NORTH DAKOTA
EPIDEMIOLOGICAL PROFILE

ALCOHOL, TOBACCO, ILLICIT DRUG AND
NONMEDICAL USE OF PRESCRIPTION DRUG
PREVALENCE, CONSEQUENCES AND MODIFIABLE
RISK FACTORS IN NORTH DAKOTA

Compiled and Developed by:
The North Dakota State Epidemiological
Outcomes Workgroup
February 2018
# Table of Contents

Executive Summary .......................................................................................................................... iii

Alcohol ........................................................................................................................................ iii

Tobacco .......................................................................................................................................... iii

Illicit Drugs .................................................................................................................................. iv

Nonmedical Use of Prescription Drugs ....................................................................................... iv

Introduction .................................................................................................................................... 1

The State Epidemiological Outcomes Workgroup (SEOW) .............................................................. 1

Purpose of the Profile ...................................................................................................................... 2

Principles of the SEOW .................................................................................................................. 3

Methods ......................................................................................................................................... 4

Alcohol in North Dakota: Consumption .......................................................................................... 7

Alcohol Use .................................................................................................................................... 7

Binge Drinking ............................................................................................................................... 15

Excess Drinking ............................................................................................................................. 22

Alcohol in North Dakota: Consequences ....................................................................................... 27

Alcohol-Attributed Deaths ............................................................................................................ 27

Alcohol Use Disorder ..................................................................................................................... 30

Impaired Driving after Drinking .................................................................................................... 33

Alcohol-Related Fatal Crashes ....................................................................................................... 39

Impaired Driving Violations .......................................................................................................... 42

Liquor Law Violation ...................................................................................................................... 46

Consequences of Alcohol on Student Academic Grades ............................................................... 47

Substance Abuse Treatment Admission ....................................................................................... 51

Alcohol in North Dakota: Modifiable Risks .................................................................................. 57

Source of Alcohol for Youth .......................................................................................................... 57

Community Perception Related to Alcohol ................................................................................... 60

Tobacco and Nicotine in North Dakota: Use ................................................................................. 64

Youth Tobacco Use ....................................................................................................................... 64

Adult Tobacco Use ......................................................................................................................... 67

Tobacco Use Initiation Among Youth ............................................................................................ 69

Youth Cigarette Smoking .............................................................................................................. 71
Executive Summary

The state of North Dakota has made progress in the rates of substance abuse and related consequences in recent years. Despite this, North Dakota remains above the national average in many areas, which indicates further prevention implementation is necessary to improve the quality of life in the state. Identifying target populations that are showing improvement in rates of substance abuse and related consequences presents an opportunity to identify strategies that are working, populations that are receptive to prevention efforts, and areas where prevention efforts could be implemented or expanded.

Alcohol

Alcohol consumption, consequences, and modifiable risk factors in North Dakota have seen positive trends in recent years. Rates of alcohol use among youth, youth riding with someone who has been drinking alcohol, alcohol-induced causes of mortality, and alcohol-dependence in North Dakota have declined in recent years. With the exception of alcohol-induced causes of mortality, North Dakota remained above the national average for all categories relating to alcohol consumption. North Dakota remained above the national average for a majority of alcohol statistics. In addition, there was also an increase in the number of admissions to treatment facilities for alcohol use.

Tobacco

Tobacco consumption, consequences, and modifiable risk factors in North Dakota have seen positive trends in recent years. Rates of tobacco use before age 13, cigarette use among youth, cigarette use among adults, number of pregnant women using tobacco, and the number of cigarettes sold in North Dakota have declined in recent years. Middle and high school students have reported a large increase in health care providers advising students not to use tobacco products. Mortality rates due to age-adjusted heart disease, rates of mortality due to age-adjusted lung and bronchus cancer, and rates of mortality due to age-adjusted cardiovascular disease have declined in recent years as well. These mortality rates were found to be lower than the national rates.
Illicit Drugs

Illicit drug consumption, consequences, and modifiable risk factors in North Dakota have seen positive trends in recent years. Rates of marijuana use have remained relatively stable for adults in North Dakota, but are lower than the national rate. The rate of adults convicted and incarcerated for drug possession has increased in recent years. The percentage of substance abuse treatment admissions has increased in recent years with increased admissions for amphetamines and opiates.

Nonmedical Use of Prescription Drugs

Nonmedical use of prescription drugs, related consequences, and modifiable risk factors in North Dakota have seen positive trends in recent years. Rates of nonmedical use of prescription drugs have remained steady or declined for specific sub-populations with an overall decrease in trend. North Dakota was below the national average in number of opioid prescriptions per 10,000 persons.
Introduction

Use of alcohol, tobacco, prescription and illicit drugs takes a heavy toll on the lives and families of North Dakotans and the state economy. Alcohol use and abuse is the greatest substance-related problem facing the state (National Survey on Drug Use and Health [NSDUH], 2015; Behavioral Risk Factor Surveillance System [BRFSS], 2015). North Dakota has among the highest rates in the nation in current alcohol use and excessive drinking, regardless of age group (NSDUH, 2015).

The State Epidemiological Outcomes Workgroup (SEOW)

State Epidemiological Outcomes Workgroups (SEOWs) are groups of data experts and prevention stakeholders responsible for bringing data on substance abuse and related behavioral problems to the forefront of the prevention planning process. The North Dakota SEOW was initiated in 2006 by the North Dakota Department of Human Services (NDDHS), Behavioral Health Division. Funding for the project is provided by the federal Substance Abuse and Mental Health Services Administration (SAMHSA).

The mission of the North Dakota SEOW is to identify, analyze and communicate key substance abuse and related behavioral health data to guide programs, policies and practices.

Expectations of the SEOW:

- **Assessment** of the prevalence of substance abuse and related behavioral health issues within specific populations and across the lifespan.
- **Determination** of the nature, magnitude, and problems, as well as shared risk and protective factors, associated with substance use and related behavioral health issues.
- **Establishment and management** of all relevant data systems, including systems used to conduct archival, evaluative, ethnographic, and perspective studies as well as those designed to serve as an early warning network.
- **Development** of state profiles detailing patterns and trends of substance use and related behavioral health issues.
- **Engagement** in systematic and analytical thinking to better understand the causes and consequences of substance abuse and behavioral health issues.
- **Coordination** with appropriate decision-making entities within the state to provide data in formats that will be useful in guiding effective and efficient use of prevention resources.
- **Ongoing promotion** of data, including the development of templates, reports, and other products for dissemination.
The SEOW is comprised of a broad representation of diverse partners and continues to provide leadership in identifying data needs. Membership includes representatives from:

- Boys & Girls Club of the Three Affiliated Tribes
- Center for Rural Health, University of North Dakota
- Department of Corrections & Rehabilitation
- Department of Health
- Department of Human Services
- Department of Public Instruction
- Department of Transportation
- Highway Patrol
- Information Technology Department
- Mental Health America of North Dakota
- North Dakota State University
- North Dakota University System
- Office of the Attorney General
- Office of the State Tax Commissioner
- Spirit Lake Sioux Tribe
- Standing Rock Sioux Tribe
- Turtle Mountain Band of Chippewa Indians, Turtle Mountain Community College
- Wyoming Survey & Analysis Center, University of Wyoming

**Purpose of the Profile**

The SEOW is charged with developing state epidemiological profiles of key substance use indicators.

This report constitutes the state profile. Its primary purpose is to serve as a reference document for the SEOW to understand the available state-level data regarding alcohol, tobacco and drug abuse. This profile will also be the foundation of additional, more accessible documents summarizing the status of behavioral health (mental health and substance abuse) in ND. The Center for Rural Health (CRH) completed this document through contract with NDDHS.
Principles of the SEOW

The SEOW is guided by the principle of **outcomes-based prevention**, which allows state prevention stakeholders to lead with results, not with strategies.

To achieve this the SEOW utilizes a **public health approach** of focusing on preventing health problems and promoting healthy living for whole populations of people. By definition, public health is about populations. Public health focuses on the continuous monitoring of population-level health, and towards identifying, preventing, and managing conditions of diseases with the intention of improving health outcomes of a population.

Epidemiology is the study of factors affecting the health and wellness of populations. It is data-driven and relies on a systematic and unbiased approach to the collection, analysis, and interpretation of data. The SEOW relies on **epidemiological data** as the primary foundation for all planning and decision-making at state and community levels. Epidemiological data have proven to be very valuable for describing drug use patterns across person, place, and time; for identifying factors associated with increased (or decreased) risk for drug use and drug use disorders; and for informing prevention policies and strategies (Compton, Thomas, Conway, & Colliver, 2015).

Prevention that focuses on **risk and protective factors** is grounded in the public health approach, which relies on data-based predictors of problem behaviors and positive outcomes (Hawkins & Catalano, 2005). Few problems related to substance abuse can be changed through direct influence or attack. Rather, they are influenced indirectly through underlying factors that contribute to the problem and its initiation, escalation, and adverse consequences.

A variety of factors – including individual competencies, family resources, school quality, and community-level characteristics – can increase or decrease the risk that a person will develop a substance use disorder or related problem behaviors, such as early substance use, risky sexual behavior, or violence (National Research Council and Institute of Medicine, 2009). Specific to substance abuse, seven causal areas have been identified by researchers, and they include: (1) Economic/Retail Price; (2) Retail Availability; (3) Social Availability; (4) Enforcement; (5) Promotion of Alcohol; (6) Community Norms; and (7) Individual Factors (Birckmayer, Holder, Yacobian & Friend, 2004) Existing research and data suggest that there are number of common or shared risk and protective factors throughout life that impact both substance abuse and mental health outcomes (SAMHSA, 2013). Identifying shared risk and protective factors and examining the **unique issues of North Dakota’s** rurality and cultural diversity are vital to increasing collaboration, decreasing duplication, and ultimately better addressing the population as a whole.
Methods

The Core Workgroup for North Dakota’s SEOW project includes personnel from the North Dakota Department of Human Services’ Behavioral Health Division (NDDHS) and the University of North Dakota Center for Rural Health (CRH). The work on this project has been guided by feedback, comments, advice, and data assistance from the SEOW, which has representation from a variety of state government, tribal, university, and advocacy agencies. The SEOW meets quarterly. The principal functions of the committee are to assist in identifying potential data sources, assess and prioritize the quality and appropriateness of various data sources and indicators, interpret and identify patterns and trends in substance use/consequence data, and general guidance for developing the state’s Alcohol, Tobacco, and Other Drugs (ATOD) Epidemiological Profile.

Data sources used in the 2017 Epidemiology Profile development include:

- Youth Risk Behavioral Survey (YRBS)
- Behavioral Risk Factor Surveillance System (BRFSS)
- National Survey on Drug Use and Health (NSDUH)
- National Centers for Health Statistics (NCHS)
- North Dakota Core Alcohol and Drug Survey (NDCORE)
- CDC Wonder Query System
- North Dakota Division of Vital Records (NDDVR)
- North Dakota Division of Tobacco Prevention and Control (NDDTPC)
- North Dakota Office of Attorney General (Bureau of Criminal Investigation; NDBCI)
- North Dakota Division of Cancer Prevention and Control (NDDCPC)
- North Dakota Department of Transportation (NDDOT)
- North Dakota Survey of Young Adults (NDSOYA)
- Fatal Analysis Reporting System (FARS), National Center for Vital Statistics (NCVS)
- Treatment Episode Data Set (TEDS)
- North Dakota Department of Corrections and Rehabilitation (NDDOCR) principal crime
- NDDOCR substance abuse treatment
- National Institute on Alcohol Abuse and Alcoholism (NIAAA)
- North Dakota Kids Count
- North Dakota Council on Abused Women’s Services
- North Dakota Community Readiness Survey (ND CRS)
- Adult Tobacco Survey (ATS)
- Youth Tobacco Survey (YTS)
Other data sets have notable shortcomings that must be considered while seizing their positive aspects. For example, Treatment Episode Data Set (TEDS) data is a good source of substance-related treatment admissions for North Dakota; however, one must keep in mind this system does not collect data from all of the state’s treatment facilities. In fact, private treatment providers are not obligated to report any of their patient or client information to TEDS. In addition, crime data in North Dakota is a rich source of information of substance consequences, but it is not without its limitations. The integrity of crime databases is dependent and reliant on reporting compliance by law enforcement agencies and personnel throughout the state.

In using data from multiple sources, it is important to mention that many sources differ in their intended goals and in their methods of collecting and reporting information. If readers have questions regarding the methods, strengths, or limitations of the sources used in this profile, we recommend they consult the original data sources to maximize the usefulness of the source and ensure accurate interpretations of the findings.

To create the state epidemiological profile report, a number of events occurred. First, consumption/consequence items were prioritized and data was collected and presented to the SEOW workgroup. Then, SEOW members provided feedback on grouping of data in figures, tables, format, and information or data needing further clarification. With this feedback, the SEOW epidemiology staff made modifications and provided the updated material to the entire workgroup for review before submission of the draft report.
Substance Abuse in North Dakota

Section 1. Alcohol: Consumption, Consequences, and Modifiable Risks
Alcohol in North Dakota: Consumption

Alcohol Use

About the Indicator

Seventy-two percent of North Dakota adults perceived alcohol use as a moderate or serious problem in society among adults; 78.1% perceived alcohol use as a moderate or serious problem in society among youth. Alcohol is the most generally used addictive substance in the United States (NCADD, 2015). In fact, 86.4 percent of people aged 18 or older reporting drinking alcohol at some point in their lifetime (NSDUH, 2015).

Data Source(s)

Youth

Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Survey (YRBS)

Adults

Centers for Disease Control and Prevention (CDC): Behavioral Risk Factor Surveillance System (BRFSS)
National Institute on Alcohol Abuse and Alcoholism (NIAAA)
Substance Abuse and Mental Health Services Administration (SAMHSA): National Survey on Drug Use and Health (NSDUH)

Section Summary

Youth

- In 2017, nineteen percent of North Dakota middle school students used alcohol, a percentage that declined since 2011 (YRBS, 2017).

- From 2011 to 2013 male middle school students reported higher rates of alcohol use than females. However, from 2015 to 2017, female students consumed more alcohol when compared to males (YRBS, 2017).

- Between 2011 and 2017, high school students reported decreasing rates of ever consuming alcohol. Females reported higher rates of ever consuming alcohol than male students over the same time period (YRBS, 2017).
In 2017, the number of high school students who reported having their first drink of alcohol before age 13 decreased from 2011. Rates of alcohol consumption before age 13 remained consistently higher among male compared to female students over the same time period (YRBS, 2017).

In the past six years, the number of high school students who reported drinking alcohol on at least one day during the past month has continued on a downward trend. North Dakota high school students reported higher rates of alcohol consumption in the past month than the national average, with an exception in 2015; North Dakota (30.8%) was slightly lower than the national rate (32.8%; YRBS 2017).

As North Dakota high school students move through high school, from 9th to 12th grade, they were more likely to report current alcohol between the years 2011 and 2017 (YRBS, 2017).

## Adults

- North Dakotan adults, 21 and older, consumed over 48% and 36% more alcohol than the national average in the form of spirits and beer, respectively in 2015. However, North Dakota consumption for wine was reported slightly below the national average (NIAAA, 2015).

- North Dakota reported a larger percentage of current alcohol use (within the past 30 days) over the national average among those aged 18-25 and 26 and older (NSDUH, 2017).

- In 2015, 70.2% North Dakotans, aged 18-25, consumed alcohol at least once in the last month and was 11.2% higher than the national rates. (NSDUH, 2017).

- Between the years 2013 and 2016, more adult males reported consuming alcohol in the past month than females (BRFSS, 2017).

- Between the years of 2013 and 2016 in North Dakota, there was a slight increase in current alcohol consumption (having at least one drink in the past month) among both adult males (67.4%, 68.7%) and females (54.5%, 57.9%) (BRFSS, 2017).

