



NORTH DAKOTA 2017 HEALTH DISPARITIES REPORT



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Data Sources and Data Limitations

Data

This report presents mortality data from the North Dakota Department of Health, Division of Vital Statistics and morbidity data from the North Dakota Department of Health, Division of Disease Control. Due to low numbers in a single year, the data did not reach statistical significance. Case counts were included in select infectious disease morbidity data by race, due to low numbers of minority populations in the state. Upon further review, the North Dakota Department of Health may need to look at additional years for data analysis.

The data for this report was generated using vital records, the Behavioral Risk Factor Surveillance System (BRFSS) and the North Dakota Electronic Disease Surveillance System (Maven).

Data Limitations

Vital records supplies the death certificates for individuals who have died in the state of North Dakota. The vital records data is dependant and reflective of who fills out the death record.

The BRFSS is an ongoing monthly telephone survey, which collects data from randomly selected North Dakota adults in households with telephones. The data is self reported and not stratified.

Maven is the electronic disease surveillance system that stores case management data for all mandatory communicable diseases. Maven contains data that has been self reported through interviews from field epidemiologists.

These data could vary from previously published reports due to different methodologies in calculations or rates and categorization.

Glossary

A glossary of definitions is included beginning on page 42.

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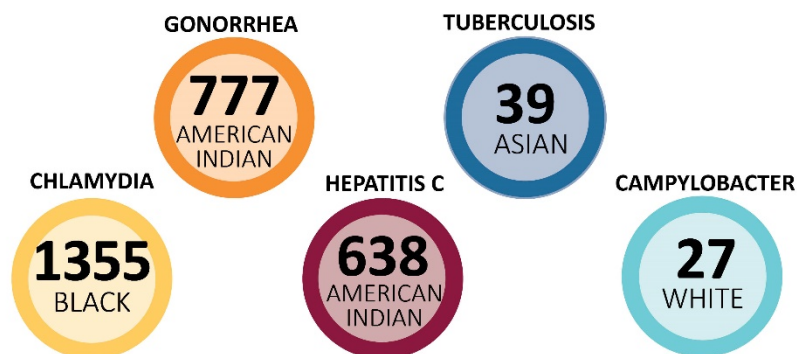
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Health Disparity Quick Facts | 2017

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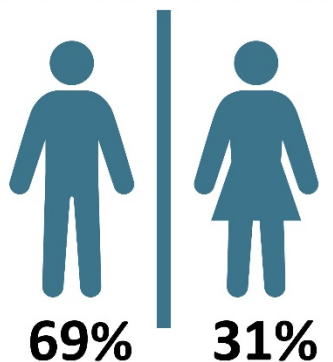
Infectious Diseases | by Leading Race (rates/100,000)



35%

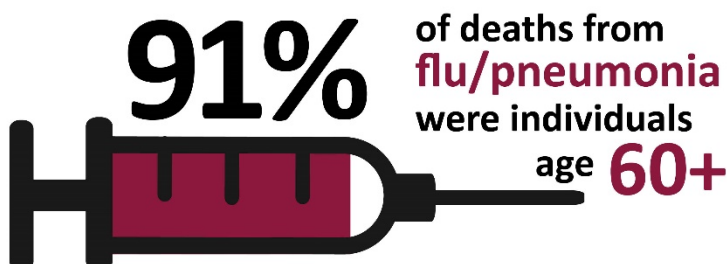
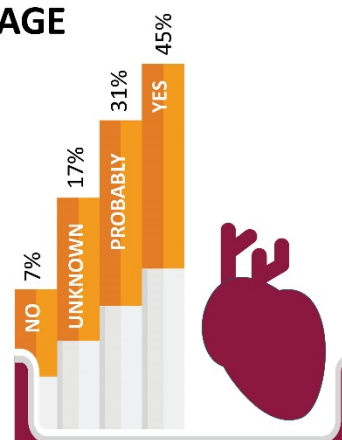
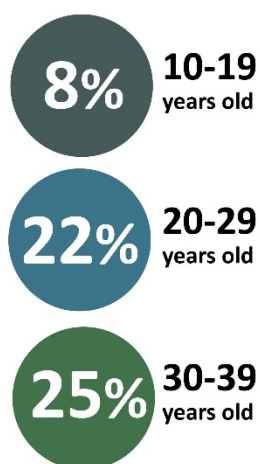
of Syphilis cases reported having unprotected sex

ACCIDENTAL DEATHS



Highest rate by race:
American Indians
103 per 100,000

SUICIDE DEATHS by AGE



Tobacco-Related
Heart Disease Deaths

Executive Summary

The North Dakota Department of Health is committed to improving the health status of the people of North Dakota, improving access to and delivery of quality health care, preserving and improving the quality of the environment, promoting a state of emergency readiness and response and achieving strategic outcomes within available resources.

To achieve this vision, it is essential that all North Dakotans have equitable opportunities to be healthy. However, the public health system continues to be challenged by disparities, access issues and healthcare gaps among select groups of North Dakotans. These disparities may include access to quality health care, inability to improve health and health status because of income, education, race, ethnicity, geographic placement, sexual orientation, insurance status and persons living with disabilities.

Although North Dakota is reported to be one of the best places to live, North Dakotans health status can be burdened by a variety of challenges, including the unique geography and climate.

This report provides an overview of the health disparities related to the top 10 causes of death and the top 10 infectious disease morbidities. By July 2019, the North Dakota Department of Health will develop a strategic plan to address the identified health disparities.

Data Disparity Highlights

- Smoking was identified as a risk factor:
 - among 45.1 percent of those individuals that died from diseases of the heart
 - among those who died of pancreatic, lung and breast cancer, and
 - among the 45.5 percent of people who died of chronic lung disease.
- The American Indian population is disproportionately affected by diabetes-related deaths with a rate of 57.5 per 100,000 individuals compared to Whites at 24.8.
- 80.4 percent of suicides were among males; 56.1 percent of suicides are among individuals under the age of 40 and 47.3 percent occurring between the ages of 20 and 40.
- Blacks had the highest rate of chlamydia with a rate of 1,355.3/100,000 people, followed by American Indians (1,218.9/100,000) and Multi-Race (1,136.1/100,000) compared to Whites with a rate of 277.6 /100,000 people.
- 51.4 percent of hepatitis C cases are between the ages of 20 and 39, with almost 30 percent of those cases between the ages of 20 and 29.
- 1,056.1 per 100,000 people with latent tuberculosis were Black, followed by 1,000.1 Asian, 98.3 American Indian, as compared to 20.8 per 100,000 among White.
- 72.2 percent of HIV cases are male.
- 72.8 percent of syphilis cases are 39 and younger, with 36.4 percent of cases between the ages of 20 and 29.

Next Steps

The data provided in this report will serve as a platform to identify areas of need during the strategic planning process. This report identified many health disparities that exist in North Dakota. To address these health disparities, the North Dakota Department of Health will need to identify the following:

- What is currently being done to address each of the identified disparities

- What needs to be done to eliminate the identified health disparities
- Timelines to achieve a reduction in health disparities
- Monitoring and evaluation planning, including metrics
- Determine where policy decisions are needed, both internal and external; develop policy recommendations in partnership with the community, tribes and state agencies
- Identify resource needs and develop training and communications plans for the North Dakota Department of Health.

Introduction

The mission of the North Dakota Department of Health is to improve the length and quality of life for all North Dakotans.

To accomplish this mission, the North Dakota Department of Health is committed to improving the health status of the people of North Dakota, improving access to and delivery of quality health care, preserving and improving the quality of the environment, promoting a state of emergency readiness and response and achieving strategic outcomes within available resources.

Achieving this vision requires that all North Dakotans have equitable opportunities to be healthy. However, the public health system continues to be challenged by disparities in access to quality health care. Access to opportunities include promoting health and health status by income, education, race, ethnicity, geographic placement, sexual orientation, insurance status and persons living with disabilities. The North Dakota Department of Health is committed to improving the health of all North Dakotans by addressing disparities.

This report is intended to show the current health disparities North Dakota is facing and to serve as a guide to develop a health equity strategic plan. The report will provide a brief background of the demographic makeup of North Dakota, followed by the disparities that exist within the top 10 of both mortalities and infectious disease morbidities. Lastly, the report will describe next steps in preparing a health equity strategic plan. The North Dakota Department of Health acknowledges that these are not all the health disparities that exist in the state; therefore, this report will serve as a starting point with the acknowledgement that future renditions of this report may be needed to fully address health equity in North Dakota.

Background

North Dakota is a rural state located in the geographic center of the United States (U.S.). It encompasses significant landmass (70,698 square miles) and is the 19th largest state by geographic size. According to the U.S. Census Bureau 2017, North Dakota is the second least populated state in the nation (755,393 residents) with a population density of approximately 10 persons per square mile. Most North Dakota counties possess a population base below 5,000 residents, including 36 counties considered “frontier,” defined as having a population density of six or fewer residents per square mile. North Dakota’s health status is confronted by a variety of challenges including the unique geography and climate, socioeconomic factors and demographics of the state.

For decades, North Dakota experienced out-migration of its young adult population, leaving it an older population state with about three-fifths of its population in the eastern half of the state. North Dakota has experienced a dramatic population change over the last several years. According to the U.S. Census

Bureau, the state has grown by over 12 percent between 2010 and 2017. The rapid population changes in the state are the result of an influx of people coming to work in energy development and related industries in the western part of the state. This influx of people has caused North Dakota from being an older-than-average state to one of the youngest. The population growth in the state, especially among young adults, has strengthened the North Dakota workforce and revitalized the state's natural increase through more births. Age distribution data from 2016 estimates that approximately 7.3 percent of the North Dakota population is less than five years of age; 24 percent is under 18 years of age; and 14.2 percent of the population is elderly (65 years of age or older). This in-migration of young adults has also made the state more racially and ethnically diverse (U.S. Census Bureau, 2017).

Although racial and ethnic minorities continue to represent a relatively small proportion of the state's overall population, North Dakota is becoming more diverse. The White, non-Hispanic population comprised 88 percent of all residents statewide in 2016, which is down from 92 percent in 2000 (U.S. Census Bureau, 2017). From 2010 to 2013, the racial minority population (i.e., non-White) in North Dakota grew 23.8 percent, compared to 6.2 percent nationally. During that timeframe, the Black/African American population experienced the fastest growth (59% increase), followed closely by the Hispanic population (54% increase). However, American Indians (AI) are the largest minority population in North Dakota with 5.5 percent of the population (U.S. Census Bureau, 2017).

There are five-federally recognized Tribes and one Indian community located at least partially within North Dakota. The five tribes include the Mandan, Hidatsa and Arikara Nation (Three Affiliated Tribes), the Spirit Lake Nation, the Standing Rock Sioux Tribe, the Turtle Mountain Band of Chippewa Indians, the Sisseton-Wahpeton Oyate Nation and the Trenton Indian Service Area. The majority of AI living in North Dakota reside on a reservation. As of 2014, the median age of North Dakota's AI population was 26.9, a full eight years younger than North Dakota's overall median age (North Dakota Census Office, 2015). Unemployment and poverty continue to be an issue on the reservations in North Dakota. Disparities facing the AI population include higher rates of diabetes, cancer, addiction, heart disease and other public health issues, including unintentional injuries. The average age at death for AI is 54.7 years, compared to 75.7 years for the White population (North Dakota Compass, North Dakota Violent Death Reporting System (NDVDRS) CDC-RFA-CE18-1804).

The most current income statistics for North Dakota from the U.S. Census Bureau, are in 2016 inflation adjusted dollars and are from the American Community Survey 2016 five-year estimates. The median household income is \$59,114. Compared to the median U.S. family income, North Dakota is \$8,468 higher. There are only 4.9 percent of households in North Dakota considered high income households that make over \$200,000 a year.

According to the U.S. Department of Education, for the 2014-2015 school year, North Dakota achieved an 86.6 percent high school graduation rate. Low income children had a 71 percent graduation rate, followed by children with disabilities at 68 percent. American Indians have the greatest disparity in education, with a 65 percent graduation rate. According to the U.S. Census 2012-2016 data, 28.2 percent of North Dakotans have a bachelor's degree or higher.

Estimates from the 2017 U.S. Census Bureau indicate that 8.1 percent of North Dakotans under the age of 65 had no health insurance and 7.1 percent have a disability.

Data

To create awareness and achieve health equity, the North Dakota Department of Health will provide and share accurate, useful data on the leading causes of mortality and infectious disease morbidities. The leading causes of mortality are primarily due to chronic disease and injuries; therefore, the morbidities chosen for this report focus on infectious diseases. Data has been identified to show where the leading health disparities exist. The data will allow the North Dakota Department of Health to create and utilize a statewide health disparities plan to better focus time and energy on disparities and to maximize a greater return on services and resources.

Mortality (Death) Data

Mortality refers to the numbers of deaths in a population.

<i>2017 Top 10 Causes of Death</i>	<i>Case Count</i>
<i>Diseases of the Heart</i>	1,315
<i>All Cancers</i>	1,280
<i>Alzheimer's Disease</i>	415
<i>Chronic Lung Disease</i>	356
<i>Accidental Deaths</i>	330
<i>Strokes</i>	330
<i>Diabetes</i>	190
<i>Influenza/Pneumonia</i>	175
<i>Suicide</i>	148
<i>High Blood Pressure (Hypertension)</i>	117

Diseases of the Heart

Diseases of the heart are the number one cause of death in North Dakota. In 2017, 1,315 people died due to these conditions. According to the Centers for Disease Control and Prevention (CDC), diseases of the heart are the number one cause of death in the nation (2016). In North Dakota, health disparities exist within race and individuals that smoke.

Race

- 187.43 deaths per 100,000 people were White, 167.84 American Indian and 34.34 Black

Tobacco Use

- 45.1 percent of those individuals that died from diseases of the heart were identified in individuals that smoked, with an additional, seven percent probable

Figure 1: Heart Disease Deaths by Race (rate/100,000), ND 2017

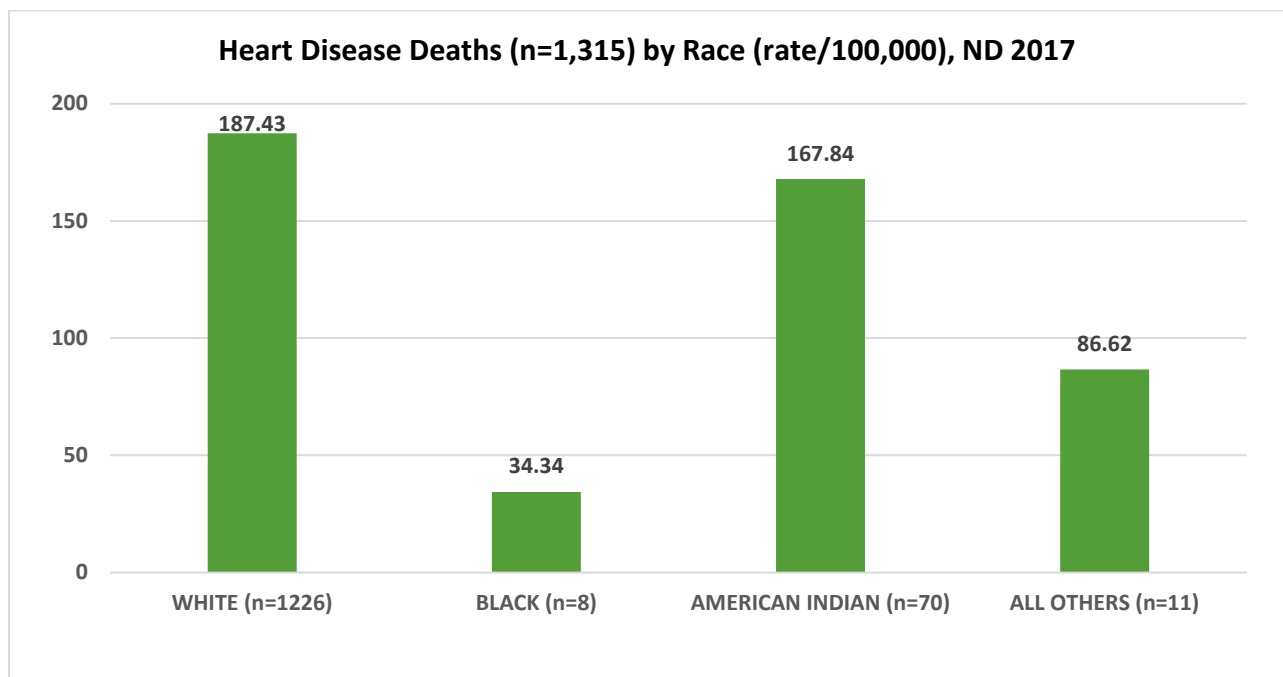
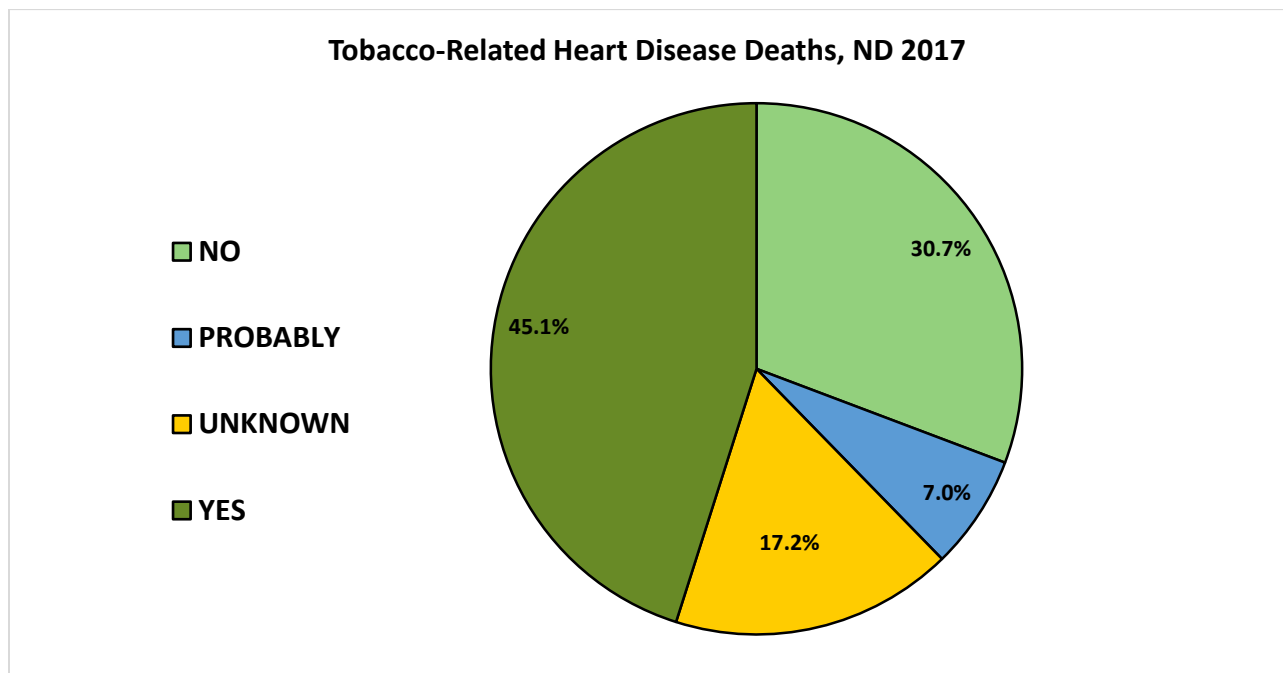


Figure 2: Tobacco-related heart disease deaths, ND 2017



Cancer

Cancer related deaths account for the second leading cause of death in North Dakota. In 2017, 1,280 individuals died from cancer. Nationally, cancer is the second leading cause of death (CDC, 2016). The top three cancers related to death in North Dakota are pancreatic, lung and breast. Race, age and smoking attribute to cancer deaths in North Dakota.

