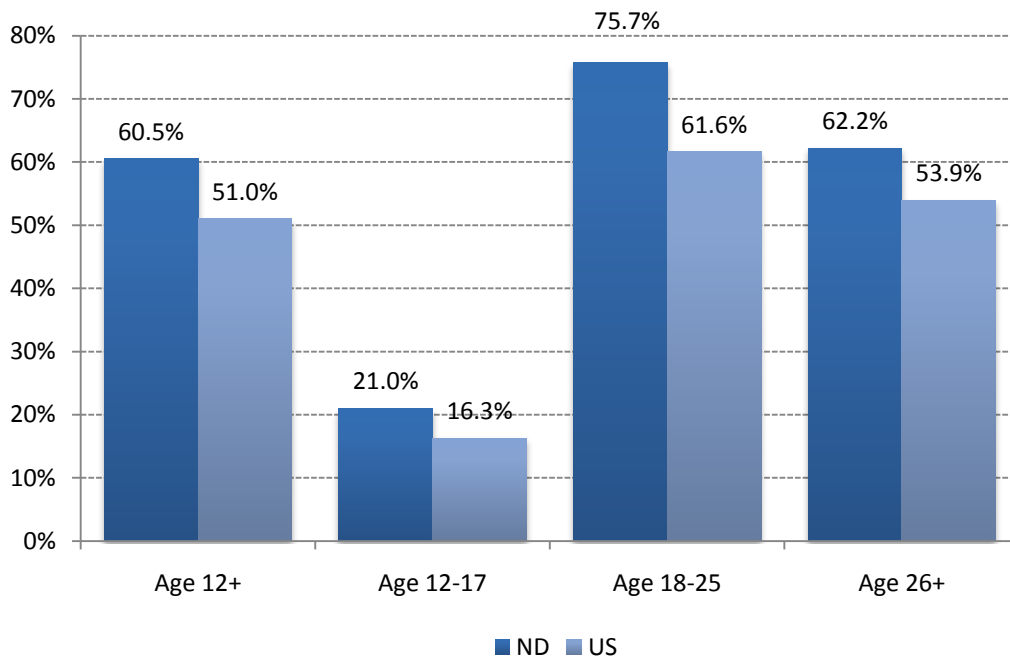
### Alcohol Consumption

#### Recent Alcohol Use

According to the YRBS, slightly less than one-half (43.3 percent) of North Dakota high school students (grades 9-12) in 2009 took one or more drinks of alcohol in the past month, a figure that is lower than the national prevalence rate of 44.7 percent. Boys in North Dakota were generally more likely than girls to have consumed alcohol in the past month (YRBS, 2009).

The National Survey of Drug Use and Health (Hughes et al., 2009) found that 60.5 percent of North Dakotans aged 12 and older had one or more drinks of alcohol in the past month (**Figure 1**).

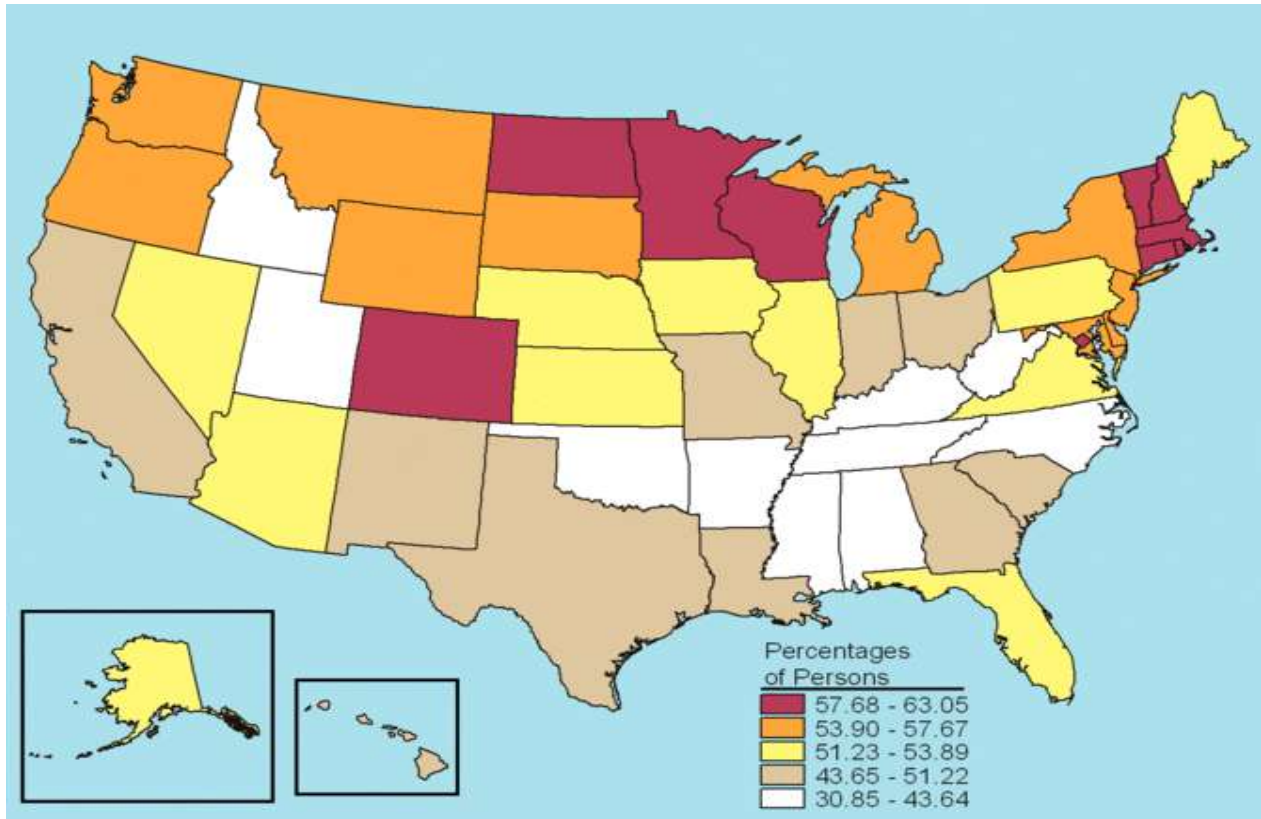
**Figure 1: Alcohol Use in Past Month, North Dakota and United States, by Age, 2006-2007**



Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2006 and 2007

This is substantially higher than the U.S. rate of 51.0 percent. North Dakota's 'recent alcohol usage' prevalence for persons aged 12 and older puts it in the upper one-fifth of all states for this drinking behavior (**Figure 2**; Hughes et al., 2009).

**Figure 2: Alcohol Use in Past Month, Ages 12+, 2006-2007**



Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2006 and 2007

Among North Dakotans aged 12-17 years, one-fifth (21.0 percent) used alcohol in the past month (**Figure 1**). Nationally, 16.3 percent of this age cohort indicated they had used alcohol within the past month in 2006-2007. North Dakota is in the top 20 percent of all states for using alcohol in the past month among ages 12-17 (Hughes et al., 2009).

Among persons aged 12-20 years, North Dakota (40.4 percent) is ranked number one nationally in alcohol use in the past month. Among our neighboring states, South Dakota (31.0 percent) and Montana (31.6 percent) are on the top-fifteen list of highest percentages. Utah (17.3 percent) had the lowest rate of recent alcohol use among persons aged 12-20 (Hughes et al., 2009).

The NSDUH (Hughes et al., 2009) reported that North Dakotans aged 18-25 years were most likely (75.7 percent) of any age cohort to have used alcohol during the past month, which is far higher than the national rate of 61.6 percent. North Dakota's prevalence remains in the top 20 percent of all U.S. states for recent alcohol use among persons 18-25 years. About two-thirds (62.2 percent) of North Dakotans aged 26 years and older had used alcohol in the past month in 2006-2007 (Hughes et al., 2009). The national estimate was substantially lower at 53.9 percent of this age group. North Dakota was in the highest quintile grouping of U.S. states for recent alcohol use among persons aged 26 and older, along with the neighboring states of Minnesota and Wisconsin (NDSUH, 2009).

The Behavioral Risk Factor Surveillance System (BRFSS) is another statewide survey effort that generates information on alcohol use. Among North Dakotans aged 18 years and older, 57.8 percent indicated using alcohol in the past month in 2008 (**Table 1**).

**Table 1: Percent of Recent and Binge Alcohol Use Among Adults Ages 18+, North Dakota and the United States, 2003-2008**

		Recent		Binge	
		ND	US	ND	US
2008	Overall	57.8	54.5	21.6	15.6
	Male	65.1	61.3	29.2	21.0
	Female	50.6	47.7	14.1	10.0
2007	Overall	62.0	55.8	23.2	15.8
	Male	68.9	62.0	30.2	21.2
	Female	55.3	47.9	16.5	10.1
2006	Overall	59.0	55.4	21.2	15.4
	Male	65.8	62.1	28.8	20.4
	Female	52.5	49.0	13.9	10.1
2005	Overall	59.6	56.2	18.9	14.4
	Male	67.6	63.5	27.7	22.0
	Female	51.6	49.0	10.2	7.4
2004	Overall	62.5	57.1	20.5	15.1
	Male	70.8	64.7	30.2	23.1
	Female	54.4	50.1	11.0	7.8
2003	Overall	65.2	59.4	21.5	16.5
	Male	74.5	66.9	32.6	25.1
	Female	56.1	51.7	10.4	8.6

Source: BRFSS, 2003-2008

This figure is higher than the U.S. prevalence of 54.5 percent for the same year. The BRFSS categorized states into five groupings according to their percent of persons 18 and older that used alcohol in the past month. North Dakota's figure of 57.8 percent placed it in the second-highest group, along with neighboring states South Dakota and Montana (BRFSS, 2009).

In 2008, about two-thirds (65.1 percent) of adult males and one-half (50.6 percent) of adult females in North Dakota indicated they had used alcohol in the past month (**Table 1**).

The percent of recent alcohol use among North Dakota men was higher than the US percent for males for each year from 2003 to 2008 (Table 1). Similarly, women in North Dakota are consistently more likely than their U.S. female counterparts to have consumed alcohol in the past month (Table 1) (BRFSS, 2009).

