Community Health Profile

National Aggregate of Urban Indian Organization Service Areas

Urban Indian Health Institute
A Division of the Seattle Indian Health Board

Acknowledgments

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Urban Indian Health Institute would like to thank the staff at the urban Indian health and social service organizations nationwide for the excellent work they do daily on behalf of their communities.

This report was prepared by Crisandra Wilkie, MPH, and designed by Ibrahim Osman, AA, under the direction of the Chief Data Officer, Adrian Dominguez, MS, with the support of Urban Indian Health Institute staff.

Terminology

The authors use the terms “Native”, “Indian”, “Indigenous” and “American Indian and Alaska Native” interchangeably throughout this report. The demographic terminology included in source material is referenced when appropriate.

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CONTENTS


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EXECUTIVE SUMMARY

Urban Indian Health Institute (UIHI) analyzed data from the American Community Survey (ACS), the National Vital Statistics System (NVSS), National Notifiable Disease Surveillance System (NNDSS), Behavioral Risk Factor Surveillance System (BRFSS), and National Survey on Drug Use and Health (NSDUH) to describe health outcomes among urban American Indians and Alaska Natives across more than 50 health indicators.

With these data, UIHI created individual Community Health Profiles for 45 Urban Indian Organization (UIO) service areas throughout the United States, which includes 125 counties (Appendix A: Service Areas). This Community Health Profile aggregates data on sociodemographics, mortality, infectious disease, maternal and child health, substance use, and mental health across all UIO service areas. The data in this report are five-year estimates from 2013 to 2017.

Key findings show that urban American Indians and Alaska Natives (AI/AN) frequently experience higher proportions of poverty and inequities in employment, education, deaths due to homicide, and infant and maternal mortality when compared to their non-Hispanic White (NHW) counterparts. We acknowledge the role colonization has had on Indigenous communities and the health indicators listed in this report.

KEY FINDINGS

Below are key findings from each section—significant differences are bold.

51.3% of AI/AN individuals attended some college, earning an associate degree or higher.
Almost 20% of AI/AN adults under the age of 65 had no health insurance coverage.
The suicide rate among the AI/AN population was 41% lower than that of the NHW population at 9.8 per 100,000 compared to 16.6 per 100,000.
AI/AN people had a mortality rate by homicide (5.7 per 100,000) 2.3 times that of NHW people (2.5 per 100,000).
64.7% of pregnant AI/AN women received prenatal care in the first trimester.
The AI/AN maternal mortality rate was three times that of the NHW rate at 32.6 per 100,000 compared to 10.7 per 100,000.
The chlamydia, gonorrhea, and syphilis infection rates were higher in AI/AN people than in NHW people.
Overall alcohol use was lower for AI/AN people compared to NHW people at 40.0% compared to 53.0%.
Alcohol abuse or dependence was higher for AI/AN people (10.8%) than for NHW people (7.4%).
Approximately 20% of AI/AN adolescents received non-specialty mental health services compared to 15.8% of NHW adolescents.

INTRODUCTION

Across the United States, an examination of the health outcomes of urban Native people shows a disproportionately high incidence of disease, co-morbidity, and mortality, particularly among mothers. This is significant because, of the 5.2 million Americans who identify as American Indian and/or Alaska Native, 71% live in urban areas.[1] To meet their health needs, numerous health and social service programs provide culturally attuned and holistic care. Many offer services that are grounded in Indigenous knowledge and bring traditional and Western medicine together.

As Urban Indian Health Programs and other Urban Indian Organizations strive to provide the highest-quality care to urban Native people, relevant data are needed. Since 2000, Urban Indian Health Institute (UIHI) has created an aggregate Community Health Profile (CHP). This report is an aggregate of 45 UIO service areas roughly representing 72 Urban Indian Organizations and 125 counties.

Who are urban Indians?

Urban Indians are tribal members who are currently living outside of federally defined tribal lands in U.S. cities.[1] For many Native communities, systemic issues such as racism, poverty, and poor education have given rise to health disparities.[2] For urban Indians, government policies that forced relocation in the 1950s, and termination policies that forced assimilation into non-Native culture, have had long-term negative health effects.[2] Indigenous people come to cities for educational, employment, or housing opportunities and health care needs, resulting in an Indigenous urban population that is diverse and inter-tribal.