- In the past four years, alcohol consumption among all age groups in North Dakota has remained consistent (NSDUH, 2017).
Youth

Ever Drank Alcohol, Middle School Students, ND, by Gender

Data Source: YRBS

Ever Drank Alcohol, Middle School Students, ND, by Grade

Data Source: YRBS
Ever Drank Alcohol, High School Students, ND, by Gender

Data Source: YRBS

Ever Drank Alcohol, High School Students, ND, by Grade

Data Source: YRBS
Drank Alcohol before Age 13, High School Students, ND, by Gender

Data Source: YRBS

Currently Drank Alcohol, High School Students, ND vs. US

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.
Currently Drank Alcohol, High School Students, ND, by Gender

Data Source: YRBS

Currently Drank Alcohol, High School Students, ND, by Grade

Data Source: YRBS
**Adults**

Per Capita Alcohol Consumption in Gallons among Persons Age 21 and Older (per 10,000)

<table>
<thead>
<tr>
<th>Spirits</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND</td>
<td>1.56</td>
<td>1.56</td>
<td>1.57</td>
<td>1.49</td>
</tr>
<tr>
<td>US</td>
<td>0.89</td>
<td>0.89</td>
<td>0.9</td>
<td>0.91</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wine</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND</td>
<td>0.34</td>
<td>0.37</td>
<td>0.39</td>
<td>0.4</td>
</tr>
<tr>
<td>US</td>
<td>0.48</td>
<td>0.48</td>
<td>0.48</td>
<td>0.47</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Beer</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND</td>
<td>1.99</td>
<td>1.91</td>
<td>1.89</td>
<td>1.78</td>
</tr>
<tr>
<td>US</td>
<td>1.28</td>
<td>1.26</td>
<td>1.23</td>
<td>1.23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All Beverages</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND</td>
<td>3.89</td>
<td>3.84</td>
<td>3.86</td>
<td>3.67</td>
</tr>
<tr>
<td>US</td>
<td>2.65</td>
<td>2.63</td>
<td>2.62</td>
<td>2.62</td>
</tr>
</tbody>
</table>

Data Source: NIAAA

Used Alcohol at Least Once in the Past Month, ND vs. US, by Age, 2015

Data Source: NSDUH
Alcohol Use in Past Month, Adults (18+), ND, by Gender

Data Source: BRFSS

Alcohol Use in Past Month, ND, by Age

Data Source: NSDUH
**Binge Drinking**

**About the Indicator**

Behavioral Risk Factor Surveillance System (BRFSS) defined binge drinking as consuming four or more drinks for women and five or more drinks for men in a row on one occasion during the past 30 days. Binge drinking is defined by the Youth Risk Behavior Survey (YRBS) as having five or more drinks of alcohol in a row on one or more of the past 30 days.

**Data Source(s)**

**Youth**

Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Survey (YRBS)

**Adults**

Substance Abuse and Mental Health Services Administration (SAMHSA): National Survey on Drug Use and Health (NSDUH)

Centers for Disease Control and Prevention (CDC): Behavioral Risk Factor Surveillance System (BRFSS)

Wyoming Survey & Analysis Center: North Dakota Survey of Young Adults (NDSOYA)

**Section Summary**

**Youth**

- Generally, more North Dakota high school students have engaged in binge drinking compared to their United States peers. However, in 2015 both the U.S. and North Dakota high school students reported nearly identical binge drinking rates (YRBS, 2017).

- The percentage of high school students who reported binge drinking (having five or more drinks of alcohol in a row within a couple of hours on at least one day in the past month) has been decreasing since 2011 (YRBS, 2017).

- Between the years 2011 through 2015, more male high school students engaged in binge drinking compared to their female peers. However, in 2017, females (18.5 %) reported higher rates of binge drinking than males (14.4 %) (YRBS, 2017).

- As high school students advanced to higher grades, the rates of binge drinking increased. The percentage of high school students who report binge drinking (having five or more drinks of alcohol in a row within a couple of hours on at least one day in the past month) decreased for those in 11\textsuperscript{th} grade (16.1 %) and 12\textsuperscript{th} grade (24.1 %) between 2015 and 2017. Contrary to
previous years, from 2015 to 2017, binge drinking rates increased among 9th and 10th grade students, (12.4%) and (13.7%) respectively (YRBS, 2017).

Adults

- Adult binge drinking rates in North Dakota have been higher than the national rates from 2012 to 2016. In 2016, the ND rate of adult binge drinking in North Dakota was 24.8% compared to 16.9% at the national level (BRFSS, 2017).
- North Dakota adult males (age 18+) have consistently reported higher rates of binge drinking than females between the years 2013 and 2016. Adult binge drinking rates for both genders have remained relatively stable over that period (BRFSS, 2017).
- North Dakota adults aged 18-24 have consistently reported the highest rates of binge drinking among other age groups. Binge drinking rates decreased as adults age (BRFSS, 2017).
- From 2013 to 2016, North Dakota adults with an income above $75,000 annually reported a higher average binge drinking rate than any other income bracket (BRFSS, 2017).

Youth

Binge Drinking, High School Students, ND vs. US

Data Sources: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.
Binge Drinking, High School Students, ND, by Gender

Data Sources: YRBS

Binge Drinking, High School Students, ND, by Grade Level

Data Sources: YRBS
Adults

Binge Drinking at Least Once in the Past Month, by Age, ND vs. US, 2016

Data Source: NSDUH
Data Note: 2015 state binge drinking data not available.
Data Note: Binge drinking prior to 2015 was defined as males or females consuming five or more drinks on the same occasion. Binge drinking is currently defined as consuming five or more drinks for males or four or more drinks for females on the same occasion.
Binge Drinking at Least Once in the Past Month, ND, by Age

Data Source: NSDUH
Data Note: 2015 state binge drinking data not available.
Data Note: Binge drinking prior to 2015 was defined as males or females consuming five or more drinks on the same occasion. Binge drinking is currently defined as consuming five or more drinks for males or four or more drinks for females on the same occasion.

Binge Drinking in the Past 30 days, Adult (18+), ND vs. US

Data Source: BRFSS
Data Note: Binge drinking refers to males consuming five or more drinks on one occasion, females having four or more drinks on one occasion in the past 30 days.
Binge Drinking in the Past 30 Days, Adult (18+), ND, by Gender

Data Source: BRFSS
Data Note: Binge drinking refers to males consuming five or more drinks on one occasion, females having four or more drinks on one occasion in the past 30 days.

Binge Drinking in the Past 30 Days, Adult, ND, by Age

Data Source: BRFSS
Data Note: Binge drinking refers to males consuming five or more drinks on one occasion, females having four or more drinks on one occasion in the past 30 days.
Binge Drinking in the Past 30, Adult (18+), ND, by Income Level

Data Source: BRFSS

Data Note: Binge drinking refers to males consuming five or more drinks on one occasion, females having four or more drinks on one occasion in the past 30 days.
Excess Drinking

About the Indicator

The Centers for Disease Control and Prevention (CDC) reported that excessive drinking cost the United States $249 billion in 2010 ($2.05 per drink), which was a significant increase in 2006 from $223.5 billion ($1.90 per drink). Substance Abuse and Mental Health Services Administration (SAMHSA) defines heavy or excessive alcohol use as binge drinking on five or more days in the past month. Heavy alcohol use is defined by Behavioral Risk Factor Surveillance System (BRFSS) as average daily alcohol consumption greater than two drinks for males and one drink for females.

Data Source(s)

Adults

Centers for Disease Control and Prevention (CDC): Behavioral Risk Factor Surveillance System (BRFSS)
Wyoming Survey & Analysis Center: North Dakota Survey of Young Adults (NDSOYA)

Section Summary

- The percentage of North Dakota adults, age 18 and older, who had reported drinking in excess was higher than the U.S. averaged national percentage of adults who reported excess drinking in 2016 (BRFSS, 2017).

- In 2016, the percentage of North Dakotan males who reported drinking in excess (more than two drinks per day for males and one drink per day for females) was higher than females (BRFSS, 2017).

- The percentage of adults who drank excessively increased with income level, in North Dakota as well as nationally (BRFSS, 2017).
Excess Drinking, Adult (18+), ND vs. US, by Gender, 2016

Data Sources: BRFSS

Excess Drinking, Adult (18+), ND vs. US, by Race/Ethnicity, 2016

Data Sources: BRFSS
Excess Drinking, Adult (18+), ND vs. US, by Location*, 2016

Data Sources: BRFSS
*Geographic definitions can be found in Appendix A (p. 152)

Excess Drinking, Adults (18+), ND vs. US, by Income Level, 2016

Data Source: BRFSS
Average Number of Alcoholic Beverages Consumed on Days When Current Drinkers Drank, Young Adults (18-29), ND, by Gender, 2016

Data Source: NDSOYA, 2016

Number of Days During the Past 30 Days Current Drinkers Binge Drank, Young Adults (18-29), ND, by Gender, 2016

Data Source: NDSOYA, 2016
Actual Versus Perceived Binge Drinking among Peers, Young Adults (18-29), 2016

Data Source: NDSOYA, 2016
Alcohol in North Dakota: Consequences

Alcohol-Attributed Deaths

About the Indicator

Alcohol Use Disorder is the fourth leading preventable cause of death (approximately 62,000 men and 26,000 women), in the United States (NCADD, 2015; NIH, 2017).

Data Source(s)

Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)
Centers for Disease Control and Prevention (CDC): National Center for Health Statistics (NCHS)
Centers for Disease Control and Prevention (CDC): Alcohol-Related Disease Impact (ARDI)

Section Summary

- North Dakota reported higher rates of drug/alcohol-induced causes of mortality when compared to the United States from 2012 to 2015 (NCHS, 2017).
- Excessive alcohol use was a contributing factor to more years of potential life lost for males compared to females (ARDI, 2016).
- In North Dakota, liver disease and alcohol dependence syndrome were the leading chronic conditions among those who died from excessive alcohol use (ARDI, 2016).
- In North Dakota, motor-vehicle traffic crashes and fall injuries were the leading acute causes of death among those who consumed alcohol excessively (ARDI, 2016).
Perception of Alcohol Use in Community as a Problem among Adults, ND, 2015

Data Source: ND CRS, 2015

Drug/Alcohol-Induced Causes of Mortality: Age-Adjusted Alcohol-Induced Causes, ND vs. US

Data Source: NCHS

Years of Potential Life Lost Due to Excessive Alcohol Use, ND vs. US, by Gender, 2006-2010

<table>
<thead>
<tr>
<th>Gender</th>
<th>North Dakota</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>1,307</td>
<td>717,082</td>
</tr>
<tr>
<td>Male</td>
<td>3,825</td>
<td>1,853,788</td>
</tr>
<tr>
<td>Total</td>
<td>5,132</td>
<td>2,570,870</td>
</tr>
</tbody>
</table>

Data Source: ARDI
## Alcohol-Attributable Deaths Due to Excessive Alcohol Use, Average for ND, All Ages, 2006-2010

<table>
<thead>
<tr>
<th>Chronic Causes</th>
<th>Overall</th>
<th>0-19</th>
<th>20-34</th>
<th>35-49</th>
<th>50-64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute pancreatitis</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
<td>0</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Alcohol abuse</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Alcohol dependence syndrome</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Alcoholic liver disease</td>
<td>39</td>
<td>0</td>
<td>1</td>
<td>15</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>Breast cancer (females only)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>1</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>&lt;1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
<td>0</td>
</tr>
<tr>
<td>Esophageal cancer</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>1</td>
</tr>
<tr>
<td>Hypertension</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>3</td>
</tr>
<tr>
<td>Ischemic heart disease</td>
<td>2</td>
<td>0</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>2</td>
</tr>
<tr>
<td>Laryngeal cancer</td>
<td>&lt;1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Liver cancer</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>1</td>
</tr>
<tr>
<td>Liver cirrhosis unspecified</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Low birth weight prematurity IUGR death</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Oropharyngeal cancer</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Prostate cancer (males only)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>1</td>
</tr>
<tr>
<td>Stroke hemorrhagic</td>
<td>3</td>
<td>0</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Stroke ischemic</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>1</td>
</tr>
<tr>
<td>Supraventricular cardiac dysrhythmia</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Subtotal</td>
<td>75</td>
<td>&lt;1</td>
<td>1</td>
<td>21</td>
<td>25</td>
<td>28</td>
</tr>
<tr>
<td><strong>Acute Causes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol poisoning</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Aspiration</td>
<td>&lt;1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Child maltreatment</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Drowning</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Fall injuries</td>
<td>26</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>Fire injuries</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Firearm injuries</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Homicide</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>&lt;1</td>
<td>0</td>
</tr>
<tr>
<td>Hypothermia</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>&lt;1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Motor-vehicle nontraffic crashes</td>
<td>&lt;1</td>
<td>0</td>
<td>&lt;1</td>
<td>0</td>
<td>&lt;1</td>
<td>0</td>
</tr>
<tr>
<td>Motor-vehicle traffic crashes</td>
<td>35</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Occupational and machine injuries</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Poisoning (not alcohol)</td>
<td>7</td>
<td>&lt;1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Suicide</td>
<td>21</td>
<td>2</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Subtotal</td>
<td>104</td>
<td>8</td>
<td>26</td>
<td>26</td>
<td>16</td>
<td>29</td>
</tr>
</tbody>
</table>

Data Source: ARDI
Alcohol Use Disorder

About the Indicator

Alcohol use disorder (AUD) is a chronic disease characterized by compulsive alcohol use, loss of control over alcohol intake, and a depressive emotional state when not consuming alcohol (NIAAA, 2015). An estimated 16 million people in the United States have AUD. In 2015, about 6.2 percent or 15.1 million adults, aged 18 and older, had AUD; this number includes 9.8 million men and 5.3 million women. Adolescents can be diagnosed with AUD, and in 2015, an estimated 623,000 adolescents, aged 12–17, were diagnosed with AUD (NIAAA, 2015). In the United States, more than half of all adults have a family past that includes alcoholism or some form of alcohol abuse, with 17.6 million people suffering from this addiction (NCADD, 2015). Within these families, more than 7 million children live in a household with at least one parent who has abused alcohol (NCADD, 2015).

Data Source(s)

Substance Abuse and Mental Health Services Administration (SAMHSA): National Survey on Drug Use and Health (NSDUH)

Section Summary

- The percentage of alcohol use disorder among North Dakota individuals aged 18 to 25 declined between the years 2013 and 2016; however, it remained higher than national rates (NSDUH, 2017).
- The percentage of alcohol use disorder among North Dakota individuals aged 26+ declined between the years 2013 and 2015. From 2015 on, that percentage held at 6.2% (NSDUH, 2017).
- North Dakota adults 18 and older reported higher rates of alcohol use disorder in comparison to the national average between 2013 and 2016 (NSDUH, 2017).
Alcohol Use Disorder in the Past Year, Ages 18-25, ND vs. US

Data Source: NSDUH

Alcohol Use Disorder in the Past Year, Ages 26+, ND vs. US

Data Source: NSDUH
Alcohol Use Disorder in the Past Year, By Age, ND

![Bar chart showing alcohol use disorder by age and year.](chart.png)

Data Source: NSDUH
Impaired Driving after Drinking

About the Indicator

Alcohol is a substance that decreases the ability of the brain by damaging thinking processes, impairing reasoning, and affecting muscle control; all these abilities are essential to effective driving. Even consuming a small amount of alcohol can affect driving ability.

Data Source(s)

Youth

Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Survey (YRBS)

Adult

Centers for Disease Control and Prevention (CDC): National Center for Health Statistics (NCHS)
Centers for Disease Control and Prevention (CDC): Behavioral Risk Factor Surveillance System (BRFSS)

Section Summary

Youth

- The percentage of male middle students who rode with a driver who had been drinking alcohol decreased from 2011 to 2017. In 2017, the percentage of middle school females (27.9%) who rode with a driver who had been drinking alcohol increased slightly from 2015 (26.5%) (YRBS, 2017).
- From 2013 to 2017, there was a 39.3% decrease in the number of North Dakota high school students who drank alcohol and drove a vehicle in the past month (YRBS, 2017).
- From 2013 to 2017, there was roughly a 25% decrease in the number of North Dakota high school students who rode with a driver who had been drinking alcohol (YRBS, 2017).
- Between the years 2013 and 2017, the percentage of both male (12.4% to 8.1%) and female (8.9% to 4.9%) high school students who reported driving a vehicle after drinking alcohol in the past month decreased (YRBS, 2017).
- The percentage of North Dakota high school students who reported riding with a driver who had been drinking alcohol decreased from 2011 to 2015. In 2017, while females’ percentages continued to decrease, males reported a slight increase in percentage of reported rides with a driver who had been dreaming alcohol (YRBS, 2017).
Adults

- ND adults in frontier communities were least likely to agree that drinking and driving laws are enforced when compared to adults in rural and urban communities (ND CRS, 2015).