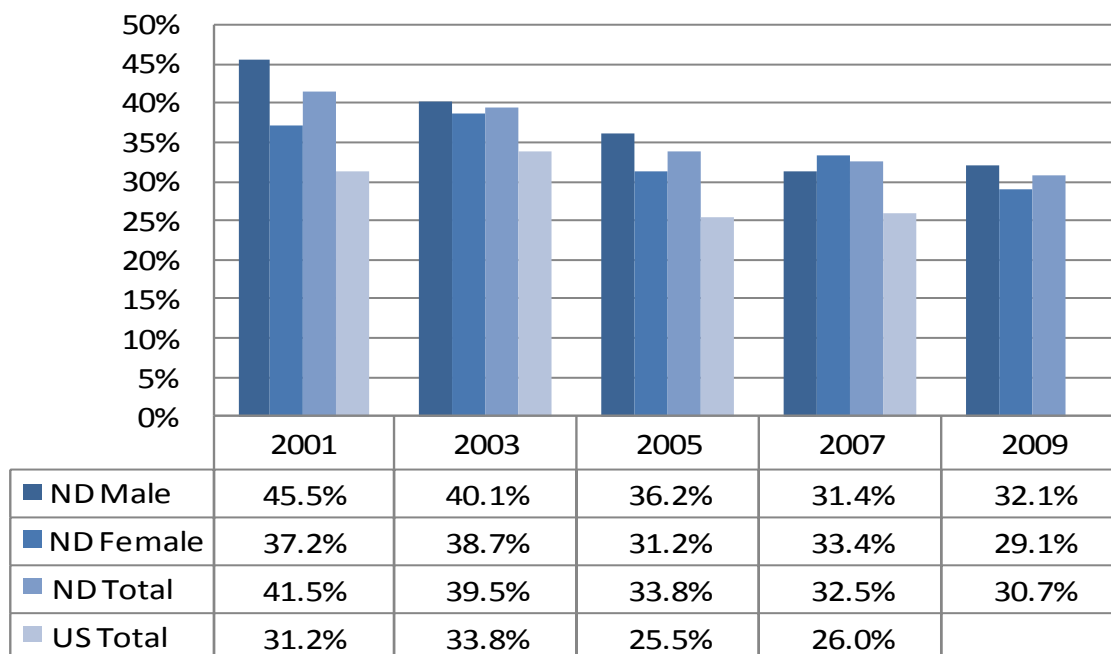
North Dakotans were more likely than their U.S. counterparts to have consumed alcohol in the past month across all age cohorts. Among North Dakotans, persons 65 and older were least likely (40.0 percent) to have recently drunk alcohol. Persons aged 25 through 44 were most likely (66-69 percent) to have consumed alcohol in the past month. Beginning at age 55, the prevalence rate of recent alcohol use began to decline (BRFSS, 2009).

The percent of North Dakotans' recent alcohol use increases incrementally with a corresponding rise in annual income level. Seventy-one percent of the wealthiest (i.e., earning \$50,000 or more per year) and 32.8 percent of the poorest (i.e., earning less than \$15,000 per year) group indicated they had used alcohol in the past month. Compared to the U.S., North Dakotans had higher rates of recent alcohol use across all income levels with the exception of those earning less than \$15,000 where prevalence figures were equivalent (BRFSS, 2009).

### Binge Alcohol Use

Binge alcohol use is defined by the YRBS as having five or more drinks of alcohol in a row on one or more of the past 30 days. One-third (30.7 percent) of North Dakota high school students (grades 9-12) were binge drinkers in 2009, compared to one-quarter (26.0 percent) of similarly-aged U.S. high school students in 2007 (Figure 3; YRBS, 2009). Boys were more likely than girls to engage in this drinking behavior across all surveyed years (YRBS, 2009).

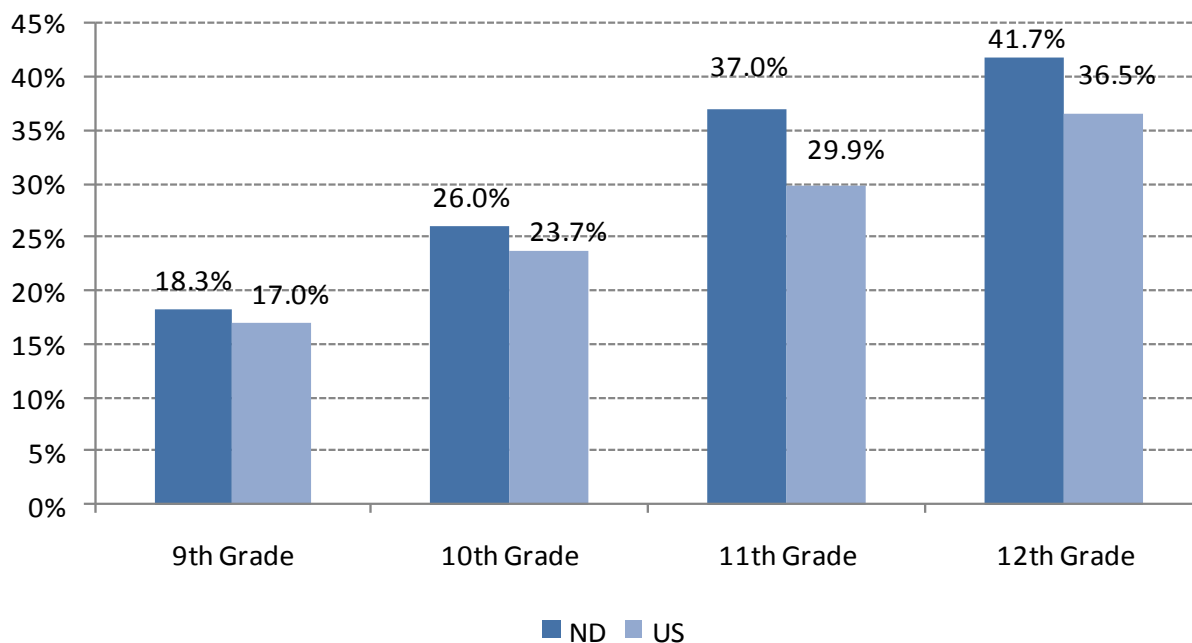
**Figure 3: Binge Alcohol Use, by Gender, North Dakota and United States, Students Grades 9-12**





As North Dakota students (grades 9-12) advanced to higher grades, they were more likely to have engaged in binge alcohol use (**Figure 4**). North Dakota's recent binge drinking prevalence was higher than the U.S. prevalence rate for each grade (YRBS, 2009).

**Figure 4: Binge Alcohol Use by Grade, North Dakota (2009) and United States (2007), Students Grades 9-12**

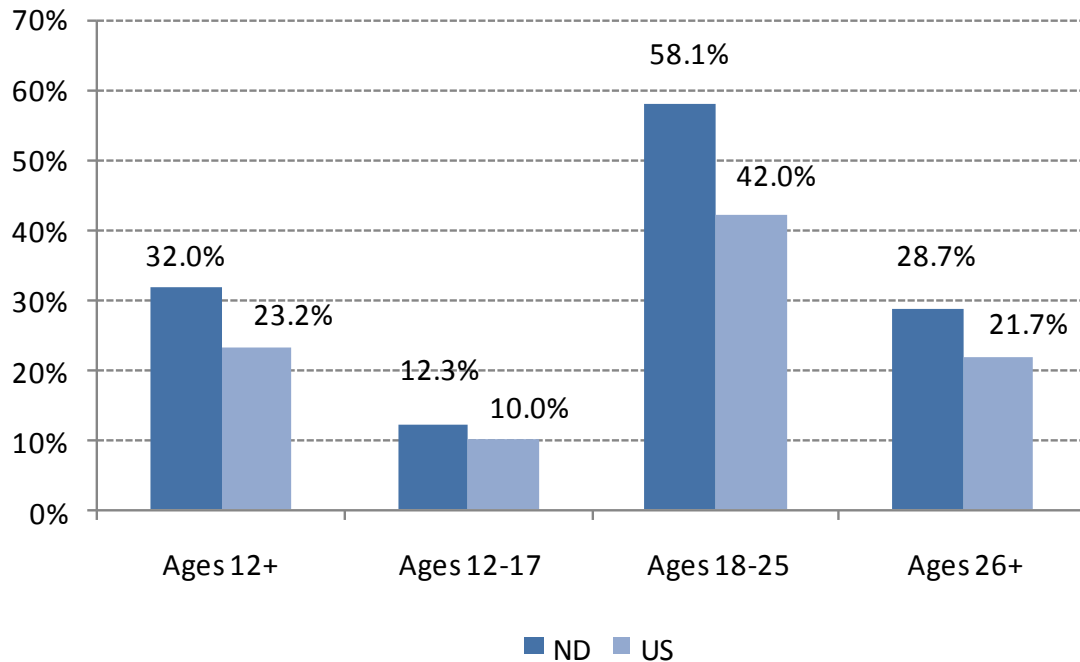


Source: Youth Risk Behavioral Surveillance Survey  
 \*5+ drinks of alcohol in a row on 1+ of the past 30 days

The NSDUH (Hughes et al., 2009) estimated that one-third (32.0 percent) of North Dakotans aged 12 years and older had binged alcohol on one or more of the past 30 days (**Figure 5**). This figure is substantially higher than the national prevalence of 23.2 percent. Among U.S. states, North Dakota ranked number one in binge drinking among persons aged 12 years and older. All of North Dakota's neighboring states (Minnesota, South Dakota, and Montana) were in the top 10 of alcohol binging states for this age group, suggesting this drinking behavior is a regional phenomenon.

Among persons aged 12 to 17 years, 12.3 percent of North Dakotans and 10.0 percent of U.S. residents indicated binge drinking in the survey years of 2006 and 2007 (**Figure 5**). North Dakota, along with other upper Midwestern states, was in the top 10 percent of U.S. states for binge drinkers aged 12 to 17 years (Hughes et al., 2009). Among persons aged 18 to 25 years, 58.1 percent of North Dakotans and 42.0 percent of U.S. residents indicated they had engaged in binge drinking on one or more of the past 30 days. Compared to all U.S. states, North Dakota ranked at the top for binge drinking among ages 18-25 years.

**Figure 5: Binge Alcohol Use in Past Month, North Dakota and United States, by Age Group, 2006-2007**



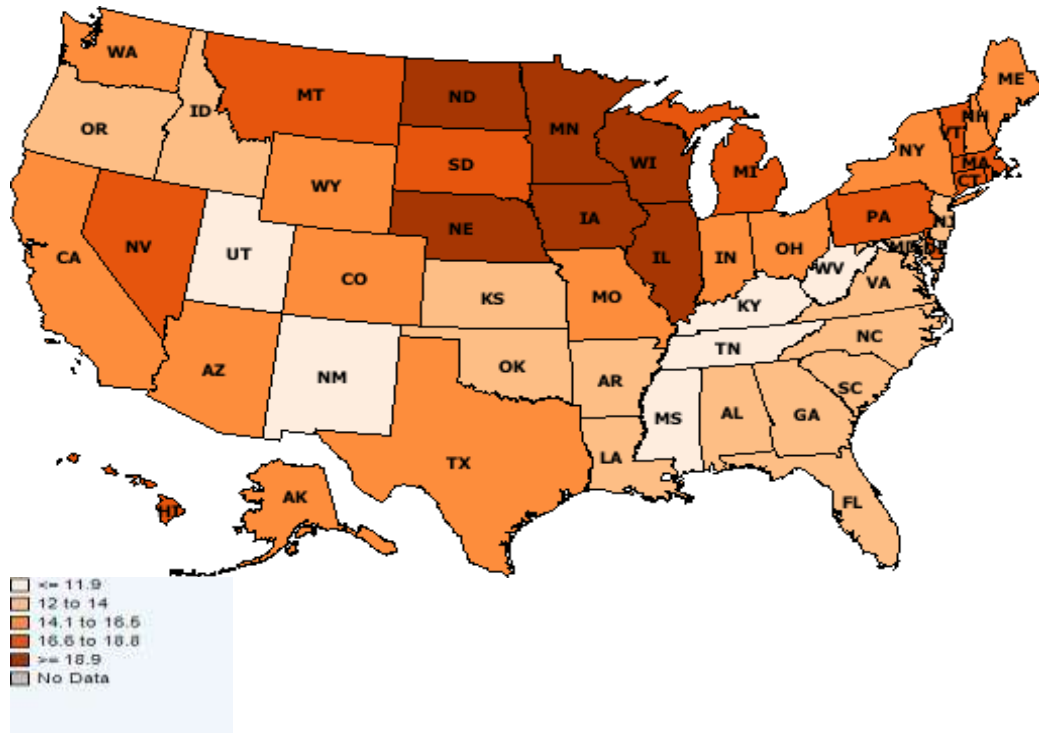
Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2006 and 2007. NOTE: Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days.