How to use this report

Improving community health through effective planning and decision making requires reliable information.[2] This CHP provides an overview of the health status of American Indian and Alaska Native populations who reside in the UIO service areas (Appendix A: Service Areas). While limited in scope and restricted to available data, this report provides valuable information for service providers serving an urban Indian population with unique needs and health priorities. The report is intended for use as a supplement to other local data available and can be used for program planning, applying for funding, identifying gaps in data, and conducting research.

METHODS AND DATA

THIS REPORT INCLUDES INFORMATION FROM RESIDENTS OF THE 45 UIO SERVICE AREAS USING THE FOLLOWING DATA SOURCES:

- **American Community Survey, 2013–2017**
- **2010 U.S. Census, 2013–2017**
- **National Vital Statistics System; Death Certificates, 2013–2017**
- **National Vital Statistics System; Birth Certificates, 2013–2017**
- **National Notifiable Disease Surveillance System, 2013–2017**
- **Behavioral Risk Factor Surveillance System, 2013–2017**
- **National Survey on Drug Use and Health, 2013–2017**

There are limitations to this data, particularly due to variations in how race is defined and collected.

Data Sources

2010 U.S. Census

The U.S. Census takes place every 10 years and provides official population counts for individuals living in the United States. It also presents information on age, race, Hispanic origin, and sex. Starting in 2000, the U.S. Census allowed individuals to self-report belonging to more than one racial group. Prior to the 2000 U.S. Census individuals could only select one racial group.

When determining a population count, this report considers people to be AI/AN if they report AI/AN as their only race or, if available, they report being AI/AN in combination with other races.

For more information about the U.S. Census, visit: www.census.gov

American Community Survey

The American Community Survey (ACS) is a nationwide survey that collects demographic, housing, social, and economic data every year. To provide reliable estimates for small counties, neighborhoods, and population groups, the ACS provides one-, three-, and five-year aggregate estimates.

Race is self-reported in ACS with similar race categories as the U.S. Census. However, some ACS data are not easily accessible for multiple racial groups. Therefore, ACS data are reported for AI/AN alone in this report. ACS estimates in this profile are not adjusted for age. Observed differences in estimates may be due to a true difference in proportions or due to differences in age distribution in the population.

For more information about the ACS, visit: www.census.gov/acs

National Vital Statistics System

Mortality data from the National Vital Statistics System (NVSS) is generated from death certificates. All mortality data are age-adjusted to the U.S. population for the year 2000. Age-adjusted death rates are useful when comparing different populations because they remove the potential bias that can occur when comparing populations with different age distributions. For example, AI/AN populations have historically been younger than other racial groups. Mortality analysis includes data from 133 counties representing 50 UIO service areas.

Birth certificate data from NVSS data files include all documented births occurring within the U.S. as filed in each state. These data include demographic information about parents, the mother's risk factors, information on the infant, and information on the birth.

Since not all states allow individuals to identify as more than one race, National Center for Health Statistics (NCHS) releases bridged-race population estimates for calculation of rates. The bridged-race population estimates are the result of bridging the 31 race categories in the Census 2000 and Census 2010 to four race categories due to the shifting use of 1977 Office of Management and Budget (OMB) standards to 1997 OMB standards. As a result, estimates in this report may not match local and county estimates because of differing projection methods.

For more information about Vital Statistics, visit: http://www.cdc.gov/nchs/nvss.htm
For more information about bridged-race, visit: https://www.cdc.gov/nchs/nvss/bridged_race.htm

National Notifiable Disease Surveillance System

Sexually transmitted diseases (STDs) are a component of the National Notifiable Disease Surveillance System (NNDSS). Incident cases are submitted to the Centers for Disease Control and Prevention (CDC) from state health departments and other local reporting jurisdictions. The majority of cases are reported in non-STD clinic settings such as private physician offices. It is mandatory that reportable disease cases be reported to state health departments when identified by a health provider, hospital, or laboratory. However, it is voluntary that notifiable disease cases be reported to the CDC by the state for national surveillance. Estimates of rates are based on the states for the UIO service areas.

For more information about NNDSS, visit: https://www.cdc.gov/nndss/

Behavioral Risk Factor Surveillance System

Behavioral Risk Factor Surveillance System (BRFSS) is a nationwide health-related telephone survey that collects state data about U.S. residents. Random Digit Dialing (RDD) is used to conduct the surveys on landlines and cellphones. Each state uses a standardized core questionnaire, optional modules, and state-added questions. A vast amount of data on health-related risk behaviors and events, chronic health conditions, and use of preventive services are collected by this survey.