Figure 3: Deaths Due to Top Three Types of Cancers by Race (rate/100,000), ND 2017

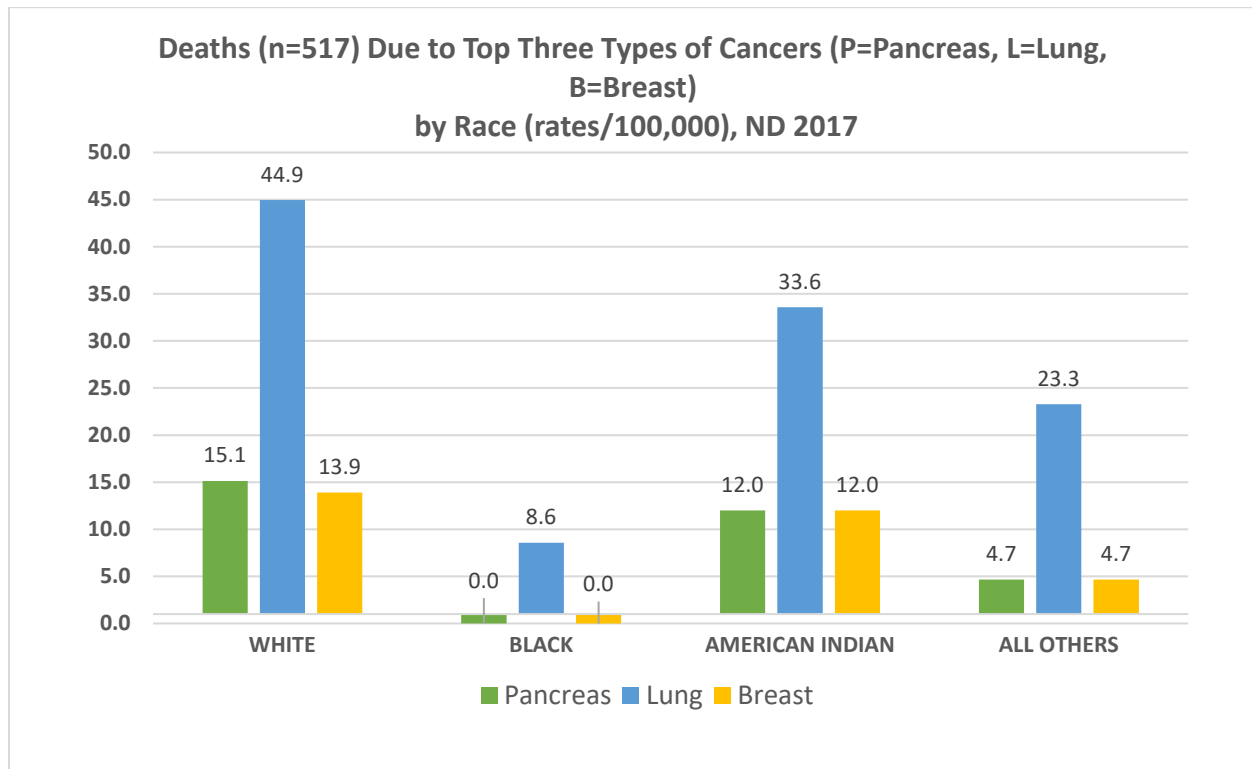


Figure 4: Tobacco-Related Leading Cancer Deaths, ND 2017

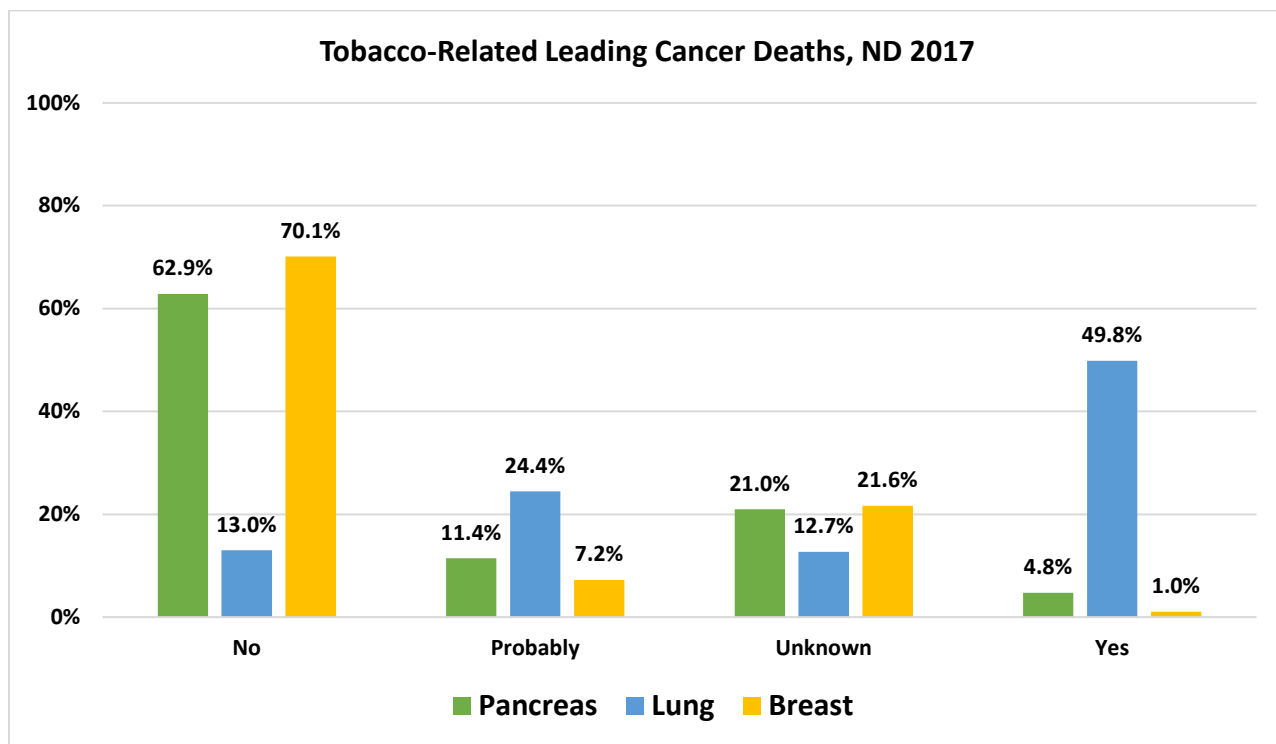
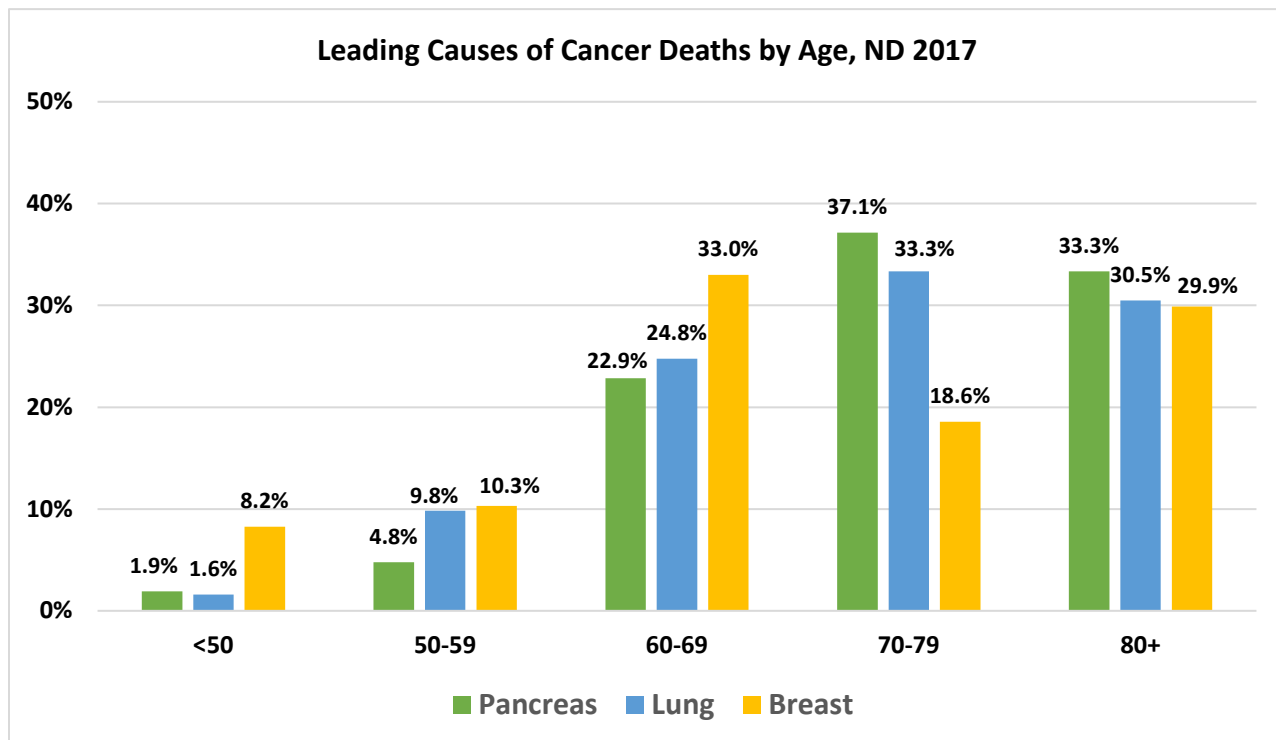


Figure 5: Leading Causes of Cancer Deaths by Age, ND 2017



Alzheimer's Disease

In 2017, there were 415 deaths related to Alzheimer's disease, the third leading cause of death in North Dakota. Of the cases, 90.6 percent were over the age of 80. The average age of death for someone with Alzheimer's disease is 78 (CDC, 2018). Nationally, Alzheimer's disease is the sixth leading cause of death (CDC, 2016). No disparities were identified.

Chronic Lung Disease

Chronic lung disease is the fourth leading cause of death in North Dakota. In 2017, there were 356 cases. According to the CDC in 2016, chronic lung disease was the fourth leading cause of death in the U.S. In North Dakota, disparities exist in race and individuals that smoke. No additional disparities were found, including comparing rural versus urban areas of North Dakota.

Race

- 51.83 individuals per 100,000 were White, 35.97 American Indians and 8.59 Black

Smoking

- 45.5 percent of chronic lung disease deaths were identified in individuals that smoked, with an additional, 22.5 percent probable

Figure 6: Chronic Lung Disease Deaths by Race (rate/100,000), ND 2017

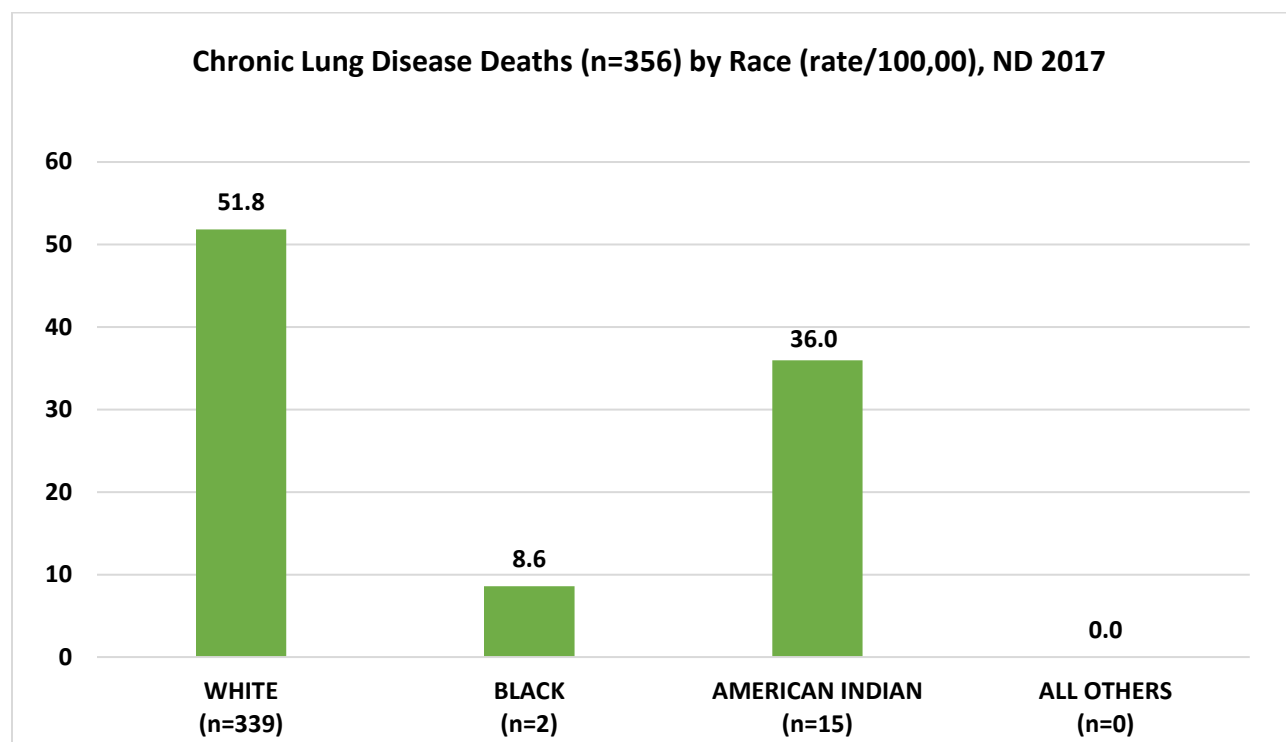
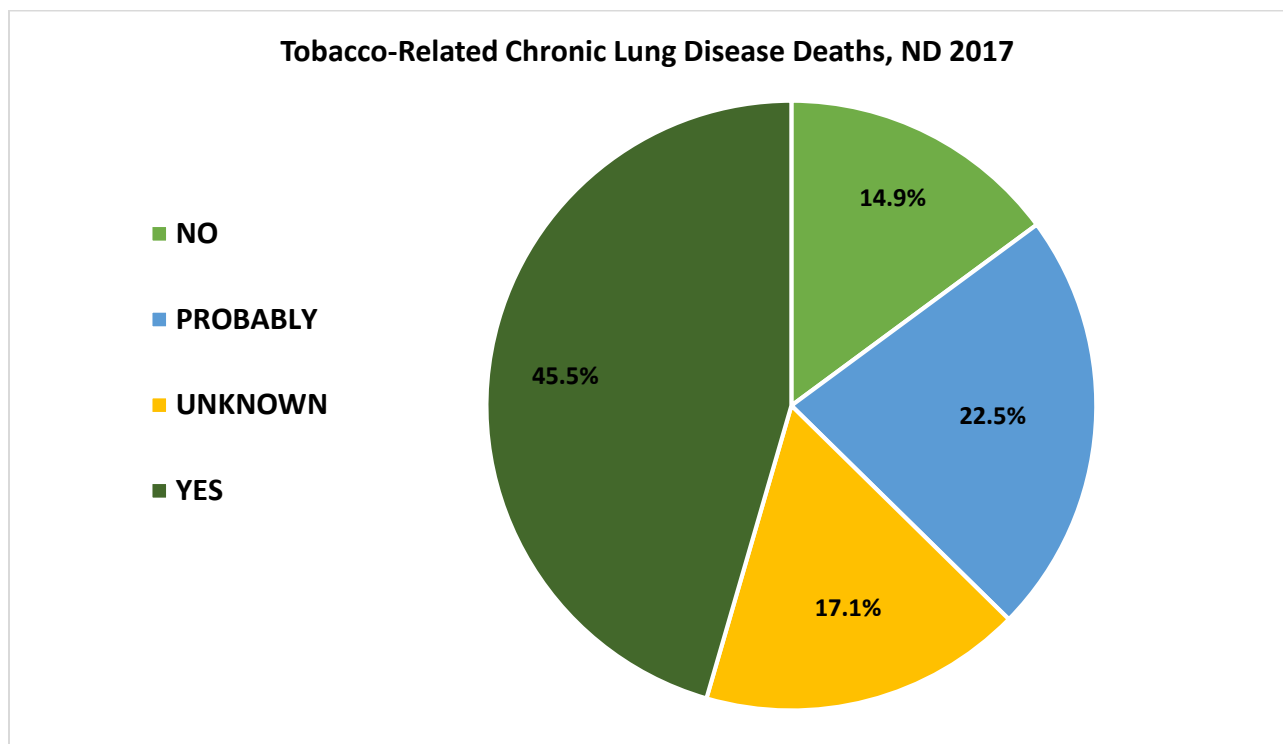


Figure 7: Tobacco-Related Chronic Lung Disease Deaths, ND 2017



Accidental Deaths

In 2017, there were 330 accidental deaths in North Dakota, tying with strokes for the fifth leading cause of death. Nationally, accidental deaths rank third among all deaths in 2016 (CDC, 2016). Disparities are present in males, American Indians and age. The accidental death charts (Figures 8-10) represent the total deaths for all accidents in North Dakota in 2017. The top three accidental deaths in 2017 were car accidents, falls and poisonings. No additional disparities were found when comparing rural versus urban areas of North Dakota.