According to the NSDUH (Hughes et al., 2009), 28.7 percent of North Dakotans aged 26 years or older engaged in binge drinking on one or more of the past 30 days. Comparatively, 21.7 percent of similarly-aged U.S. residents binged alcohol within this time (**Figure 5**). North Dakota’s binge drinking prevalence was highest among all U.S. states for persons aged 26 years and older (Hughes et al., 2009). For persons aged 12 to 20 years, North Dakota is also ranked number one among U.S. states with 29.5 percent indicating binge drinking behavior within the past month (Hughes et al., 2009). The neighboring states of Montana (24.0 percent) and South Dakota (22.2 percent) are ranked sixth- and eleventh-highest, respectively. Utah (13.3 percent) is lowest among all states.

The Behavioral Risk Factor Surveillance System (BRFSS) assesses the extent of binge drinking among adults aged 18 years and older. The most recent prevalence estimate for North Dakota, derived from 2008 data, is 21.6 percent. The state’s prevalence has consistently been above the national average (BRFSS, 2009). North Dakota’s prevalence was ranked second-highest among U.S. states, just below Wisconsin’s 22.8 percent prevalence for recent binge drinking (BRFSS, 2009) (**Figure 6**).

North Dakota men were twice as likely as women to engage in binge drinking behavior (**Table 1**).

**Figure 6: Binge Alcohol Use, Ages 18+, 2008 (Source: BRFSS)**



Binge alcohol use among North Dakota males has consistently been higher than the U.S. rate for similarly-aged men (**Table 1**). Over the past six years, the North Dakota males' rate has ranged from 28-33 percent, whereas the U.S. males' rate has ranged from 20-25 percent. The alcohol binge prevalence for North Dakota women, despite being substantially lower than North Dakota men's prevalence, is consistently higher than figures for U.S. women (**Table 1**). Typically, about 10-17 percent of North Dakota women and 7-10 percent of U.S. women indicate they have engaged in binge alcohol use (BRFSS, 2009).

Binge drinking in North Dakota, similar to the nation as a whole, is predominantly a behavioral pattern that afflicts younger, rather than older, adults. North Dakotans aged 18 to 34 years were the most likely of all age cohorts to binge drink, as about one-third indicated engaging in this behavior in 2008. Compared to the U.S., North Dakotans were more likely to engage in binge alcohol use across all age groups. North Dakotans earning \$50,000 or more per year were most likely (25.6 percent) to engage in binge drinking. Compared to the U.S. rates, North Dakotans had higher prevalence of binge drinking across all income categories (BRFSS, 2009).

### **Attitudes Toward Binge Drinking**

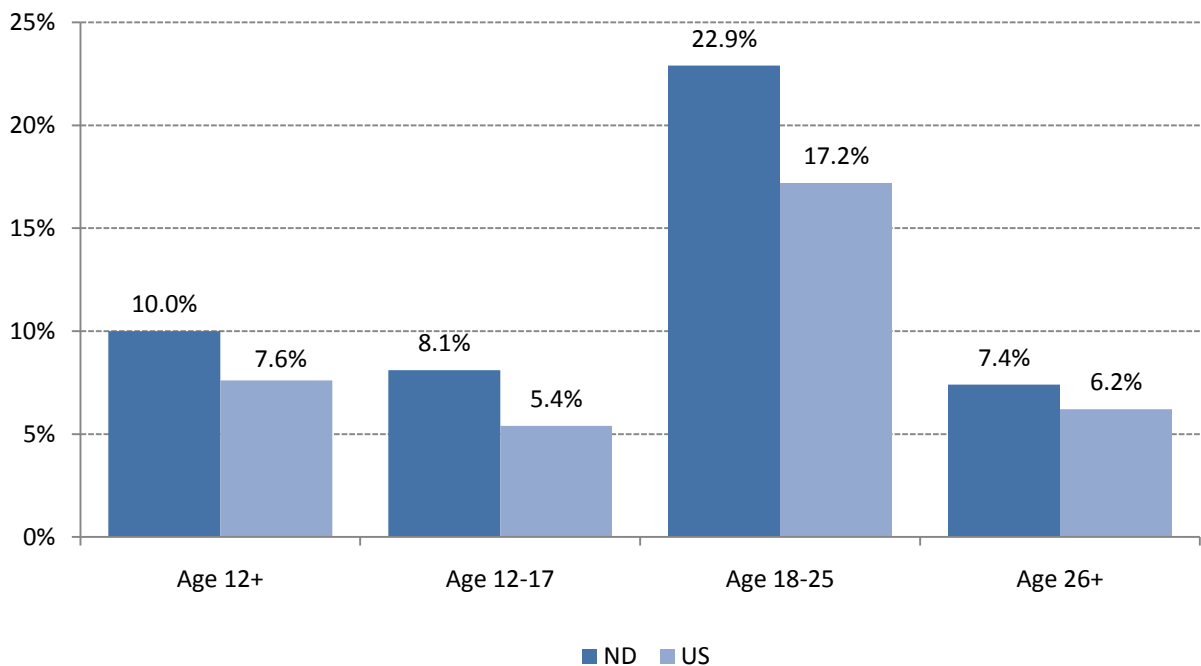
The National Survey of Drug Use and Health (NSDUH, 2008) polled respondents about whether they agreed that having five or more alcoholic beverages once or twice a week posed a "great risk" to one's health. Across all U.S. states, the percent agreeing to this statement varied across age cohorts and ranged from approximately 33 to 37 percent. North Dakotans were found to agree with great health risks to binge drinking at very low levels relative to other states. In fact, North Dakota was in the lowest 20 percent of states for age groups of 12 years and older, 12 to 17 years, 18 to 25 years, and 26 years and older (Hughes et al., 2009).

## Alcohol Consequences

### Alcohol Abuse or Dependence in the Past Year

The NSDUH (2008) assessed the extent to which U.S. and state residents aged 12 and older were dependent on or had abused alcohol in the past year. The survey questions that addressed these issues were based on the substance dependence/abuse definitions found in the Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> Edition (DSM-IV). The survey items on dependence address various issues such as health and emotional problems, attempts to reduce alcohol use, alcohol tolerance, alcohol withdrawal, and other symptoms. The survey items on abuse address problems with home, family, friends, work, physical danger, and contact with the law due to alcohol use. Dependence reflects a more severe alcohol problem than abuse, and persons can be classified as abusing alcohol only if they are not defined as being alcohol dependent. According to the Hughes et al. (2009), North Dakotans were either dependent on or abused alcohol in the past year at the following rates by age cohort: 12 and older – 10.0 percent; 12-17 years – 8.1 percent; 18-25 years – 22.9 percent; and 26 years or older – 7.4 percent. North Dakota was in the top 20 percent of all U.S. states for alcohol dependence or abuse for each of these age cohorts. North Dakota was in the second-highest quintile grouping for persons aged 26 and older (**Figure 7**).

**Figure 7: Alcohol Dependence or Abuse in Past Year, North Dakota and United States, by Age, 2006-2007**



Source: Hughes et al. 2009.

\*'Dependence' and 'abuse' defined by the Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> Edition

The OAS (2007) assessed the extent to which U.S. residents were dependent (note: based on DSM-IV criteria) on alcohol within the past year. States were categorized into five groupings based on the magnitude of their rate of alcohol dependence across the age cohorts of 12 years or older, 12-17 years, 18-25 years and 26 years or older. North Dakotans aged 12 and older were categorized in the second-

highest grouping (prevalence range: 3.5-3.9 percent) for alcohol dependence. Also, North Dakotans aged 12-17 years were categorized in the second-highest grouping (prevalence rates of 2.1-2.3 percent) for alcohol dependence. North Dakotans aged 18-25 years also had a high prevalence of alcohol dependence in the past year and were subsequently classified in the second-highest group (dependence prevalence range: 7.7-8.3 percent) of U.S. states. Finally, North Dakotans aged 26 years and older were categorized in the fourth-highest grouping of U.S. states, which had prevalence figures ranging from 2.6 to 2.8 percent (Hughes et al., 2009).

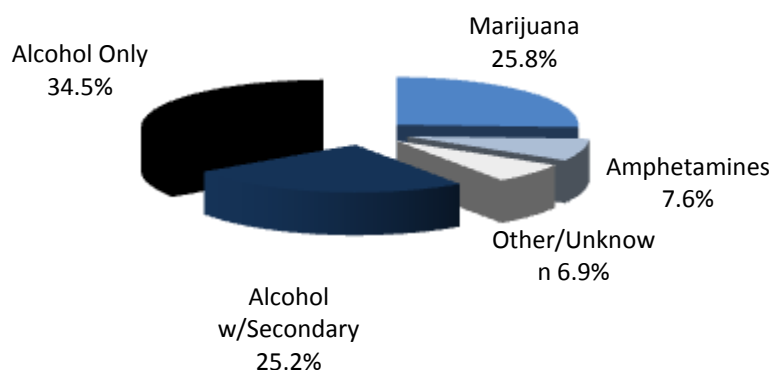
### Needing but not Receiving Treatment

The National Survey on Drug Use and Health (2008) assessed the percent of U.S. state residents that needed but did not receive treatment for alcohol use. This group was delineated through the use of a question that asked whether the respondent had received treatment for their alcohol use in the past year. North Dakotans were in the top 20 percent of all U.S. states for needing but not receiving alcohol treatment in the past year in all age groups under study. North Dakota's age cohorts and their corresponding prevalence ranges are as follows: 12 years and older (8.7-9.7 percent); 12-17 years (6.2-7.7 percent); 18-25 years (19.9-22.5 percent); and 26 years and older (6.8-8.3 percent) (Hughes et al., 2009).

### Treatment for Alcohol Dependence and Abuse

A consequence of alcohol consumption is becoming dependent and having to receive professional treatment. The Treatment Episode Data Set (TEDS) contains information on substance treatment admissions for persons who are eligible for and receive benefits from SAMHSA's Substance Abuse Prevention and Treatment (SAPT) Block Grant. TEDS does not contain information on persons who receive substance abuse treatment in private agencies or facilities. In 2008, 59.7 percent of North Dakota substance abuse admissions were related to alcohol (**Figure 8**).

**Figure 8: North Dakota Substance Abuse Treatment, by Primary Substance 2008**



Source: Treatment Episode Data Set  
 \*Total outpatient admissions=2,461

Of this figure, 34.5 percent were for alcohol only and 25.2 percent were for alcohol with a secondary drug. Males comprised 64.9 percent of alcohol-only treatment admissions and 65.8 percent of the alcohol with secondary drug admissions. Whites comprised 71.8 percent of the alcohol-only treatment

admissions and 69.5 percent of the alcohol with secondary drug treatment admissions. American Indians, which comprise five percent of the state’s population, comprised 24.2 and 25.7 percent of the alcohol-only and alcohol with secondary drug treatment admissions, respectively (TEDS, 2009).