For more information about BRFSS, visit: https://www.cdc.gov/brfss/index.html

National Survey of Drug Use and Health

The National Survey of Drug Use and Health (NSDUH) is a nationwide survey that collects information on substance use and mental health every year in the United States. With funding from the Substance Abuse and Mental Health Services Administration (SAMHSA), Research Triangle Institute (RTI) International conducts the survey, which focuses on substances including tobacco products, alcohol, marijuana, illicit drugs, and prescription drugs used non-medically, and mental health.

NSDUH defines youths as individuals aged 12 to 17 years. Adults are defined as individuals aged 18 and older. NSDUH estimates in this profile are not adjusted for age; observed differences in estimates may be due to a true difference in proportions or may be due to differences in age distribution in the population. Additionally, since county information was not available, the definition of urban is not based on the UIO service areas. Instead, urban is defined as individuals who live in a large or small metro area. Furthermore, individuals were asked to choose which racial group describes them, and they could report more than one race. NSDUH estimates of AI/AN individuals in this profile include those who selected AI/AN alone or in combination with another race.

Within the substance use section, there are also several indicators to clarify. The illicit drug indicator includes hallucinogens, inhalants, tranquilizers, cocaine, heroin, nonmedical use of pain relievers, stimulants, and sedatives.

Within the mental health sections, there are several additional indicators that should be explained. Estimates of having a severe mental illness and having any mental illness were based on a prediction model using data from the Mental Health Surveillance Study (MHSS). More detailed information about this predictive model can be found in the NSDUH codebooks.

For more information on how substance abuse and dependence are defined, as well as the criteria for major depressive episode (MDE), please see Appendix B: National Survey of Drug Use and Health Criteria.

For more information about NSDUH, visit: https://nsduhweb.rti.org/respweb/homepage.cfm

Data Limitations

Frequently, data are only available for AI/AN alone and not inclusive of AI/AN individuals who also identify with another race or ethnicity. Therefore, the outcomes may be an underestimation of the true value of an outcome or risk factor for any indicator analyzed.

Racial misclassification impacts the accuracy of rates of disease, risk factors, or outcomes, which leads to underestimations. Racial misclassification occurs when the race of an individual is captured inaccurately, whether it be from the subjective use of personal observation by the data collector or using a surname to determine race/ethnicity. AI/AN people are more likely to experience incorrect classification on death certificates. Therefore, true morbidity and mortality rates among AI/AN people are assumed to be higher than presented in this report.[3,4]

Analysis

A list of indicators for the community health profile was selected after investigating available data sources. For each indicator, prevalence or incidence is calculated for the AI/AN population and compared to the NHW population. NHW estimates are included as the comparison group to assess disparities in health indicators in recognition of the effects of structural racism on health. The AI/AN population was defined as AI/AN only and AI/AN in combination with other races, unless otherwise indicated. The NHW population was defined as White only and excluded the Hispanic population, unless otherwise indicated. Results are calculated using aggregated data over a five-year period.

In some instances, confidence intervals—an interval of numbers used to assess the accuracy of a point estimate and measure the variability in data—are calculated and used to show differences in outcomes for specific indicators. The point estimate may be a rate such as a death rate or a frequency such as a percent of individuals living in poverty.

Confidence intervals also account for the difference between a sample from a population and the population itself. For analyses included in this report, confidence intervals are calculated at a p-value of <0.05, a 95% confidence level. This means that 95 times out of 100 the confidence interval captures the true value for the population. Where confidence intervals of the study group (AI/AN) do not overlap with the comparison group (NHW), this may be an indication of a true difference in outcomes.