Car Accidents (only motor vehicle deaths; cars, pickups and vans)

- 38.4 American Indians per 100,000 people compared to White at 10.5
- 46.2 percent between the ages of 20 and 39
- 76 percent male

Falls

- 82.6 percent over the age of 70
- 62.3 percent male

Poisonings

- 26.4 American Indians per 100,000 people compared to 12.9 Black and 7.6 White
- 65.2 percent between the ages of 20 and 39
- 68.1 percent male

Figure 8: Accidental Deaths by Race (rate/100,000) ND 2017

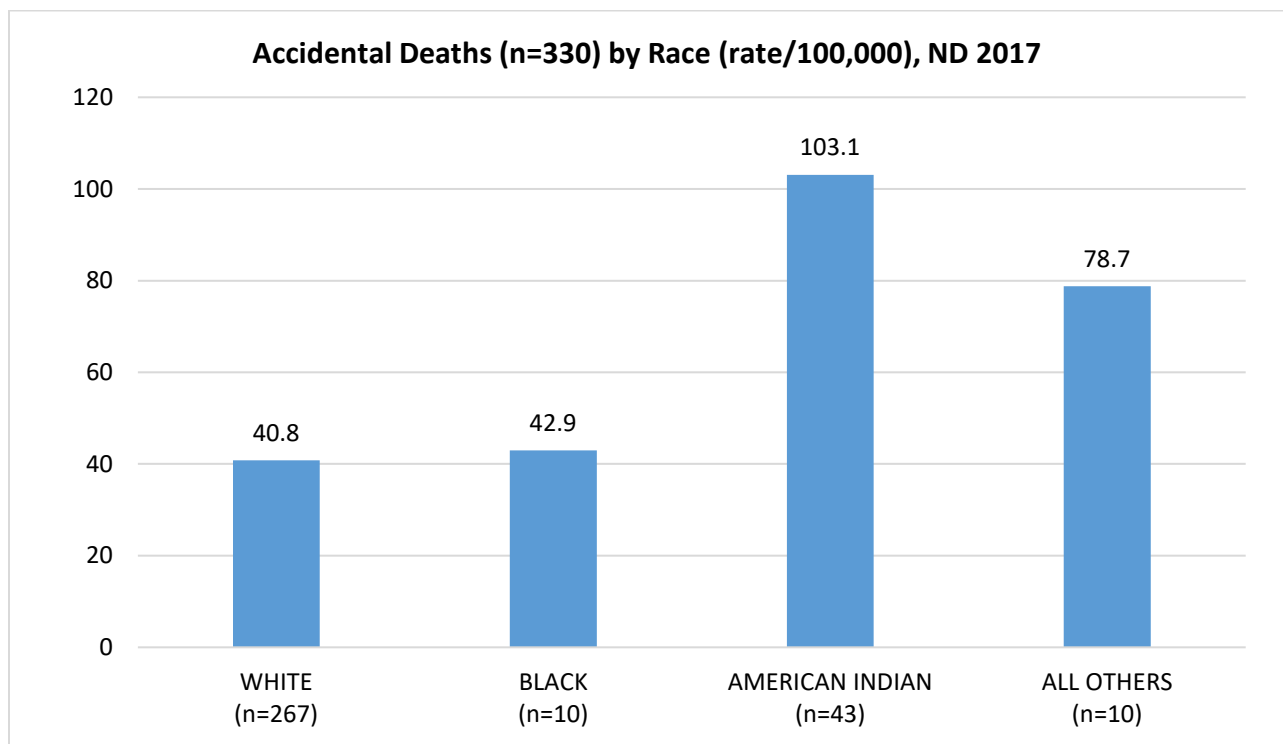


Figure 9: Accidental Deaths by Gender, ND 2017

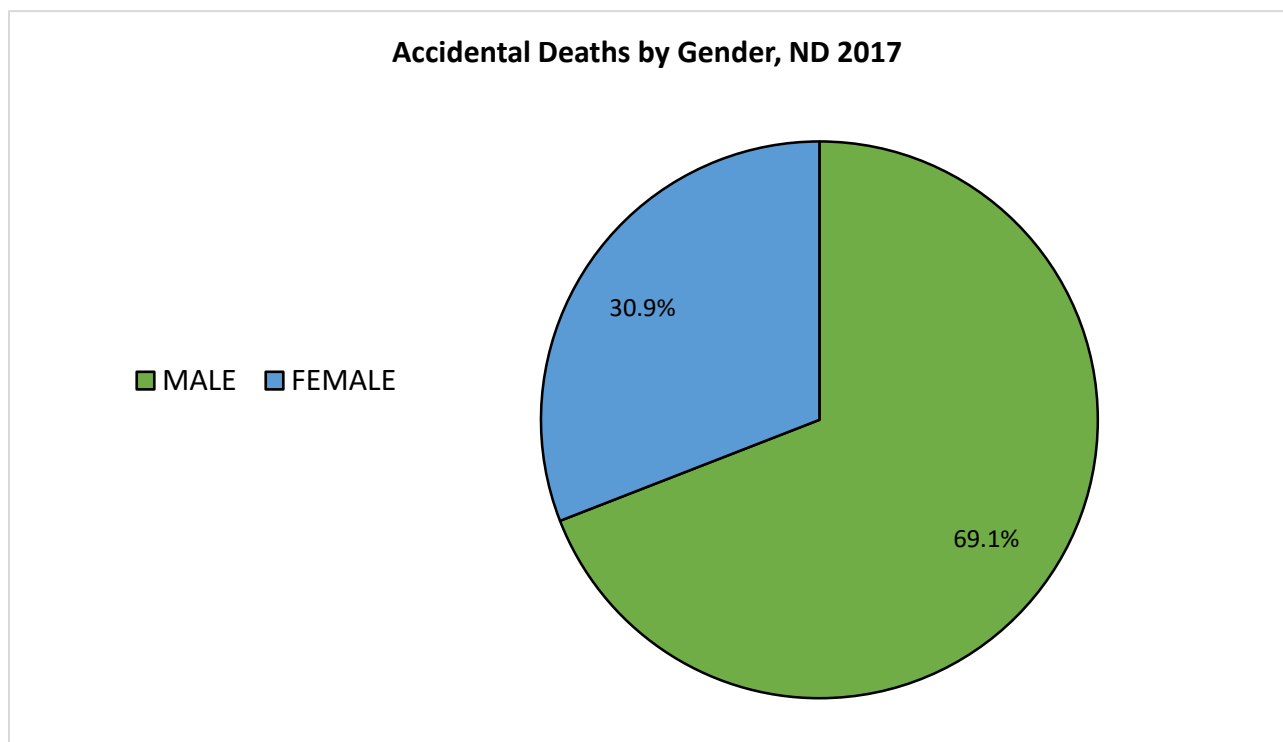
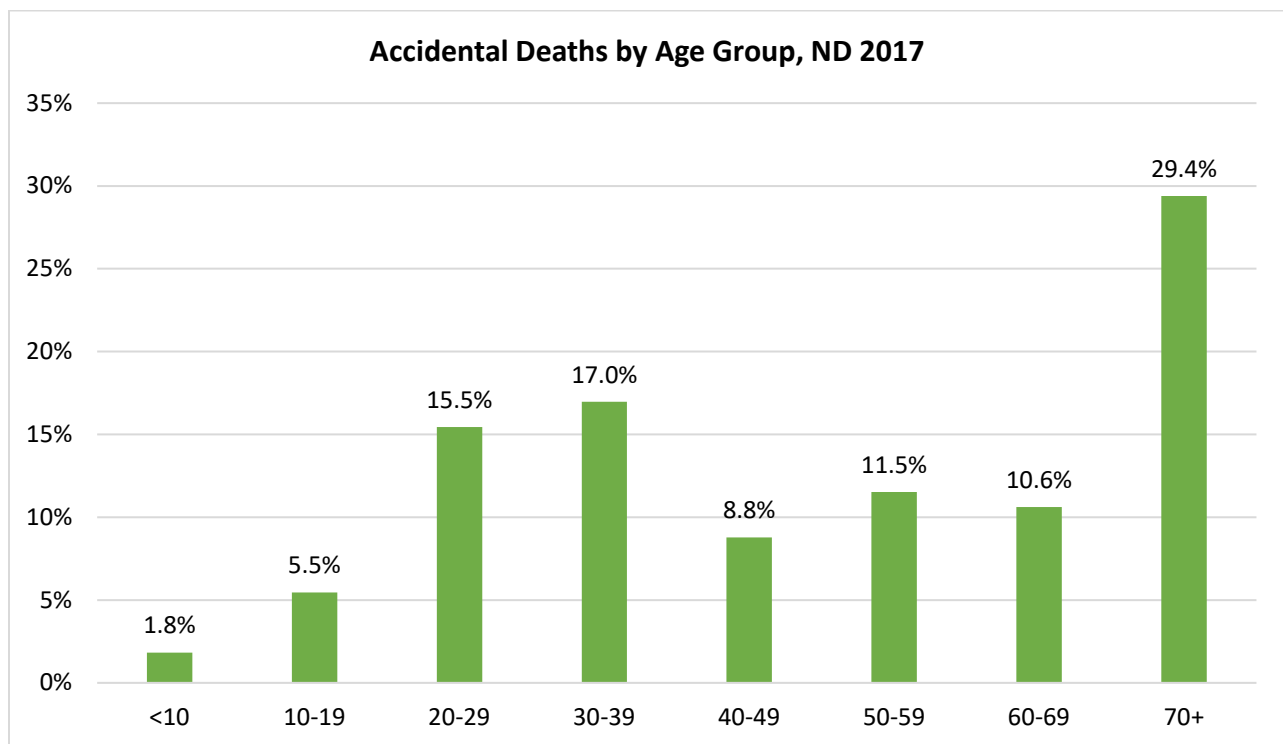


Figure 10: Accidental Deaths by Age Group, ND 2017



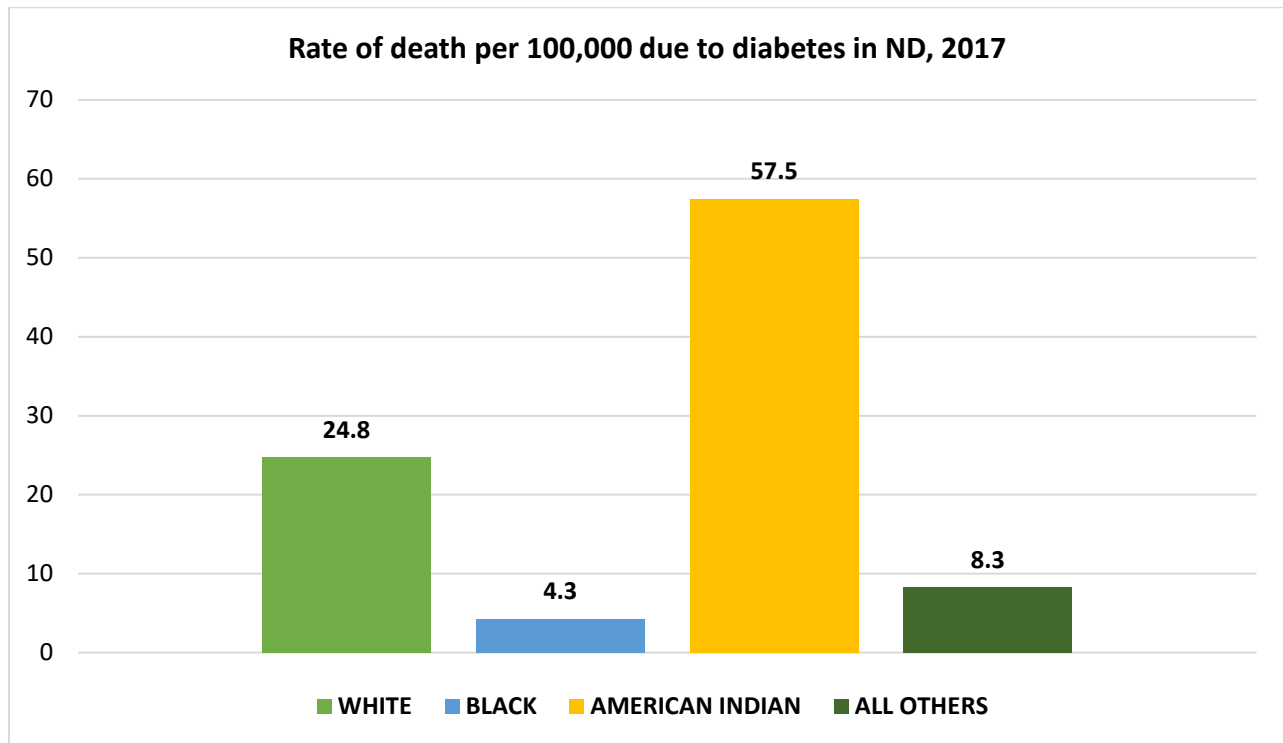
Strokes

In 2017, there were 330 deaths by stroke in North Dakota, tying with accidents for the fifth leading cause of death. According to the CDC in 2016, strokes were the fifth leading cause of death in the nation. The White population is hit hardest by stroke with 41.3 deaths per 100,000 people. There were no disparities found in the stroke data, including comparing rural versus urban areas of North Dakota.

Diabetes

Diabetes is the seventh leading cause of death in North Dakota. In 2017, there were 190 cases. Nationally, diabetes is also the seventh leading cause of death (CDC, 2016). The American Indian population is disproportionately affected by diabetes related deaths; 57.5 per 100,000 individuals compared to Whites at 24.8.

Figure 11: Diabetes Deaths by Race (rate/100,000), ND 2017



Influenza/Pneumonia

In 2017, influenza/pneumonia was the eighth leading cause of death in North Dakota, as it is nationally (CDC, 2016). North Dakota saw 176 influenza/pneumonia related deaths in 2017. Race and age disparities are present within influenza/pneumonia related deaths.

Figure 12: Influenza/Pneumonia Deaths by Race (rate/100,000), ND 2017

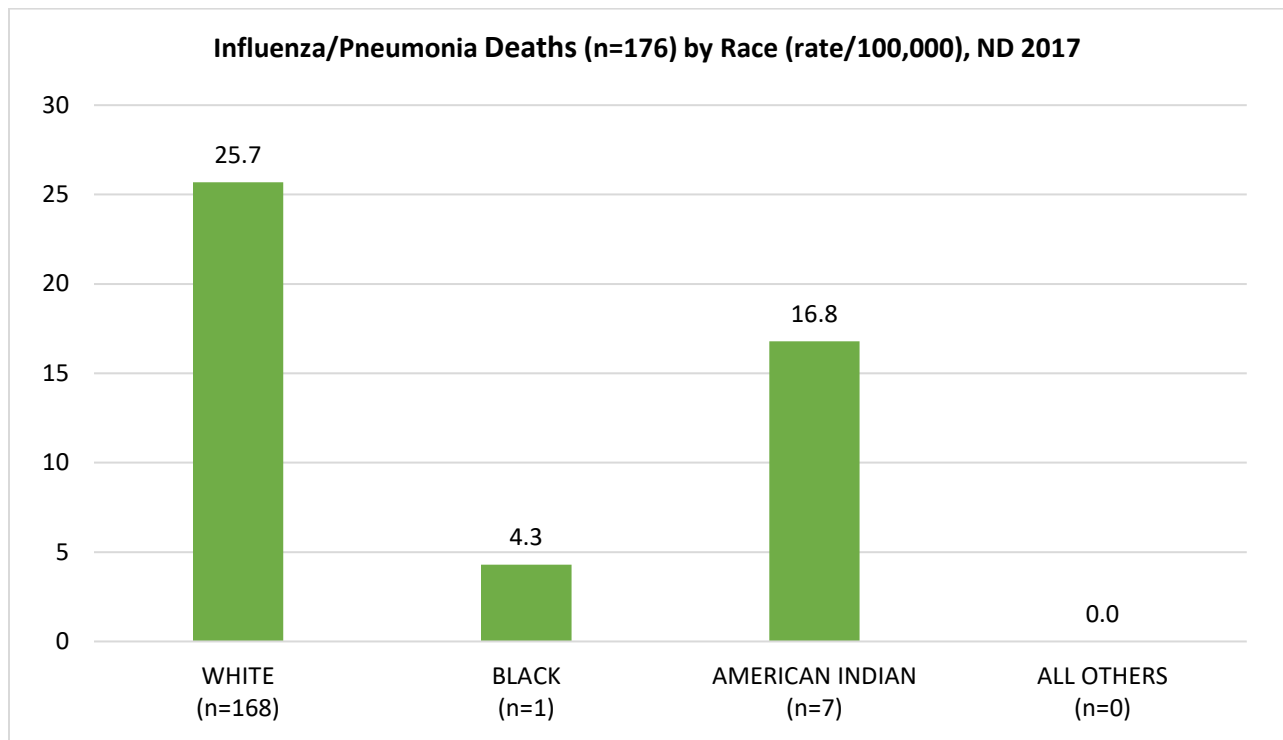
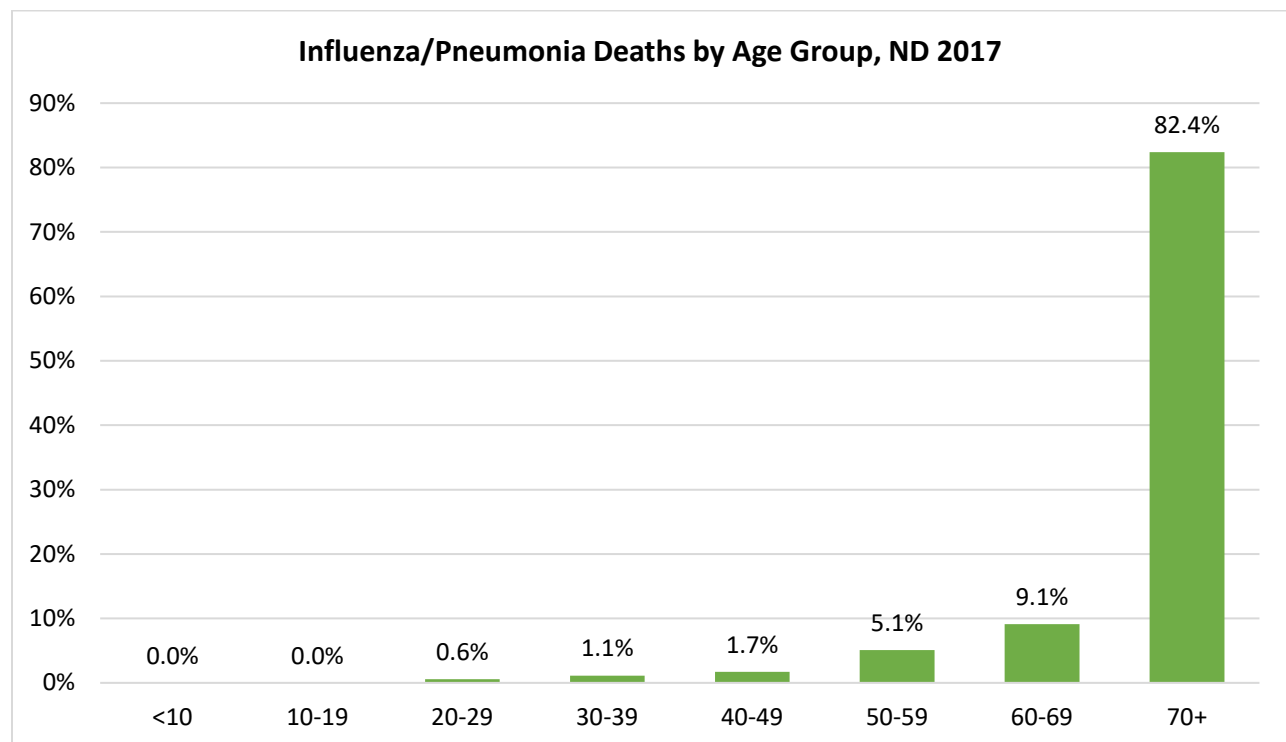


Figure 13: Influenza/Pneumonia by Age Group, ND 2017



Suicide

Suicide is the ninth leading cause of death in North Dakota, in 2017, with 148 cases. Nationally, suicide was the tenth leading cause of death in 2016 (CDC). Disparities exist within gender, age and race.