Alcohol-only treatment admissions in North Dakota primarily involved persons aged 26-30 years (12.9 percent of the total admissions), followed by 46-50 years (12.7 percent), 21-25 years (12.3 percent), 31-35 years (11.7 percent) and 36-40 years (11.6 percent). Alcohol with secondary drug treatment admissions were most common among persons aged 21-25 years (23.9 percent of the total admissions), followed by 26-30 years (17.9 percent), 31-35 years (11.6 percent), 12-17 years (10.3 percent) and 18-20 years (9.5 percent) (TEDS, 2009).

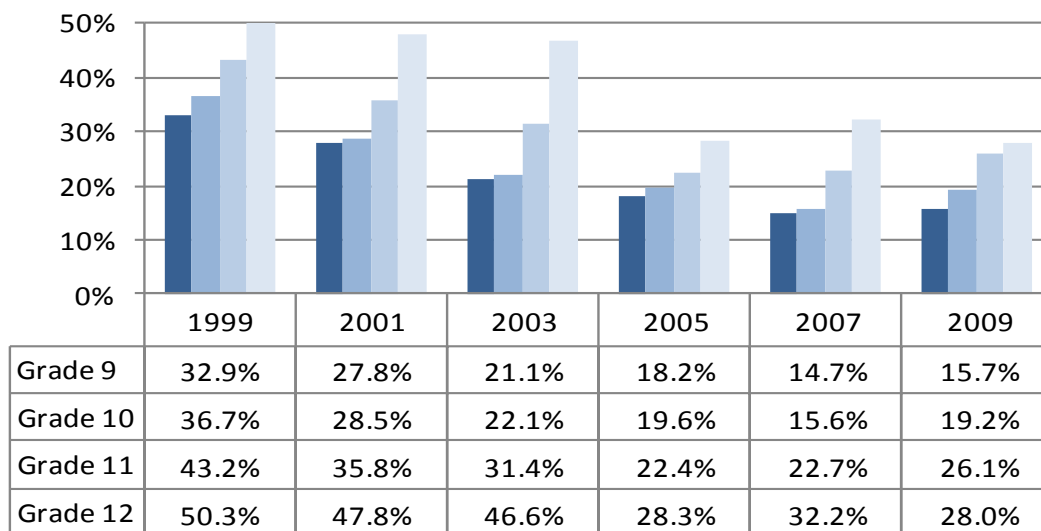
North Dakota’s alcohol-related outpatient treatment admission rates per 100,000 have steadily declined in recent years and tend to be lower than the overall U.S. rates. For alcohol-only treatment, North Dakota had about 151 admissions per 100,000 persons (ages 12 and older), compared to the U.S. at 163 admissions per 100,000 in 2006. Regarding treatment for alcohol with a secondary drug in 2006, there were about 117 admissions per 100,000 in North Dakota, compared to 132 per 100,000 in the U.S. (Office of Applied Studies, 2007).

### Tobacco Consumption

#### Recent Cigarette Use Among Students

North Dakota high school students (grades 9-12) were asked if they had smoked one or more cigarettes in the past month (YRBS, 2009). In 2009, the state’s rate of 22.4 percent was slightly higher than the 2007 U.S. prevalence of 22.0 percent. Generally, North Dakota girls were more likely than boys to have smoked in the past month. This pattern was present in all YRBS survey years until 2009 when boys had a higher 30-day smoking prevalence than girls (23.2% vs. 21.5%).

**Figure 9: Cigarette Smokers among North Dakota Students, by Grade**



Source: Youth Risk Behavioral Surveillance Survey, grades 9-12  
 \*Smoked cigarettes on one or more of the past 30 days.

Recent cigarette use among North Dakota high school students was assessed by grade and year. Findings demonstrated that higher cigarette use corresponds with higher grades. Patterns of recent cigarette use among North Dakota high school students were assessed by grade and gender in 2009. In general, increased use of cigarettes corresponded with higher grades. Among 9th, 11th and 12th graders, boys' smoking prevalence rates were higher than for girls. Conversely, among 10th graders, girls' smoking rates were higher than for boys (YRBS, 2009).

**Regular Cigarette Smoking Among Students**

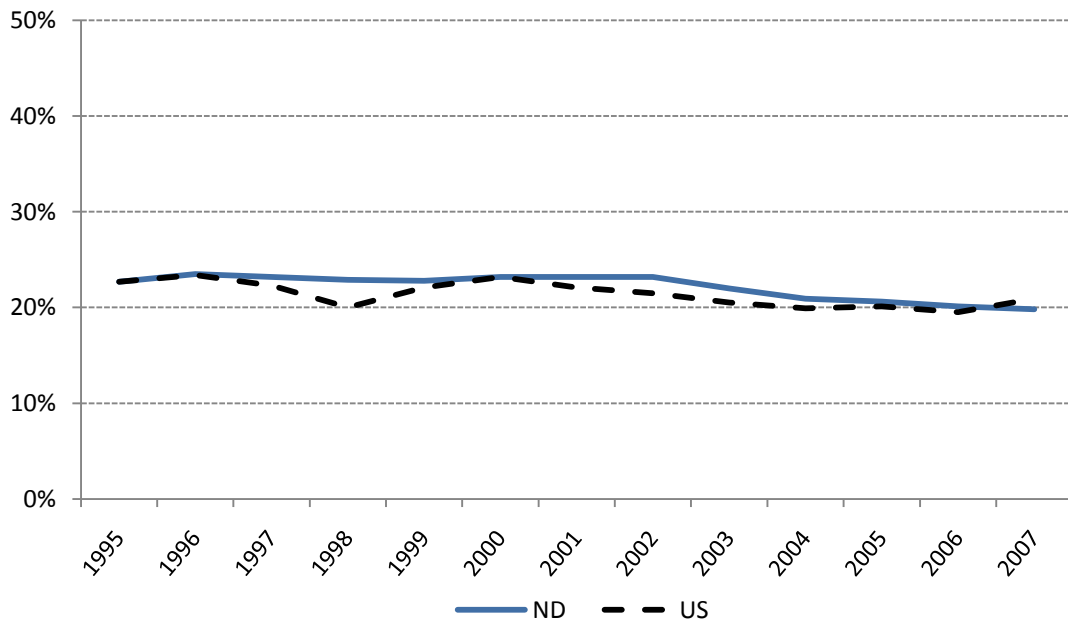
Students in grades 9-12 were asked if they smoked 20 or more cigarettes in the past month (YRBS). In 2009, 9.3 percent of North Dakota high school students indicated they smoked cigarettes on 20 or more days in the past month (YRBS, 2009).

Another measure of high tobacco consumption used by the Youth Risk Behavioral Survey is smoking at least one cigarette per day for the past 30 days. Among students in grades 9-12, 13.6 percent of North Dakotans (2007) and 13.4 percent of U.S. respondents (2005) engaged in this smoking behavior. North Dakota boys and girls smoked cigarettes at roughly equal rates (YRBS, 2008).

**Recent Cigarette Smoking Among Adults**

One of the best data sources for assessing smoking behavior among adults in the United States is the Behavioral Risk Factor Surveillance System. The BRFSS defines 'current cigarette smoker' as one who has smoked 100 cigarettes in their lifetime and who currently smokes every day or some days. In North Dakota, the percent of adult (18 and older) cigarette smokers has remained relatively constant from 1995 through 2008, at about 18 to 22 percent (**Figure 10**). In 2008, current smoker prevalence among North Dakota adults was 18.1 percent (BRFSS, 2009).

**Figure 10: Adult Cigarette Smokers, North Dakota and United States, Age 18+**



Source: Behavioral Risk Factor Surveillance System

\*Smoked 100 cigarettes in their lifetime and reported smoking every day or some days

Compared to the other U.S. states, North Dakota has a lower prevalence of current smokers than most states. Specifically, North Dakota’s 18.1 percent smoker prevalence ranked it 28th highest among U.S. states and DC. Comparatively, West Virginia had the highest smoker prevalence of 26.5 percent, and Utah had the lowest prevalence of 9.3 percent. Regionally, the lowest smoker prevalence appeared in Western states and the highest prevalence was concentrated in the Southern and Appalachian regions (BRFSS, 2009).

North Dakota men were more likely than women to smoke cigarettes. In 2008, 20.4 percent of men and 15.8 percent of women were cigarette smokers. North Dakotans were more likely to smoke cigarettes at younger ages (**Table 2**). Slightly less than one-quarter (23.6 percent) of persons aged 18 to 24 years smoked cigarettes, compared to 16.9 percent of persons aged 55 to 64 years and only 8.0 percent of persons aged 65 and older (BRFSS, 2009).

**Table 2: Percentage of Cigarette Smoking Among Adults Ages 18+, North Dakota, 2008**

Overall:	18.1
Gender:	
Male	20.4
Female	15.8
Age:	
18-24	23.6
25-34	21.8
35-44	20.0
45-54	19.9
55-64	16.9
65+	8.0
Race (comb. 1999-2008)	
American Indian	48.4
White	19.2
Asian	18.0
Black	20.6
Other	24.0
Education:	
Less Than High School	25.5
High School or GED	21.5
Some Post-High School	21.3
College Graduate	9.3
Income (thousand):	
<\$15,000	32.1
\$15,000-24,999	27.7
\$25,000-34,999	20.8
\$35,000-49,999	19.2
\$50,000+	14.0

American Indians (48.4 percent) in North Dakota were more than twice as likely to smoke cigarettes as persons of other races, including whites (19.2 percent) (BRFSS, 1999-2008; Table 2). Other races and their corresponding smoking rates were as follows: Asian (18.0 percent); Black (20.6 percent); and other (24.0 percent). North Dakotans with lesser education were more likely to smoke cigarettes than their



higher educated counterparts (Table 2). Persons with less than a high school diploma smoked at 25.5 percent, whereas those with some post-high school education smoked at a rate of 21.3 percent, and only 9.3 percent of college graduates smoked cigarettes. Similarly, North Dakotans with lower incomes were more likely to smoke cigarettes (Table 2). About one-third (32.1%) of persons earning less than \$15,000 a year smoke cigarettes, compared to only 14.0 percent of those earning \$50,000 or more per year (BRFSS, 2009).

### **Attitudes Toward Cigarette Smoking**

The NSDUH polled respondents about whether they agreed that smoking one or more packs of cigarettes per day posed a “great risk” to one’s health. Across all U.S. states, the percent agreeing to this statement varied across age cohorts and ranged from approximately 68 percent to 79 percent. North Dakotans were found to agree that there were great health risks associated with cigarette smoking at very low levels relative to other states (Hughes et al., 2009). In fact, North Dakota was in the lowest 20 percent grouping of states for ages 12 and older, 18-25 and 26 and older. The state was in the fourth-lowest group among persons aged 12-17 years (Hughes et al., 2009).