SOCIODEMOGRAPHICS

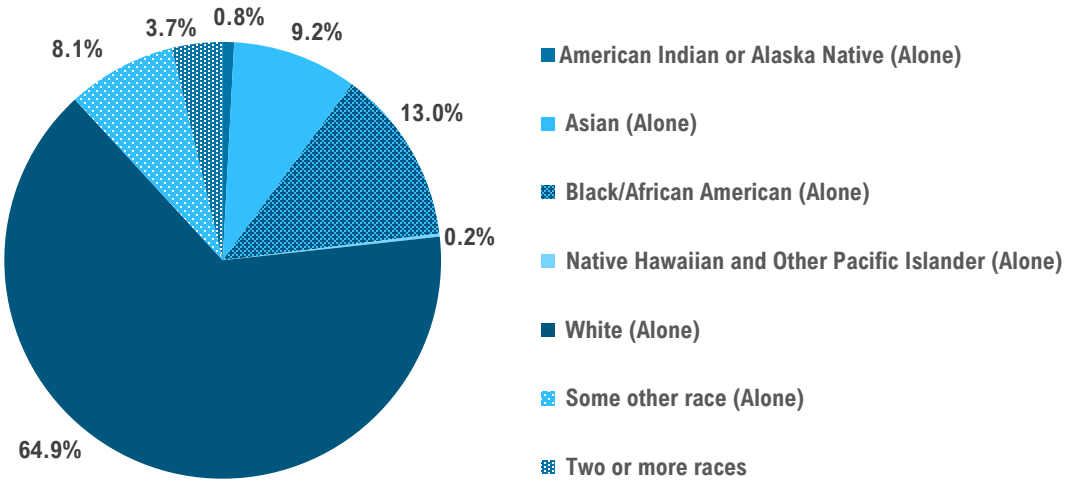
The health of an individual or a population is largely determined by where they live, work, play, and learn. Race and economic status also play key roles.[5,6] Decades of research show a relationship between greater social disadvantage and poorer health. Race, lack of access to education, unemployment, poverty, and housing all create inequities between urban AI/AN and NHW populations.[5] This section presents data on measures of demographics and social determinants of health to illustrate the disparities between AI/AN and NHW populations.

Race

Race, ethnicity, and socioeconomic status directly impact the distribution of disease.[7] Lacking access to education, employment, and other opportunities is often distributed along racial lines, thus we see stark health disparities between racial groups. Therefore, it is important to not only understand the rates of disease within a given area but also the racial distribution.

An estimated 767,432 (0.8%) individuals identified as AI/AN alone in all UIO service areas (Figure 1). Those who identified as White alone comprised the largest proportion (approximately two-thirds) of the total population (91,828,419) in all UIO service areas. Additionally, an estimated 1,660,432 individuals identified as AI/AN alone or in combination with one or more races (not shown in this graph).

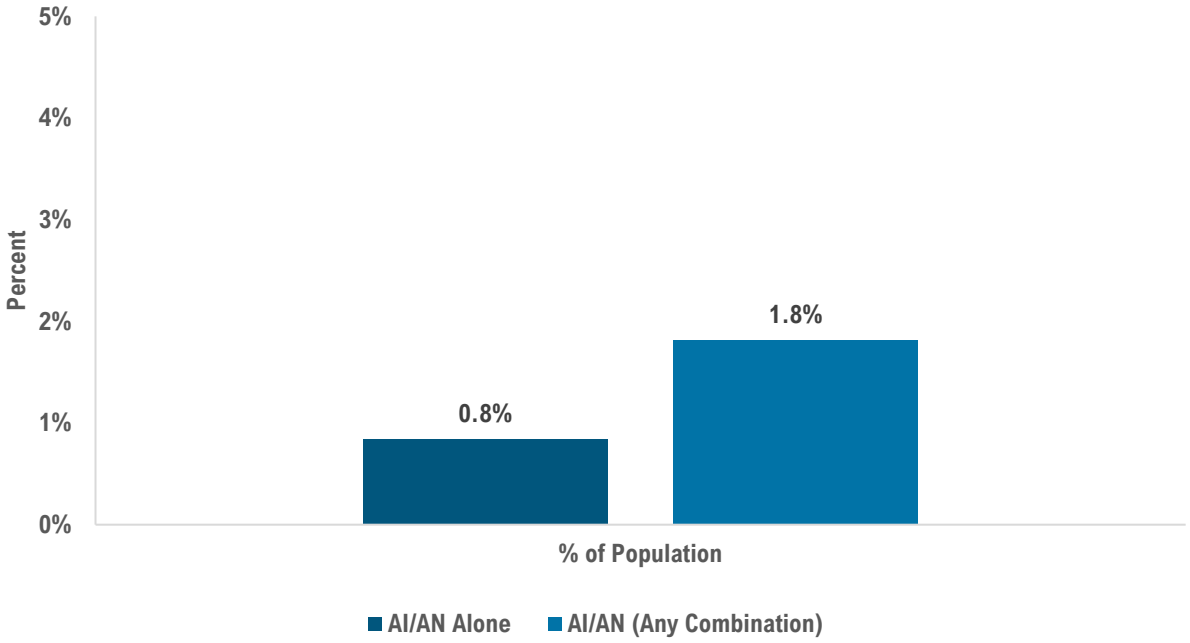
Figure 1. Population by Race: All UIO Service Areas, 2013–2017