- Gender
 - 80.4 percent of suicides are in the male gender, by firearms and hangings
- Age
 - 56.1 percent of deaths by suicide are in individuals under the age of 40, with 47.3 percent occurring between the ages of 20 and 40
- Race
 - 40.8 per 100,000 people were American Indians, followed by White at 18.6
- Location
 - Suicide is not strictly an urban problem, it hits counties across North Dakota

Figure 14: Suicide Deaths by Gender, ND 2017

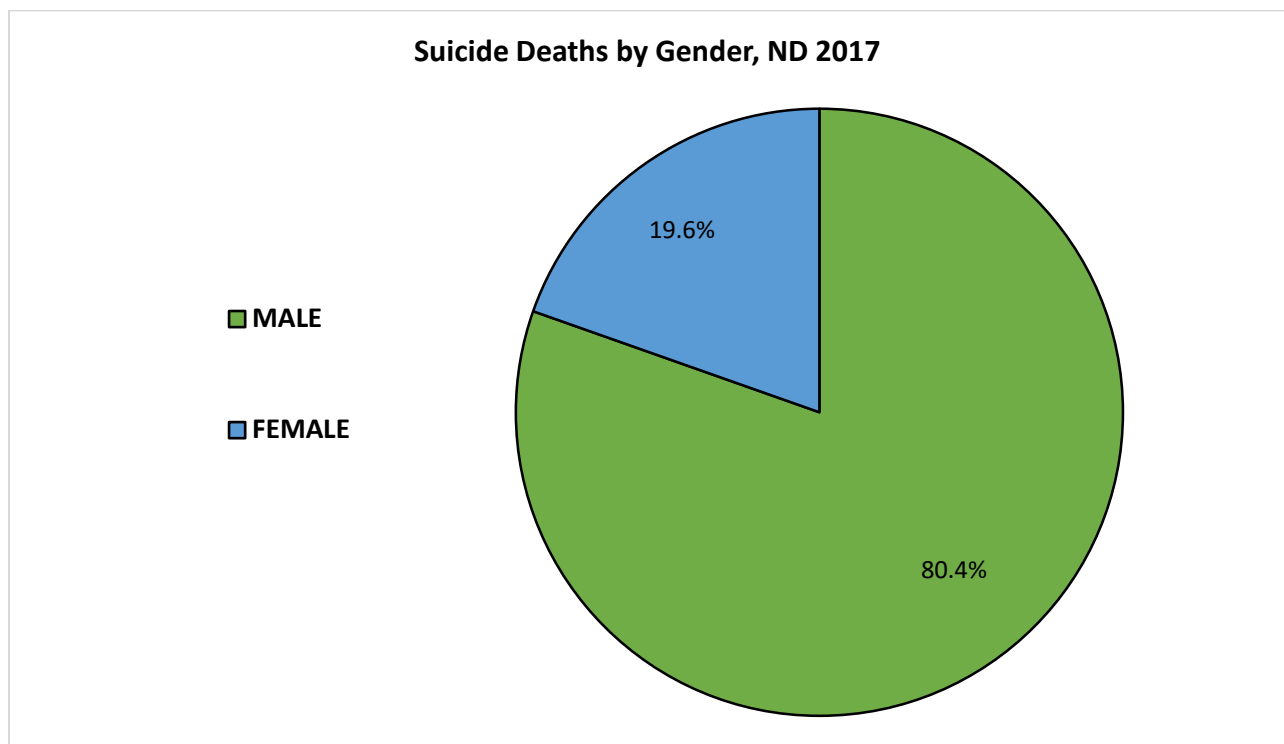


Figure 15: Suicide Deaths by Age Group, ND 2017

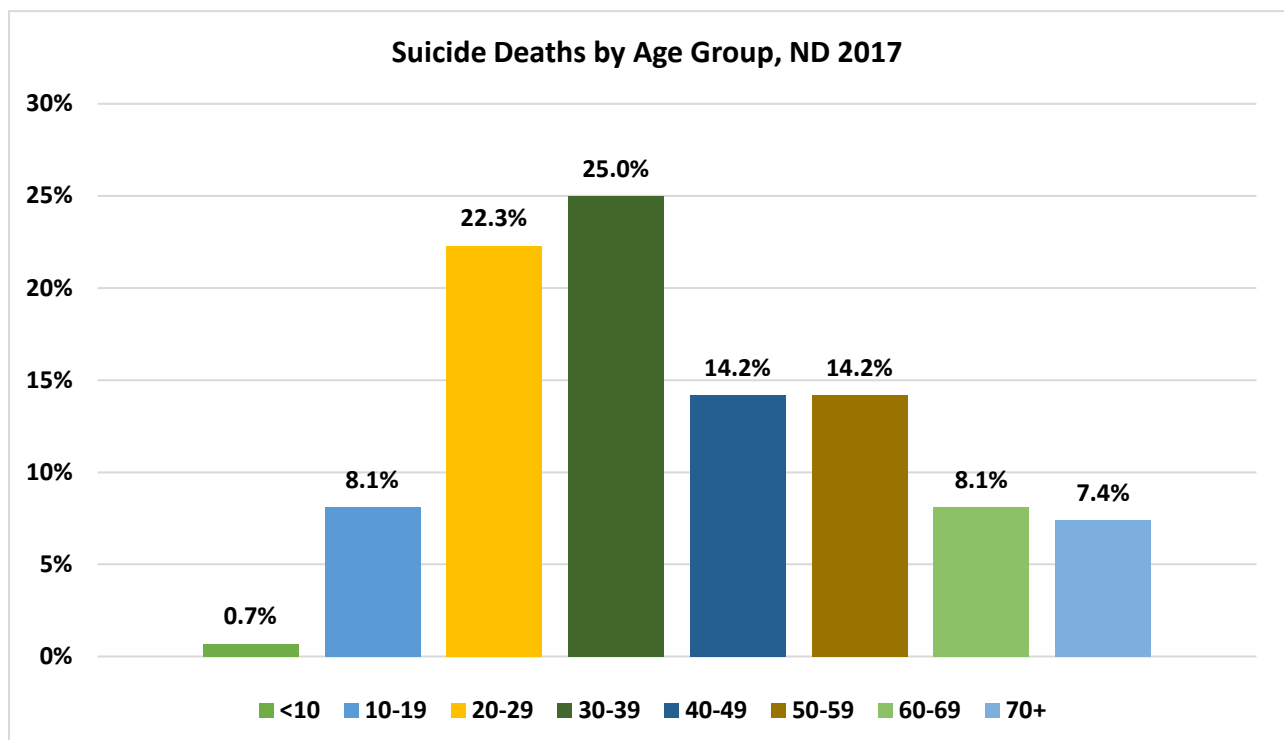


Figure 16: Suicide Deaths by Race (rate/100,000), ND 2017

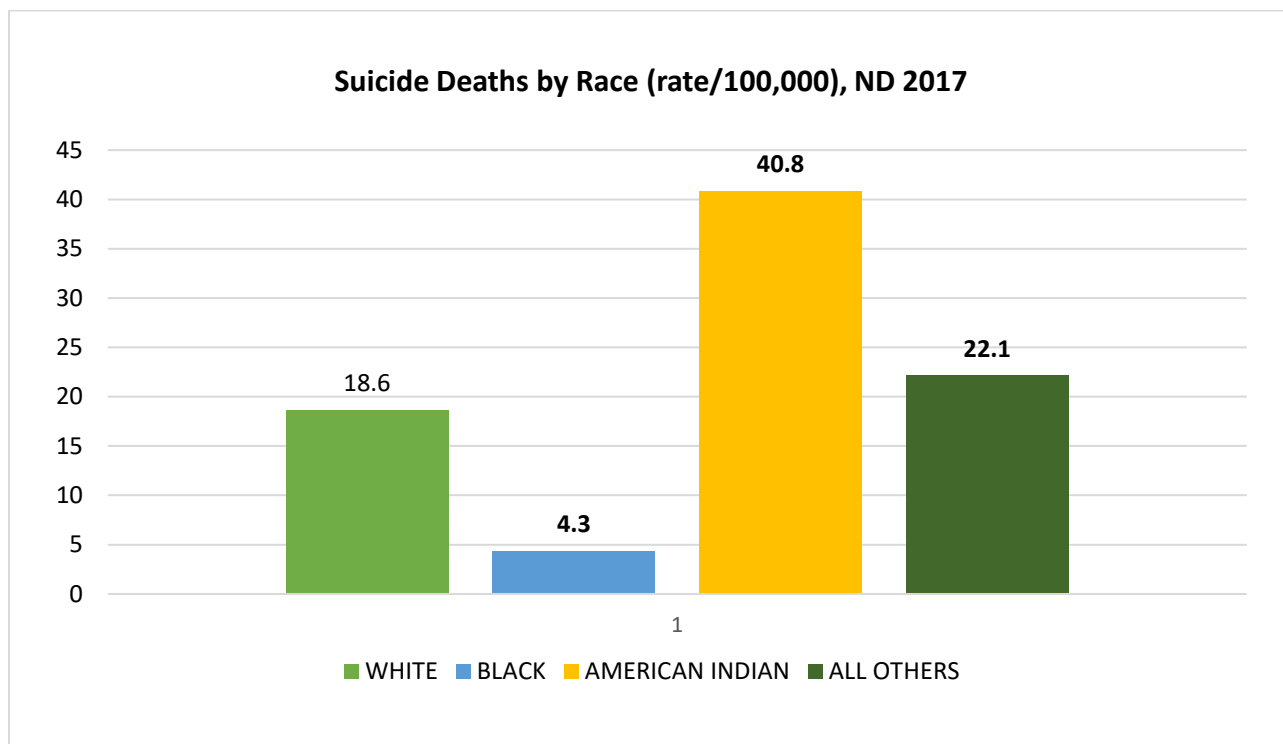


Figure 17: Suicide by Means, ND 2017

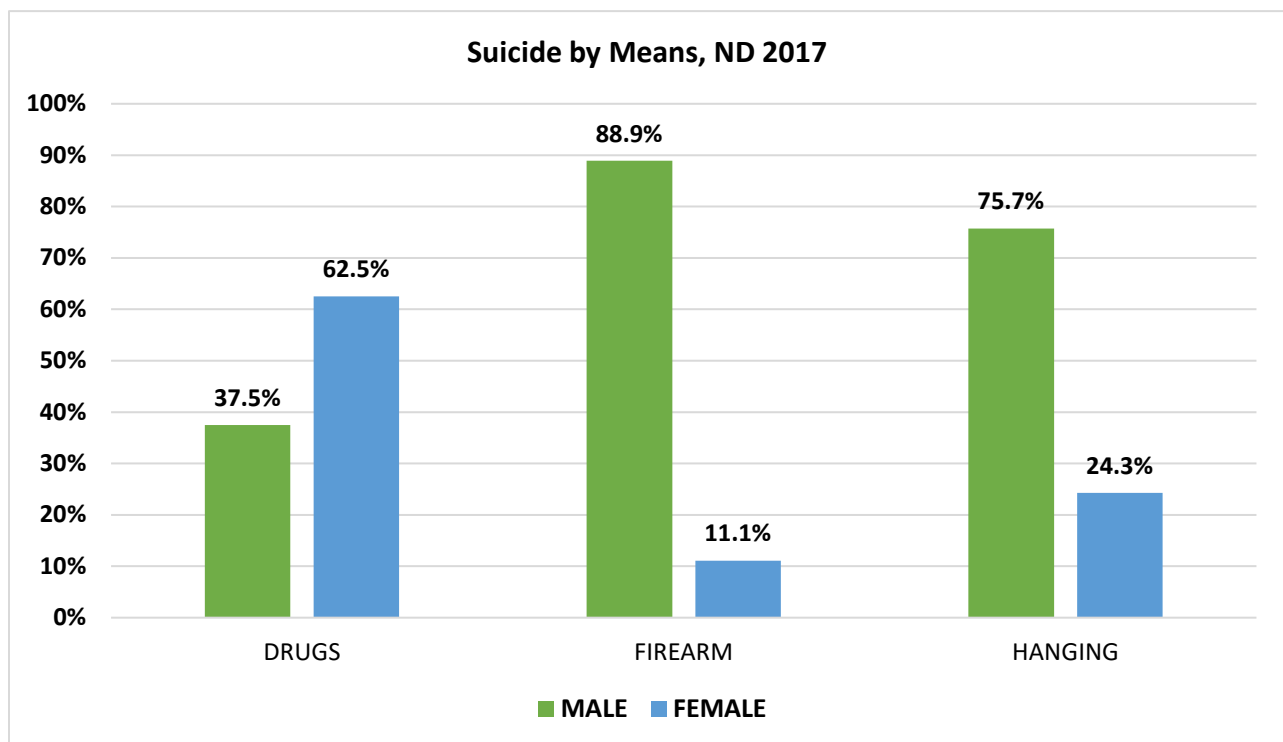
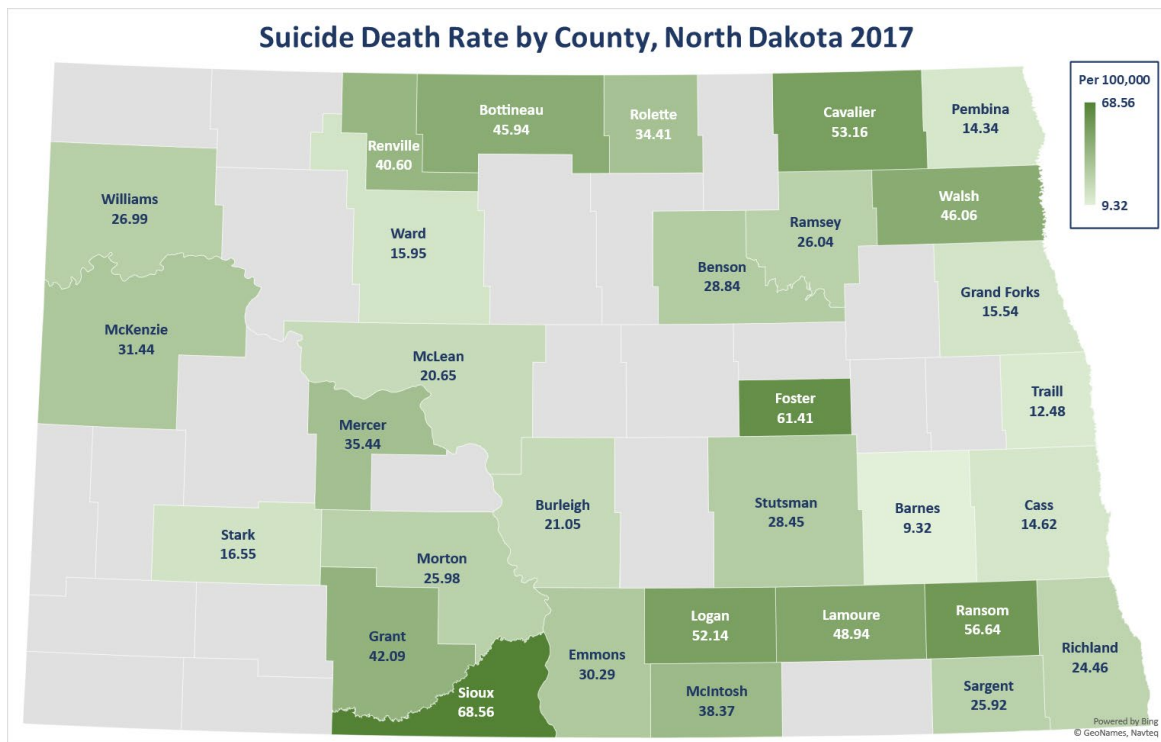


Figure 18: Map of Suicide Death Rate by County, ND 2017



Hypertension

Hypertension was the tenth leading cause of death in North Dakota in 2017, with 117 cases. Nationally, hypertension was not noted in the top ten leading causes of death (CDC, 2016). The White population is hit hardest by hypertension at 17.4 per 100,000 people. There were no disparities found in the hypertension data, including comparing rural versus urban areas of North Dakota.

Risk Data

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual statewide telephone surveillance system created by the CDC. Surveillance is conducted monthly to collect data on modifiable risk behaviors, preventative health practices and health-related conditions contributing to the leading causes of morbidity and mortality in the population. North Dakota's sample represents randomly selected residents of the non-institutionalized adult household population ages 18 years and older. As the only source for comprehensive state-specific population-based estimates of prevalence on preventative health practices and risk behaviors, BRFSS is an important tool for decision-making throughout the health community. Public and private health authorities at the federal, state and local levels rely on BRFSS to identify public health problems, design policies and interventions, set goals and measure progress toward those goals.

The following table represents data from the BRFSS, the risk variables chosen may contribute to the top 10 causes of mortality in North Dakota. More information on the BRFSS can be found at: <http://ndhealth.gov/brfss>.

<i>Risk or Protective Factor</i>	<i>Percent of North Dakotans</i>
<i>High Blood Pressure</i>	29.6%
<i>Heart Attack</i>	4.3%
<i>Cancer (other than skin)</i>	6.6%
<i>Skin Cancer</i>	4.6%
<i>COPD, Emphysema or Chronic Bronchitis</i>	5%
<i>*Smoking (Daily)</i>	30.8%
<i>Always wear a seat belt</i>	73.1%
<i>Stroke</i>	2.6%
<i>Diabetes</i>	9%
<i>Received a flu vaccine</i>	41.2%
<i>Received the pneumonia/pneumococcal vaccine</i>	38.1%
<i>Insured</i>	91.4%
<i>Needed to see a doctor but didn't due to cost</i>	8%
<i>Visited a doctor in the last 12 months</i>	61.4%
<i>Had physical activity in the past month</i>	72.4%

*Daily smoking: North Dakotan adults who smoked 100 cigarettes in lifetime and now smoke every day.

Infectious Disease Morbidity Data

Morbidity looks at the number of cases of a disease across a population and/or geographic location.

<i>2017 Top 10 Infectious Diseases</i>	<i>Case Count</i>
<i>Chlamydia</i>	3,280
<i>Hepatitis C</i>	1,120
<i>Gonorrhea</i>	967
<i>Latent Tuberculosis Infections (LTBI)</i>	725
<i>Campylobacter</i>	227
<i>Hepatitis B</i>	98
<i>Salmonellosis</i>	96
<i>Tickborne Diseases</i>	92
<i>Human Immunodeficiency Virus (HIV) (Incidence and Prevalence)</i>	90
<i>Syphilis</i>	78

Chlamydia

Chlamydia is the leading infectious disease morbidity in North Dakota. In 2017, there were 3,280 cases. In 2017, a total of 1,708,569 chlamydial infections were reported to CDC, making chlamydia the number one sexually transmitted disease in the United States (CDC, 2018). Disparities exist within gender, age and race.

- Gender
 - 64.8 percent of chlamydia cases were in women
- Age
 - 96.8 percent of chlamydia cases were in individuals 39 and younger, 59.8 percent were between the ages of 20 and 29
- Race
 - 1,355.3 per 100,000 people were Black, 1,218.9 American Indian and 1,136.1 Multi-Race* compared to 277.6 per 100,000 people White *Glossary definition