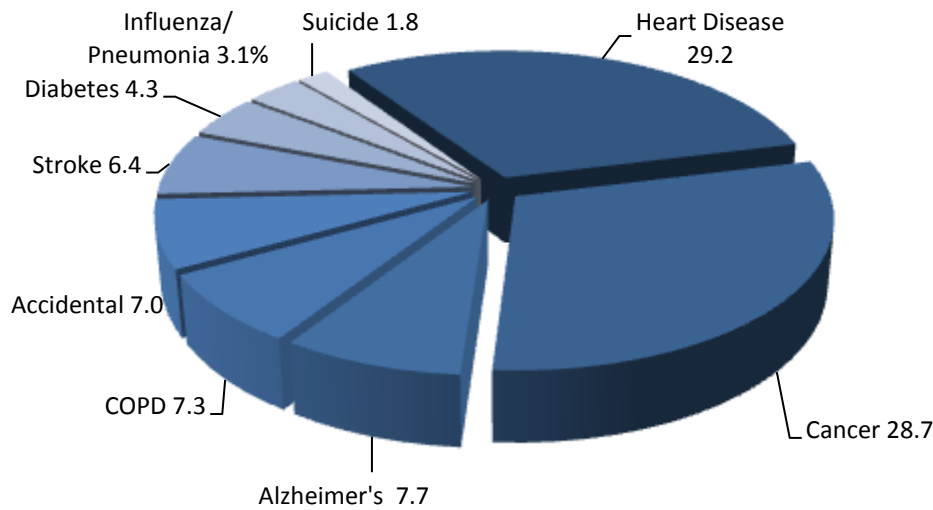
The North Dakota Department of Health implemented a Youth Tobacco Survey (YTS) to North Dakota middle and high school respondents every two years, coinciding with the YRBS, for the past decade. In 2009, findings from the high school student survey indicated that, aside from notable reductions in cigarette smoking prevalence (in support of state YRBS findings), respondents’ attitudes toward tobacco use were changing in a positive manner (from previous YTS years; Winkelman, 2009). To illustrate, North Dakota high school survey results indicated the following: the percent of respondents who think that cigarette smokers have more friends and/or smoking cigarettes makes young people look cool or fit in appeared to be decreasing; the percent of respondents who watch TV and/or go to movies who have seen actors using tobacco appeared to be decreasing; the percent of respondents who use the Internet, watch TV, and/or go to movies and saw advertisements for tobacco products on the Internet, on TV, and/or in movies appeared to be decreasing; the percent of respondents who reported they bought or received anything with a tobacco company name or picture on it in the past year, would ever use or wear anything with a tobacco company name or picture on it most or some of the time, and are “receptive” to tobacco advertising appeared to be decreasing; and the percent of respondents who think people should have rules about smoking in work places and in public places appeared to be increasing. It was suggested that these positive changes in attitudes toward tobacco among high school respondents were perhaps due in part to recent smoke-free laws and media campaigns within North Dakota (Winkelman, 2009).

## *Tobacco Consequences*

### **Mortality**

According to the North Dakota Division of Vital Records (2009), almost one-half (48%) of all North Dakota deaths were the result of heart disease (29.2%) or cancer (28.7%) in 2007 (**Figure 11**). Tobacco use may have contributed to these two major causes of death, as well as other causes such as stroke (6.4%) and chronic obstructive pulmonary disease (COPD; 7.3%). Tobacco use played a part in the deaths of North Dakotans due to a variety of cancer types, namely lung cancer. One-quarter of all cancer deaths in the state were due to lung cancer, which was caused by tobacco use in 87 percent of the cases (American Cancer Society, 2009). Other cancers linked to tobacco use included oral/pharynx and head/neck.

**Figure 11: Causes of Death, Percent, North Dakota 2008**

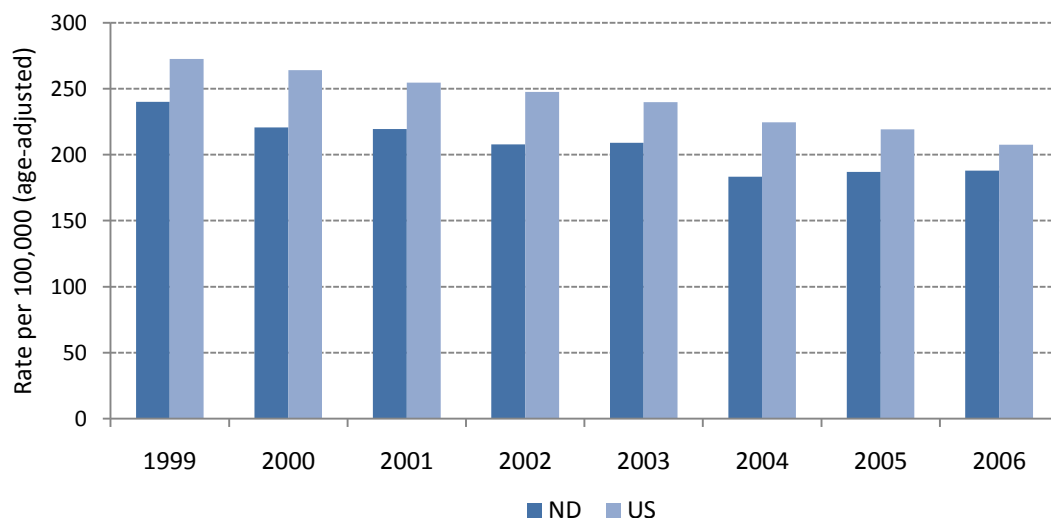


Source: ND Vital Records

Chronic obstructive pulmonary disease (COPD) and emphysema are grave health consequences associated with chronic tobacco use. In the period from 1999 to 2006, North Dakota averaged 291 such deaths per year. North Dakota's age-adjusted COPD/emphysema mortality rate ranged from 35 to 42 deaths per 100,000 population. These rates were generally lower than U.S. figures of 41-45 deaths per 100,000 (CDC Wonder, 2010; ICD-10 Codes J40-47).

Heart disease, the leading cause of mortality in the nation and state, was responsible for approximately 1,684 deaths per year in North Dakota from 1999-2006 (**Figure 12**). The state's age-adjusted rate, substantially lower than the U.S. rate, was 188 deaths per 100,000 in 2006 (CDC Wonder, 2010; ICD-10 Codes I00-I52).

**Figure 12: Heart Disease Mortality, North Dakota and United States**



Source: CDC Wonder (2010)

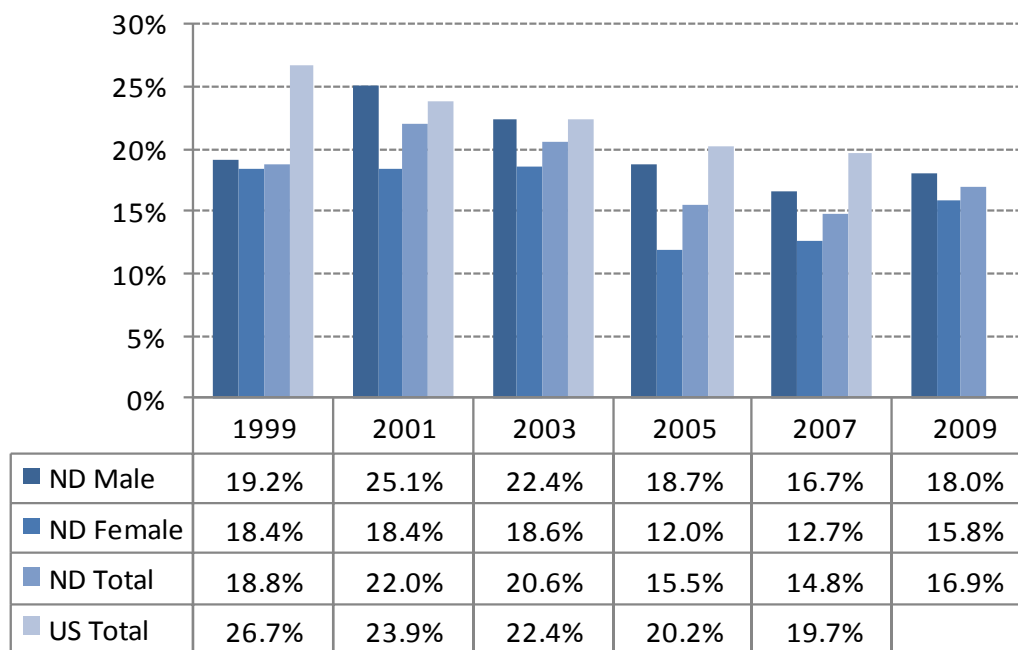
The CDC (2007) developed estimates of smoking-attributable mortality using 2000-2004 data for every U.S. state. North Dakota’s smoking-attributable mortality rate of 225.6 deaths per 100,000 population, was ranked 48th (highest) out of 50 states and DC. Neighboring states of South Dakota (41st) and Minnesota (49th) were also in the bottom 10 ranked states for years 2000-2004. Kentucky had the highest mortality rate (370.6 deaths per 100,000) and Utah had the lowest rate (138.3 deaths per 100,000).

## Illicit Drug Consumption

### Recent Marijuana Use

The YRBS (2009) found that North Dakota’s 16.9 percent prevalence of marijuana use in the past month in 2009 was substantially lower than the 2007 U.S. prevalence of 19.7 percent (**Figure 13**).

**Figure 13: North Dakota Students, Grades 9-12, Who Used Marijuana One or More Times in the Past 30 Days**



Source: Youth Risk Behavioral Surveillance Survey

In the past ten years, North Dakota boys were consistently more likely than girls to have used marijuana in the past month (YRBS, 2009). In 2008, the 30-day marijuana prevalence for North Dakota college students dropped to 10.9 percent (NDCORE, 2009). Comparatively, the U.S. prevalence figure for marijuana use in the past month was 16.8 percent in 2006 (Core Institute, 2009).

### Lifetime Cocaine Use Among Students

North Dakota high school students were asked if they had used cocaine one or more times during their lifetime. In 2009, 5.1 percent of North Dakota students, compared to 7.2 percent of 2007 U.S. students, indicated they had used cocaine at least once (YRBS, 2009). Of North Dakota students, boys were consistently more likely than girls to have tried cocaine at least once in their lifetime (YRBS, 2009).

### **Lifetime Inhalant Use Among Students**

The use of inhalants to get high is a very dangerous and potentially lethal activity that is particularly hazardous to children and adolescents. The use of inhalants includes sniffing glue, breathing contents of aerosol spray cans, and sniffing paints or sprays. Among North Dakota high school students, 11.5 percent indicated using inhalants one or more times during their lives in 2009 compared to 13.3 percent of 2007 U.S. high school students (YRBS, 2009). Since 1999, prevalence for both North Dakota and the U.S. have gradually but steadily declined over time. North Dakota girls had a higher prevalence than for boys (9.7 percent and 13.2 percent, respectively) in 2009 to have used inhalants during their lives (YRBS, 2009).

### **Lifetime Heroin Use Among Students**

Heroin is a very powerful and lethal drug, especially in the hands of juveniles. The Youth Risk Behavioral Survey inquires about the use of heroin but the data are somewhat limited for North Dakota. In 2007, the North Dakota and U.S. prevalence was 2.4 percent and 2.3 percent, respectively. North Dakota boys were more likely than girls to have tried this drug (YRBS, 2008).