Source: American Community Survey, 2013–2017

How race is defined in data matters. All sociodemographic estimates in this report represent those that identify as AI/AN alone—this is due to a limitation in the data. As shown in Figure 2, different definitions of AI/AN yield different results—0.8% identified as AI/AN alone and 1.8% identified as AI/AN alone or in combination with another race. The AI/AN population is among the fastest growing multiracial groups in the U.S.[1]

Figure 2. AI/AN Alone Compared to AI/AN in Combination with Other Races: All UIO Service Areas, 2013–2017



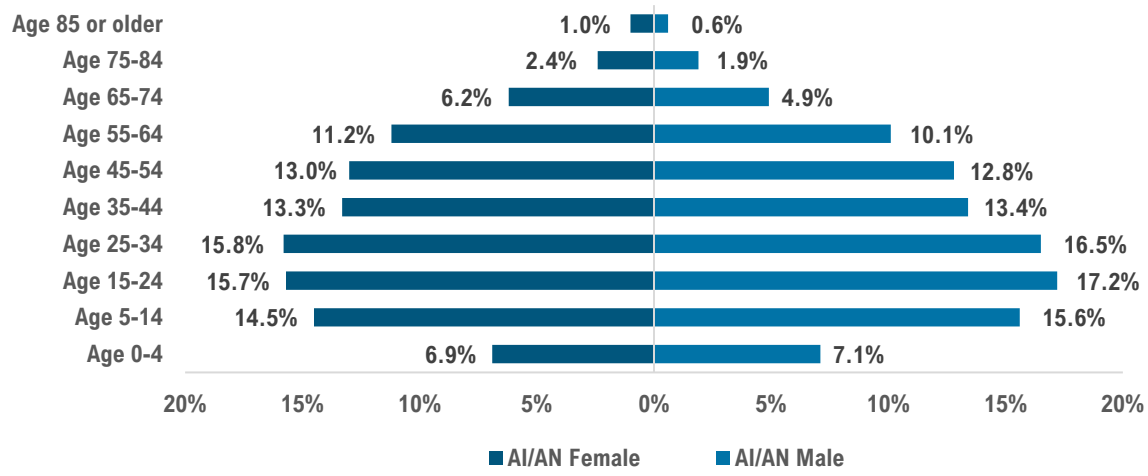
Source: American Community Survey, 2013–2017

Age and Sex

Rates of disease and risk factors can often vary widely between age groups as well as between sexes. For example, life expectancy differs by both race and sex. Therefore, we stratify by both age and sex to examine these differences more closely.

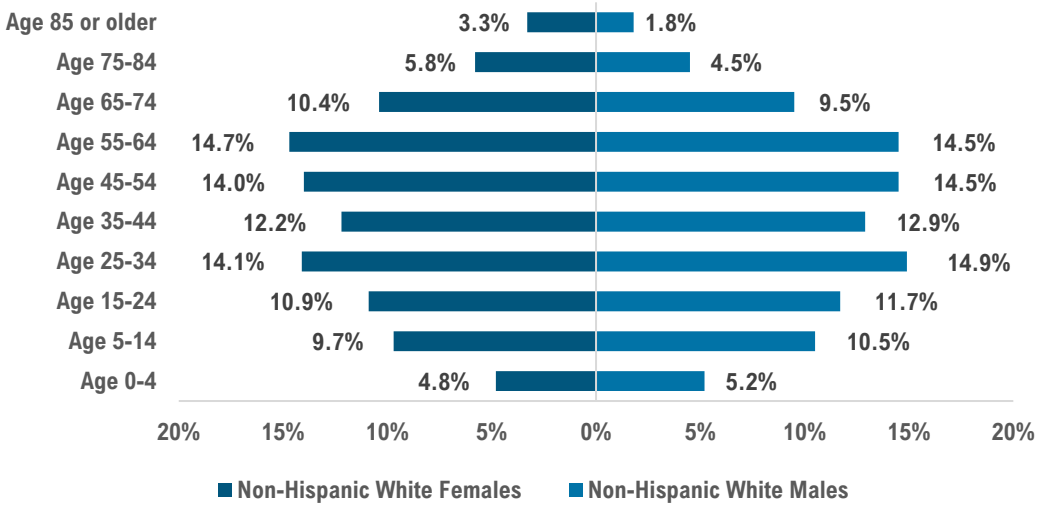
Relative to the NHW population, the AI/AN population in all UIO service areas was younger (Figure 3 and Figure 4). Of the AI/AN population, 38.5% were under the age of 25 years compared to 26.4% of the NHW population. In contrast, 8.5% of AI/AN individuals were over the age of 65 years compared to 17.7% of NHW individuals.