Figure 19: Chlamydia Cases by Gender, ND 2017

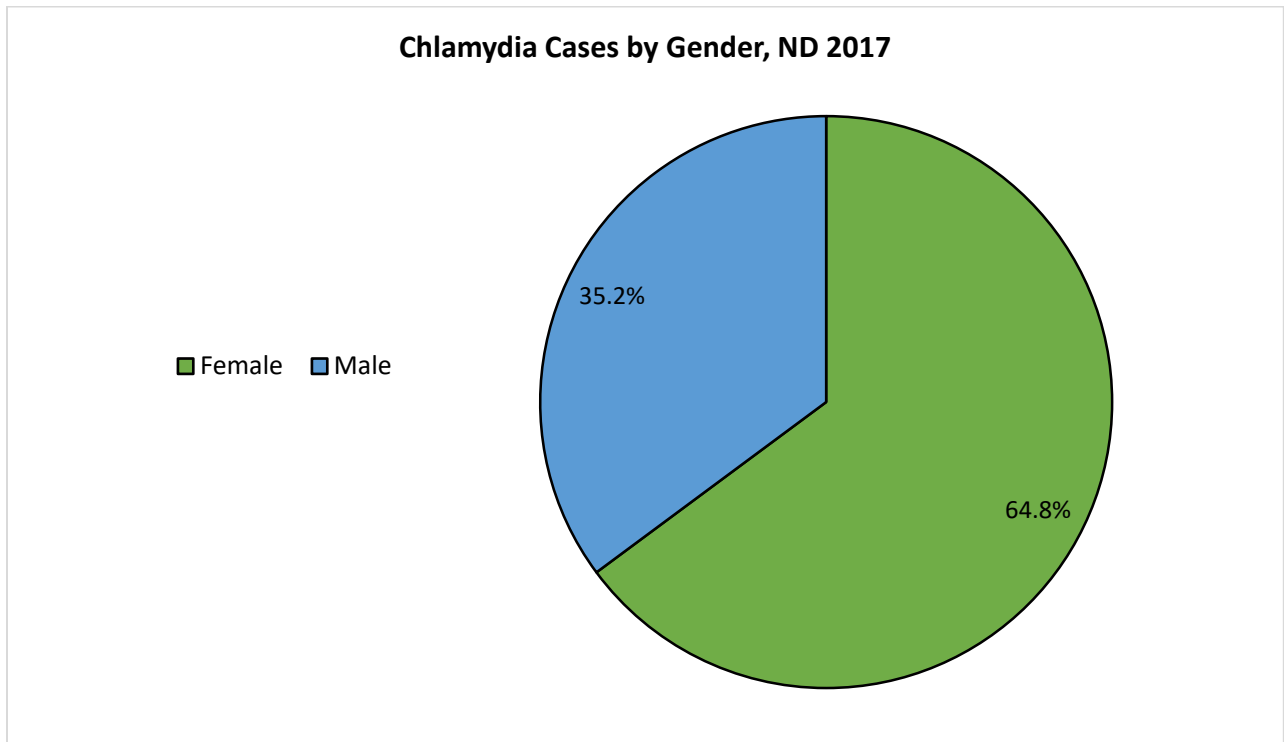


Figure 20: Chlamydia by Age Group, ND 2017

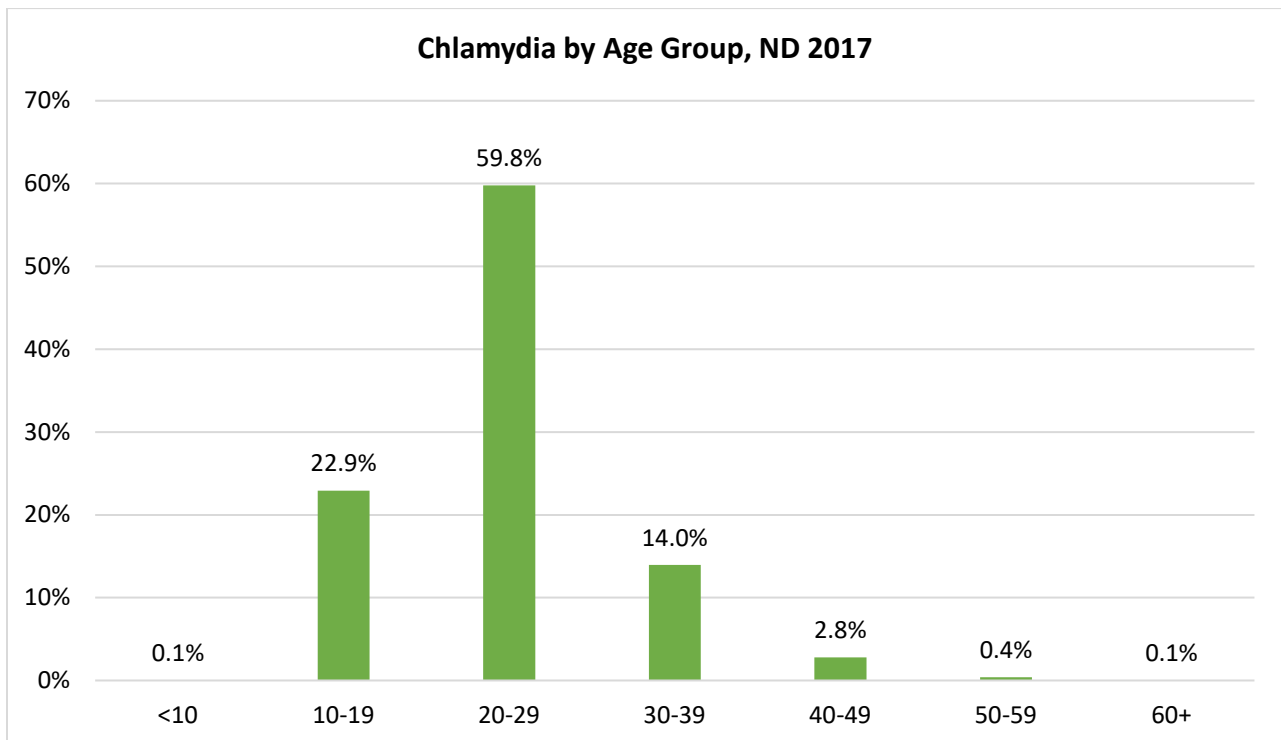
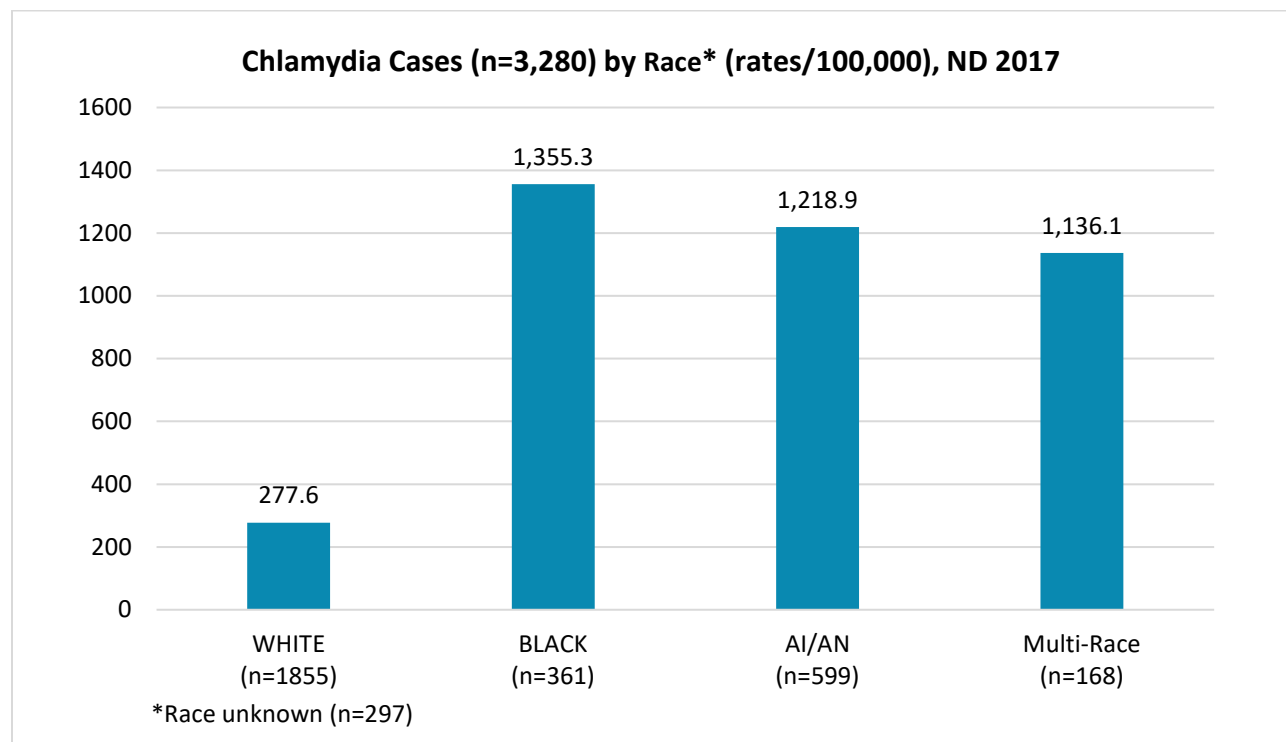


Figure 21: Chlamydia Cases by Race (rates/100,000), ND 2017



Hepatitis C

Hepatitis C is the second infectious disease morbidity in North Dakota. In 2017, there were 1,120 cases reported. There were an estimated 41,200 reported hepatitis C cases in the United States in 2016, CDC. Disparities are present in age and race.

- Age
 - 51.4 percent of cases are between the ages of 20 and 39, almost 30 percent of the cases are between the ages of 20 and 29
- Race
 - 637.8 per 100,000 people were American Indian and 163.1 Black, compared to 81 per 100,000 people White and 23.6 Asian

Figure 22: Hepatitis C by Age Group, ND 2017

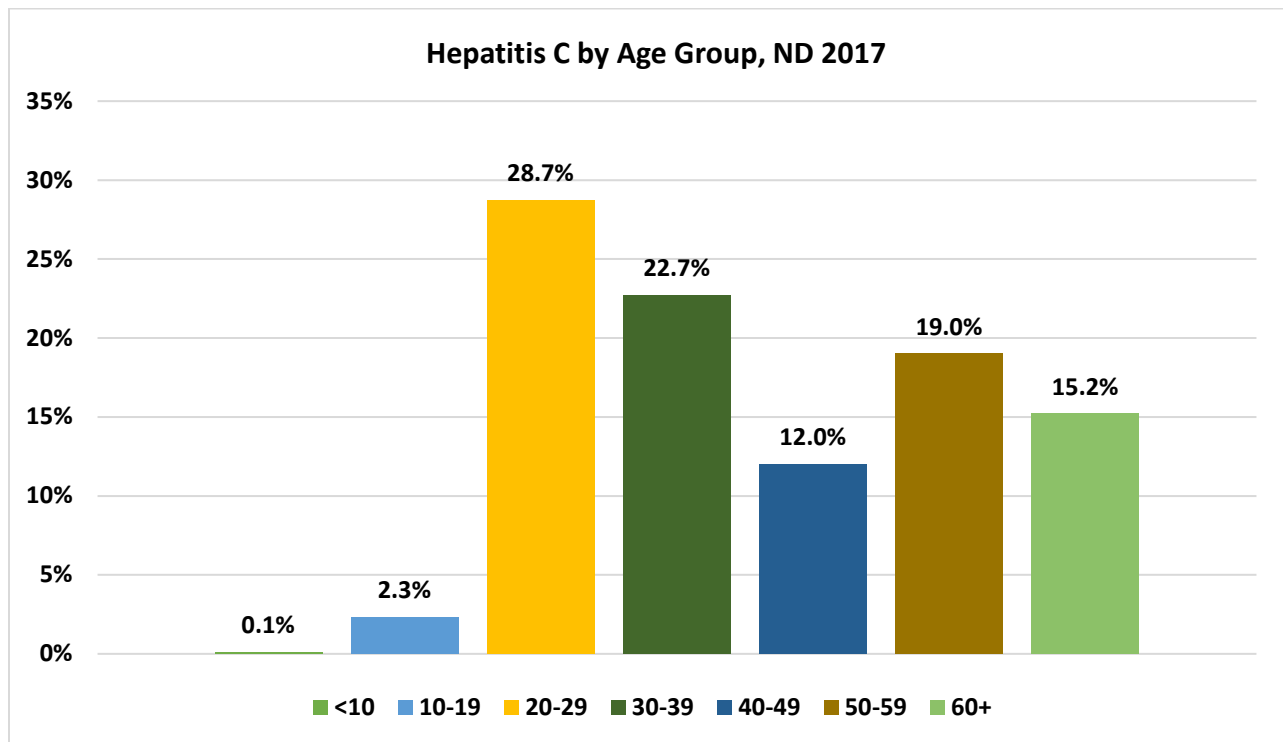
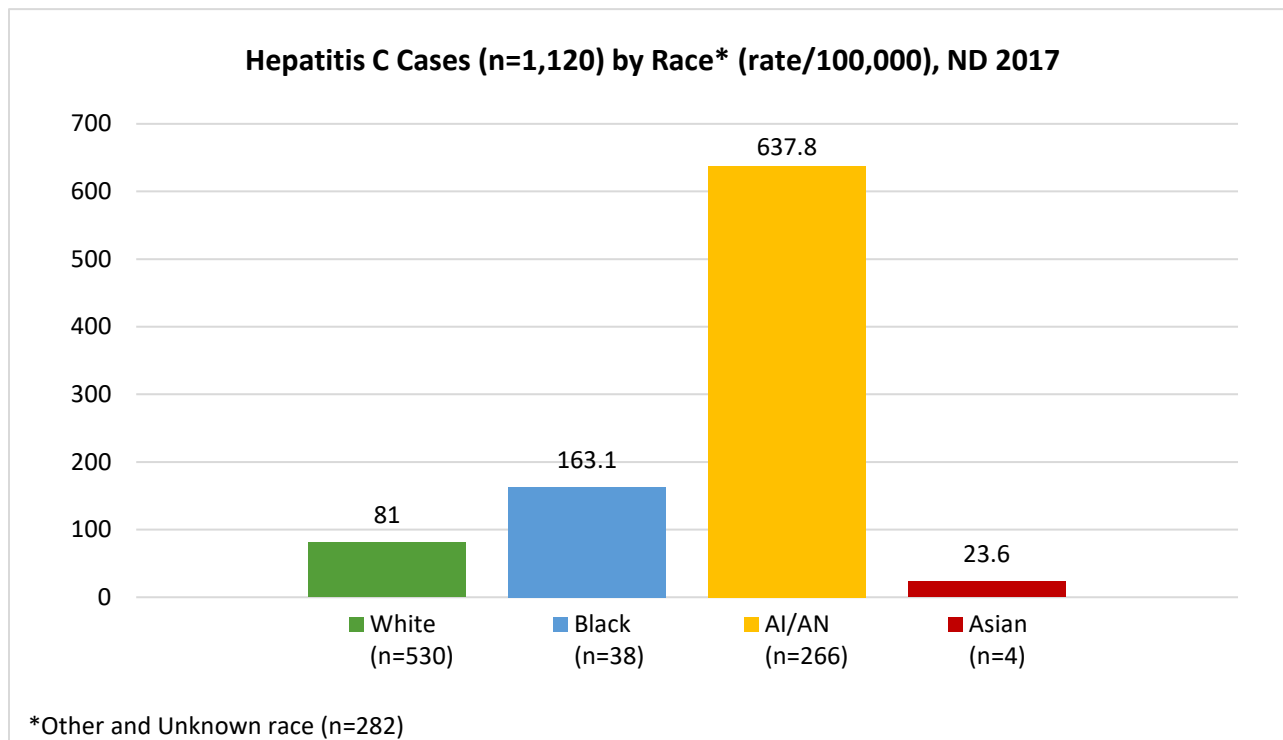


Figure 23: Hepatitis C by Race (rate/100,000), ND 2017



Gonorrhea

In 2017, there were 967 cases of Gonorrhea in North Dakota, the third highest infectious disease morbidity. Gonorrhea is the second most common STD in the United States. In 2017, there were 555,608 cases reported nationally (CDC, 2018). Age and race disparities are present with gonorrhea.

- Age
 - 92.3 percent of cases were 39 and younger, over 50 percent of the cases are between the ages of 20 and 29
- Race
 - 776.9 per 100,000 people were American Indian, 566.7 Black, 466.6 Multi-Race* compared to 62.1 per 100,000 people White

Figure 24: Gonorrhea by Age Group, ND 2017

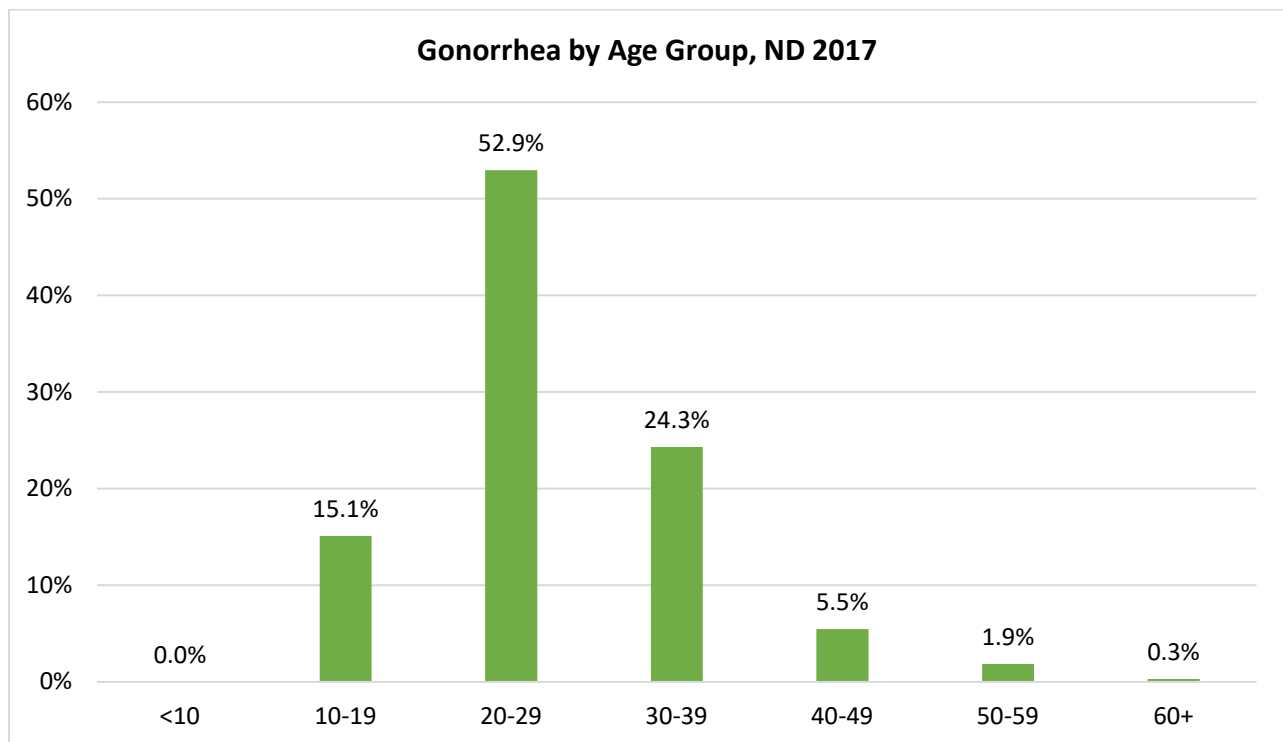
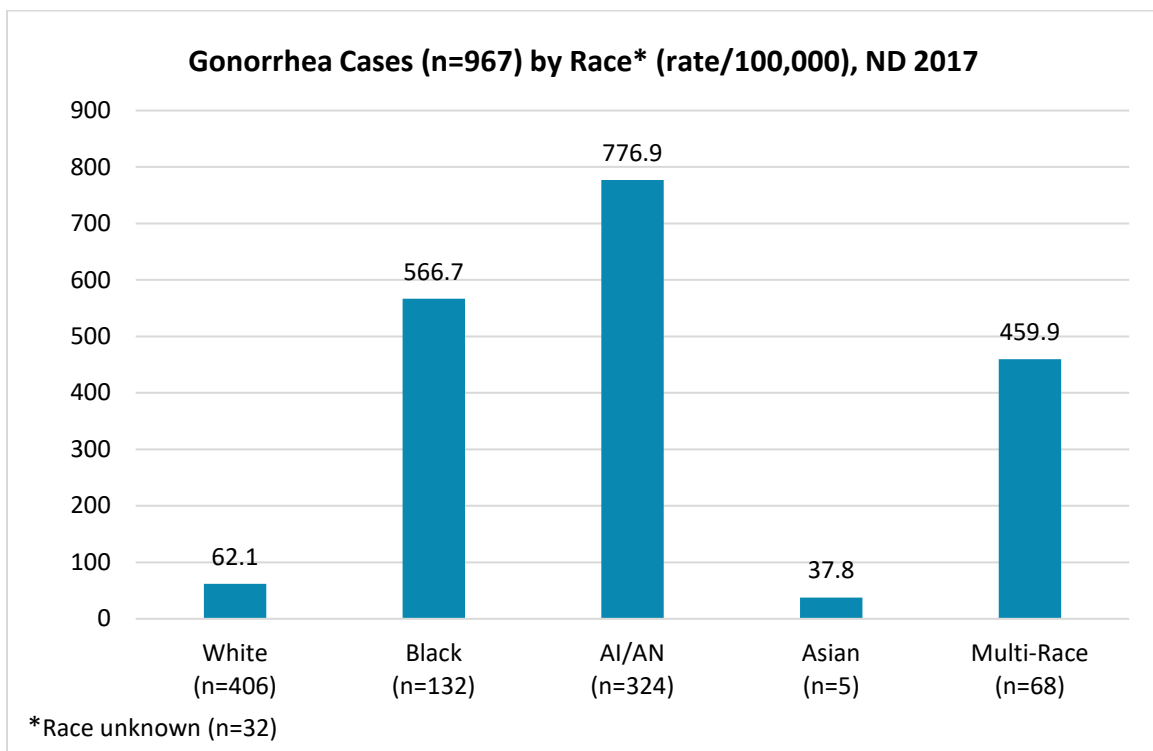


Figure 25: Gonorrhea by Race (rate/100,000), ND 2017



Tuberculosis

Tuberculosis (TB) is the fourth highest infectious disease morbidity in North Dakota. In 2017, there were 739 latent and active cases of TB. Nationally in 2017, a total of 9,105 active TB cases were reported to CDC (2018). In North Dakota, 14 active and 725 latent cases were reported. Not all states have latent TB reportable, which makes a comparison nationally unreliable. Disparities exist within latent TB in age and race.