### **Lifetime Meth Use Among Students**

Methamphetamine, one of the nation's most dangerous illicit drugs, is highly toxic and addictive (Office of National Drug Control Policy, 2008). Use of this drug is escalating, especially in rural areas and among populations not previously known to use illicit drugs (RAC, 2008). The production of methamphetamine can be conducted anywhere such as rural farmhouses, apartments, suburban areas, garages, motels, warehouses, and rental storage spaces (ONDCP, 2008). In 2009, 3.4 percent of North Dakota high school students had tried meth at least once, compared to 4.4 percent of 2007 U.S. high school students (YRBS, 2009). The state has experienced a healthy decline in youth use of this illegal substance over time. Boys were more likely than girls to have used meth at least once in 2009 (YRBS, 2009).

### **Lifetime Ecstasy Use Among Students**

Ecstasy is an illegal drug used as a stimulant and as a means to relax one's inhibitions. Among North Dakota high school students, 5.3 percent (2009) indicated having used ecstasy at least once in their lives. Comparatively, U.S. high school students used the drug at a prevalence of 5.8 percent (2007), higher than the corresponding prevalence estimate for North Dakota high school students. North Dakota boys were more likely than girls to have tried ecstasy at least once (YRBS, 2009).

### **Lifetime Steroid Use Among Students**

Illegal use of non-prescribed, anabolic steroids is popular among some persons for its ability to add muscle bulk and increase endurance among athletes. These steroids can take the form of pills or injections and can be quite dangerous to one's health and well-being. North Dakota's steroid prevalence rate among high school students decreased was 2.6 percent in 2007. Steroid use prevalence for U.S. students was 3.9 percent in 2007. North Dakota boys were three times more likely than girls to have used steroids in 2007 (YRBS, 2008).

### **Lifetime Intravenous Drug Use Among Students**

According to the Youth Risk Behavioral Survey, 2.2 percent of North Dakota high school students in 2009 and 2.0 percent of U.S. high school students in 2007 had used illegal drug injections at least once. North Dakota boys were much more likely than girls to have used illegal injections at least one time in their lifetime in 2009 (YRBS, 2009).

## **Marijuana Use**

In the NSDUH (2006-2007), respondents were asked whether they had used marijuana in the past year. North Dakotans aged 12 and older used this drug at a prevalence that warranted classification into the lowest-ranked U.S. state grouping which had prevalence figures of 7.2-8.7 percent. North Dakotans aged 12-17 were categorized in the second lowest-ranked grouping of U.S. states which had a prevalence range of 11.6-12.5 percent (Hughes et al., 2009). North Dakotans aged 18-25 years were classified in the lowest-ranked grouping of U.S. states which had annual marijuana use prevalence figures of 17.3-24.2 percent. Finally, North Dakota residents aged 26 years and older were classified in the lowest-ranked grouping of U.S. states which had marijuana use prevalence figures ranging from 4.2 to 5.6 percent (Hughes et al., 2009).

Respondents were asked whether they had used marijuana in the past month. North Dakotans aged 12 and older used this drug at a prevalence that warranted classification into the lowest-ranked U.S. state grouping which had prevalence figures of 3.8-5.1 percent (Hughes et al., 2009). North Dakotans aged 12-17 were categorized in the lowest-ranked grouping of U.S. states which had prevalence figures ranging from 4.4-5.8 percent. North Dakotans aged 18-25 years were classified in the lowest-ranked grouping of U.S. states which had monthly marijuana use prevalence of 10.0-13.9 percent. Finally, North Dakota residents aged 26 years and older were classified in the second lowest-ranked grouping of U.S. states which had marijuana use prevalence figures ranging from 2.4 to 3.3 percent (Hughes et al., 2009).

## **Attitudes toward Marijuana Smoking**

The NSDUH (2006-2007) polled respondents about whether they agreed that smoking marijuana once a month posed a “great risk” to one’s health. North Dakotans were found to agree with “great health risks to marijuana smoking” at moderate levels relative to other states (Hughes et al., 2009). NSDUH trend data indicate that North Dakotans are increasingly becoming more aware of the harmful effects of marijuana use.

## **Illicit Drug Use Other Than Marijuana**

Respondents were asked whether they had used any illegal drug other than marijuana in the past month. North Dakotans aged 12 and older used these drugs at a prevalence that warranted classification into the lowest-ranked U.S. state grouping which had prevalence of 2.6-3.3 percent (Hughes et al., 2009). North Dakotans aged 12-17 were categorized in the lowest-ranked grouping of U.S. states which had prevalence of 3.8-4.2 percent. North Dakotans aged 18-25 years were classified in the lowest-ranked grouping of U.S. states which had monthly illicit drug use prevalence of 5.9-7.3 percent. Finally, North Dakota residents aged 26 years and older were classified in the lowest-ranked grouping of U.S. states which had illicit drug use prevalence ranging from 1.7 to 2.3 percent (Hughes et al., 2009).

## *Illicit Drug Consequences*

### **Needing but not Receiving Treatment**

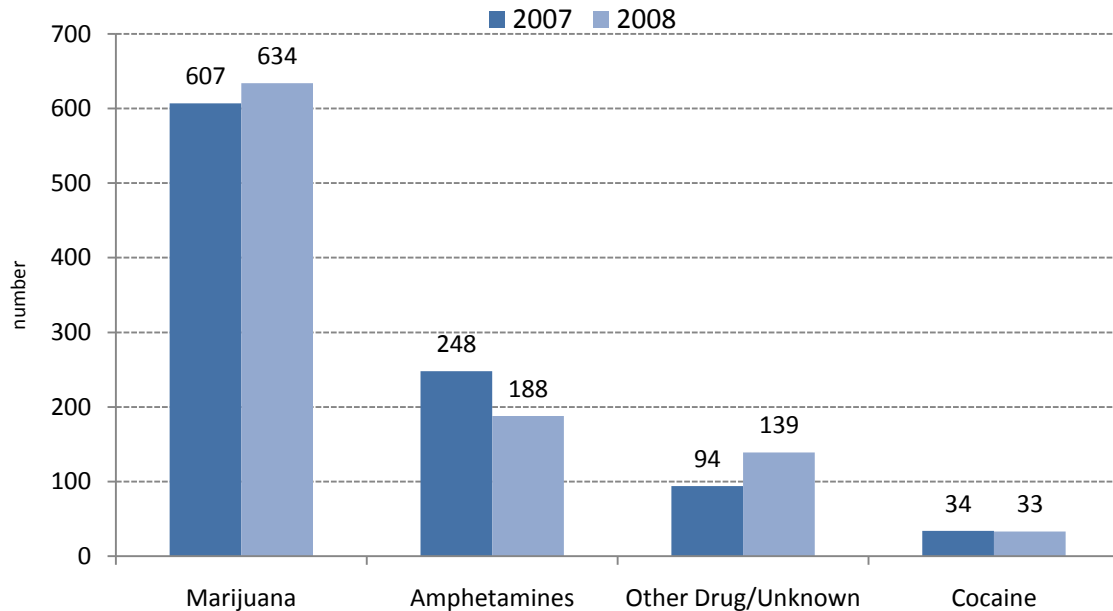
In the NSDUH (2006-2007), respondents were asked whether they needed drug treatment but did not receive it in the past year. North Dakotans aged 12 and older warranted classification into the lowest-ranked U.S. state grouping which had prevalence of 1.9-2.3 percent. North Dakotans aged 12-17 were categorized in the lowest-ranked grouping of U.S. states, which had prevalence figures of 3.4-3.9 percent. North Dakotans aged 18-25 years were classified in the lowest-ranked grouping of U.S. states, which had prevalence figures of 5.3-6.5 percent. Finally, North Dakota residents aged 26 years and older

were classified in the lowest-ranked grouping of U.S. states, which had dependence prevalence ranging from 0.0 to 1.3 percent (Hughes et al., 2009).

### Getting Drug Treatment

According to the Treatment Episode Data Set (TEDS), marijuana (634 admissions) was the most commonly abused drug for which people sought professional outpatient treatment in North Dakota in 2008 (Figure 14).

**Figure 14: Illicit Drug Treatment Admissions, North Dakota, 2007**



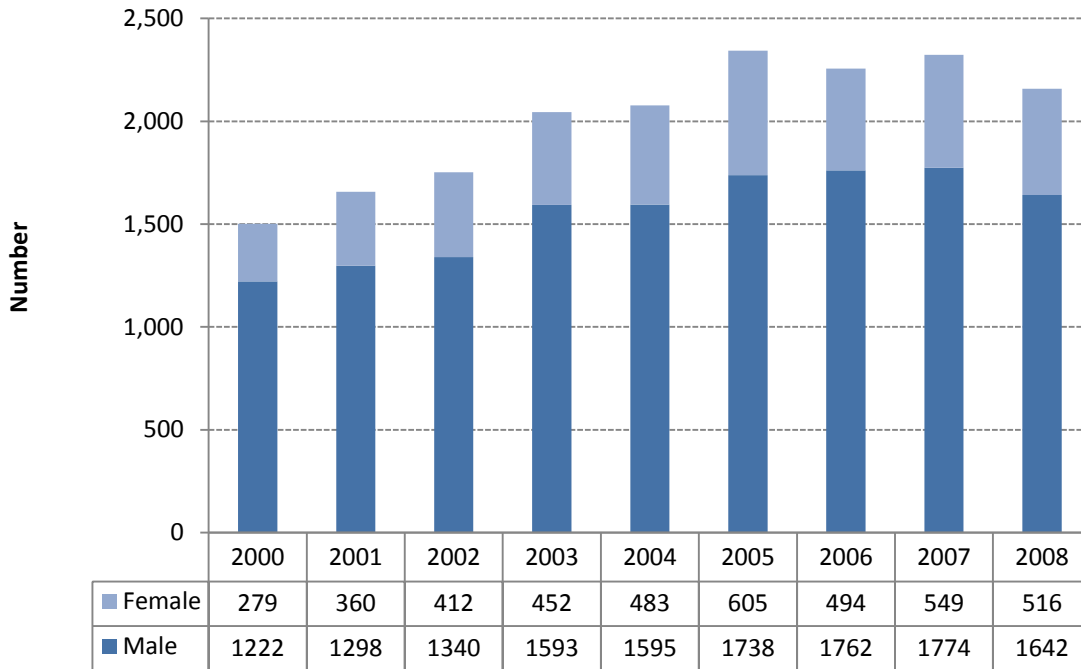
Source: Treatment Episode Data Set

Amphetamines were the second most commonly abused drug with 188 admissions in 2008. Among the other drug-related treatment admissions, 33 admits were for cocaine addiction and 139 admits were for some other drug (TEDS, 2008). Men comprised 69.2 percent of marijuana admissions and 51.6 percent of amphetamine admissions in North Dakota in 2008. Whites comprised 77.8 percent of marijuana admissions and 85.1 percent of amphetamine admissions. American Indians, totaling 5 percent of the state's population, comprised 15.8 percent of the marijuana admissions and 11.2 percent of the amphetamine admissions in 2008. Those aged 12-17 years comprised 29.3 percent (i.e., the largest share) of marijuana admissions in 2008. For amphetamines, admitted persons in North Dakota were most commonly aged 21 to 25 years. In comparing North Dakota and U.S. treatment admissions for illicit drugs in 2007, North Dakota had a higher percentage of admissions for marijuana and amphetamines and a lower percentage for cocaine and heroin (TEDS, 2008).