Figure 3. AI/AN Population by Age and Sex: All UIO Service Areas, 2013–2017



Source: American Community Survey, 2013–2017

Figure 4. NHW Population by Age and Sex: All UIO Service Areas, 2013–2017



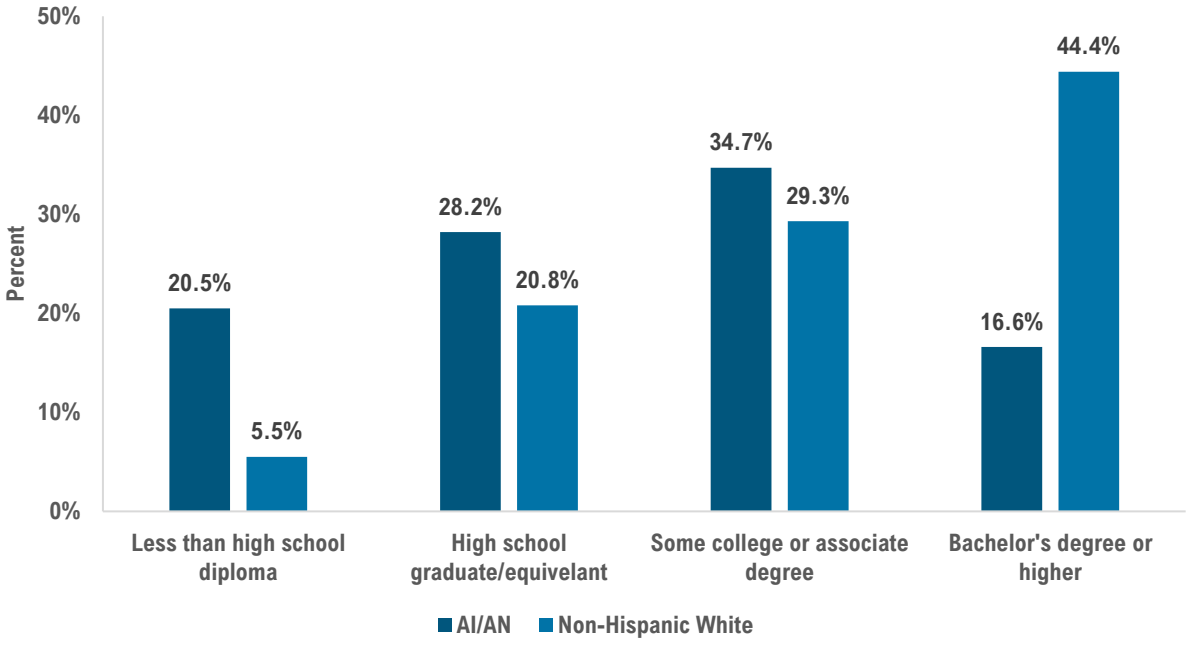
Source: American Community Survey, 2013–2017

Education

The relationship between education and health is well documented.[8,9] Those with more education are generally more likely to be employed and have access to health resources through insurance. They are also more likely to have a higher income, allowing them to afford resources when needed. Thus, disparities in life expectancy by level of education are found among all demographic groups and are increasing over time.[9]

In all UIO service areas, a higher percentage of AI/AN people aged 25 and older did not complete high school or pass the General Education Development (GED) exam (20.5%) compared to the NHW population (5.5%; Figure 5). A lower percentage of AI/AN people (16.6%) reported an undergraduate or graduate degree as their highest level of education compared to the NHW population (44.4%). The proportion of AI/AN people that reported an undergraduate or graduate degree in all UIO service areas was 62.6% lower than NHW. However, among AI/AN people, a slightly higher percentage reported attending some college or receiving an associate's, Bachelor's, or higher degree compared to those with a high school diploma/equivalent or no diploma (51.3% vs 48.7%, respectively).