- Age
 - 56.1 percent of all cases are between the ages of 20 and 39
- Race
 - 1,056.1 per 100,000 people were Black, 1,000.1 Asian, 98.3 American Indian compared to 20.8 per 100,000 people White

Figure 26: Latent Tuberculosis Infection (LTBI) by Age Group, ND 2017

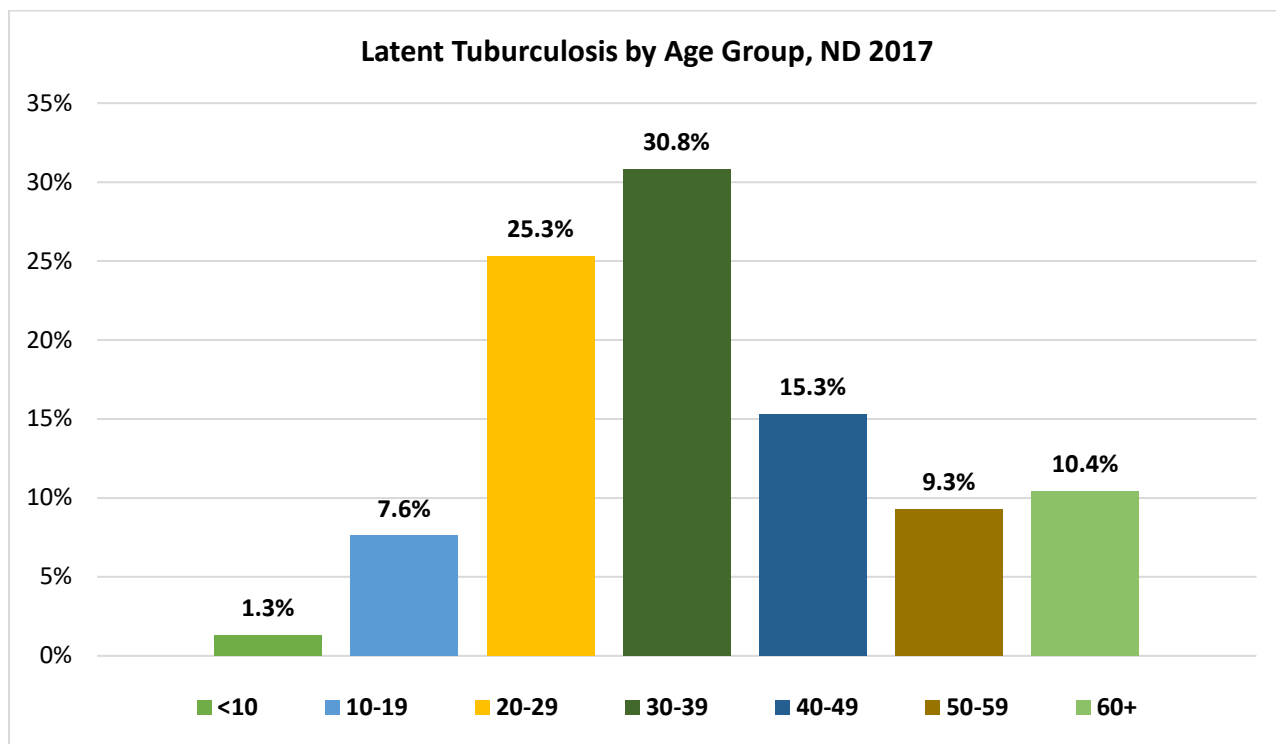


Figure 27: Percent of Active TB Cases by Age Group, ND 2017

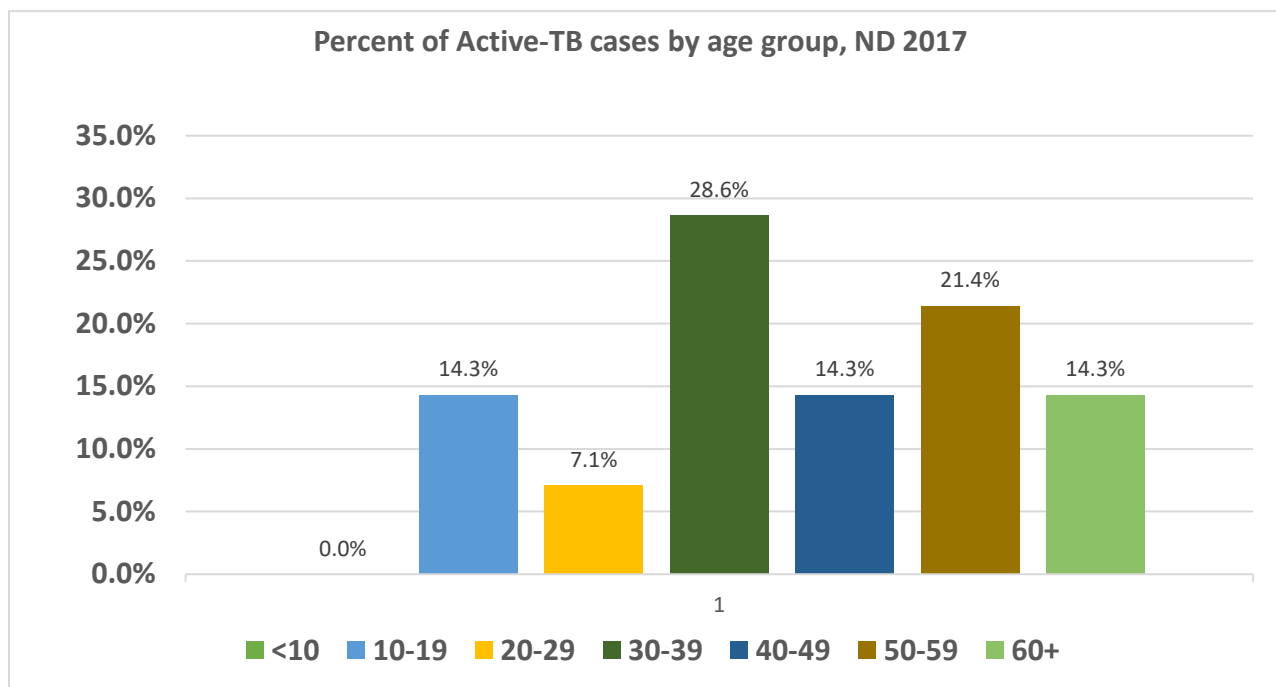


Figure 28: Latent Tuberculosis (LTBI) by Race (rate/100,000), ND 2017

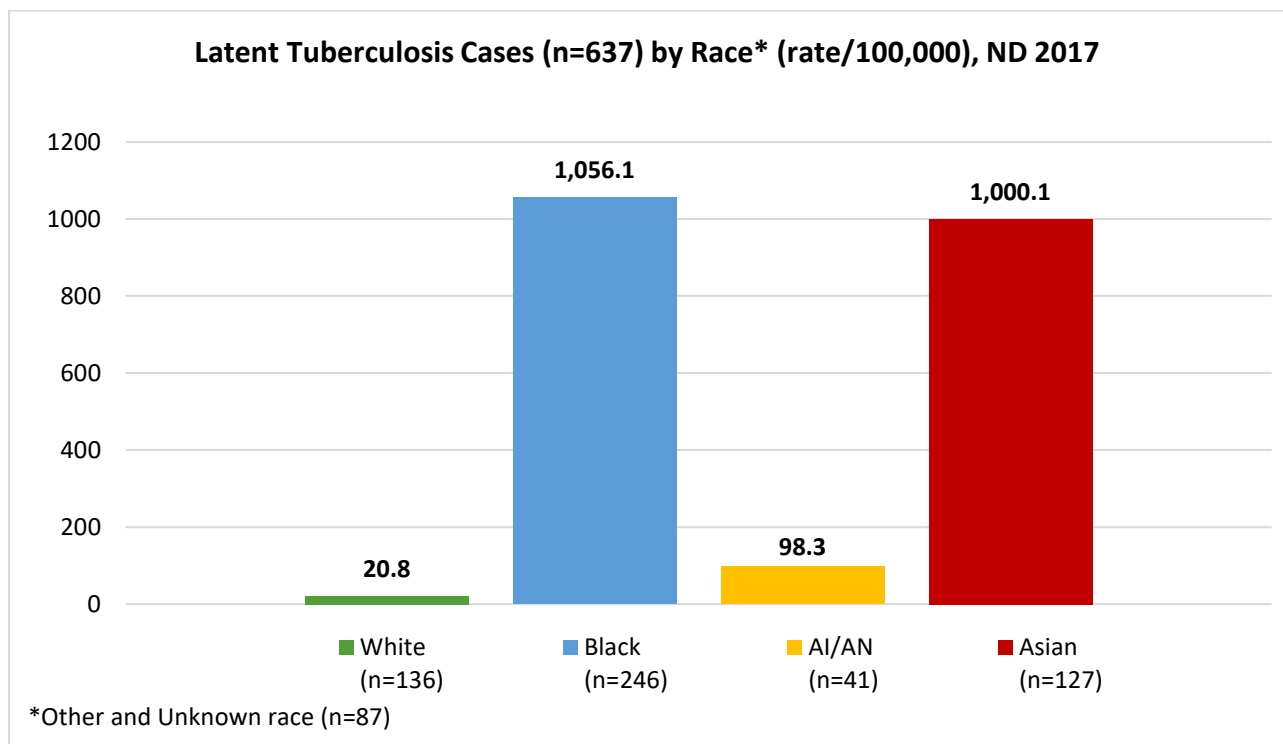
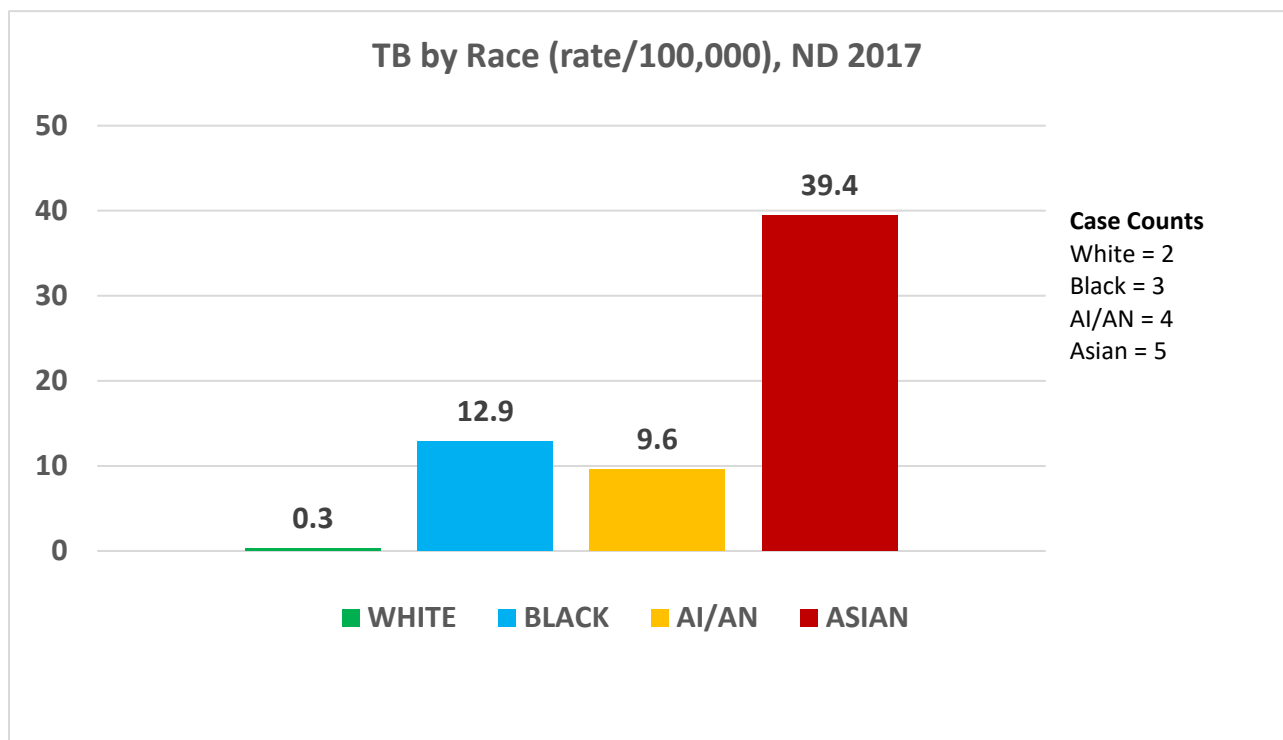


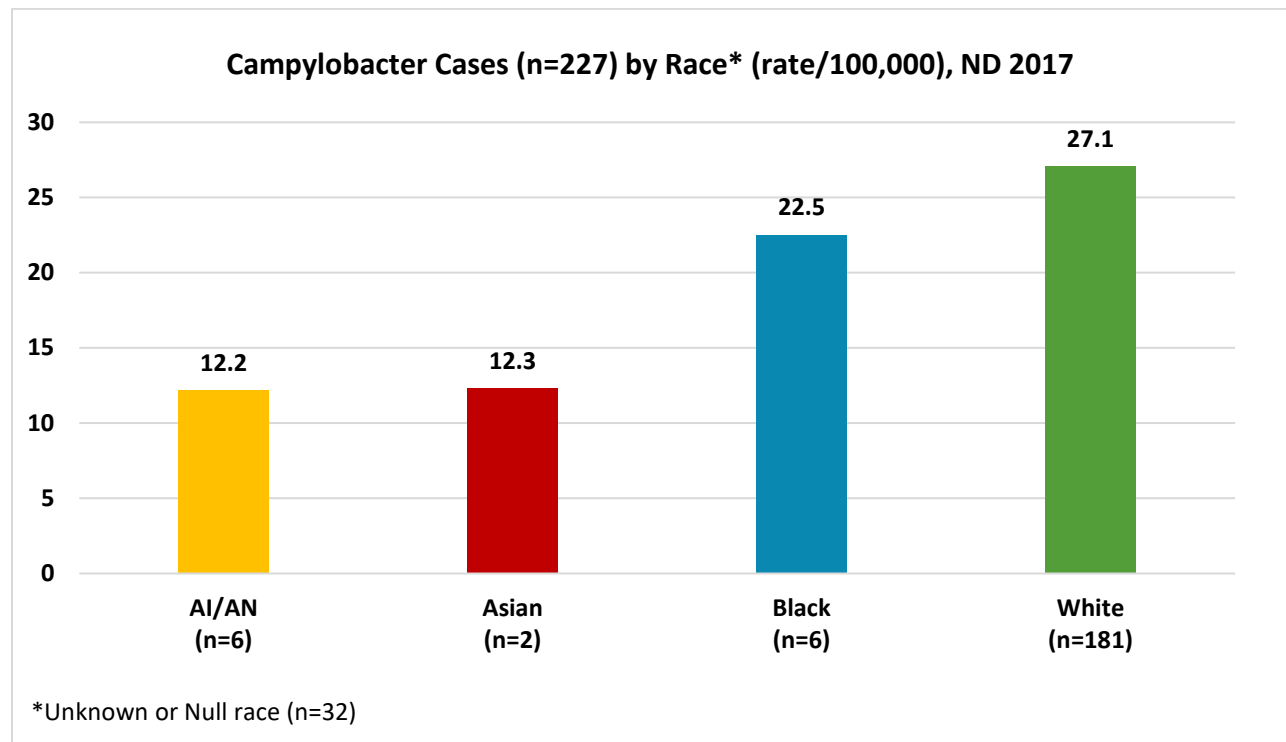
Figure 29: Active TB by Race (rate/100,000), ND 2017



Campylobacter

In 2017, there were 227 cases of campylobacter, the fifth leading infectious disease morbidity in North Dakota. Campylobacter is among the most common bacterial infections of humans, often a foodborne illness (CDC, 2018). The Black population is disproportionately affected by campylobacter at 22.5 per 100,000 individuals. The graph shows the rate per 100,000 White is higher than the Black rate, however, due to the population of White's in ND it is not considered an inequity.

Figure 30: Campylobacter by Race (rate/100,000), ND 2017



Hepatitis B

Hepatitis B is the sixth infectious disease morbidity in North Dakota with 98 cases in 2017. There were an estimated 20,900 cases in the U.S. in 2016 (CDC, 2016). Disparities exist in age and race.

- Age
 - 73.2 percent of cases were between the ages of 20 and 39
- Race
 - 287.6 per 100,000 people were Black, 118.1 Asian, compared to 2.4 American Indian and 1.1 per 100,000 people White