### Drug Arrests

In North Dakota, large increases in drug arrests have been noted for both males and females (Figure 15).

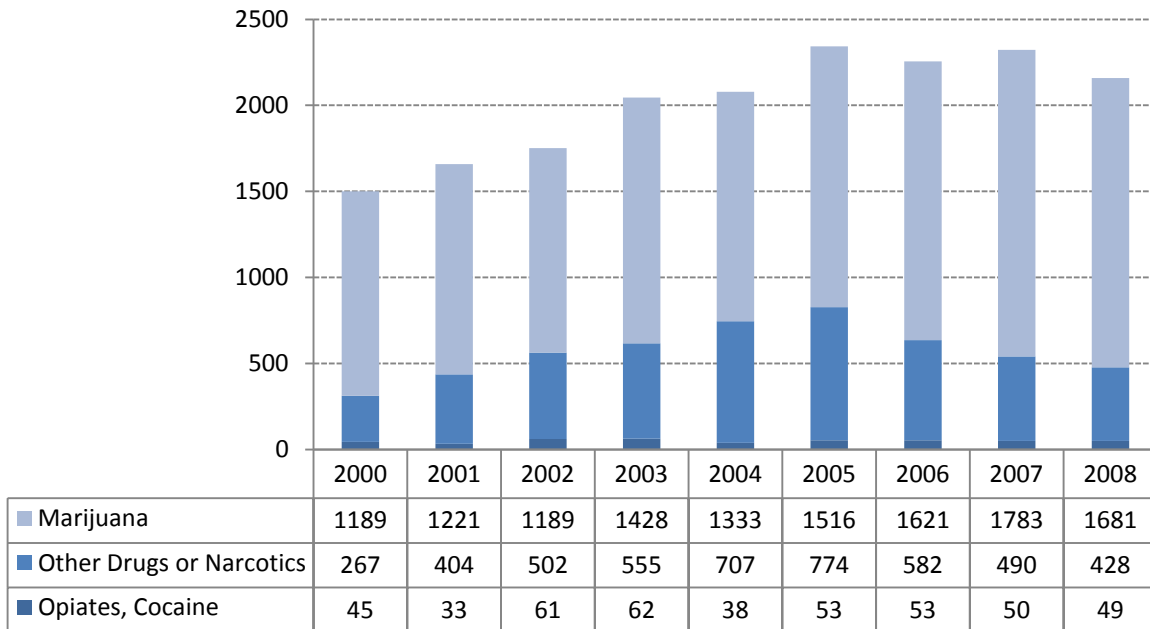
**Figure 15: Drug Arrests by Gender, North Dakota**



Source; ND Office of Attorney General, BCI, 2009

Regarding drug arrests by type, marijuana remains the number one drug (ND OAG, 2009) (Figure 16).

**Figure 16: Drug Arrests by Type of Drug, North Dakota**



Source: ND Office of the Attorney General, BCI, 2009  
 NOTE: Meth is included in the 'Other Drugs' category.

## Data Gaps

<b>Appendix G. Needed Data to Address Gaps</b>			
<i>Data Needs</i>	<i>Description</i>	<i>Benefits to the State</i>	<i>Barriers to Fruition</i>
Statewide Hospital Discharge Database	All hospitals in the state submit electronic copies of their patient information on an annual basis; standardized data fields; data stored in a centralized location and routinely utilized for health research purposes	Derive incidence rates for ATOD-related health conditions; Monitor emergency room use for ATOD-related health concerns	Cost; public unawareness of its need; hesitation from hospitals regarding confidentiality issues
BRFSS at the regional and county levels	Specific BRFSS survey methods are used to derive valid estimates for state regions and counties	Sub-state analysis of substance use and consequences among adults by geographic region	Cost; Low population in state's rural areas
YRBS at the regional and county levels	Specific YRBS survey methods are used to derive valid estimates for state regions and counties	Sub-state analysis of substance use and consequences among students in grades 9-12 by geographic region	Cost; Low population in state's rural areas
Statewide Treatment Data	Statewide, centralized repository for ATOD treatment data; standardized data fields; available for health research purposes	Improve the quality of ATOD treatment data beyond TEDS, which has limitations on quality and generalizability	Cost; Public support for addressing this data need is uncertain
NSDUH at the regional and county levels	Specific NSDUH survey methods are used to derive valid estimates for state regions and counties	Sub-state analysis of substance use and consequences among ND residents by geographic region	Cost; Low population in state's rural areas



## COMMUNITY READINESS

### INTRODUCTION

The use and abuse of alcohol, tobacco, and other drugs (ATOD) continues to considerably impact communities throughout the nation. Smoking, drinking, and illicit drug use remain among the leading causes of morbidity and mortality spanning across adolescence to later in life<sup>iii</sup>. When evaluating prevalence of use specific to North Dakota, it is evident that substance use remains of significant concern. Data obtained from sources such as Substance Abuse and Mental Health Services Administration's (SAMHSA) National Survey on Drug Use and Health (NSDUH) underscores the seriousness of the issue. If we consider alcohol use alone, North Dakota continues to place uppermost among all 50 states as having the highest rate of binge drinking (i.e., consuming five or more drinks on the same occasion), while perceived risks related to underage drinking were among the lowest nationally<sup>iv</sup>. Such realities stress the importance of identifying need and implementing appropriate prevention in response to substance abuse issues in our state.

As part of the Comprehensive Statewide Plan for Substance Abuse Prevention, North Dakota's Department of Human Services, Division of Mental Health and Substance Abuse Services funded Statewide and Tribal Community Readiness Survey (TCRS) to assist in determining innovative and culturally appropriate strategies for local communities. The survey was designed to assess attitudes and perceptions toward alcohol, tobacco, and other drug use in order to determine state and community level of readiness for substance abuse prevention. Such data will be used in tandem with consumption and consequences data to design effective and sustainable prevention strategies.

The approach for this assessment aligned with the philosophy of Community Readiness, a research-based model asserting that successful local prevention and intervention efforts must be community-specific, culturally relevant, and consistent with the level of readiness or how prepared a community is to take action on the issue<sup>v</sup>. The process of determining a community's level of readiness begins with an assessment in five areas:

1. Community Perception of an Alcohol, Tobacco, & Other Drug Problem
2. Permissiveness of Attitudes on Alcohol, Tobacco, & Other Drug Use
3. Community Support for Alcohol, Tobacco, & Other Drug Prevention (incl. Policy)
4. Access to Alcohol, Tobacco, & Other Drugs
5. Perception of Community Commitment

### FINDINGS

**Alcohol, Marijuana, and Methamphetamine Use as a Problem:** Overall, 65.2 percent of the community members indicated that *adult use of alcohol* is a minor-moderate problem in their community, 23.2 percent felt this was a serious problem, and 5.4 percent indicated this was not at all a problem in the community. *Alcohol use by youth* was considered to be more of a problem in that 45.3 percent of the community members perceived it as a minor-moderate problem, and 41.3 percent felt this was a serious

problem. Community members perceived *marijuana use* as minor to moderate problem among *adults* (41.8%) and *youth* (39.6%) with roughly one-third indicating they “don’t know” (adult use-34.0%, youth use-31.3%). Nearly one-third of community members either perceived the use of methamphetamines as a minor-moderate problem among *youth* (33.0%) and *adults* (32.9%) or indicated the “don’t know” how problematic use were among youth (32.5%) or adults (31.1%).

***Inhalant Use, OTC, Prescription Drug, Cocaine Use, Hallucinogen Use as a Problem:*** Majorities of community members indicated that they *do not know* how problematic *youth* or *adult use of inhalants* (45.2%, 48.2%), *over-the-counter* (41.7%, 41.4%), *prescription drugs* (43.9%, 39.7%), *cocaine* (49.6%, 48.8%), or *hallucinogen* (54.0%, 54.5%) was in the community.

***Contribution of Drug and Alcohol Use to Crashes/Injuries and Crime:*** About one-third of community members perceived alcohol and drug use as a serious problem contributing to *crashes and injuries* (34.7%) and to *crime* (35.7%).

***Permissiveness of Attitudes Toward Alcohol and Other Drug Use:*** The majority (90% or better) of respondents were *not accepting* of parental contribution to and youth engagement in alcohol, tobacco, and other drug use. However, one-third (34.2%) agreed that *drinking among teenagers in the community is acceptable*.

***Access to Alcohol, Tobacco, and Other Drugs:*** Community members indicated that it was *not at all difficult* for youth to access alcohol by getting someone older to purchase it for them or sneaking it from a friend’s house or their own home. Regarding other drugs, marijuana (33.3%) and inhalants (48.7%) were perceived as easily accessible in the community.

***Support for Restricting Access to Alcohol:*** Majorities support a *minimum legal drinking age of 21* (88.7%), *alcohol compliance checks* (96.0%), *penalties for adults who provide alcohol to youth* (96.7%) and *sobriety checkpoints* (86.7%). However, one-third (31.8%) did not support *laws against giving alcohol to your own children* (31.8%).

***Alcohol, Tobacco, and Drug-Free Youth:*** Community members agreed or strongly agreed that *preventing alcohol and drug use was important* (96.6%) and that *alcohol and drug-free youth can be best achieved by educating youth themselves* (90.3%), *parents* (89.3%), and *the community* (88.6%).

***Community Leadership:*** Community members indicated that there are leaders in their community who are interested in reducing access to and abuse of *alcohol and other drugs* (81.9%).

***Awareness of a Substance Abuse Action Plan in their Community:*** Nearly two-thirds (60.1%) *don’t know* whether their community has an action plan for dealing with substance abuse issues.

The results of the Statewide Community Readiness survey place North Dakota in a vague awareness stage. This stage is described as “...a general feeling among some in the community that there is a local problem and that something ought to be done about it, but there is no immediate motivation to do anything. There may be stories or anecdotes about the problem but ideas about why the problem

occurs and who has the problem tend to be stereotyped and/or vague. No identifiable leadership exists or leadership lacks energy or motivation for dealing with this problem. Community climate does not serve to motivate leaders.<sup>vi</sup>

Spirit Lake Tribe community members displayed a similar stage of readiness as the state, where there was a difference of opinion as some recognize alcohol, tobacco, and other drug use as a serious problem within their community and some do not, but there was support for prevention and an intolerance for substance abuse and underage drinking. Whereas, Turtle Mountain and Three Affiliated Tribes displayed a slightly higher stage of readiness, with more community members recognizing alcohol, tobacco, and other drug use as a serious problem. The Tribal Community Readiness Survey was just completed with the Standing Rock Sioux Tribe the end of January 2011 and results have not yet been compiled.