- The majority of ND adults held the perception that drinking and driving laws were enforced in their communities (ND CRS, 2015).

- The percent of North Dakota adult males who reported driving after consuming too much alcohol is greater than females in both 2014 and 2016 (BRFSS).

- North Dakota females who reported driving after consuming too much alcohol increased from 2014 to 2016 (BRFSS).

Youth

Middle School Students Who Rode with a Driver Who had been Drinking Alcohol, ND, by Gender

Data Source: YRBS
Middle School Students Who Rode with a Driver Who had been Drinking Alcohol, ND, by Race/Ethnicity

Data Source: YRBS

High School Students Who Rode with a Driver Who had been Drinking Alcohol vs. Students Who Drove a Vehicle After Drinking Alcohol, Past 30 Days, ND

Data Source: YRBS
High School Students Who Rode with a Driver Who had been Drinking Alcohol, ND, by Gender

Data Source: YRBS

High School Students Who Rode with a Driver Who had been Drinking Alcohol, ND, by Race/Ethnicity

Data Source: YRBS

*Note: Data for Hispanic/Latino population was not available prior to 2013.
High School Students Who Drove a Vehicle After Drinking Alcohol, Past 30 Days, ND, by Gender

![Graph showing the percentage of high school students who drove a vehicle after drinking alcohol, past 30 days, by gender in ND. The graph shows a decrease in the percentage over the years 2013 to 2017.]

Data Source: ND YRBS

High School Students Who Drove a Vehicle After Drinking Alcohol, Past 30 Days, ND, by Grade

![Graph showing the percentage of high school students who drove a vehicle after drinking alcohol, past 30 days, by grade in ND. The graph shows a decrease in the percentage over the years 2013 to 2017.]

Data Source: ND YRBS
Adults

Perception that Drinking and Driving Laws are being Enforced Within One’s Community, North Dakota, 2015

Data Source: ND CRS, 2015
*Geographic definitions can be found in Appendix A (p. 152)

Driving After Consuming Too Much Alcohol, Adults (18+), ND, by Gender

Data Source: BRFSS
Alcohol-Related Fatal Crashes

About the Indicator

Drunk driving is responsible for many traffic crashes. Every day 28 people in the United States die in alcohol-related vehicle crashes, which is one person every 51 minutes; drunk driving crashes claim more than 13,000 lives per year. In 2015, 10,265 people died because of alcohol-impaired crashes (NHTSA, 2015).

Data Source(s)

Centers for Disease Control and Prevention (CDC): National Center for Health Statistics (NCHS)
National Highway Traffic Safety Administration (NHTSA): Fatality Analysis Reporting System (FARS)
North Dakota Department of Transportation: North Dakota Crash Summary (NDDOT)

Section Summary

- North Dakota adults in frontier communities were more likely to perceive alcohol as either minimally contributing or in no way contributing to injuries or crashes (38.9%) than ND adults residing in rural (28.0%) and urban (20.1%) communities (ND CRS, 2015).

- The percentage of alcohol-related driving fatalities in North Dakota and the United States decreased between 2012 and 2015 (FARS, 2015).

- The percent of alcohol-related driving fatalities in North Dakota remained greater than the United States between 2012 through 2015 (FARS, 2015).

- Alcohol-related driving fatalities per Vehicle Miles Traveled (VMT) in North Dakota have declined from 2012 to 2015 but still remain higher than national rates (FARS, 2015).

- The percent of alcohol-related driving injuries in North Dakota remained relatively constant between the years 2013 and 2016 (NDDOT, 2016).

- The percent of alcohol-related driving crashes in North Dakota resulting in fatalities plateaued between 2014 and 2016 (NDDOT, 2016).
Perception of Alcohol/Drug Use and the Contribution towards Injuries or Crashes, by Location*, ND, 2015

Data Source: ND CRS, 2015
*Geographic definitions can be found in Appendix A (p. 152)

Alcohol-Related Fatal Crashes, (BAC = 0.08+) ND vs. US

Data Source: FARS
Alcohol-Related Driving Fatalities Per 100 Million Vehicle Miles Traveled (VMT), ND vs. US

Data Source: FARS
Data Note: 2016 state vehicle miles traveled (VMT) data is not yet available.

Alcohol-Related Crashes Resulting in Injury vs. Fatality, ND

Data Source: NDDOT
Impaired Driving Violations

About the Indicator

In every state, people who drive while under the influence (DUI) of drugs/alcohol are committing a crime and will be arrested and possibly convicted of a DUI if the alcohol content (AC) is: 1) 0.08% or more; 2) 0.02% or more, if a person is younger than 21 years old; and 3) 0.04% or more, if a person is driving a commercial vehicle (ND-DMV, 2017).

Actual Physical Control (APC) is defined by the North Dakota Highway Patrol as, “being under immediate control or having the ability to operate the mover vehicle while being under the influence or having a blood-alcohol concentration of .08 percent or more.” (NDHP, 2017).

Data Source(s)

State of North Dakota Office of Attorney General: Crime Statistics Online (CSO) Program
North Dakota Department of Corrections and Rehabilitation (DOCR)
North Dakota Highway Patrol (NDHP)

Section Summary

• The percentage of adults arrested for driving under the influence of alcohol has been consistently greater among males than females in North Dakota from 2013 through 2016 (State of North Dakota Office of Attorney General: CSO, 2017).

• In general, the number of DUI arrests in North Dakota decreased among individuals aged 18-24 and 45-54 from 2013 to 2016 (State of North Dakota Office of Attorney General: CSO, 2017).

• The percentage of DUI arrests for adults aged 25-34, 55-64 and 65+ increased from 2013 to 2016 (State of North Dakota Office of Attorney General: CSO, 2017).

• North Dakota adults aged 25-34 reported the greatest percentage of DUI arrests between the years 2013 to 2016 when compared to all other age groups (State of North Dakota Office of Attorney General: CSO Program, 2017).

• A decline in the percentage of DUI and Actual Physical Control (APC) offenders imprisoned occurred among both males and females for North Dakota between years from 2014 through 2016 (DOCR, 2016).

• The percentage of adult male DUI and APC offenders was consistently greater than females in North Dakota from 2013 to 2016 (DOCR, 2017).
The percentage of North Dakota adult DUI arrests among whites was higher than other races; however, declined between the years 2013 through 2016. In general, the percentage of North Dakota adult male DUI arrests among black/African Americans and American Indian/Alaska Natives increased between the years 2013 and 2016 (State of North Dakota Office of Attorney General: CSO, 2017).

**Adult DUI Arrests, ND, by Age**

Data Source: State of North Dakota Office of Attorney General: Crime Statistics Online (CSO)
Adult DUI Arrests, ND, by Gender

Data Source: State of North Dakota Office of Attorney General: Crime Statistics Online (CSO)

Adult DUI Arrests, ND, by Race

Data Source: State of North Dakota Office of Attorney General: Crime Statistics Online (CSO) Program
Adult DUI Arrests per ND Racial Demographic Population


Percentage of Imprisoned DUI and APC Offenders of all Drug and Alcohol Offenders, ND, by Gender

Data Source: DOCR
Liquor Law Violations

About the Indicator

Liquor laws violations (LLV) are described as any local or state liquor law violations, excluding driving under the influence (DUI) and drunkenness. The North Dakota Office of Attorney General gathers data of reported LLVs, which include such offenses as minor in possession, minor in consumption, unlawful delivery to minor, a minor in liquor establishment, and illegal manufacture of alcoholic beverages. Selling liquor without a license is illegal.

Data Source(s)

State of North Dakota Office of Attorney General: Crime Statistics Online (CSO) Program

Section Summary

- The number of liquor law violations reported in North Dakota is higher among those age 18 and older compared to those younger than 18 years old between the years 2013 and 2016. (State of North Dakota Office of Attorney General: CSO, 2017).

- From 2013 to 2016, the number of liquor law violations decreased for all ages, with the exception being an increase in violations for adults, 21 years old and over, in 2015 (State of North Dakota Office of Attorney General: CSO, 2017).

Liquor Law Violations, ND, by Age

Data Source: State of North Dakota Office of Attorney General: Crime Statistics Online (CSO)
Consequences of Alcohol on Student Grades

About the Indicator

Academic performance is negatively affected by alcohol consumption. Alcohol use not only affects brain development which includes learning, memory, verbal skills and visual-spatial cognition but also school-related achievement and behavior (Ensuring Solutions to Alcohol Problems, 2017).

Data Source(s)

North Dakota Department of Public Instruction (NDDPI)
North Dakota Department of Public Instruction: North Dakota Youth Risk Behavior Survey (YRBS)

Section Summary

- The number of school days missed by North Dakota students, grades kindergarten through 12th, due to alcohol related suspensions or expulsions rose from 2013 to 2017 (NDDPI, 2017).

- Middle school students, who reported drinking alcohol for the first time before age 11 years, obtained a greater percentage of C (10.9%) and D/F (11.2%) letter grades than A (3.3%) and B (7.0%) letter grades in 2015 (YRBS, 2017).

- High school students who attended school under the influence of alcohol or other drugs on at least one day during the month reported attaining more C, D/F letter grades than A and B letter grades in 2015. Within this group of students, males reported having even lower grade point averages compared to females (YRBS, 2015).

- Both middle school and high school students who reported binge drinking (having five or more drinks of alcohol in a row within a couple of hours on at least one day during the month) reported a attaining more C, D/F letter grades than A and B letter grades in 2015 (YRBS, 2017).

- High school students who reported binge drinking were more likely to have poorer grades than middle school students who had partaken in binge drinking (YRBS, 2017).
Days of School Missed due to Alcohol Related Suspensions or Expulsions, Students K-12, ND

Data Source: NDDPI

Grade Point Average among Those who Report Drinking Alcohol before Age 11, Middle School, ND, 2015

Data Source: YRBS
Grade Point Average Among Those Who Report Attending School Under the Influence of Alcohol or Other Drugs, High School, Gender, ND, 2015

Data Source: YRBS, 2015

Grade Point Average Among Those Who Report Binge Drinking, Middle and High School, ND, 2015

Data Source: YRBS, 2017
Grade Point Average Among Those Who Report Binge Drinking, High School, Gender, ND, 2017

Data Source: YRBS, 2017
Substance Abuse Treatment Admissions

About the Indicator

The data below shows admissions for treatment in North Dakota and the United States. This data only includes admissions into the public behavioral health system and not any private substance abuse treatment facility.

Data Source(s)

Substance Abuse and Mental Health Services Administration (SAMHSA): Treatment Episode Data Set (TEDS)

Section Summary

- Among all age groups, more individuals in North Dakota who needed alcohol use treatment were not able to receive the necessary treatment compared to individuals at the national level.

- Compared to all other age groups, the 18-25 age group reported the highest percentage of individuals needing, but not receiving alcohol abuse treatment, in North Dakota as well as nationally in 2016 (NSDUH, 2016).

- The number of admissions to substance abuse treatment facilities in North Dakota increased from 2013 (2,744) to 2016 (5,967) (TEDS, 2017).

- Between 2013 and 2016, there was a continued decline in alcohol-only and alcohol with secondary drug admissions in North Dakota (TEDS, 2017).

- In 2016, males reported a larger percentage of alcohol only treatment facility admissions than females, 65.5% to 34.2% respectively (TEDS, 2017).

- In North Dakota, individuals aged 26 to 55 represented over 75% of primary alcohol treatment admissions from 2013 to 2016 (TEDS, 2017).

- When compared to treatment admissions for alcohol with a secondary drug treatment, those admitted for alcohol treatment only represented a slightly older age demographic (TEDS, 2017).

- In North Dakota, individuals aged 21 to 45 represented roughly 60% of alcohol with secondary drug treatment admissions from 2013 to 2016 (TEDS, 2017).
Needing but Not Receiving Alcohol Abuse Treatment at a Specialty Facility in the Past Year, by Age, ND vs. US, 2016

Data Source: NSDUH

Substance Abuse Treatment Admissions, Ages 12+, ND, Total vs. Alcohol Admissions

Data Source: TEDS
Substance Abuse Treatment Admission, Ages 12+, ND, Primary Alcohol vs. Alcohol with Secondary Drug

Data Source: TEDS

Substance Abuse Treatment Admission, Age 12+, ND, Primary Substance

Data Source: TEDS
Substance Abuse Treatment Admission, Age 12+, ND, Alcohol-Only, by Gender

Data Source: TEDS

Substance Abuse Treatment Admission, Age 12+, ND, Alcohol with Secondary Drug, by Gender

Data Source: TEDS
### Percentage of Substance Abuse Treatment Admissions, ND, Primary Alcohol-Only, by Age

<table>
<thead>
<tr>
<th>Admitted to Treatment</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-17 years</td>
<td>3.4%</td>
<td>1.5%</td>
<td>1.3%</td>
<td>1.7%</td>
</tr>
<tr>
<td>18-20 years</td>
<td>1.9%</td>
<td>1.9%</td>
<td>0.7%</td>
<td>1.6%</td>
</tr>
<tr>
<td>21-25 years</td>
<td>7.2%</td>
<td>7.5%</td>
<td>5.3%</td>
<td>7.2%</td>
</tr>
<tr>
<td>26-30 years</td>
<td>12.0%</td>
<td>12.9%</td>
<td>14.7%</td>
<td>14.2%</td>
</tr>
<tr>
<td>31-35 years</td>
<td>13.3%</td>
<td>12.0%</td>
<td>13.6%</td>
<td>15.0%</td>
</tr>
<tr>
<td>36-40 years</td>
<td>16.1%</td>
<td>12.8%</td>
<td>14.8%</td>
<td>11.0%</td>
</tr>
<tr>
<td>41-45 years</td>
<td>13.4%</td>
<td>14.3%</td>
<td>12.5%</td>
<td>11.9%</td>
</tr>
<tr>
<td>46-50 years</td>
<td>11.5%</td>
<td>12.7%</td>
<td>13.1%</td>
<td>11.7%</td>
</tr>
<tr>
<td>51-55 years</td>
<td>10.5%</td>
<td>11.8%</td>
<td>11.6%</td>
<td>13.8%</td>
</tr>
<tr>
<td>56-60 years</td>
<td>6.3%</td>
<td>7.7%</td>
<td>8.6%</td>
<td>7.5%</td>
</tr>
<tr>
<td>61-65 years</td>
<td>2.5%</td>
<td>3.2%</td>
<td>1.8%</td>
<td>3.2%</td>
</tr>
<tr>
<td>66 years and over</td>
<td>1.9%</td>
<td>1.8%</td>
<td>2.0%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

Data Source: TEDS

### Percentage of Substance Abuse Treatment Admission, ND, Alcohol with Secondary Drug, by Age

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-17 years</td>
<td>3.4%</td>
<td>1.5%</td>
<td>1.3%</td>
<td>1.7%</td>
</tr>
<tr>
<td>18-20 years</td>
<td>1.9%</td>
<td>1.9%</td>
<td>0.7%</td>
<td>1.6%</td>
</tr>
<tr>
<td>21-25 years</td>
<td>7.2%</td>
<td>7.5%</td>
<td>5.3%</td>
<td>7.2%</td>
</tr>
<tr>
<td>26-30 years</td>
<td>12.0%</td>
<td>12.9%</td>
<td>14.7%</td>
<td>14.2%</td>
</tr>
<tr>
<td>31-35 years</td>
<td>13.3%</td>
<td>12.0%</td>
<td>13.6%</td>
<td>15.0%</td>
</tr>
<tr>
<td>36-40 years</td>
<td>16.1%</td>
<td>12.8%</td>
<td>14.8%</td>
<td>11.0%</td>
</tr>
<tr>
<td>41-45 years</td>
<td>13.4%</td>
<td>14.3%</td>
<td>12.5%</td>
<td>11.9%</td>
</tr>
<tr>
<td>46-50 years</td>
<td>11.5%</td>
<td>12.7%</td>
<td>13.1%</td>
<td>11.7%</td>
</tr>
<tr>
<td>51-55 years</td>
<td>10.5%</td>
<td>11.8%</td>
<td>11.6%</td>
<td>13.8%</td>
</tr>
<tr>
<td>56-60 years</td>
<td>6.3%</td>
<td>7.7%</td>
<td>8.6%</td>
<td>7.5%</td>
</tr>
<tr>
<td>61-65 years</td>
<td>2.5%</td>
<td>3.2%</td>
<td>1.8%</td>
<td>3.2%</td>
</tr>
<tr>
<td>66 years and over</td>
<td>1.9%</td>
<td>1.8%</td>
<td>2.0%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

Data Source: TEDS
Substance Abuse Treatment Admission, Age 12+, ND, Alcohol-Only, by Race

Data Source: TEDS

Substance Abuse Treatment Admission, Age 12+, ND, Alcohol with Secondary Drug, by Race

Data Source: TEDS
Alcohol in North Dakota: Modifiable Risks

Source of Alcohol for Youth

About the Indicator

The source from where alcohol is accessed is a crucial intervening variable impacting underage drinking. These sources include access from retail establishments such as bars or liquor stores, or socially by individuals such as parents, family members, and friends.