Figure 31: Hepatitis B by Age Group, ND 2017

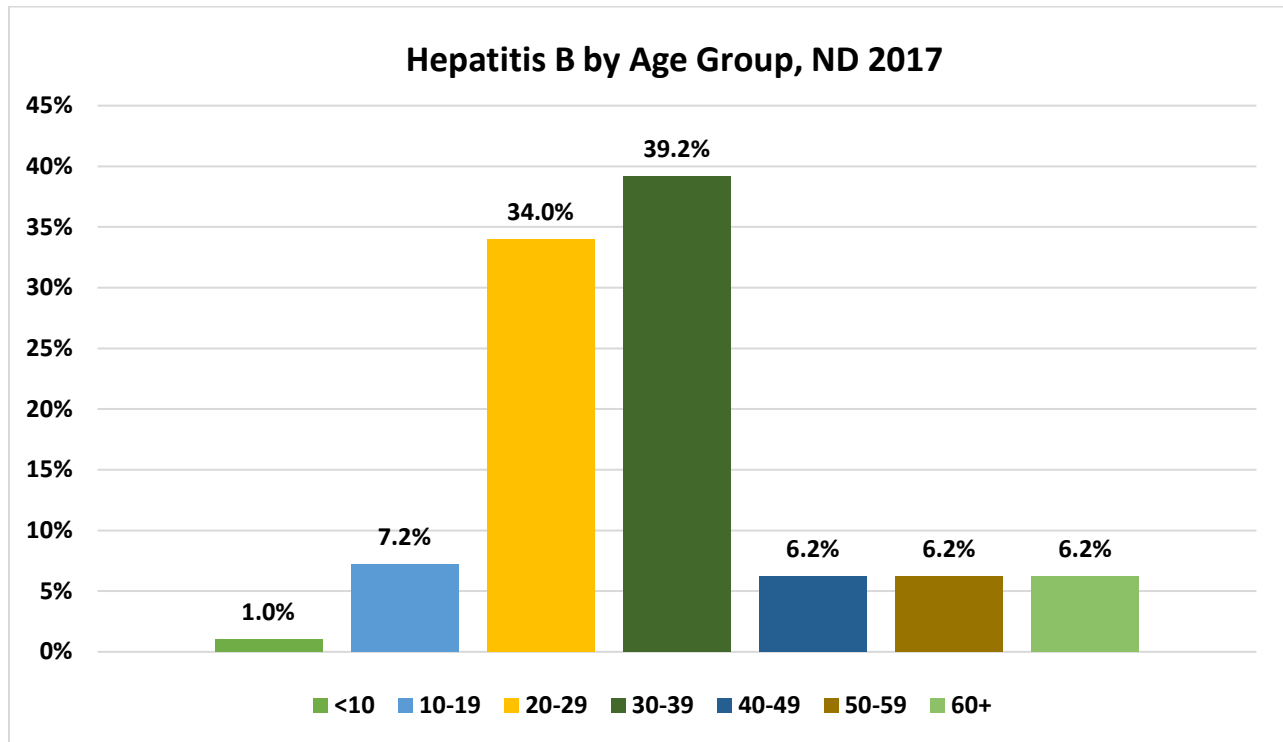
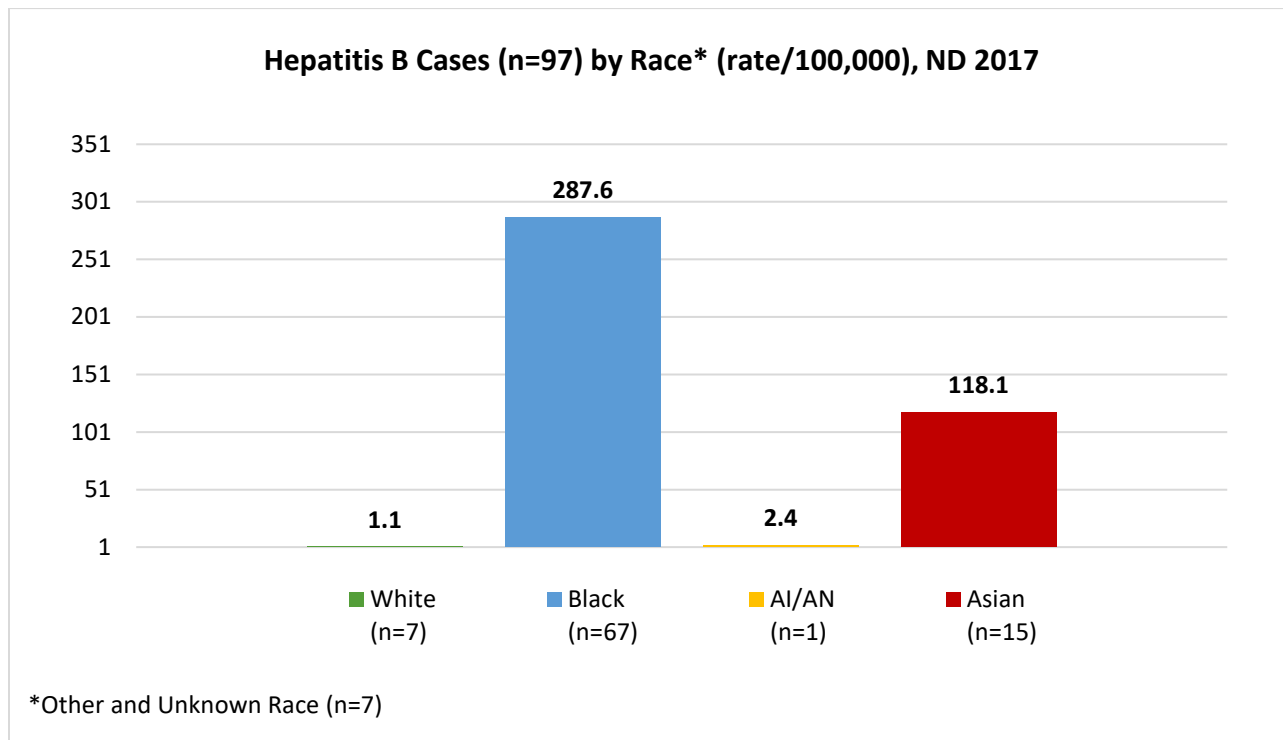


Figure 32: Hepatitis B by Race (rate/100,000), ND 2017



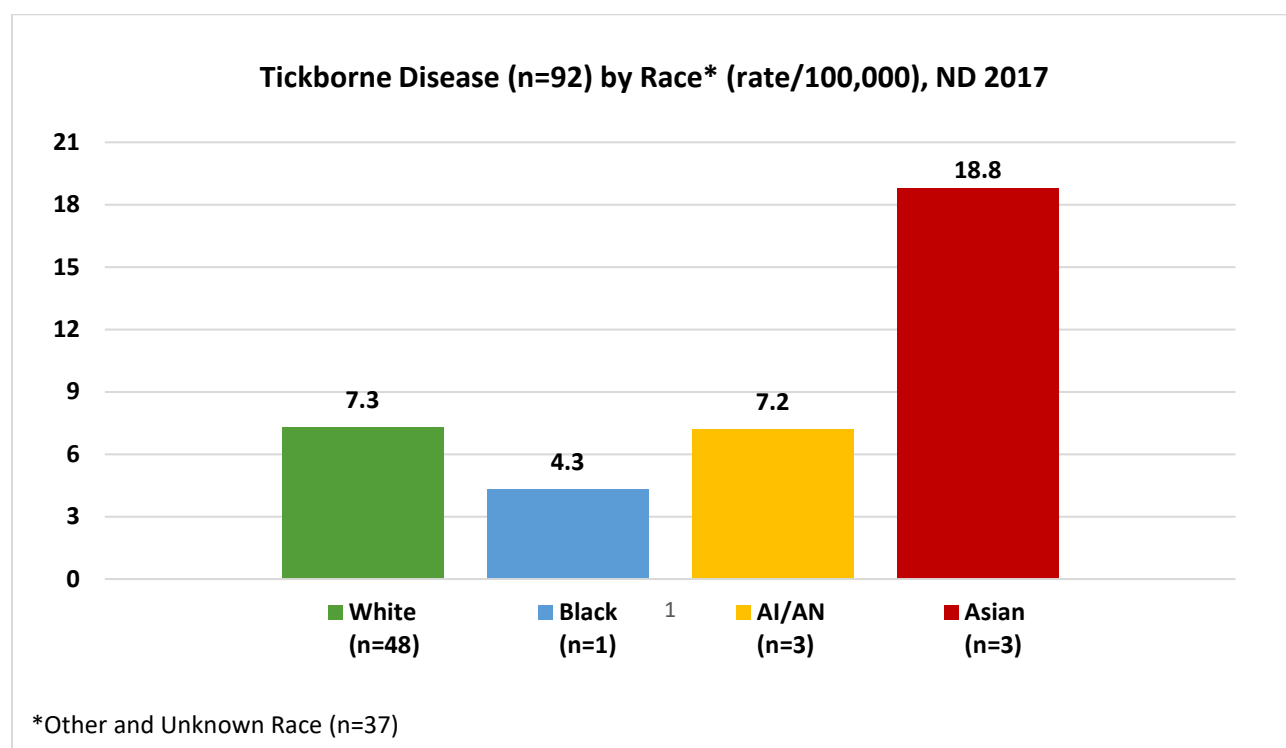
Salmonellosis

In 2017, there were 96 cases of salmonellosis. Salmonellosis is a common bacterial disease that affects the intestinal tract. No disparities were identified.

Tickborne Diseases

In 2017, there were 92 cases of tickborne diseases, the eighth infectious disease morbidity in North Dakota. Tickborne diseases include anaplasmosis, babesiosis, ehrlichiosis, Lyme disease and Rocky Mountain Spotted Fever. Of the 92 reported cases of tick-borne diseases in 2017, the majority of cases (61%) were Lyme disease. The only disparity found was with race: 15.7 per 100,000 people identified as Asian compared to 7.3 White, 7.2 American Indian and 4.3 per 100,000 individuals Black.

Figure 33: Tickborne Disease by Race (rate/100,000), ND 2017



Human Immunodeficiency Virus (HIV)

There were 90 cases of HIV reported in 2017, including both incidence (38) and prevalence (52) cases. HIV is the ninth infectious disease morbidity in North Dakota. Nationally in 2017, there were 39,782 newly diagnosed incidence cases reported (CDC, 2018). Disparities exist in gender, age and race.

- Gender
 - 72.2 percent of cases are male
- Age
 - 58.9 percent of cases are between the ages of 20 and 39

- Race
 - 158.8 per 100,000 people with HIV are Black, 47.3 percent Multi-Race*, 9.6 American Indian compared to 6.3 percent per 100,000 people White

Figure 34: HIV by Gender, ND 2017

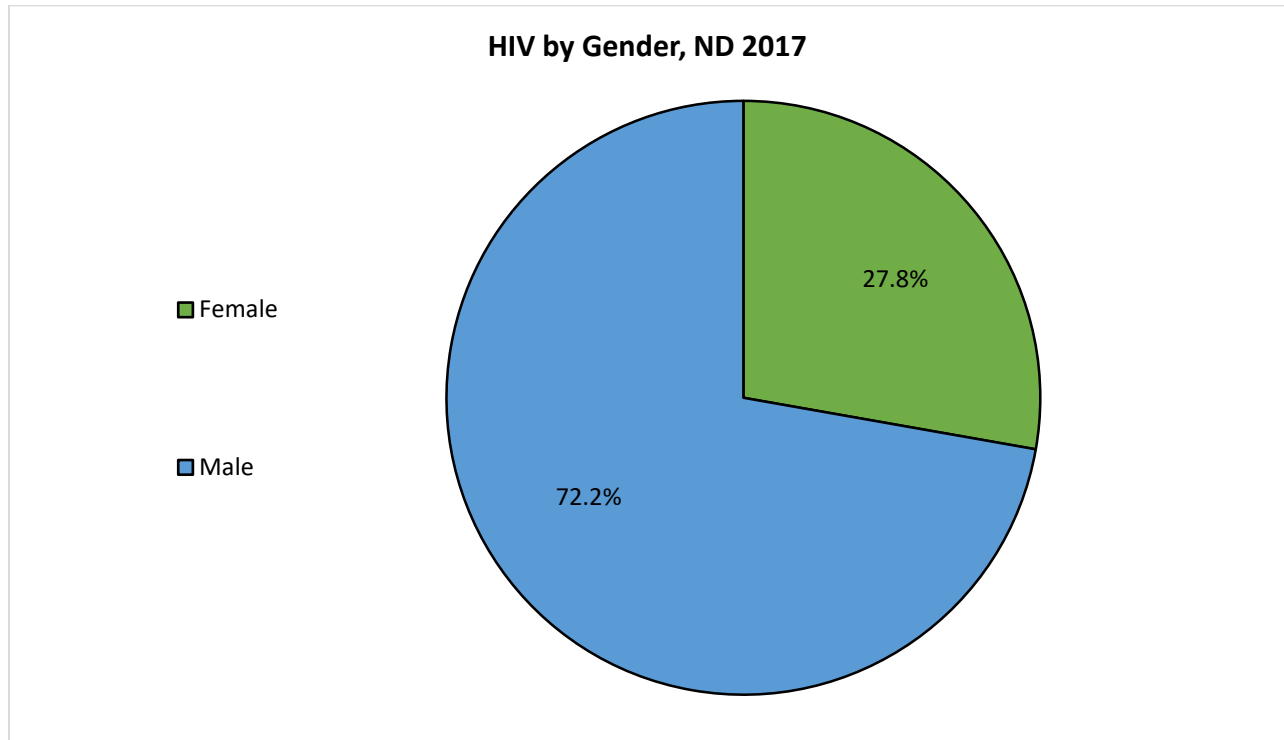


Figure 35: HIV by Age Group, ND 2017

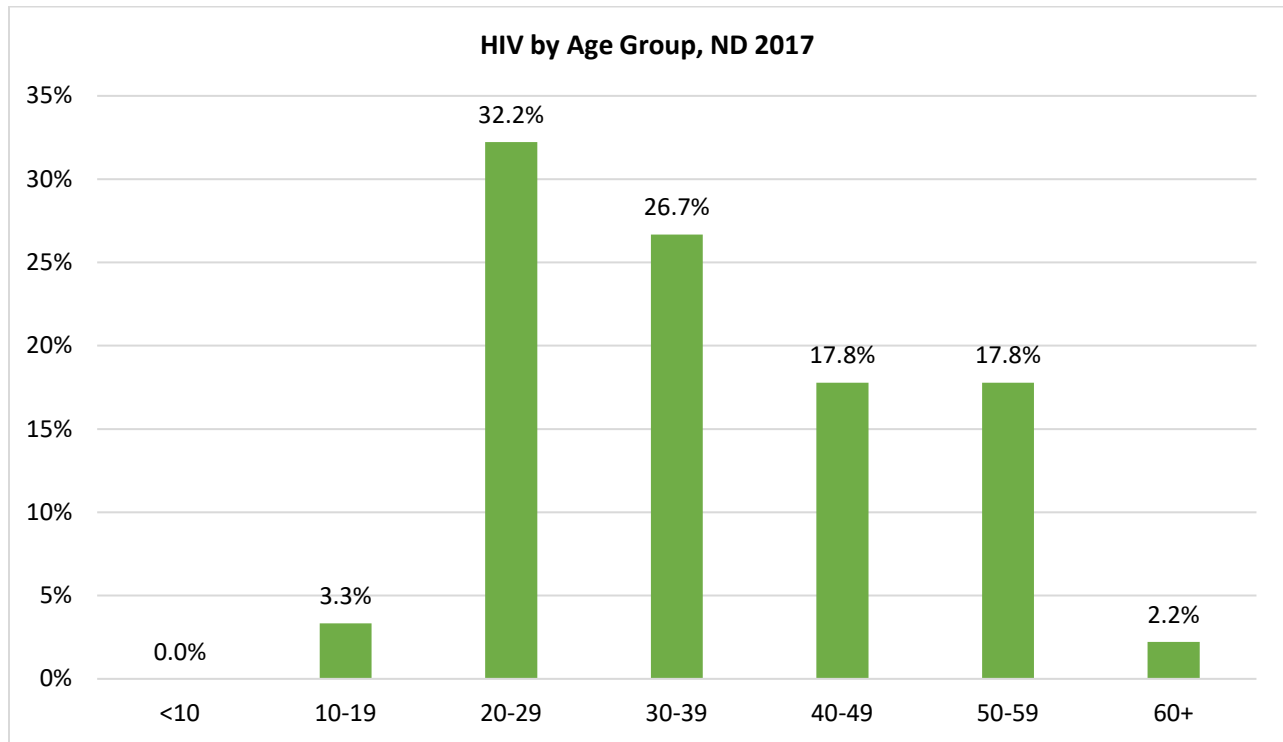
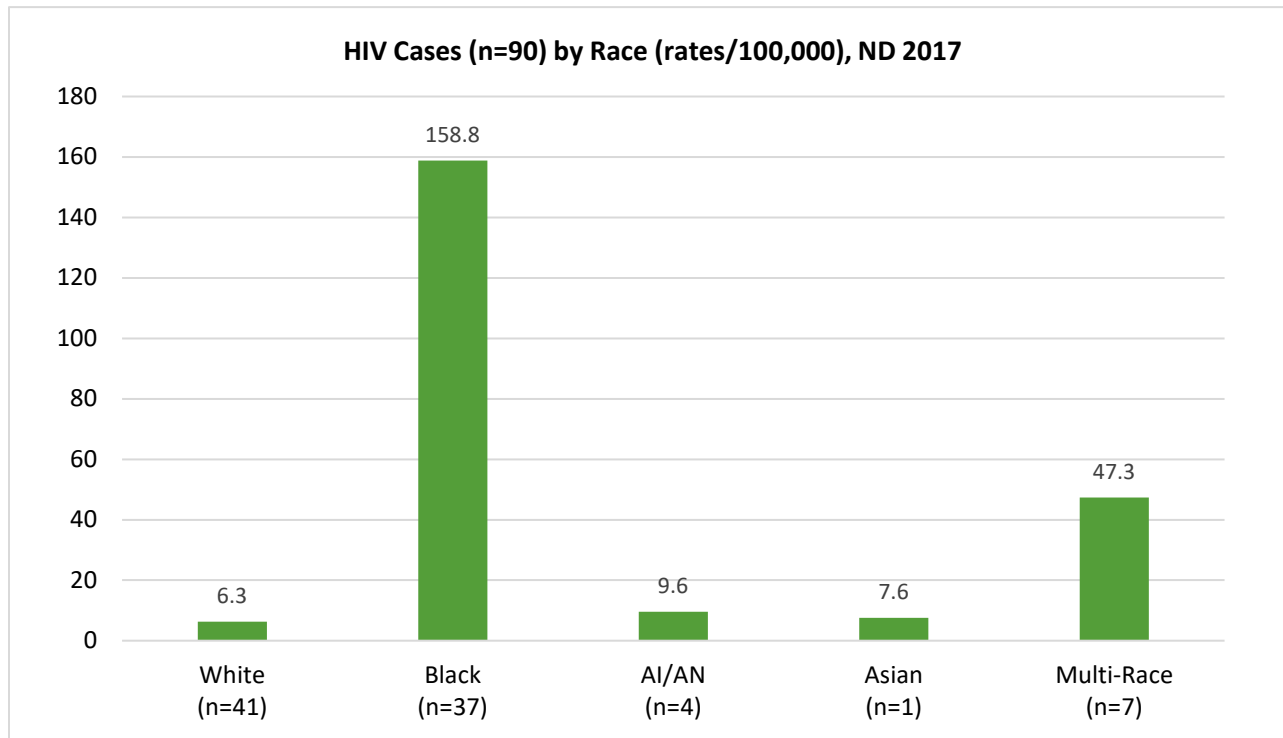


Figure 36: HIV by Race (rate/100,000), ND 2017



Syphilis

In 2017, there were 78 cases of syphilis reported in the state, the tenth infectious disease morbidity in North Dakota. There were 30,644 primary and secondary syphilis cases reported in the United States in 2017 (CDC, 2018). Disparities exist in gender, age and race.