## PRIORITIZATION

The State Epidemiological Outcome Workgroup (SEOW) identified community awareness of substance abuse issues and underage/binge alcohol use across the lifespan as the two priorities for North Dakota's SPF-SIG project. The decision is based on four years of research surrounding North Dakota substance use, abuse, and consequence data, and is strongly supported by state level consumption, consequence, and readiness data provided by the following data sources: the ND Community Readiness Survey (CRS, 2008), the Youth Risk Behavior Survey (YRBS, 2009), the National Survey on Drug Use and Health (NSDUH, 2008), the ND CORE Survey (2008), the ND Department of Transportation (ND DOT, 2009), and the ND Bureau of Criminal Investigation (ND BCI, 2009). State and federal data were analyzed, readiness data was compared to actual use/consequence data to determine community readiness, and trend data was also reviewed to identify problem areas for North Dakota. Most of these data sources were collected and analyzed as a result of the North Dakota SEOW efforts.

The SEOW was initiated in 2006 by the North Dakota Department of Human Services, Division of Mental Health and Substance Abuse Services. Funding for the project was provided by the Substance Abuse and Mental Health Services Administration (SAMHSA). The mission of the North Dakota SEOW is to utilize relevant state, tribal, and local data to guide substance use prevention planning, programming and evaluation. Functions of the SEOW include: systematically analyze the causes and consequences of the usage of alcohol, tobacco, and other drugs in order to effectively and efficiently utilize prevention resources; promote decision making based on reliable data throughout the State substance use prevention system; facilitate interagency and community collaboration; provide a mechanism for exchange, access, and utilization of data across organizations related to substance use and consequences.

The North Dakota SEOW, comprised of a 46-member advisory workgroup, collects and analyzes data to support a framework for advancing the North Dakota Substance Abuse Prevention System's mission. The data, compiled into an Epidemiological Profile, characterizes consumption patterns and consequences of various substances in the state of North Dakota.

## *Underage/Binge Drinking Across the Lifespan*

The decision for underage/binge drinking across the lifespan to be a SPF-SIG priority is supported by the National Survey on Drug Use and Health (NSDUH, 2008) and the Youth Risk Behavior Survey (YRBS, 2009), among other data sources. Alcohol is the most commonly used substance in the United States<sup>vii</sup>. Also based on the efforts of SEOW, it is clear North Dakota's most significant substance use problem is alcohol abuse and dependence. Rural and frontier areas of the United States are prone to social problems including substance use and abuse, drinking and driving, and permissive cultural norms. Use of alcohol, tobacco, and illicit drugs takes a heavy toll on the lives and families of North Dakota. There is evidence that alcohol use and abuse is generational in North Dakota. Children and youth are following the example of adults who use and abuse alcohol at rates that are high relative to other states.

There is no age limit to this priority, as underage/binge drinking is a major concern among all ages in North Dakota. Among high school students, those in North Dakota (30.7%) are more likely than those nationwide (24.2%) to have five or more drinks of alcohol in a row within a couple of hours on at least one day within the past 30 days of the survey (YRBS, 2009). The NSDUH also shows a high rate of underage binge drinking (28% of 12 to 20 year olds compared to 18% nationwide) (2008). A majority (73%) of North Dakota high school students believe people who binge drink once or twice each week do not put themselves at great risk (YRBS, 2009) compared to 59.5 percent of high school students nationwide (NSDUH, 2008). Among North Dakota middle school students, 5.8 percent had their first drink of alcohol at 8 years of age or younger (YRBS, 2009). Research has shown that the earlier that one begins drinking alcohol, the more likely one will become a heavy chronic user of alcohol<sup>viii</sup>.

According to the 2008 NSDUH, North Dakota ranks #1 in the nation for binge drinking among those ages 12 and over (including the following age groups: 12-20, 18-25, 26+). Among 18-25 year old North Dakotans, 59.5 percent reported binge drinking in the past month, compared to 41.4 percent nationwide (NSDUH, 2008). Among those 26 years old and above, 29.1 percent (ND) reported binge drinking in the past month, compared to 22 percent nationwide (NSDUH, 2008). According to the ND CORE Survey, 50.5% of ND College students report binge drinking (2008). Because binge drinking is not just prevalent among the younger age groups in North Dakota, the SEOW has decided to include all ages in this priority.

In determining alcohol as the primary focus over other substances, data suggests that the percentages of North Dakota residents using substances other than alcohol are incomparable to those using alcohol. For North Dakota high school students, 43.3 percent have used alcohol in the past 30 days, 22.4 percent tobacco, 16.9 percent marijuana, 15 percent abused prescription drugs in their lifetime, 13.3 percent abused over-the-counter drugs, and ecstasy, cocaine, and methamphetamine are all below 6 percent (YRBS, 2009). Among North Dakota Adults between ages 18 and 25, 75.6 percent have used alcohol, 49.6 percent tobacco, 11.5 percent marijuana, and other illicit drugs were below 6 percent (refers to 30-day use) (NSDUH, 2008). Among North Dakota Adults ages 26 and older, 60.8 percent have used alcohol, 27.7 percent tobacco, 3.5 percent marijuana, and other illicit drugs, were below 2 percent (refers to 30-day use) (NSDUH, 2008). According to the 2008 ND CORE Survey, 72% of ND College students reported using alcohol at least once in the past 30 days, while 10.9% reported using marijuana

at least once in the past 30 days. Therefore, alcohol is clearly the most significant substance issue in North Dakota.

**Table 1: Rates of National (US) and State (ND) Substance Use Rates (%)**

30-day Use	Youth (High School)		Young Adult (18-25 years)		Adult (26+ years)	
	US	ND	US	ND	US	ND
Alcohol						
30 day use	41.8 <sup>a</sup>	43.3 <sup>a</sup>	61.2 <sup>b</sup>	75.6 <sup>b</sup>	54.8 <sup>b</sup>	60.8 <sup>b</sup>
Binge Use	24.2 <sup>a</sup>	30.7 <sup>a</sup>	41.0 <sup>b</sup>	59.5 <sup>b</sup>	22.1 <sup>b</sup>	29.1 <sup>b</sup>
Tobacco	19.5 <sup>a</sup>	22.4 <sup>a</sup>	41.4 <sup>b</sup>	49.6 <sup>b</sup>	28.3 <sup>b</sup>	27.7 <sup>b</sup>
Marijuana	20.8 <sup>a</sup>	16.9 <sup>a</sup>	16.5 <sup>b</sup>	11.5 <sup>b</sup>	4.2 <sup>b</sup>	3.5 <sup>b</sup>
Methamphetamines*	4.1 <sup>a</sup>	3.4 <sup>a</sup>	0.2 <sup>b</sup>	NA	0.1 <sup>b</sup>	NA
Other Illicit Drugs**	NA	NA	7.8 <sup>b</sup>	5.4 <sup>b</sup>	2.5 <sup>b</sup>	1.4 <sup>b</sup>

*Table Caption: a -Youth Risk Behavior Survey (YRBSS), 2009; b - National Survey of Drug Use and Health, 2008; \*Lifetime Use – 30 day use not available; \*\* All illicit drugs except marijuana.*

Underage/binge drinking across the lifespan is also the common denominator in many consequences as captured by data. In 2009, 40 percent of motor vehicle fatalities occurring on North Dakota roads were alcohol related (ND DOT). One-quarter (25%) of adult arrests in 2009 were DUIs (ND BCI). Alcohol is the primary drug of choice reported by clients participating in treatment at North Dakota Human Service Centers (TEDS). Also, three-quarters of incarcerated individuals in North Dakota have a substance abuse or dependence diagnosis (ND DOCR, 2010). Among ND College students, 37.9% did something they later regretted in the past year because of their alcohol use, 33% have missed class in the past year due their alcohol use, and 10.5% have been taken advantage sexually in the past year because of alcohol use (ND CORE, 2008). Along with the high rates of alcohol use/abuse in North Dakota, the prevalence of consequences also speaks to the importance of this priority.

### *Low Awareness of Substance Abuse Issues in North Dakota*

In determining the second SPF-SIG priority, data from the 2008 ND Community Readiness Survey (CRS) was compared to actual use/consequence data from a variety of sources. Because, as determined in the first SPF-SIG priority, underage/binge drinking across the lifespan is the foremost substance abuse issue in North Dakota, the majority of data used to determine this priority is alcohol-related.

According to the 2008 ND Community Readiness Survey, only 34.7 percent of community members believe the contribution of drug and alcohol use to crashes or injuries is a serious problem. However, 40 percent of motor vehicle crash fatalities on ND roads in 2009 involved alcohol (ND DOT). Similarly, only one third (35.7%) of community members believe the contribution of drug and alcohol use to crime is a serious problem (CRS, 2008). However, 39 percent of all arrests in ND in 2009 were for DUI and liquor law violations (ND BCI). The above mentioned data reveals a disconnect between what citizens perceive versus actual consequences of alcohol use in North Dakota.

ND ranks #1 in the nation for binge drinking among those ages 12 and above, less than half (42%) of community members perceive youth alcohol use as a serious problem in their community (NSDUH, 2008; CRS, 2008). Also, only 23.2 percent of North Dakota community members perceive adult alcohol use as a serious problem in their community (CRS, 2008).

A community's level of readiness can limit effective prevention efforts. For example, with low awareness it is difficult to implement effective strategies such as policy change. In order to make policy or law changes it is necessary for community leaders to have community support or buy in. If nothing is wrong, why make changes? When assessing the data available on substance use, abuse, and consequences, the SEOW identified a need to increase awareness among North Dakota community members. Therefore, awareness was selected as the second SPF-SIG priority.

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<sup>i</sup> Gibbens, B. (2006). Rural Health Facts: Demographics. Grand Forks, ND: UND Center for Rural Health.

<sup>ii</sup> \*The population estimates provided denotes the number of people currently residing on or near reservation lands not the total number of enrolled members. U.S. Census Bureau: State and County QuickFacts; North Dakota Indian Affairs Commission (NDIAC); National Conference of State Legislatures (NCSL); Tribal Community Readiness Survey (TCRS) Reports; PRMC website

<sup>iii</sup> Johnston, L.D., O'Malley, P.M., Bachman, J.G., & Schulenburg, J.E. (2009). Monitoring the Future national results on adolescent drug use: Overview of key findings, 2008 (NIH Publication No. 09-7401). Bethesda, MD: National Institute on Drug Abuse.

<sup>iv</sup> Substance Abuse and Mental Health Services Administration, Office of Applied Studies. State Estimates of Substance Use from the 2004-2005 National Surveys on Drug Use and Health. OAS Series #H-31, DHHS Publication No. (SMA) 07-4235, Rockville, MD, 2007 [Electronic Version].

<sup>v</sup> Donnermeyer, J. F., Plested, B. A., Edwards, R. W., Oetting, E. R., & Littlethunder, L. (1997). Community readiness and prevention programs. *Journal of the Community Development Society*, 28(1), 65-83.

<sup>vi</sup> Edwards, R. W., Jumper-Thurman, P., Plested, B. A., Oetting, E. R., & Swanson, L. (2000). Community readiness: Research to practice. *Journal of Community Psychology*, 28(3), 291-307.

<sup>vii</sup> Hughes, A, Sathe, N, Spagnola, K. (2009). State Estimates of Substance Use from the 2006-2007 National Surveys on Drug Use and Health (Office of Applied Studies, Substance Abuse and Mental Health Services Administration, NSDUH Series H-35, HHS Publication No. SMA 09-4362). Rockville, MD

<sup>viii</sup> SAMHSA. (2006b). State Epidemiological Data System (SEDS). <http://www.epidcc.samhsa.gov/>