Data Source(s)

Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)
Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Survey (YRBS)

Section Summary

- The majority (81.3%) of North Dakota adults held the perception that it was not at all difficult or slightly difficult for youth in their community to sneak alcohol from their home or a friend’s home (ND CRS, 2015).

- In 2017, female high school students (43.3%) were more likely than male high school students (30.9%) to obtain alcohol by someone giving it to them.
Perception of Youth Access to Alcohol, ND, 2015

How difficult is it for youth in your community to: (Responses show not at all difficult or slightly difficult)?

- Sneak alcohol from their home or a friend’s home: 81.3%
- Get an older person to buy alcohol for them: 74.2%
- Get other family member to give them: 56.2%
- Get their parents to give them: 45.2%
- Buy beer, wine, or hard liquor at stores themselves: 29.3%
- Order a drink at a bar: 16.9%

Data Source: ND CRS, 2015

Obtained Alcohol by Someone Giving it to Them, High School Students, ND, by Gender

Data Source: YRBS
Obtained Alcohol by Someone Giving it to Them, High School Students, ND, by Grade Level

![Bar chart showing the percentage of students by grade level who obtained alcohol by someone giving it to them from 2011 to 2017.]

Data Sources: YRBS

Note: Data for 9th grade population was not available in 2017.
Community Perception Relating to Alcohol
About the Indicator
A community’s perception of social norms can color the lens by which those within a community see and accept various practices. If communities are more likely to accept underage drinking, it is likely that higher rates of underage drinking will occur. In like manner, the opposite holds true, and modified perceptions and perceived risks change actions, habits, and ultimately outcomes.

Data Source(s)
Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)
Wyoming Survey & Analysis Center: North Dakota Survey of Young Adults (NDSOYA)
Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Survey (YRBS)

Section Summary
- The majority of ND adults (78.1%) held the belief that alcohol use in the community was a problem among youth (ND CRS, 2015).
- The majority of North Dakota adults disagreed (84.3% disagree or strongly disagree) that youth should be able to drink as long as they don’t drive afterwards (ND CRS, 2015).
- North Dakota adults in urban communities reported higher rates of concern regarding alcohol use as a serious problem when compared to both rural and frontier communities. More individuals located in frontier communities perceived alcohol use as either a minor problem or not an issue at all (ND CRS, 2015).
Statewide Perception of Alcohol Use in Community as a Problem among Youth, ND, 2015

Data Source: ND CRS, 2015

Perception of Underage Drinking as a Problem, Young Adults (18-29), ND, 2016

Data Source: NDSOYA, 2016
Statewide Perception on Accepting Youth Alcohol Consumption as Long as They do not Drive, ND, 2015

Data Source: ND CRS, 2015

Perception of Alcohol Use in Community as a Problem among Adults, ND, 2015

Data Source: ND CRS, 2015
Substance Abuse in North Dakota

Section 2. Tobacco: Use, Consequences, and Modifiable Risks
Tobacco and Nicotine in North Dakota: Use

Youth Tobacco Use

About the Indicator

The Center for Disease Control and Prevention (2017) reports that the use of tobacco is started and established mainly during adolescence age and almost 9 out of 10 cigarette smokers first tried smoking by age 18. Each day in the United States, more than 3,200 youth aged 18 years or younger smoke their first cigarette, and an additional 2,100 youth and young adults become daily cigarette smokers. This report also stated that about 3.1% of middle school students and 9.6% of high school students in the United States reported using two or more tobacco products in a month.

Data Source(s)

North Dakota Youth Tobacco Survey (YTS)

Section Summary

- Roughly 82% of middle school students in North Dakota reported no use of tobacco in their lifetime (YTS, 2016).

- More than one third (38.7%) of North Dakota high school students reported using tobacco at least once in their lifetime (YTS, 2016).

- North Dakota middle school female students (35.9%) reported higher rates of use cigarettes than their male counterparts (33.8%) (YTS, 2016).

- North Dakota high school male students (30.4%) were more likely than their female counterparts (28.5%) to use cigarettes (YTS, 2016).

- North Dakota female students, in both middle and high school were more likely to use chew, snuff, or dip than their male counterparts (YTS, 2016).
Lifetime Tobacco Use, Middle School Students, ND

Data Source: YTS

Tobacco Products Ever Tried, Middle School Students, ND, by Gender

Data Source: YTS
Data Source: YTS
Adult Tobacco Use

About the Indicator

Though the number of adults currently smoking decreased over the past decade, cigarette smoking remains the leading cause of preventable disease and death in the United States. Cigarette smoking accounts for more than 480,000 deaths every year, or one in every five deaths (US Department of Health and Human Services).

Data Source(s)
Substance Abuse and Mental Health Services Administration (SAMHSA): National Survey on Drug Use and Health (NSDUH)
North Dakota Department of Health (NDDOH): Adult Tobacco Survey (ATS)

Section Summary

- There was a slight decline in the number of adults who reported tobacco use in the past month, both in North Dakota and the United States, between 2013 and 2015 (NSDUH, 2017).

- Between 2012 and 2015, the percentage of North Dakota adults (aged 18-25 and 26+) who reported tobacco use in the past month remained higher than U.S. adult use of the same age (NSDUH, 2017).

- There was a slight reduction in the number of North Dakota adults who had reported using cigarettes at least once in their lifetime between the years 2012 and 2015 (ATS, 2015).

- From 2012 to 2015, North Dakota reported a slight increase in the percentage of adults who had ever used chewing tobacco in their lifetime (ATS, 2015).

- The percentage of North Dakota adults who reported trying e-cigarettes has more than doubled between the years 2012 (8.9%) and 2015 (21.2%) (ATS, 2015).
Any Tobacco Use in past Month, ND vs. US, by Age

Data Source: NSDUH

Ever Tried Tobacco Products in Lifetime, Adults (18+), ND, by Year (2012 and 2015)

Data Source: ATS
Tobacco Use Initiation Among Youth

About the Indicator

Nine out of ten smokers start before the age of 18, and every day more than 3,200 youth (under the age of 18) smoke a cigarette for the first time. Approximately 2,100 youth and young adults became daily smokers when they were adults (U.S Department of Health and Human Services, 2017).

Data Source(s)

North Dakota Youth Tobacco Survey (YTS)
Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Surveillance System (YRBS)

Section Summary

- Cigarettes were the most common form of tobacco consumption among North Dakota high school students who reported initial use of tobacco before age 11 (YTS, 2016).

- The percentages of high school students who used cigarettes before age 13 for the first time were higher in North Dakota (7.2%) than the United States (6.6%) (YRBS, 2015).

- Since 2009, fewer high school females used cigarettes before age 13 than their male counterparts (YRBS, 2015).

Used Tobacco Products for the First Time before Age 11, High School Students, ND

![Graph showing the percentage of high school students using different tobacco products before age 11 from 2009 to 2015.]

Data Source: YTS 2015
Smoked a Whole Cigarette before Age 13 for the First Time, High School Students, ND vs. US

Data Source: YRBS
Data Note: The 2017 YRBS does not ask this question.

Smoked a Whole Cigarette before Age 13 for the First Time, High School Students, ND, by Gender.

Data Source: YRBS
Youth Cigarette Smoking

About the Indicator

The CDC reports that if smoking continues at the current rate among youth in the United States, approximately 1 out of every 14 American youth will die early from a smoking-related illness.

Data Source(s)

Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)
Substance Abuse and Mental Health Services Administration (SAMHSA): National Survey on Drug Use and Health (NSDUH)
North Dakota Youth Tobacco Survey (YTS)
Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Surveillance System (YRBS)

Section Summary

- In 2015, 90% of adults in North Dakota either disagreed or strongly disagreed with the notion that youth cigarette smoking was ok (CRS, 2015).

- The percentage of both North Dakota and United States youth, aged 12-18, who perceived a great level of risk to one’s health if smoking one or more packs of cigarettes per day increased from 2014 to 2016 (NSDUH, 2016).

- Current cigarette use among North Dakota middle school students declined between 2011 and 2017 (YRBS, 2017).

- More North Dakota male middle school students engaged in cigarette smoking when compared to their female peers between 2013 and 2015; however, the opposite was true in 2017 (YRBS, 2017).

- The percentage of North Dakota and United States high school students who reported ever using a cigarette declined from 2011 to 2015 (no U.S. data reported for 2017; YRBS).

- The percentage of North Dakota high school students frequently using cigarettes (20 or more days within the past month) declined between 2009 and 2015 (YTS, 2016).

- In 2015, more North Dakotan high school students (3.2%) reported engaging in daily cigarette use within a month compared to high school students (2.3%) nationally (YRBS, 2017).
Perception that it is Okay for Youth to Smoke Cigarettes, ND, 2015

Data Source: ND CRS, 2015


Data Source: NSDUH, 2016
Taught about Dangers of Tobacco Use, ND, by Grade, 2015

<table>
<thead>
<tr>
<th>Grade level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>12th Grade</td>
<td>26.6</td>
</tr>
<tr>
<td>11th Grade</td>
<td>23.6</td>
</tr>
<tr>
<td>10th Grade</td>
<td>42.7</td>
</tr>
<tr>
<td>9th Grade</td>
<td>56.7</td>
</tr>
<tr>
<td>8th Grade</td>
<td>59.2</td>
</tr>
<tr>
<td>7th Grade</td>
<td>76.7</td>
</tr>
</tbody>
</table>

Data Source: YTS, 2015

Ever Tried Cigarette Smoking, Middle School Youth, ND

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>17.7</td>
</tr>
<tr>
<td>2013</td>
<td>17.0</td>
</tr>
<tr>
<td>2015</td>
<td>16.2</td>
</tr>
<tr>
<td>2017</td>
<td>10.9</td>
</tr>
</tbody>
</table>

Data Source: YRBS
Ever Tried Cigarette Smoking, High School Students, ND vs. US.

Currently Smoke Cigarettes on at Least 20 Days a Month, Middle School Students, ND, by Gender

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.
Currently Smoke Cigarettes (at Least One Day a Month), High School Students, ND

Data Source: YRBS

Currently Smoke Cigarettes (at Least One Day a Month), High School Students, ND

<table>
<thead>
<tr>
<th>Smoke Everyday</th>
<th>2011</th>
<th>2013</th>
<th>2015</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th grade</td>
<td>12.8</td>
<td>15.3</td>
<td>9.6</td>
<td>8.6</td>
</tr>
<tr>
<td>10th grade</td>
<td>15.9</td>
<td>16.3</td>
<td>9.4</td>
<td>11.8</td>
</tr>
<tr>
<td>11th grade</td>
<td>22.1</td>
<td>18.9</td>
<td>14.8</td>
<td>12.9</td>
</tr>
<tr>
<td>12th grade</td>
<td>26.6</td>
<td>25.5</td>
<td>13.0</td>
<td>17.9</td>
</tr>
</tbody>
</table>

Data Source: YRBS
Frequently Smoke Cigarettes (at Least 20 Days a Month), High School Students, ND

Currently Smoke Cigarettes on All Days of the Month, High School Students, ND vs. US

Data Source: YTS, 2015

Data Note: 2017 YRBS data for the US was not available at publication time.
Adult Cigarette Smoking

About the Indicator

Cigarette smoking is the principal cause of preventable diseases and deaths in the United States. The CDC (2016) reports that in 2015, about 15.1% of adults in the United States aged 18 years or older currently smoke cigarettes. This means about 36.5 million adults in the United States currently smoke cigarettes. Additionally, men (16.7%) are more likely to be current cigarette smokers than women (13.6%).

Data Source(s)

Substance Abuse and Mental Health Services Administration (SAMHSA): National Survey on Drug Use and Health (NSDUH)
Centers for Disease Control and Prevention (CDC): Behavioral Risk Factor Surveillance System (BRFSS)

- **Current smoker**: Those who smoked tobacco on at least one of the thirty days preceding the survey.

Section Summary

- The percentage of adults who had reported any cigarette use in the past month in both North Dakota and the United States declined between the years 2012 and 2015 (NSDUH, 2017).

- The percentage of North Dakota adults using cigarettes daily or monthly was higher than the U.S. adult average between 2012 and 2015 (NSDUH, 2017).

- North Dakota and the United States adults reported a general decrease in daily cigarette use between 2012 to 2015 (NSDUH, 2017).

- The percentage of North Dakota adult males reporting current cigarette use in the past month was higher than females between the years 2012 and 2015 (BRFSS, 2017).

- North Dakota adults aged 65 and older reported lower rates of daily smoking when compared to other age groups. In 2015, about 5.8% of adults aged 65 and older smoked daily (BRFSS, 2017).
Any Cigarette Use in the Past Month, ND vs. US, by Age

Data Source: NSDUH

Smoking Status, Adults (18+), ND vs. US

Data Source: BRFSS
Smoking Status, Adults (18+), ND vs. US

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke Everyday</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ND</td>
<td>15.5%</td>
<td>15.6%</td>
<td>14.4%</td>
<td>13.7%</td>
</tr>
<tr>
<td>US</td>
<td>13.5%</td>
<td>13.4%</td>
<td>12.9%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Former Smoker</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ND</td>
<td>24.7%</td>
<td>25.2%</td>
<td>24.1%</td>
<td>24.5%</td>
</tr>
<tr>
<td>US</td>
<td>25.2%</td>
<td>25.3%</td>
<td>25.0%</td>
<td>25.1%</td>
</tr>
<tr>
<td>Never Smoked</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ND</td>
<td>54.1%</td>
<td>53.7%</td>
<td>56.0%</td>
<td>56.8%</td>
</tr>
<tr>
<td>US</td>
<td>54.4%</td>
<td>55.0%</td>
<td>55.9%</td>
<td>56.5%</td>
</tr>
</tbody>
</table>

Data Source: BRFSS

Daily Smoking, Adults (18+), ND vs. US

Data Source: NSDUH
### Daily Smoking, Adults, ND, by Age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>2012</th>
<th>2013</th>
<th>2015=4</th>
<th>2016=5</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>14.4%</td>
<td>17.9%</td>
<td>13.8%</td>
<td>13.8%</td>
</tr>
<tr>
<td>25-34</td>
<td>21.4%</td>
<td>21.9%</td>
<td>17.5%</td>
<td>16.2%</td>
</tr>
<tr>
<td>35-44</td>
<td>19.8%</td>
<td>15.9%</td>
<td>19.0%</td>
<td>17.4%</td>
</tr>
<tr>
<td>45-54</td>
<td>19.8%</td>
<td>16.9%</td>
<td>18.3%</td>
<td>15.4%</td>
</tr>
<tr>
<td>55-64</td>
<td>13.9%</td>
<td>15.3%</td>
<td>12.6%</td>
<td>15.2%</td>
</tr>
<tr>
<td>65+</td>
<td>5.6%</td>
<td>7.3%</td>
<td>6.9%</td>
<td>5.8%</td>
</tr>
</tbody>
</table>

Data Source: BRFSS
Current Smokers, Adults (18+), ND vs. US

Data Source: BRFSS

Current Smokers, Adults (18+), ND, by Gender

Data Source: BRFSS
Current Smokers, Adults (18+), ND vs. US, by Race/Ethnicity

- American Indian or Alaskan Native, non-Hispanic: ND 31.5%, US 42.1%
- Multiracial, non-Hispanic: ND 23.9%, US 31.6%
- White, non-Hispanic: ND 17.3%, US 17.5%

Data Source: BRFSS
Youth Smokeless Tobacco Use

About the Indicator

Although cigarette smoking in the United States has been on the decline, the use of smokeless tobacco among youth has remained consistent since 1999 (CDC, 2016). Smokeless tobacco is just as unhealthy as smoking and can lead to nicotine addiction. It causes cancer of the mouth, tongue, cheek, gum, esophagus, and pancreas, it increases the risks for early delivery and stillbirth when used during pregnancy, and it causes nicotine poisoning in children and may increase the risk for death from heart disease and stroke (CDC, 2016).