- Gender
 - 77.9 percent of syphilis cases are male
- Age
 - 72.8 percent of cases are 39 and younger, 36.4 percent of cases are between the ages of 20 and 29
- Race
 - 30.1 per 100,000 people were Black, 27.1 Multi-Race, 24 American Indian, 22.7 Asian compared to 8.1 per 100,000 people White

Figure 37: Syphilis by Gender, ND 2017

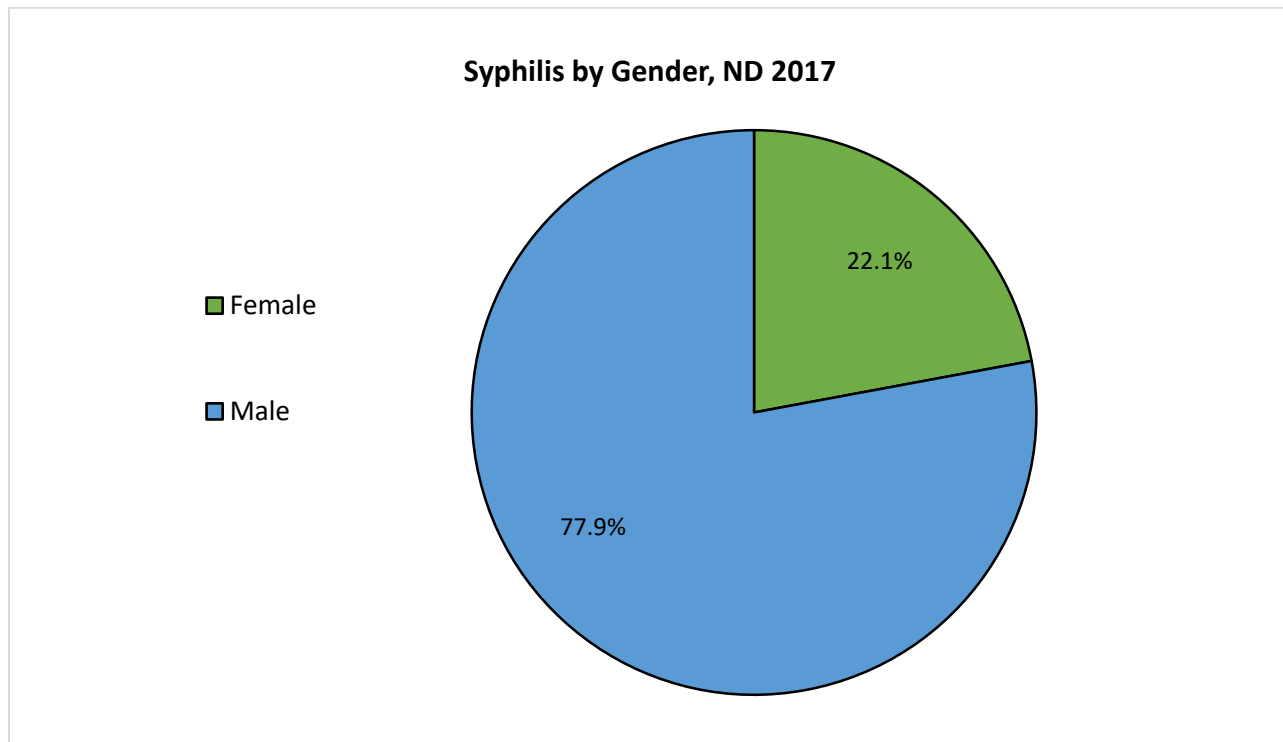


Figure 38: Syphilis by Age Group, ND 2017

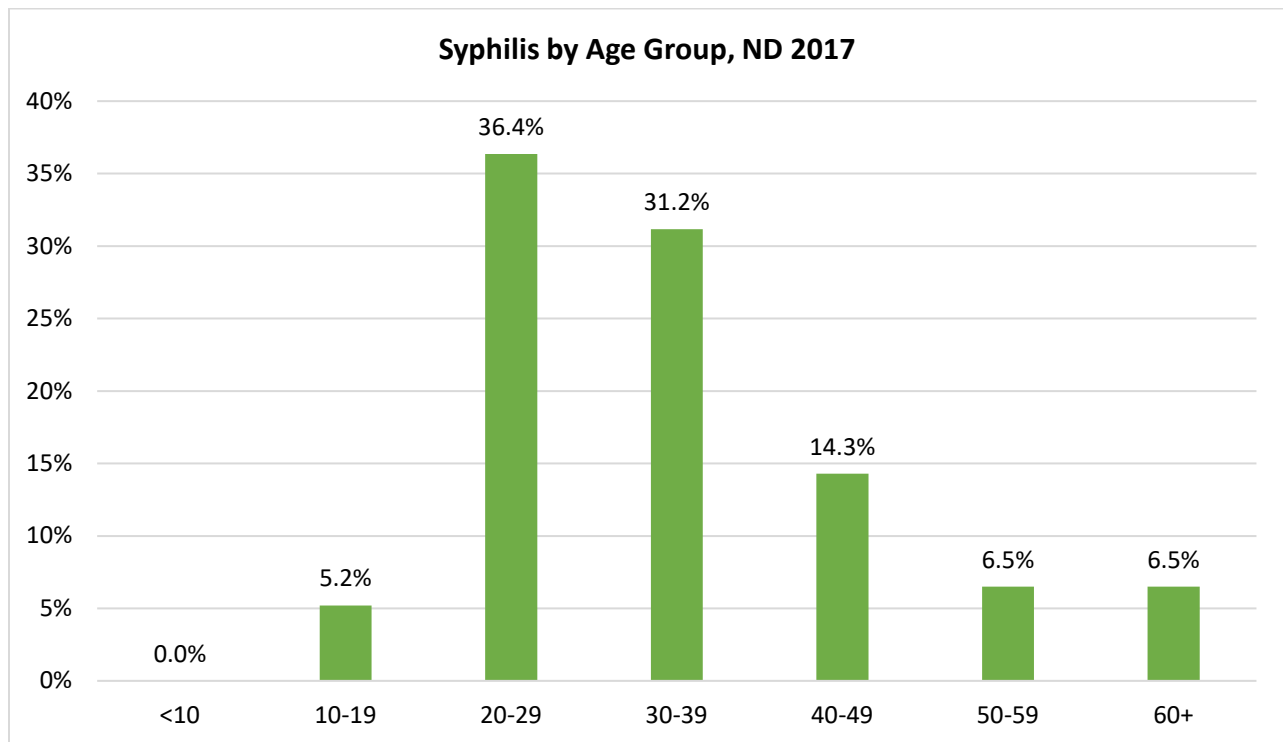
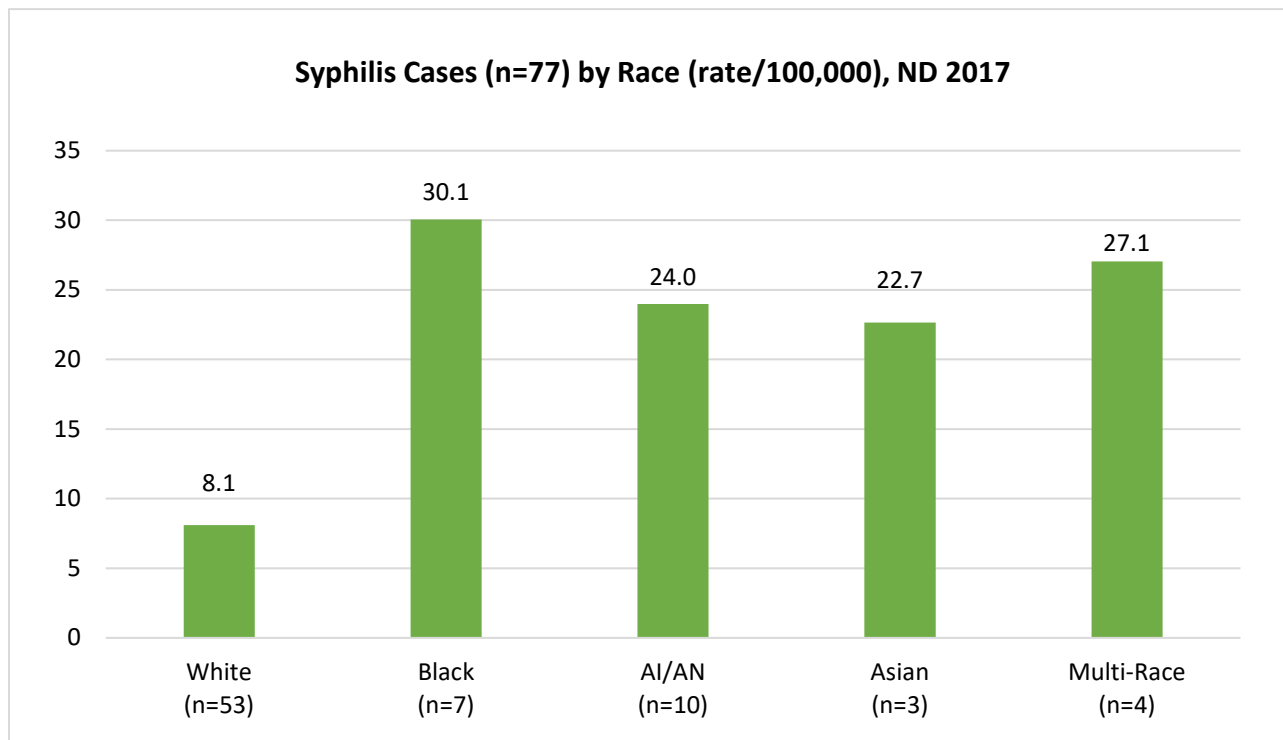


Figure 39: Syphilis Cases by Race (rate/100,000), ND 2017



Infectious Disease Risk Data

Due to varying modes of transmission, risk factor data is different depending on disease.

Chlamydia is a sexually transmitted disease; the highest risk factors reported include:

- 37.1 percent had sex while intoxicated
- 26.1 percent drug use (non-injection)
- 13 percent had anonymous sex partners

Hepatitis C is a blood borne infection; the highest risk factors reported include:

- Disease Control epidemiologist's follow-up all cases of Hepatitis C age 35 and younger; 88% of these Hepatitis C cases report injection drug use.

Gonorrhea is a sexually transmitted disease; the highest risk factors reported include:

- 29.6 percent had sex while intoxicated
- 25.9 percent drug use (non-injection)
- 11.5 percent had anonymous sex partners

TB is an airborne infection; the highest risk factors reported include:

- 50 percent with active TB are foreign borne
- 85.2 percent with LTBI are foreign borne
- 38.5 percent with active TB had an underlying health condition

Hepatitis B is a bloodborne and sexually transmitted infection; the highest risk factor reported included:

- 78.4 percent were foreign borne

Tickborne diseases including: Anaplasmosis, Babesiosis, Ehrlichiosis, Lyme Disease, Rocky Mountain Spotted Fever; the highest risk factor reported include:

- 50 percent of individuals reporting spending time outside and in wooded areas

Syphilis is a sexually transmitted disease; the highest risk factors reported include:

- 35.1 percent had sex with anonymous partners
- 29.9 percent met their sex partners on the internet
- 26 percent had sex while intoxicated
- 23.4 percent drug use (non-injection)

HIV is a sexually transmitted and blood borne infection; the highest risk factors include:

- 45.6 percent had unprotected sex
- 16.7 percent had sex with an individual reported to have HIV
- 7.8 percent injected drugs
- 7.8 percent had sex with an individual who injected drugs

Salmonellosis and Campylobacteriosis are enteric bacteria. These bacteria can be found most commonly in eggs, raw milk, or undercooked chicken.

- Data provided for this report had no risk factors identified.

North Dakota Health Care System

The mission of the North Dakota Primary Care Office (PCO) is to improve primary care service delivery and workforce availability. These activities are accomplished by facilitating the coordination of activities within the state that relate to the delivery of primary care services and the recruitment and retention of critical health care providers. The North Dakota Department of Health subcontracts with the University of North Dakota Center for Rural Health to provide services for workforce development and shortage designation activities.

The PCO looks at Health Professional Shortage Areas (HPSA) which can be designated for primary care, dental and mental health care providers. There are three different types of HPSAs; geographic areas (urban versus rural); population groups; and facilities (public or non-profit medical facility). The following three maps show the health professional, dental health professional and mental health professional shortage areas in North Dakota. More information regarding health professional shortage areas can be found at <https://ruralhealth.und.edu/projects/primary-care-office/hpsa-maps>.

Figure 40: Map of North Dakota Health Professional Shortage Areas

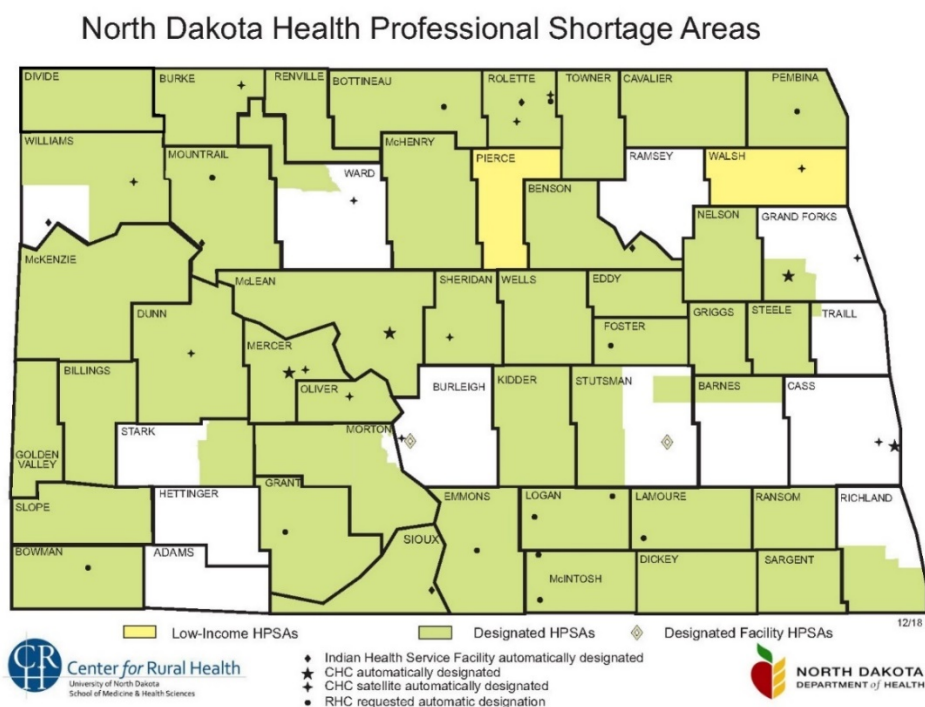


Figure 41: Map of North Dakota Dental Health Professional Shortage Areas

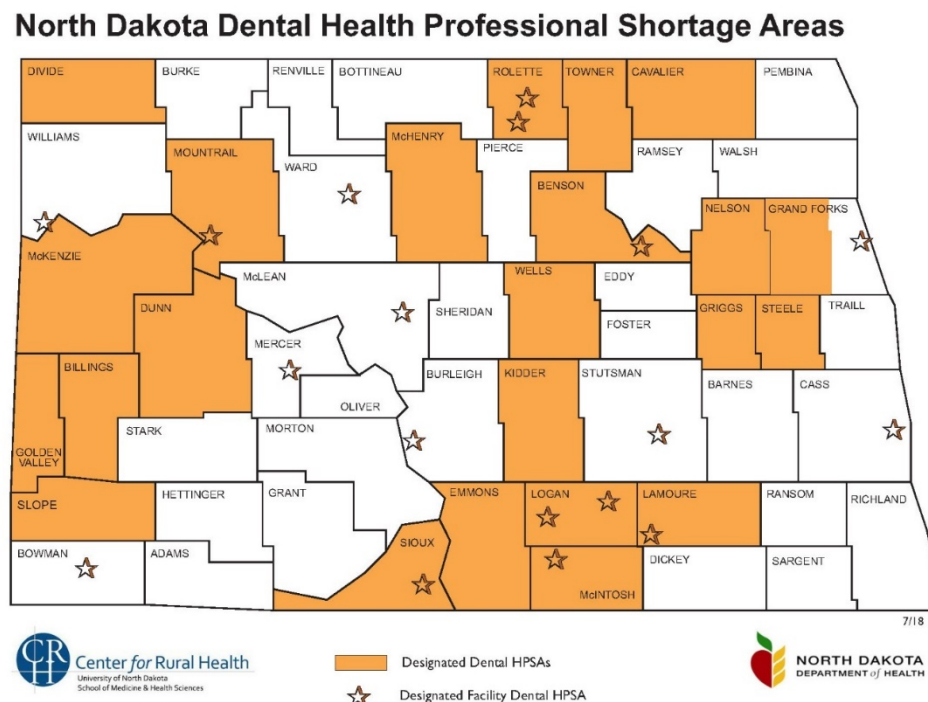
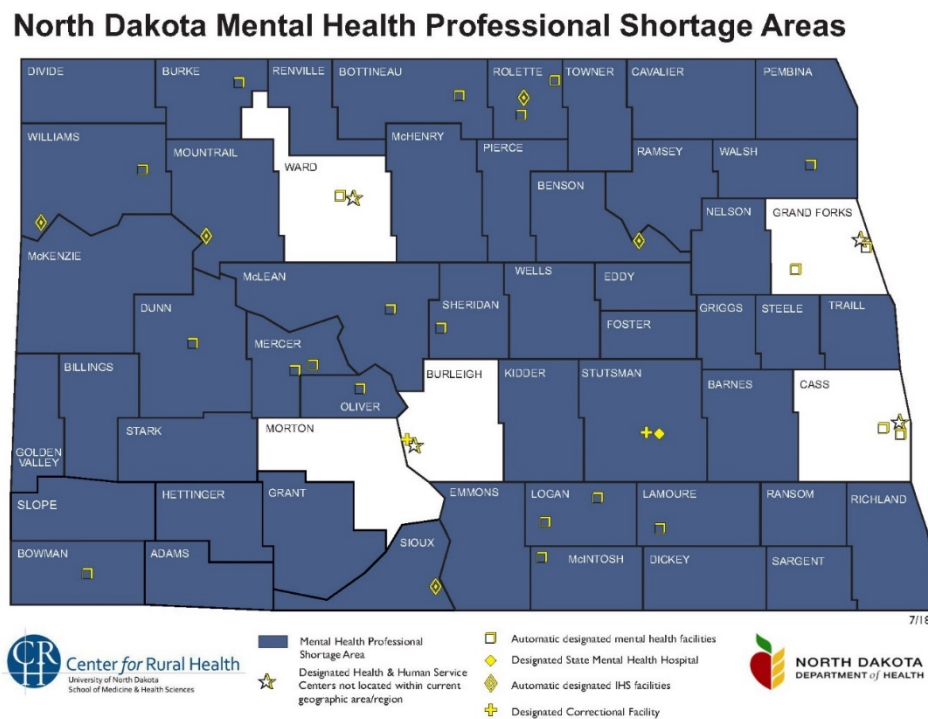


Figure 42: Map of North Dakota Mental Health Professional Shortage Areas



Next Steps

By July 2019, the North Dakota Department of Health plans to develop a strategic plan to address health disparities. The data provided in this report will serve as a platform to identify areas of need during the strategic planning process. Unfortunately, this report identified many health disparities that exist in North Dakota. In order to address the aforementioned health disparities, the North Dakota Department of Health will need to identify the following:

- What is currently being done to address each of the identified disparities
- What needs to be done to eliminate the identified health disparities
- Timelines to achieve a reduction in health disparities
- Monitoring and evaluation planning, including metrics
- Determine where policy decisions are needed, both internal and external; develop policy recommendations in partnership with the community, tribes, and state agencies
- Identify resource needs and develop training and communications plans for the North Dakota Department of Health

The North Dakota Department of Health will utilize the Social Determinates of Health while developing the strategic plan. The Social Determinates of Health are the complex, integrated and overlapping social structures and economic systems that are responsible for most health disparities. These social structures and economic systems include the social environment, physical environment, health services and structural and societal factors. Social determinants of health are shaped by the distribution of money, power and resources throughout local communities, nations and the world social environment. It is important for the North Dakota Department of Health to recognize and identify the Social Determinates of Health within the data of this report to improve health outcomes and decrease health disparities.

Glossary

BRFSS

The Behavioral Risk Factor Surveillance System is an ongoing monthly telephone survey which collects data from randomly selected North Dakota adults in households with telephones.

Cultural Competence is a set of congruent behaviors, attitudes and policies that come together in a system, agency, or among professionals, that enables effective work in cross-cultural situations.

Health Disparity

A type of difference in health that is closely linked with social or economic disadvantage. Health disparities negatively affect groups of people who have systematically experienced greater social or economic obstacles to health. These obstacles stem from characteristics historically linked to discrimination or exclusion, such as race or ethnicity, religion, socioeconomic status, gender, mental health, sexual orientation or geographic location. Other characteristics include cognitive, sensory or physical disability.

Health Equity

When all people have the opportunity to attain their full health potential and no one is disadvantaged from achieving this potential because of their social position or other socially determined circumstance.

Health Inequality

Differences, variations and disparities in the health achievements of individuals and groups of people.

Health Inequity

A difference or disparity in health outcomes that is systematic, avoidable and unjust.

Incidence

Incidence is the number or portion of new disease in a given population.

Morbidity

Morbidity looks at the number of cases of a disease across a population and/or geographic location.

Mortality

Mortality refers to the numbers of deaths in a population.

Multi-Race

More than one race.

Prevalence

Prevalence is the number or proportion of cases or events or attributes among a given population.

Social Determinants of Health

The complex, integrated and overlapping social structures and economic systems that are responsible for most health disparities. These social structures and economic systems include the social environment, physical environment, health services and structural and societal factors. Social determinants of health are shaped by the distribution of money, power and resources throughout local communities, nations and the world social environment.

Examples: discrimination, income, and gender physical environment. Examples: where a person lives and crowding conditions Health services. Examples: Access to quality health care and having or not having health insurance.