Data Source(s)

North Dakota Youth Tobacco Survey (YTS)
Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Surveillance System (YRBS)

Section Summary

- North Dakota high school students were more likely to use smokeless tobacco than North Dakota middle school students between the years 2009 and 2015 (YTS, 2016).

- A higher percentage of North Dakota high school students currently used smokeless tobacco when compared to high school students nationally between the years 2011 and 2015 (YRBS, 2015).

- North Dakota high school students reported decreased current smokeless tobacco use in 2017 (8.0 %) compared to 2015 (10.6 %) (YRBS, 2017).

- As North Dakota students advanced to higher grades, they were more likely to engage in frequent smokeless tobacco use (YTS, 2016).
Smokeless Tobacco Ever Use, ND, Middle vs. High School Students

Data Source: YTS

Smokeless Tobacco Ever Use, ND, by Grade, 2015

Data Source: YRBS
Current Smokeless Tobacco Use, ND, Middle vs. High School Students

Data Source: YTS

Current Smokeless Tobacco Use (at least one day during the Month), High School Students, ND vs. US

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.
Frequent Smokeless Tobacco Use, Middle vs. High School, ND

Data Source: YTS

Frequent Smokeless Tobacco Use, ND, by Grade Level

Data Source: YTS
Tobacco Use among Pregnant Women

About the Indicator

Smoking during and after pregnancy may cause Sudden Infant Death Syndrome (SIDS), which is an infant death where the cause of death cannot be found. Additionally, the likelihood of a woman experiencing a miscarriage is increased when smoking and babies born to women who smoke are more likely to have certain birth difficulties (CDC, 2016).

Data Source(s)

North Dakota Department of Health, Tobacco Prevention and Control: Tobacco Surveillance Data

Section Summary

- In North Dakota, the percentage of women who reported tobacco use during pregnancy decreased from 2012 to 2015 (North Dakota Department of Health, Tobacco Prevention and Control, 2017).

Women Using Tobacco Products during Pregnancy, Adults, ND

Data Source: North Dakota Department of Health, Tobacco Prevention and Control: Tobacco Surveillance Data
**Tobacco and Nicotine in North Dakota: Consequences**

**Diseases**

**About the Indicator**

The U.S Department of Health and Human Services (2017) reports that over 16 million Americans live with smoking-related health problems, such as emphysema, bronchitis, heart disease, pregnancy-related problems, among others. In addition, smokers today are much more likely to develop lung cancer than smokers were in the past. In fact, almost 90% of lung cancers are caused by smoking.

**Data Source(s)**

**Adults**

North Dakota Department of Health, Tobacco Prevention and Control

**Section Summary**

- Prevalence ratios for both current and former smokers in the United States were higher than those who had never smoked for most conditions among those surveyed between 2006 and 2012 (JAMA).

- Lung Cancer prevalence ratios were notably higher for both current (men: 5.7, women: 4.5) and former (men: 5.1 women: 9.4) smokers than nonsmokers surveyed between 2006 and 2012 (JAMA).

- North Dakota spent approximately $756 per capita on smoking related medical expenditures and productivity loss costs each year (North Dakota Department of Health, Tobacco Prevention and Control).
Adjusted Prevalence Ratios of Smoking-Attributable Diseases by Smoking Status, Males, US, 2006-2012

Data Source: NHIS, Adaptation by JAMA
Data Note: Abbreviation chronic obstructive pulmonary disease (COPD).
Data Note: Other cancers include: bladder, cervix, colon/rectum, kidney, larynx/mouth/tongue/lip/throat/pharynx, and stomach.

Data Source: NHIS, adaptation by JAMA
Data Note: Abbreviation chronic obstructive pulmonary disease (COPD).
Data Note: Other cancers include: bladder, cervix, colon/rectum, kidney, larynx/mouth/tongue/lip/throat/pharynx, and stomach.

### Smoking-Attributable Economic Impact in North Dakota

<table>
<thead>
<tr>
<th></th>
<th>Direct Medical Expenditures</th>
<th>Productivity Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$326,000,000</td>
<td>$232,600,000</td>
</tr>
<tr>
<td>Annual Cost Per Capita</td>
<td>$441</td>
<td>$315</td>
</tr>
</tbody>
</table>

Data Source: North Dakota Department of Health, Tobacco Prevention and Control
Tobacco-Attributed Deaths

About the Indicator

The U.S Department of Health and Human Services (2017) indicates that tobacco is the principal source of preventable illness and death in the United States, resulting in one out of every five deaths or over 480,000 deaths every year. Many people who had Chronic Obstructive Pulmonary Disease (COPD) were smokers, and almost 8 out of 10 deaths from COPD were a result of smoking. In addition to COPD, lung cancer is the leading cause of cancer death among both men (90%) and women (80%) in the United States.

Data Source(s)

North Dakota Department of Health: ND Vital Records
Centers for Disease Control and Prevention (CDC): CDC Wonder

Section Summary

- The average Smoking-Attributable Mortality (SAM) in North Dakota for the years 2005 to 2009 was higher among men (610) than females (380; 19 years old and older) (380) (SAMMEC, 2017).
- In 2015, North Dakota males reported greater lung and bronchus cancer mortality rates than females (CDC Wonder, 2017).
- COPD-attributed death rates in North Dakota have increased between 2012 and 2015 (CDC Wonder, 2017).
- Age-adjusted heart disease mortality rates for North Dakota have declined slightly from 2012 to 2015, ranging from 151.6 to 142.4 per 100,000 (CDC Wonder, 2017).
- Age-adjusted lung and bronchus cancer mortality rates for North Dakota have declined from 2012 to 2015, ranging from 42.2 to 34.4 per 100,000, respectively (CDC Wonder, 2017).
- Between the years 2014 and 2015, the number of deaths related to cerebrovascular diseases in North Dakota decreased slightly (35.5 to 33.4 per 100,000) (CDC Wonder, 2017).
Cause of Death, ND, 2016

Average Annual Smoking-Attributable Mortality, Adults (19+), ND vs. US, 2005-2009

<table>
<thead>
<tr>
<th></th>
<th>North Dakota</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>980</td>
<td>437,400</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td>610</td>
<td>254,100</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>380</td>
<td>183,300</td>
</tr>
</tbody>
</table>

Data Source: SAMMEC
Chronic Obstructive Pulmonary Disease Mortality Rate, ND vs. US

Data Source: CDC Wonder

Chronic Obstructive Pulmonary Disease Mortality Rate, ND, by Gender

Data Source: CDC Wonder
Diseases of the Heart Mortality Rate, ND vs. US

Data Source: CDC Wonder

Diseases of the Heart Mortality Rate, ND, by Gender

Data Source: CDC Wonder
Lung and Bronchus Cancer Mortality Rate, ND vs. US

Data Source: CDC Wonder

Lung and Bronchus Cancer Mortality Rate, ND, by Gender

Data Source: CDC Wonder
Cerebrovascular Disease Mortality Rate, ND vs. US

![Graph showing cerebrovascular disease mortality rate, ND vs. US over years 2012 to 2015. The rate is age-adjusted.](image)

Data Source: CDC Wonder

Cerebrovascular Disease Mortality Rate, ND, by Gender

![Graph showing cerebrovascular disease mortality rate, ND, by gender over years 2012 to 2015. The rate is age-adjusted.](image)

Data Source: CDC Wonder
Tobacco and Nicotine in North Dakota: Modifiable Risks

Youth Cessation/ Quit Attempts

About the Indicator

Tobacco use can lead to tobacco/nicotine dependence and serious health problems. Quitting smoking greatly reduces the risk of developing smoking-related diseases. Tobacco/nicotine dependence is a condition that often requires repeated treatments, but there are helpful treatments and resources for quitting. Smokers can and do quit smoking. In fact, today there are more former smokers than current smokers (CDC).

Data Source(s)

North Dakota Youth Tobacco Survey (YTS)
- **Current smoker:** Those who smoked tobacco on at least one of the thirty days preceding the survey.

North Dakota Department of Public Instruction: North Dakota Youth Risk Behavior Survey (YRBS)
- **Current smoker:** Those who smoked tobacco on at least one of the thirty days preceding the survey.
- **Frequent smoker:** Those who smoked tobacco on twenty or more of the thirty days preceding the survey.

Section Summary

- Between 2011 and 2015, North Dakota reported higher rates of high school students who tried to quit smoking cigarettes than the U.S. high school average (YRBS, 2017).

- Between 2011 and 2017, a greater percentage of North Dakota male high school students had not attempted to quit smoking compared to female students (YRBS, 2011-2017).

- The percentage of North Dakota high school students who planned to quit smoking for good decreased from 2013 (31.8%) to 2015 (27.8%); yet, more high school students reported wanting to quit in 2015 (56.4%) than 2013 (48.9%) (YTS).
Perception that Frequent Smokers Would Be Able to Quit, Middle vs. High School Students, ND

Data Source: YTS

Perception that Current Smokers Would Be Able to Quit, Middle vs. High School Students, ND

Data Source: YTS
Current Smokers Who Did Not Try to Quit Smoking Cigarettes in the Past Year, ND vs. US

Data Source: YRBS

Data Note: 2017 YRBS data for the US was not available at publication time.

Current Smokers Who Did Not Try to Quit Smoking Cigarettes in the Past Year, High School Students, ND, by Gender

Data Source: YRBS
Current Smokers Who Want to Quit, Middle vs. High School Students, ND

Current Smokers Who Plan to Quit for Good, Middle vs. High School Students, ND

Data Source: YTS
Adult Cessation/Quit Attempts

About the Indicator

Quitting smoking helps to reduce the risk of developing smoking-related diseases and early death. Tobacco/nicotine dependence is a condition that often requires repeated treatments, but effective treatments and resources for quitting are available. Smokers do succeed in quitting smoking; today, there are more former than current smokers (CDC, 2017). Most current U.S. adult cigarette smokers (68.0%) reported in 2015 that they wanted to quit completely.

Data Source(s)

Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)
Centers for Disease Control and Prevention (CDC): Behavioral Risk Factor Surveillance System (BRFSS)
North Dakota Department of Health, Tobacco Prevention and Control

Section Summary

- The majority of North Dakota adults held the perception that peer tobacco use was a moderate or serious problem within their community. A slightly greater percentage of adults from rural and frontier areas of the state perceived adult tobacco use as not being a problem, compared to those in urban areas. (ND CRS, 2015).

- Approximately, one in five adults attempted to quit for the 18-24, 25-34, and 35-44 age groups in 2015 (BRFSS, 2015).

- North Dakota Department of Health, Tobacco Prevention and Control (2017) reported a downward trend in the number of enrollees in the tobacco cessation program, NDQuits, between the years 2012 and 2015.
Perception of Adult Tobacco Use as a Problem, ND, 2015, by Location*

<table>
<thead>
<tr>
<th>Perception</th>
<th>Frontier</th>
<th>Rural</th>
<th>Urban</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not a problem</td>
<td>13.3</td>
<td>13.3</td>
<td>9.2</td>
<td>11.1</td>
</tr>
<tr>
<td>Minor problem</td>
<td>24.7</td>
<td>23.1</td>
<td>21.3</td>
<td>22.0</td>
</tr>
<tr>
<td>Moderate problem</td>
<td>39.5</td>
<td>41.0</td>
<td>43.2</td>
<td>41.2</td>
</tr>
<tr>
<td>Serious problem</td>
<td>22.6</td>
<td>22.6</td>
<td>26.3</td>
<td>25.8</td>
</tr>
</tbody>
</table>

Data Source: ND CRS, 2015

*Geographic definitions can be found in Appendix A (p. 152)

Current Smokers Who Have Tried to Quit, Adults (18+), ND, by Gender

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>47.6</td>
<td>50.5</td>
</tr>
<tr>
<td>2013</td>
<td>58.4</td>
<td>50.5</td>
</tr>
<tr>
<td>2014</td>
<td>52.0</td>
<td>50.5</td>
</tr>
<tr>
<td>2015</td>
<td>60.5</td>
<td>52.0</td>
</tr>
</tbody>
</table>

Data Source: BRFSS
Adults Who Attempted to Quit, ND, by Age, 2015

Data Source: BRFSS

NDQuits Total Enrollees, ND

Data Source: North Dakota Department of Health, Tobacco Prevention and Control
Percentage of NDQuits Enrollees Who Successfully Quit Using Tobacco, ND, Web vs. Phone Program

Data Source: North Dakota Department of Health, Tobacco Prevention and Control
Data Note: Quit rate criteria: report no use of cigarettes after seven months after program or no reported use of other forms of tobacco in the past 30 days.

NDQuits Percent Reach, ND

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND Current Smokers</td>
<td>112,796</td>
<td>115,816</td>
<td>109,943</td>
<td>105,919</td>
</tr>
<tr>
<td>ND Quit Total Enrolment</td>
<td>3,747</td>
<td>3,737</td>
<td>3,317</td>
<td>3,319</td>
</tr>
<tr>
<td>ND Quit % Reach</td>
<td>3.32%</td>
<td>3.23%</td>
<td>3.02%</td>
<td>3.13%</td>
</tr>
</tbody>
</table>

Data Source: North Dakota Department of Health, Tobacco Prevention and Control
Health and Professional Inquiry

Data Source(s)

North Dakota Youth Tobacco Survey (YTS)
North Dakota Adult Tobacco Survey (ATS)

Section Summary

- The percentage of North Dakota middle and high school students who reported that a health care provider inquired about personal tobacco use increased from 2009 to 2015 (YTS, 2009-2015).

- The percentage of North Dakota middle and high school students who reported that a doctor, dentist, or nurse had advised them not to use tobacco had increased, in general, from 2009 to 2015 (YTS, 2009-2015).

- In 2012 and 2015, the majority of North Dakota adults reported that a doctor, dentist, or other health profession inquired about their use of cigarettes or tobacco products (ATS, 2015, 2015).

Asked About Tobacco Use by Healthcare Provider in the Past Year, Middle vs. High School Students, ND

[Bar chart showing percentage of students asked about tobacco use by healthcare provider from 2009 to 2015.]

Data Source: YTS
Healthcare Provider Advised Not to Use Tobacco in the Past Year, Middle vs. High School Students, ND

Data Source: YTS

Health Professional Inquiry of Adult (18+) Cigarettes or Tobacco Use in the Past Year, ND

Data Source: ATS
Source of Tobacco for Youth

About the Indicator

According to the 2016 Monitoring the Future Survey, almost half of eighth graders and more than half of tenth graders found it easy to get cigarettes (Monitoring the Future National Survey Results on Drug Use, 1975-2016). It is essential to know the source of where youth are getting tobacco to address tobacco use issues among youth. Youth smokers obtained cigarettes most regularly from retail stores or gas stations where they purchase them directly, or from a familiar source, such as a friend or acquaintance; although, this can vary from community to community. Strictly enforcing laws that prohibit tobacco sales to minors could be a focus of intervention.

Data Source(s)

North Dakota Youth Tobacco Survey (YTS)
Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Surveillance System (YRBS)

Section Summary

- For the last decade, the source from where most high school students obtained their cigarettes was from someone who bought it for them, followed by having asked a friend for one, referred to as having “bummed” a cigarette (YTS, 2009 - 2015).

- In 2011 and 2013, a higher percentage of U.S. high school students, under age 18, bought cigarettes in a store or gas station compared to those in North Dakota. In 2015 however, the opposite was true (YRBS, 2011-2017).

- In 2017, the percentage of North Dakota high school students who reported buying cigarettes in a store or gas station in the past month dropped in half from the percentage reported in 2015 (YRBS, 2015-2017).
Usual Source for Cigarettes, High School Students, ND

Data Source: YTS

Buying Cigarettes in a Store or Gas Station in the Past Month, High School Students Younger than 18, ND vs. US

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.
Percentage of Students who Thought it was Very Easy to Obtain Tobacco Products, ND, by Grade Level

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>12th Grade</td>
<td>67.4</td>
</tr>
<tr>
<td>11th Grade</td>
<td>46.7</td>
</tr>
<tr>
<td>10th Grade</td>
<td>36.3</td>
</tr>
<tr>
<td>9th Grade</td>
<td>25.8</td>
</tr>
<tr>
<td>8th Grade</td>
<td>16.6</td>
</tr>
<tr>
<td>7th Grade</td>
<td>15.0</td>
</tr>
</tbody>
</table>

Data Source: YTS, 2015
Cigarettes Sold and Tax Rate

About the Indicator

The number of cigarettes sold in 2016 (258 billion) in the United States decreased by 2.5% from 264 billion sold in 2015 (CDC, 2016).

Data Source(s)

Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)
State of North Dakota Office of State Tax Commissioner, Cigarette and Tobacco Tax Collections
Federal Transit Administration (FTA)
Orzechowski and Walker. Tax Burden on Tobacco Volume 51

Section Summary

- Over 50% of adults in North Dakota were in favor of tobacco tax increases in 2015 regardless of urban/rural designation (ND CRS, 2015).

- In 2015, the majority of adults in North Dakota held the perception that e-cigarettes should be taxed the same as other tobacco products (ND CRS, 2015).

- The rate of cigarettes sold in North Dakota decreased from 2014 to 2016 (North Dakota Office of State Tax Commissioner, 2017).

- Tobacco, cigarette, and combined revenues in North Dakota increased from 2013 to 2014. However, from 2014 to 2016, the combined revenues have declined (North Dakota Office of State Tax Commissioner, 2017).

- In 2017, North Dakota had the lowest excise tax rates on cigarettes ($0.44 per pack) when compared to surrounding states (FTA, 2017).

- The U.S. average excise tax rate was more than triple North Dakota’s rate in 2017 (Tax Burden on Tobacco, 2017).
Perceptions on Tobacco Tax Increases, ND, by Location*, 2015

Data Source: ND CRS, 2015
*Geographic definitions can be found in Appendix A (p. 152)

E-Cigarettes Should be Taxed the Same as Other Tobacco Products, ND, by Location*, 2015

Data Source: ND CRS, 2015
*Geographic definitions can be found in Appendix A (p. 152)
Cigarettes Sold, ND

Data Source: North Dakota Office of State Tax Commissioner

Tribal Tobacco Tax Revenue, ND

Data Source: North Dakota Office of State Tax Commissioner
Tobacco Product Revenue, ND

Data Source: North Dakota Office of State Tax Commissioner

State Excise Tax Rates on Cigarettes, ND, 2017

<table>
<thead>
<tr>
<th>State</th>
<th>Tax Rate (cents per pack)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Dakota</td>
<td>44</td>
</tr>
<tr>
<td>South Dakota</td>
<td>153</td>
</tr>
<tr>
<td>Montana</td>
<td>170</td>
</tr>
<tr>
<td>Minnesota</td>
<td>304</td>
</tr>
<tr>
<td>U.S. Median</td>
<td>153</td>
</tr>
</tbody>
</table>

Data Source: FTA

States Average Retail Price per Pack (with all taxes), ND, 2016

<table>
<thead>
<tr>
<th>States</th>
<th>States Average Retail Price Per Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Dakota</td>
<td>$4.81</td>
</tr>
<tr>
<td>South Dakota</td>
<td>$6.25</td>
</tr>
<tr>
<td>Montana</td>
<td>$6.44</td>
</tr>
<tr>
<td>Minnesota</td>
<td>$8.32</td>
</tr>
<tr>
<td>U.S. Average</td>
<td>$6.48</td>
</tr>
</tbody>
</table>

Data Source: Orzechowski and Walker. Tax Burden on Tobacco
Substance Abuse in North Dakota

Section 3. Illicit Drugs in North Dakota: Use, Consequences, and Modifiable Risks
Illicit Drugs in North Dakota: Use

Marijuana Use

About the Indicator

The National Institutes of Health (NIH) (2016) defines marijuana as the dried leaves, flowers, stems, and seeds from the hemp plant, which contains the mind-altering chemical *delta*-9-*tetrahydrocannabinol* (THC) and other compounds. Among states recognizing it as an illicit drug, marijuana, also known as weed, pot, or cannabis, is the most commonly used illegal drug with 22.2 million users. Marijuana use has many side effects on health including brain damage, especially among teens because their brain is still developing until the mid-20s (CDC, 2017).

Data Source(s)

Youth

Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)
Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Survey (YRBS)

Adults

Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)
Substance Abuse and Mental Health Services Administration (SAMHSA): National Survey on Drug Use and Health (NSDUH)

Section Summary

Youth

- Roughly two-thirds of the adults in North Dakota held the perception that youth marijuana use was a problem in their community (moderate or serious problem, 66.3%) (ND CRS, 2015).

- The percentage of both North Dakota and United States high school students who reported first time use of marijuana before age 13 remained relatively stable from 2011 to 2015, noting a slight increase in 2017 among North Dakota students (YRBS, 2011-2017).

- The percentage of male North Dakota high school students who used marijuana for the first time before age 13 remained higher than their female peers between the years 2011 and 2017 (YRBS, 2011-2017).
• The percentage of North Dakota high school students who reported current marijuana use (at least once in the past month) was lower than US rates between 2011 and 2015 (YRBS, 2017).

• Among ND high school students who reported using marijuana in the past month, greater use was reported among those who are Hispanic or Latino in 2015 (YRBS, 2017).

• Current marijuana use among ND high school students was higher among males than females from 2011 to 2015; however, female use was higher than male use in 2017 (YRBS, 2011-2017).

Adults

• Roughly half of the adults in North Dakota (51.4%) perceived adult marijuana use as a moderate or serious problem in their community (ND CRS, 2015).

• North Dakota reported relatively consistent percentages of marijuana use in the last month for most age groups between years 2012 and 2015, with ND 18-25 year olds reporting the largest increase between the years 2013 and 2014.

• First time marijuana use occurred most frequently among those aged 18-25 in North Dakota between the years 2012 and 2015 (NSDUH, 2017).

Youth

Perception of Youth Marijuana Use in Community as a Problem ND, by Location*, 2015

Data Source: ND CRS, 2015
First Time Using Marijuana before Age 13, High School, ND vs. US

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.

First Time Marijuana Use before Age 13, High School, ND, by Gender

Data Source: YRBS
Current Marijuana Use (at Least Once in past Month), High School, ND vs. US

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.

Current Marijuana Use (at Least Once in past Month), High School, ND vs. UD, by Race/Ethnicity, 2015

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.
Current Marijuana Use (at Least Once in past Month), High School, ND, by Gender

Data Source: YRBS

Adult

Perception of Adult Marijuana Use as a Problem in Community, ND, by Location*, 2015

Data Source: ND CRS, 2015
*Geographic definitions can be found in Appendix A (p. 152)
Past Year Marijuana Use, ND vs. US, by Age

Data Source: NSDUH

Perception of Great Risk when Smoking Marijuana Once a Month, ND, by Age

Data Source: NSDUH
Past Month Marijuana Use, ND vs. US, by Age

Data Source: NSDUH

Initial Marijuana Use Occurring Within the Past Year, ND, by Age

Data Source: NSDUH
Cocaine, Ecstasy, Heroin, and Methamphetamine Use

About the Indicator

Commonly reported illicit drugs in the United States include cocaine, ecstasy, heroin, and methamphetamine. According to the CDC (2015), 10.1% of all individuals over the age of 12 have used illicit drugs in the past month. In 2016, of the 20.1 million Americans with substance use disorder, 37% struggle with illicit drug use (NSDUH 2017.)

Data Source(s)

Youth

Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)
Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Survey (YRBS)

Adults

Substance Abuse and Mental Health Services Administration (SAMHSA): National Survey on Drug Use and Health (NSDUH)
Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)

Section Summary

Youth

• The percentage of North Dakota high school students who reported illicit drug use (cocaine, ecstasy, or heroin) ever in their lifetime was lower than the United States in 2015 (YRBS, 2015).

• In 2015, the largest percentage of cocaine use for students who had ever used was among Hispanic or Latino high school students, in ND and the US when compared to other races (YRBS, 2015).
Adults

- In 2015, the majority of North Dakotan adults (64.8%) perceived adult cocaine use within their community as not a problem or only a minor problem, regardless of location. Notably, approximately 85% of those living in the frontier area didn’t perceive adult cocaine use as a problem (moderate or serious) within their community (ND CRS, 2015).

- Between the years 2012 and 2015, the number of amphetamine/methamphetamine, (1,644 to 4,527) marijuana, (4,882 to 5,143) and, heroin (48 to 508) drug cases submitted to the State Crime Laboratory have increased, respectively (ND Trend Report).

Youth

Perception of Cocaine Use in Community a Problem Among Youth by Location*, ND, 2015.

Data Source: ND CRS, 2015
*Geographic definitions can be found in Appendix A (p. 152)
Ever Used Cocaine, Ecstasy, or Heroin, High School Students, ND vs. US, 2015

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.
Data Note: Ever Use Cocaine and Ecstasy data not available on 2017 North Dakota YRBS report.
High School Students Who Ever Used Cocaine, Ecstasy, or Heroin by Gender, Race/Ethnicity, Grade, ND vs. US, 2015

<table>
<thead>
<tr>
<th>Percentage (%) by gender, 2015</th>
<th>Cocaine</th>
<th>Ecstasy</th>
<th>Heroin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ND</td>
<td>US</td>
<td>ND</td>
</tr>
<tr>
<td>Female</td>
<td>3.1</td>
<td>3.8</td>
<td>2.6</td>
</tr>
<tr>
<td>Male</td>
<td>4.7</td>
<td>6.3</td>
<td>4.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage (%) by race/ethnicity, 2015</th>
<th>Cocaine</th>
<th>Ecstasy</th>
<th>Heroin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ND</td>
<td>US</td>
<td>ND</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>5.4</td>
<td>5.3</td>
<td>4.9</td>
</tr>
<tr>
<td>Asian</td>
<td>--</td>
<td>3.4</td>
<td>--</td>
</tr>
<tr>
<td>Black or African American</td>
<td>--</td>
<td>3.8</td>
<td>--</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>7.8</td>
<td>8.0</td>
<td>7.9</td>
</tr>
<tr>
<td>White, non Hispanic</td>
<td>3.3</td>
<td>4.1</td>
<td>2.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage (%) by grade, 2015</th>
<th>Cocaine</th>
<th>Ecstasy</th>
<th>Heroin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ND</td>
<td>US</td>
<td>ND</td>
</tr>
<tr>
<td>9th</td>
<td>1.9</td>
<td>3.4</td>
<td>1.4</td>
</tr>
<tr>
<td>10th</td>
<td>4.2</td>
<td>5.1</td>
<td>3.5</td>
</tr>
<tr>
<td>11th</td>
<td>5.1</td>
<td>5.0</td>
<td>4.1</td>
</tr>
<tr>
<td>12th</td>
<td>4.4</td>
<td>7.2</td>
<td>5.1</td>
</tr>
</tbody>
</table>

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.
Data Note: Ever Use Cocaine and Ecstasy data not available on 2017 North Dakota YRBS report.
**Adults**

**Perception of Cocaine Use in Community as a Problem Among Adults, by Location*, ND, 2015**

![Bar chart showing the perception of cocaine use among adults in ND, 2015, by Location: Frontier, Rural, Urban, State.]

Data Source: ND CRS, 2015
*Geographic definitions can be found in Appendix A (p. 152)

**Cocaine Use in the Past Year, by Age, ND vs. US**

![Line graph showing cocaine use in the past year by age group (18-25, 26+, US, ND) from 2012 to 2015.]

Data Source: NSDUH
Analyzed Drug Samples by State Crime Lab, Drug Type, ND

![Bar Chart](chart.png)

Data Source: ND Trend Report, 2016

### Analyzed Drug Samples by State Crime Lab, Drug Type, ND

<table>
<thead>
<tr>
<th>Type of Drug Tested</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methamphetamine/Amphetamine</td>
<td>1,644</td>
<td>2,505</td>
<td>3,968</td>
<td>4,527</td>
</tr>
<tr>
<td>Marijuana</td>
<td>4,884</td>
<td>4,793</td>
<td>5,826</td>
<td>5,143</td>
</tr>
<tr>
<td>Cocaine</td>
<td>222</td>
<td>123</td>
<td>223</td>
<td>191</td>
</tr>
<tr>
<td>Heroin</td>
<td>48</td>
<td>99</td>
<td>310</td>
<td>508</td>
</tr>
</tbody>
</table>

Data Source: ND Trend Report, 2016
Illicit Drugs in North Dakota: Consequences

Drug-Related Violations

About the Indicator

The North Dakotan Attorney General reported in 2017 that North Dakota's crime rate per capita dropped 0.5 percent from 2015, even though the number of drug arrests increased to 11 percent. According to the North Dakota Code (2016), it is unlawful for any person to willfully manufacture, distribute, or dispense, or possess with intent to manufacture, distribute, or dispense, a controlled substance except as authorized.

Data Source(s)

North Dakota Department of Corrections and Rehabilitation (DOCR)

Section summary

- The percentage of drug/narcotic violation-related arrests rose from 2013 to 2016 (Crime in North Dakota, 2016).

- From 2013 to 2016, the majority of drug/narcotic violation-related arrests were among males (Crime in North Dakota, 2016).

- The majority of drug/narcotic violation-related arrests were among individuals between the ages of 18 and 34 (Crime in North Dakota, 2016).

- The percentage of adult inmates convicted of drug possession and incarcerated in North Dakota rose between the years 2013 to 2016 (DOCR, 2016).
Drug and Narcotic Violations Total Arrests, ND

Arrests for Drug and Narcotic Violations Offenses, ND

<table>
<thead>
<tr>
<th>Total Violations in ND</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug/Narcotic Violations</td>
<td>3,399</td>
<td>4,000</td>
<td>4,382</td>
<td>4,866</td>
</tr>
<tr>
<td>%</td>
<td>10.9</td>
<td>13.2</td>
<td>13.8</td>
<td>15.0</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>25.4%</td>
<td>25.6%</td>
<td>27.0%</td>
<td>26.9%</td>
</tr>
<tr>
<td>Male</td>
<td>74.6%</td>
<td>74.4%</td>
<td>73.0%</td>
<td>73.1%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-17</td>
<td>10.2%</td>
<td>9.9%</td>
<td>8.5%</td>
<td>8.7%</td>
</tr>
<tr>
<td>18-24</td>
<td>39.7%</td>
<td>39.5%</td>
<td>36.8%</td>
<td>33.0%</td>
</tr>
<tr>
<td>25-34</td>
<td>28.2%</td>
<td>28.9%</td>
<td>31.0%</td>
<td>32.4%</td>
</tr>
<tr>
<td>35-44</td>
<td>11.6%</td>
<td>12.1%</td>
<td>13.9%</td>
<td>15.3%</td>
</tr>
<tr>
<td>45-54</td>
<td>8.0%</td>
<td>7.5%</td>
<td>7.1%</td>
<td>7.3%</td>
</tr>
<tr>
<td>55-64</td>
<td>2.2%</td>
<td>2.0%</td>
<td>2.4%</td>
<td>3.1%</td>
</tr>
<tr>
<td>65+</td>
<td>0.1%</td>
<td>0.2%</td>
<td>0.3%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

Data Source: Crime in North Dakota
Drug Types Seized in Drug and Narcotic Violations (for up to Three Drugs), ND

Data Source: Crime in North Dakota

Drug Types Seized in Drug and Narcotic Violations (for up to Three Drugs), ND

<table>
<thead>
<tr>
<th>Type of Drug Tested</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana/Hashish</td>
<td>61.2%</td>
<td>58.4%</td>
<td>53.1%</td>
<td>51.1%</td>
</tr>
<tr>
<td>Stimulants</td>
<td>18.5%</td>
<td>22.0%</td>
<td>25.3%</td>
<td>27.7%</td>
</tr>
<tr>
<td>Narcotics</td>
<td>8.0%</td>
<td>9.1%</td>
<td>10.7%</td>
<td>12.0%</td>
</tr>
<tr>
<td>All Drug Types</td>
<td>9.7%</td>
<td>8.1%</td>
<td>8.4%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Depressants</td>
<td>1.2%</td>
<td>1.3%</td>
<td>1.3%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Hallucinogens</td>
<td>1.4%</td>
<td>1.1%</td>
<td>1.2%</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

Data Source: Crime in North Dakota
Adult Inmate Population Incarcerated for Drug-related Crimes, ND

Data Source: DOCR
Overdose Deaths

About the Indicator

Drug overdose refers to the absorption of a drug or other substance in quantities greater than are the recommended amount, and an overdose can lead to a toxic state or death. More than 63,600 drug overdose deaths occurred in the United States in 2016 and the rates of drug overdose deaths increased from 1999 to 2016 for all age groups (CDC, 2017).

Data Source(s)

Centers for Disease Control (CDC): National Center for Health Statistics (NCHS)

Section Summary

Between 2014 and 2015, there was an observed increase in the number of overdose deaths both in North Dakota and at the national level (NCHS, 2017).

Overdose Deaths in ND and the US

![Bar chart showing overdose deaths in North Dakota (ND) and the United States (US) for the years 2014 and 2015. The chart indicates an increase in the percentage of overdose deaths from 2014 to 2015 in both regions.](Image)

Data Source: NCHS
Substance Abuse Treatment Admissions

About the Indicator

Drug addiction is a chronic disease, and individuals with a substance use disorder may require long-term care to recover. Addiction is a complex but treatable disease that affects people’s behavior; however, it can be treated more efficiently if quick access to treatment is available.

Data Source(s)
Substance Abuse and Mental Health Services Administration (SAMHSA): Treatment Episode Data Set (TEDS)

Section Summary

- The percentage of all substance abuse treatment admissions among North Dakota youth aged 12 to 17 decreased from 2013 to 2016 (TEDS, 2017).
- The percentage of substance abuse treatment admissions among the age group 12 and older in North Dakota for amphetamines and opiates rose from 2013 to 2016 (TEDS, 2017).
- The percentage of substance abuse treatment admissions among North Dakota adults aged 26 to 35 increased from 2013 to 2016 (TEDS, 2017).

Substance Abuse Treatment Admissions, ND, by Age

Data Source: TEDS
Substance Abuse Treatment Admissions, ND, Age 12 and older, by Substance

Data Source: TEDS

Data Note: The primary and secondary substances of abuse reported to TEDS are those substances which led to the treatment episode, and not necessarily a complete enumeration of all drugs used at the time of admission.

All Substance Abuse Treatment Admissions, ND, Age 12 and older, by Race

Data Source: TEDS
Illicit Drugs in North Dakota: Modifiable Risks

Access to Illicit Drugs

About the Indicator

The use of illicit drugs is costly to the North Dakota and the United States. This indicator illustrates how illicit drugs, such as marijuana, cocaine, heroin, methamphetamine, and ecstasy are offered, given, or sold.

Data Source(s)

Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)
Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Survey (YRBS)

Section Summary

- North Dakota adults (77.7%) perceived little difficulty in obtaining marijuana within their community (ND CRS, 2015).

- The percentage of North Dakota high school students who offered, gave, or sold illegal drugs on school property decreased from 18.2% in 2015, to 12.1% in 2017 (YRBS, 2017).

- A higher percentage of male high school students (both in North Dakota and the United States) reported that they were offered, gave, or sold illegal drugs on school property, when compared to females (YRBS, 2011-2017).

- Larger percentages among Hispanics or Latino high school students in both North Dakota and the United States were offered, gave, or sold illegal drugs on school property when compared to other races (YRBS, 2017).
Perceived Difficulty of Accessing Marijuana in Community, ND, by Location*, 2015.

Data Source: ND CRS, 2015
*Geographic definitions can be found in Appendix A (p. 152)

Offered, Gave, or Sold Illegal Drugs on School Premises during the Last Year, High School Students, ND vs. US.

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.
Offered, Gave, or Sold Illegal Drugs on School Premises during the Last Year, High School Students, ND vs. US, by Gender

<table>
<thead>
<tr>
<th>ND</th>
<th>2011</th>
<th>2013</th>
<th>2015</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>20.2%</td>
<td>12.2%</td>
<td>16.3%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Males</td>
<td>21.5%</td>
<td>15.5%</td>
<td>20.0%</td>
<td>14.1%</td>
</tr>
<tr>
<td><strong>US</strong></td>
<td><strong>2011</strong></td>
<td><strong>2013</strong></td>
<td><strong>2015</strong></td>
<td><strong>2017</strong></td>
</tr>
<tr>
<td>Females</td>
<td>21.7%</td>
<td>19.7%</td>
<td>19.1%</td>
<td>-</td>
</tr>
<tr>
<td>Males</td>
<td>29.2%</td>
<td>24.5%</td>
<td>24.2%</td>
<td>-</td>
</tr>
</tbody>
</table>

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.

Offered, Gave, or Sold Illegal Drugs on School Premises during the Last Year, High School Students, ND vs. US, by Grade

<table>
<thead>
<tr>
<th>ND</th>
<th>2011</th>
<th>2013</th>
<th>2015</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th</td>
<td>20.4%</td>
<td>13.1%</td>
<td>16.6%</td>
<td>11.2%</td>
</tr>
<tr>
<td>10th</td>
<td>20.2%</td>
<td>15.1%</td>
<td>20.7%</td>
<td>11.5%</td>
</tr>
<tr>
<td>11th</td>
<td>23.0%</td>
<td>12.4%</td>
<td>15.7%</td>
<td>15.4%</td>
</tr>
<tr>
<td>12th</td>
<td>19.8%</td>
<td>15.3%</td>
<td>19.5%</td>
<td>10.2%</td>
</tr>
<tr>
<td><strong>US</strong></td>
<td><strong>2011</strong></td>
<td><strong>2013</strong></td>
<td><strong>2015</strong></td>
<td><strong>2017</strong></td>
</tr>
<tr>
<td>9th</td>
<td>23.7%</td>
<td>22.4%</td>
<td>21.6%</td>
<td>-</td>
</tr>
<tr>
<td>10th</td>
<td>27.8%</td>
<td>23.2%</td>
<td>21.9%</td>
<td>-</td>
</tr>
<tr>
<td>11th</td>
<td>27%</td>
<td>23.2%</td>
<td>22.7%</td>
<td>-</td>
</tr>
<tr>
<td>12th</td>
<td>23.8%</td>
<td>18.8%</td>
<td>20.3%</td>
<td>-</td>
</tr>
</tbody>
</table>

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.

Offered, Gave, or Sold Illegal Drugs on School Premises during the Last Year, High School Students, ND vs. US by Race, Percentage (%)

<table>
<thead>
<tr>
<th>ND</th>
<th>2011</th>
<th>2013</th>
<th>2015</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaska Native</td>
<td>--</td>
<td>16.2%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>--</td>
<td>27.5%</td>
<td>27.3%</td>
<td>20.6%</td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>19.9%</td>
<td>13%</td>
<td>16.8%</td>
<td>11.4%</td>
</tr>
<tr>
<td><strong>US</strong></td>
<td><strong>2011</strong></td>
<td><strong>2013</strong></td>
<td><strong>2015</strong></td>
<td><strong>2017</strong></td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>40.5%</td>
<td>25.5%</td>
<td>19.8%</td>
<td>--</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>33.2%</td>
<td>27.4%</td>
<td>27.2%</td>
<td>--</td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>22.7%</td>
<td>20.4%</td>
<td>19.8%</td>
<td>--</td>
</tr>
</tbody>
</table>

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time.
Substance Abuse in North Dakota
Section 4. Prescription Drugs: Use, Consequences, and Modifiable Risks
Prescription Drugs in North Dakota: Use

Nonmedical Use of Prescription Drugs

About the Indicator

According to data from the NSDUH (2014), 6.2% of youth aged 12-17, and 11.8% of young adults aged 18-25 use nonmedical pain relievers in the past year. These two age groups were more likely to misuse prescription drugs than adults aged 26 or older. This same report states that on an average day during the past year, 5,784 adolescents used prescription pain relievers non-medically for the first time (SAMHSA).

Data Source(s)

Youth

Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)
Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Survey (YRBS)

Adults

Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)
Wyoming Survey & Analysis Center: North Dakota Survey of Young Adults (NDSOYA)

Section Summary

Youth

- North Dakota adults who lived in rural and urban communities were more likely to perceive youth prescription drug abuse as a serious problem when compared to their counterparts living in frontier communities (ND CRS, 2015).

- In North Dakota, there was a slight reduction in the percentage of high school students who used prescription drugs without a doctor’s prescription, from 2011 (16.2%) to 2017 (14.4%) (YRBS, 2017).

- The percentage of North Dakota high school students who reported ever taking prescription drugs without a doctor’s prescription is lower than the national rate (YRBS, 2017).
Adults

- In 2015, North Dakotans who resided in urban or rural areas perceived adult prescription drug use as more of a problem when compared to those located in the frontier areas (ND CRS, 2015).

- Perceived prescription drug misuse was much greater than actual reported misuse among young adults, aged 18-29, in North Dakota in 2015 (NDSOYA, 2016)

- When North Dakota young adults were asked about prescription drug misuse, 98.6% responded with zero days of prescription misuse in the past 30 days (NDSOYA, 2016)

Youth

Perception of Youth Prescription Drug Use in the Community as a Problem by Location*, Youth, ND, 2015

Data Source: ND CRS, 2015
*Geographic definitions can be found in Appendix A (p. 152)
Lifetime Non-Medical Use of Prescription Drugs, Middle School Students, ND, by Gender

Data Source: YRBS

<table>
<thead>
<tr>
<th>ND by gender</th>
<th>2011</th>
<th>2013</th>
<th>2015</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>5.2%</td>
<td>5.5%</td>
<td>4.5%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Males</td>
<td>4.1%</td>
<td>4.5%</td>
<td>4.1%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ND by race</th>
<th>2011</th>
<th>2013</th>
<th>2015</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or</td>
<td>8.3%</td>
<td>8.0%</td>
<td>9.2%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Alaska Native</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>12.5%</td>
<td>9.7%</td>
<td>9.4%</td>
<td>7.6%</td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>3.7%</td>
<td>4.3%</td>
<td>3.5%</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

Data Source: YRBS
Lifetime Non-Medical Use of Prescription Drugs, High School Students, ND vs. US

Data Source: YRBS
Data Note: 2017 YRBS data for the US was not available at publication time and the 2017 ND data cannot be directly compared to the previous data because the question changed that year.

Lifetime Non-Medical Use of Prescription Drugs, High School Students, ND, by Gender

Data Source: YRBS
Data Note: The 2017 data cannot be directly compared to the previous data because the question changed that year.
**Adults**

**Prescription Drug Use in the Community as a Problem by Location*, Adults, ND, 2015**

Data Source: ND CRS, 2016

*Geographic definitions can be found in Appendix A (p. 152)

**Actual Versus Perceived Prescription Drug Misuse Among Young Adults (Age 18-29) in the Past 30 Days, ND, 2015**

Data Source: NDSOYA, 2016
Nonmedical Use of Pain Relievers

About the Indicator

The Center for Behavioral Health Statistics and Quality (2015) states that prescription pain relievers are the nation’s second most prevalent illicit drug misused after marijuana, although a majority of the people who use prescription pain relievers do not misuse them. Since 2002, more than 26 million people used nonmedical prescription pain relievers, with four percent of people aged 12 or older using this drug nonmedically. It is safe to use prescription pain relievers to reduce pain and suffering when used under medical supervision and with necessary instructions followed.

Data Source(s)

Substance Abuse and Mental Health Services Administration (SAMHSA): National Survey on Drug Use and Health (NSDUH)

Section Summary

- Past year nonmedical use of pain relievers among all ages in North Dakota was lower than national rates in 2013 (NSDUH, 2017).

- Past year nonmedical use of pain relievers is highest among North Dakotans age 18-25 (NSDUH, 2017).

Past Year Nonmedical Use of Pain Relievers, ND vs. US, by Age Group

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12-17</td>
<td>4.4%</td>
<td>4.7%</td>
</tr>
<tr>
<td>18-25</td>
<td>7.3%</td>
<td>8.3%</td>
</tr>
<tr>
<td>26+</td>
<td>3.0%</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

Data Source: NSDUH
Prescription Drugs in North Dakota: Consequences

Poisonings and Related Deaths

About the Indicator

Prescription drugs such as hydrocodone (e.g., Vicodin), oxycodone (e.g., OxyContin), and methadone can be medically beneficial to help reduce pain and suffering. However, when used without a physician's guidance, there is a high risk of consequences such as substance use disorder, overdose, or death. Prescription pain reliever overdoses have resulted in almost 15,000 deaths since 2008 (SAMSA, 2017).

Data Source(s)

Centers for Disease Control and Prevention (CDC): CDC Wonder

Section Summary

- From 2013 through 2015, North Dakota reported fewer deaths caused either by illicit or prescription opioid poisoning when compared to the United States (CDC Wonder, 2017).

- Between 2014 and 2015, deaths in North Dakota caused either by illicit or prescription opioid poisoning decreased while the national rates continued to increase (CDC Wonder, 2017).

- Age-adjusted overdose drug rates for North Dakota and at the national level have increased from 2013 through 2016. (CDC Wonder, 2017).

- Age-adjusted overdose drug rates have been higher at the national level when compared to for North Dakota from 2013 through 2016. (CDC Wonder, 2017).

Deaths Related to Either Illicit or Prescription Opioid Poisoning, ND vs. US

<table>
<thead>
<tr>
<th></th>
<th>Mortality rate per 100,000, 2013-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Crude rate per 100,000</td>
<td>---</td>
</tr>
<tr>
<td>Age Adjusted Rate per 100,000</td>
<td>---</td>
</tr>
<tr>
<td>US</td>
<td></td>
</tr>
<tr>
<td>Crude rate per 100,000</td>
<td>7.6</td>
</tr>
<tr>
<td>Age Adjusted Rate per 100,000</td>
<td>7.6</td>
</tr>
</tbody>
</table>

Data Source: CDC Wonder
Deaths Related to Either Illicit or Prescription Opioid Poisoning, ND vs. US

Deaths Related to Drug Overdose, ND vs. US

Data Source: CDC Wonder
Data Note: Data for ND was not available prior to 2014.

Data Source: CDC Wonder
Data Note: Age Adjusted Rate Per 100,000.
Pharmacotherapy Drugs

About the Indicator

Pharmacotherapy is a therapy or treatment procedure that uses pharmaceutical drugs (that is, prescription or over the counter medications). The 2016 National Survey of Substance Abuse Treatment Services (N-SSATS) asserts that at least one pharmacotherapy was provided by 57 percent of all facilities in the United States and that the rates were higher in federal government-operated facilities (84%). The same report observed that medications for psychiatric disorders were the most frequently available pharmacotherapies and were provided in 44 percent of all facilities.

Data Source(s)
National Survey of Substance Abuse Treatment Services (N-SSATS)

Section Summary

- A smaller percentage (36.7%) of substance abuse treatment facilities in North Dakota offered any type of pharmacotherapy when compared to the United States (57.4%) in 2016 (N-SSATS, 2016)

Pharmacotherapies Offered by Substance Abuse Treatment Facilities, ND vs. US, by Type, 2016

[Diagram showing the percentage of facilities offering various pharmacotherapies, with ND and US data]

Data Source: N-SSATS
Prescription Drugs in North Dakota: Modifiable Risks

Availability of Prescription Drugs

About the Indicator

The Center for Disease Control and Prevention (CDC, 2017) states that the supply of prescription opioids remains high in the United States, with an estimated one out of five patients with non-cancer pain or pain-related diagnoses receiving opioids. As access to prescription drugs increases, the likelihood of prescription drug abuse and related consequences also increases.

Data Source(s)

Wyoming Survey & Analysis Center (WYSAC): North Dakota Community Readiness Survey (CRS)
Centers for Medicare and Medicaid Services (CMS)
North Dakota Board of Pharmacy
Centers for Disease Control and Prevention (CDC): National Prescription Audit (NPA)

Section Summary

- In 2015, more North Dakota adults felt that it was slightly or somewhat difficult for them to access prescription drugs in their community irrespective of their locations (ND CRS, 2015).

- The number of controlled substance prescriptions dispensed in North Dakota increased between 2014 and 2015. However, since 2015, ND reported decreasing numbers of controlled substance prescriptions dispensed (North Dakota Board of Pharmacy).

- From 2013 to 2014, North Dakota saw a slight increase in the opioid prescription rate among those enrolled in Medicare part D (CMS, 2017).

- In 2012, health care providers in North Dakota prescribed 75 painkiller prescriptions per 100 people, which places North Dakota in the bottom half of states for painkiller prescriptions per person ratios (NPA, 2014).

- Nationally, the Medicare Part D opioid prescription rate decreased from 2013 to 2014 (CMS, 2017).
From 2014 through 2016, the rate of opioid prescriptions dispensed per 100 persons in North Dakota remained lower than the national level (Annual Surveillance Report of Drug-Related Risks and Outcomes, 2017).

From 2014 through 2016, the most common/prevalent opioid prescriptions dispensed per 100 persons in North Dakota had a strength of less than 50 morphine milligram equivalents per day (Annual Surveillance Report of Drug-Related Risks and Outcomes, 2017).

Perceived Difficulty of Accessing Prescription Drugs in Community, ND, 2015, by Location

Data Source: ND CRS, 2015
*Geographic definitions can be found in Appendix A (p. 152)
Medicare Part D Opioid Prescription Rates, ND vs. US.

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opioid Claims</td>
<td>164,414</td>
<td>166,071</td>
</tr>
<tr>
<td>Overall Claims</td>
<td>3,569,815</td>
<td>3,560,066</td>
</tr>
<tr>
<td>Opioid Prescribing Rate</td>
<td>4.61</td>
<td>4.66</td>
</tr>
<tr>
<td>Opioid Prescribing Rate Difference</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>US</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opioid Claims</td>
<td>78,045,683</td>
<td>79,645,620</td>
</tr>
<tr>
<td>Overall Claims</td>
<td>1,342,096,654</td>
<td>1,386,374,879</td>
</tr>
<tr>
<td>Opioid Prescribing Rate</td>
<td>5.82</td>
<td>5.74</td>
</tr>
<tr>
<td>Opioid Prescribing Rate Difference</td>
<td>-0.08</td>
<td></td>
</tr>
</tbody>
</table>

Data Source: CMS

Controlled Substance Prescriptions Dispensed, ND

![Graph showing the number of prescriptions dispensed per 100,000 people from 2014 to 2017.](image)

Data Source: North Dakota Board of Pharmacy

*Data Note: 2017 data is current as of October 25, 2017.*
Opioid Prescriptions Dispensed per 100 Persons, ND, by Dosage and Type

![Graph showing opioid prescriptions dispensed per 100 persons, ND, by dosage and type from 2014 to 2016.](image)

Data Source: Annual Surveillance Report of Drug-Related Risks and Outcomes

Opioid Prescriptions Dispensed per 100 Persons, ND vs. US, by Dosage and Type

<table>
<thead>
<tr>
<th></th>
<th>ND 2014</th>
<th>ND 2015</th>
<th>ND 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Opioid Types</td>
<td>58.1</td>
<td>53</td>
<td>47.8</td>
</tr>
<tr>
<td>Long or Extended Acting</td>
<td>6.8</td>
<td>6.4</td>
<td>5.7</td>
</tr>
</tbody>
</table>

**Daily Dosage Per Prescription: (MME/Day)**

<table>
<thead>
<tr>
<th></th>
<th>&lt;50</th>
<th>&gt;50 but &lt;90</th>
<th>≥90</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND 2014</td>
<td>41.8</td>
<td>11.6</td>
<td>4.8</td>
</tr>
<tr>
<td>ND 2015</td>
<td>38.7</td>
<td>10.2</td>
<td>4.2</td>
</tr>
<tr>
<td>ND 2016</td>
<td>35.7</td>
<td>8.5</td>
<td>3.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All Opioid Types</td>
<td>75.6</td>
<td>70.6</td>
<td>66.5</td>
</tr>
<tr>
<td>Long or Extended Acting</td>
<td>6.9</td>
<td>6.7</td>
<td>6.3</td>
</tr>
</tbody>
</table>

**Daily Dosage Per Prescription: (MME/Day)**

<table>
<thead>
<tr>
<th></th>
<th>&lt;50</th>
<th>&gt;50 but &lt;90</th>
<th>≥90</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 2014</td>
<td>55.1</td>
<td>13.4</td>
<td>7.1</td>
</tr>
<tr>
<td>US 2015</td>
<td>51.6</td>
<td>12.4</td>
<td>6.7</td>
</tr>
<tr>
<td>US 2016</td>
<td>48.9</td>
<td>11.5</td>
<td>6.1</td>
</tr>
</tbody>
</table>

Data Source: Annual Surveillance Report of Drug-Related Risks and Outcomes

Data Note: Rate per 100 persons adjusted to the U.S. census population. MME = morphine milligram equivalents. LA/ER represents opioids that are long acting (LA) or extended release (ER).
**Substance Abuse in North Dakota**

**Appendix A**

**Definition of Terms**

**Current use** is defined as persons who reported using a product at the time they participated in the survey.

**Last 30 days** (a month) refers to those who used a product on 1 or more of the 30 days previous to the survey.

**Frontier** refers to a county with a population density less than six people per square mile (Wyoming Survey & Analysis Center, 2016).

**Rural** is defines as a county with a population density greater than six people per square mile, with a higher density except for Minot, Grand Forks City, Fargo, West Fargo, Jamestown, Bismarck, Mandan, Dickinson, and Williston (Wyoming Survey & Analysis Center, 2016).

**Urban** refers to a county with a population density greater than six people per square mile with a population of at least 15,000 people, which includes Minot, Grand Forks City, Fargo, West Fargo, Jamestown, Bismarck, Mandan, Dickinson, and Williston (Wyoming Survey & Analysis Center, 2016).

**Suburban** refers to a smaller community adjacent to or within the commuting distance of a city. It is also the residential area on the outskirts of a city or a large town or an outlying part of a city or town (Suburban, 2017: Merriam Webster Online).

**Data Sources**

**North Dakota Community Readiness Survey (CRS): Wyoming Survey & Analysis Center**

The 2015 Community Readiness Survey (CRS) was first developed in 2008. Under contract with North Dakota State University, the Wyoming Survey & Analysis Center at the University of Wyoming (WYSAC) accepted this project as part of the North Dakota Department of Human Services Strategic Prevention Framework State Incentive Grant. In developing this survey, the North Dakota Department of Human Services (DHS) modified the Minnesota survey to account for North Dakota specific needs. The selection for participation in this survey required a North Dakota Household with a mailing address. The 2015 data collection took the form of a mixed mode in which case, possible participants were given the option to complete the survey online or use the paper copy mailed to them. Data was collected from early July until mid-December 2016 and by the close of data collection a total of 2,328 adults completed the surveys. Data can be
assessed at https://prevention.nd.gov/sites/default/files/North%20Dakota%20Community%20Readiness%20Report%20Final%2003292016.pdf

**North Dakota Survey of Young Adults (NDSOYA): Wyoming Survey & Analysis Center**

The North Dakota Survey of Young Adults (NDSOYA) was developed using similar surveys led in Wyoming and Oregon as part of their Strategic Prevention Framework State Incentive Grants and their State Epidemiological Outcome Workgroup (SEOW) data collection efforts. The Wyoming Survey & Analysis Center (WYSAC) was involved by the North Dakota Department of Human Services to conduct a telephone survey, among North Dakota young adults between the ages 18 and 29, to assess substance abuse and other health related behaviors, awareness, and attitudes. A double sampling frame was used to include both landline and cell phone numbers and the survey was conducted in the summer of 2016, with 1026 participants completing the surveys.

**Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Survey (YRBS)**

This survey is conducted nationally, state-wide, and locally every two years among middle and high school students throughout the United States. These surveys gather information on health risk behaviors such as, violence, tobacco, alcohol, and other drug use. More than 15,000 high school students from 37 states and 19 large urban school districts participated in the 2015 National YRBS. This present report included data from other years to show trends. Data can be assessed at https://www.cdc.gov/healthyyouth/data/yrbs/results.htm

*Data from the 2017 North Dakota YRBS was included in this document. However, 2017 national data was not available. Data for the North Dakota report can be assessed at https://www.nd.gov/dpi/SchoolStaff/SafeHealthy/YRBS/

**Centers for Disease Control and Prevention (CDC): Behavioral Risk Factor Surveillance System (BRFSS)**

BRFSS is the largest confidential health survey system in the world. It was established in 1984 and it has been conducted continuously. It is a telephone survey interview that collects data from adults regarding health-related risk behaviors, chronic health conditions, and use of preventive services in all 50 states as well as the District of Columbia and three U.S. territories. BRRSS data can be accessed at http://www.cdc.gov/brfss

**National Institute on Alcohol Abuse and Alcoholism (NIAAA)**

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) is sponsored by the National Institutes of Health (NIH). NIAAA gather data on the impact of alcohol use on human health and well-being. Data is available at https://pubs.niaaa.nih.gov/publications/surveillance.htm
Substance Abuse and Mental Health Services Administration (SAMHSA): National Survey on Drug Use and Health (NSDUH)

NSDUH nationwide survey interviews approximately 70,000 randomly selected individuals that are at least 12 years of age and data are presented as two-year averages. This survey provides national and state-level data on the use of tobacco, alcohol, illicit drugs and mental health. NSDUH is supported by the Substance Abuse and Mental Health Services Administration (SAMHSA), an agency in the U.S. Department of Health and Human Services (DHHS). Data can be retrieved at https://nsduhweb.rti.org/respweb/homepage.cfm

North Dakota Department of Corrections and Rehabilitation (DOCR)-

DOCR is an integral part of the criminal justice system. It was established in 1989 and it is made up of the Adult Services Division and the Juvenile Services Division. Its main responsibility is to carry out general administrative supervision, provide guidance, and to plan adult and juvenile correctional facilities and programs with North Dakota. ND DOCR can be accessed at https://www.nd.gov/docr/

National Highway Traffic Safety Administration (NHTSA): Fatality Analysis Reporting System (FARS)

FARS collects and reports annual data on fatal traffic crashes within the 50 states in the US, District of Columbia, and Puerto Rico. It is sponsored by the National Center for Statistics and Analysis (NCSA) of the National Highway Traffic Safety Administration (NHTSA). Available at https://www.nhtsa.gov/research-data

North Dakota Crash Summary: North Dakota Department of Transportation (NDDOT)

The North Dakota Crash Summary in prepared yearly by the North Dakota Department of Transportation (NDDOT) to provide data about motor vehicle crashes, deaths, and injuries in North Dakota. Data for this document is collected by North Dakota law enforcement officers who complete a crash report when an accident occurs on a public road involving death, injury, or at least $1,000 in property damage. Crashes that occur off of a public road (for example, on private property or parking lots) are not included. Available at https://www.dot.nd.gov/divisions/safety/docs/crash-summary.pdf

Substance Abuse and Mental Health Services Administration (SAMHSA): Treatment Episode Data Set (TEDS)

TEDS contains information regarding the number of treatment admissions for substance abuse in the United States. This information is collected from states on an annual basis and is maintained by the Substance Abuse Mental Health Services Administration (SAMHSA). TEDS can be accessed at https://www.samhsa.gov/data/client-level-data-teds
Centers for Disease Control and Prevention (CDC): Alcohol-Related Disease Impact (ARDI)

The ARDI is an online application that provides national and state information on alcohol-related health issues, including deaths and years of potential life lost (YPLL). Available at https://nccd.cdc.gov/DPH_ARDI/Default/Default.aspx

North Dakota Department of Public Instruction (NDDPI) provides specific North Dakota youth behavioral data and other school related information. Available at https://www.nd.gov/dpi/data/

North Dakota Department of Health (NDDOH) Adult Tobacco Survey

The NDDOH Adult Tobacco Survey has been conducted every three years since 2015. The survey is conducted using the telephone interview mode of data collection. Over 1,600 interviews with adults aged 18 and older are collected during each iteration of the survey. Results of the survey can be accessed at https://www.ndhealth.gov/tobacco/Publications.asp?ProgramID=94.

North Dakota Youth Tobacco Survey (YTS)

The YTS has been conducted in the spring of odd years since 2003. It is designed to measure a variety of factors related to tobacco products among high school students and to assess how these factors change over time. Questions are asked in a variety of categories, including prevalence and established habits of cigarette, spit-tobacco and other tobacco use, age of initiation, access to tobacco, information learned in school, cessation beliefs and attempts, knowledge and attitudes, community influence, media influence, and exposure to and beliefs about secondhand smoke. YTS data can be accessed at http://www.ndhealth.gov/tobacco/Publications.asp?ProgramID=94

North Dakota Office of State Tax Commissioner

The North Dakota Office of State Tax Commissioner is the government agency responsible for administering the tax laws of North Dakota. It has been in existence as an independent state agency since 1912. The Office administers more than 30 different tax types and collects more than 90 percent of all state general fund revenue. The Office of State Tax Commissioner can be accessed at http://www.nd.gov/tax/.

Federal Transit Administration (FTA)

The FTA provides financial and technical assistance to local public transit systems, including buses, subways, light rail, commuter rail, trolleys, and ferries. FTA also oversees safety measures and helps develop next-generation technology research. The FTA can be accessed at https://www.transit.dot.gov/.
North Dakota Department of Health, Tobacco Prevention and Control

The North Dakota Department of Health Tobacco Prevention and Control program provides information related to tobacco use in North Dakota. The program aims to improve and protect the health of North Dakotans by reducing the negative health and economic consequences of tobacco use. It can be accessed at https://www.ndhealth.gov/tobacco/.

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

The Smoking-Attributable Mortality, Morbidity, and Economic Costs data is published by the Centers for Disease Control and Prevention. It provides information regarding smoking-attributable expenditures (SAEs), which are excess health care expenditures attributable to cigarette smoking, by type of service, among adults aged 19 years of age and older. It can be accessed at https://chronicdata.cdc.gov/Health-Consequences-and-Costs/Smoking-Attributable-Mortality-Morbidity-and-Economic Costs/ezab-8sq5?.

ND Vital Records

The North Dakota Division of Vital Records provides registration and certification of the vital events that occur in North Dakota. These events include births, deaths, fetal deaths, marriages and divorces. They also provide statistical information on a wide range of categories relating to these events. ND Vital Records can be accessed at http://ndhealth.gov/vital/.

Centers for Disease Control and Prevention (CDC) WONDER

The CDC Wide-Ranging Online Data for Epidemiologic Research (WONDER) provides information resources of the Center for Disease Control and Prevention (CDC) available to health professionals and the public at large. It provides access to a wide array of public health information, and can be accessed at https://wonder.cdc.gov/.

Ensuring Solutions to Alcohol Problems

This is a tool used to calculate the human and economic consequences of alcohol problems. Such information is used to improve access to treatment.

Centers for Medicare and Medicaid Services (CMS)

The Centers for Medicare & Medicaid Services, CMS, is part of the Department of Health and Human Services (HHS). This program works in partnership with state governments to administer Medicaid, the Children's Health Insurance Program (SCHIP), and health insurance portability standards. CMS can be accessed at https://www.cms.gov/
North Dakota Board of Pharmacy

The North Dakota Board of Pharmacy is a program that provides guides for North Dakota pharmacies on how to offer drugs. In this program, participating pharmacies are provided with the best way to dispose control substances to their patients. North Dakota Board of Pharmacy’s information is available at https://www.nodakpharmacy.com/

National Survey of Substance Abuse Treatment Services (N-SSATS)-

N-SSATS is a survey consisting of all the private and public substance abuse treatment facilities in the United States. It is a part of the Behavioral Health Services Information System also known as the BHSIS and is managed by the Center for Behavioral Health Statistics and Quality (CBHSQ), Substance Abuse and Mental Health Services Administration (SAMHSA). The surveys collect the information about the facilities such as characteristics of the treatment facilities, client count census and general information like certification or accreditation. The survey can be accessed at https://www.samhsa.gov/data/substance-abuse-facilities-data-nssats

North Dakota Courts

North Dakota Courts are made up of North Dakota Supreme Court, District Court and Municipal Court. North Dakota Supreme Court being the highest court in the state consists of one chief justice and four justices with a ten-year term. District courts are the state trial courts of general jurisdiction and all 53 counties provide district court services. District court consists of eight judicial districts and 51 judges with six-year terms. Municipal Courts consists of 73 judges with four-year terms. The North Dakota Courts can be accessed at https://www.ndcourts.gov/court/Courts.htm

Crime in North Dakota

The crime data in North Dakota is managed by the Bureau of Criminal Investigation under the Uniform Crime Reporting (UCR) program. It carries out the collection and analysis of crime data provided by the North Dakota law enforcement agencies. The crime statistics data of all criminal offenses is in the Crime Statistics Online (CSO) program. The Themed Orientated Public Site (TOPS) program contains specific public interest data like Violent, Property and Drug/DUI crimes. The Crime in North Dakota can be access at https://attorneygeneral.nd.gov/public-safety/crime-data.