Figure 5. Educational Attainment for the Population 25 Years and Older: All UIO Service Areas, 2013



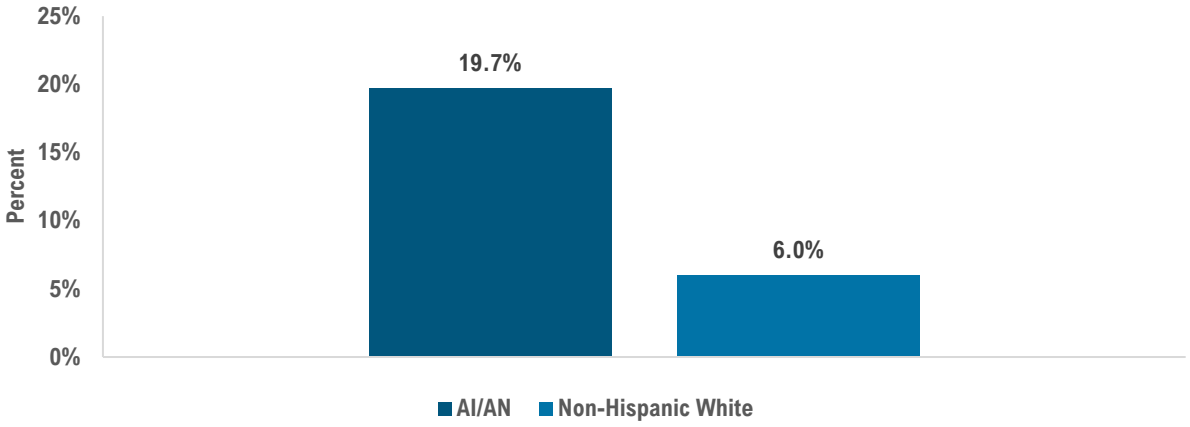
Source: American Community Survey, 2013–2017

Health Insurance Coverage

Those without health insurance coverage have higher mortality rates than those with coverage.[10] Individuals without health insurance are also less likely to receive care and often take longer to recover after an unintentional injury or the onset of a chronic disease than those with health insurance.[11]

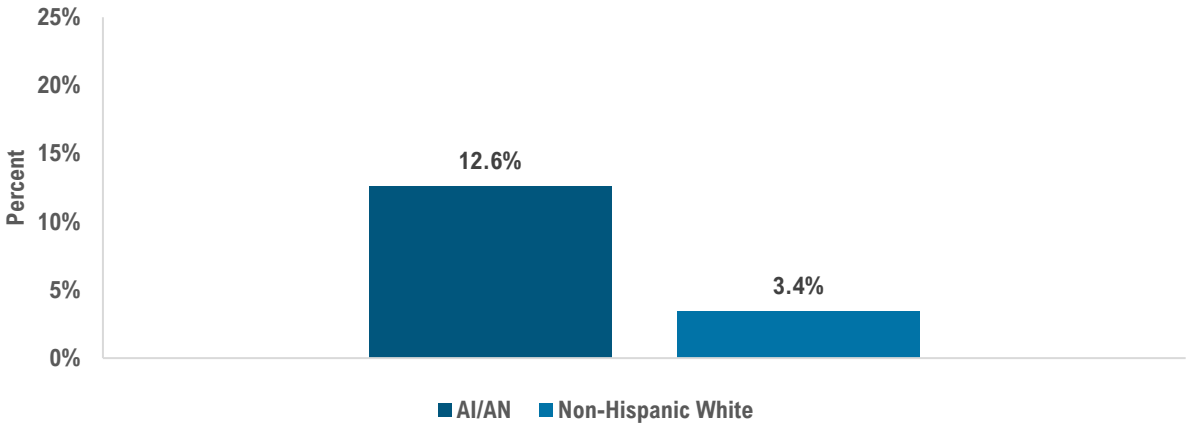
In all UIO service areas, nearly one in five AI/AN individuals under the age of 65 (19.7%) reported having no health insurance, a proportion 3.3 times that of NHW (6.0%; Figure 6). The proportion of uninsured AI/AN children under the age of 19 (12.6%) in all UIO service areas was 3.7 times that of their NHW counterparts (3.4%; Figure 7).

Figure 6. Population Under 65 with No Health Insurance Coverage: All UIO Service Areas, 2013–2017



Source: American Community Survey, 2013–2017

Figure 7. Population Under 18 with No Health Insurance Coverage: All UIO Service Areas, 2013–2017



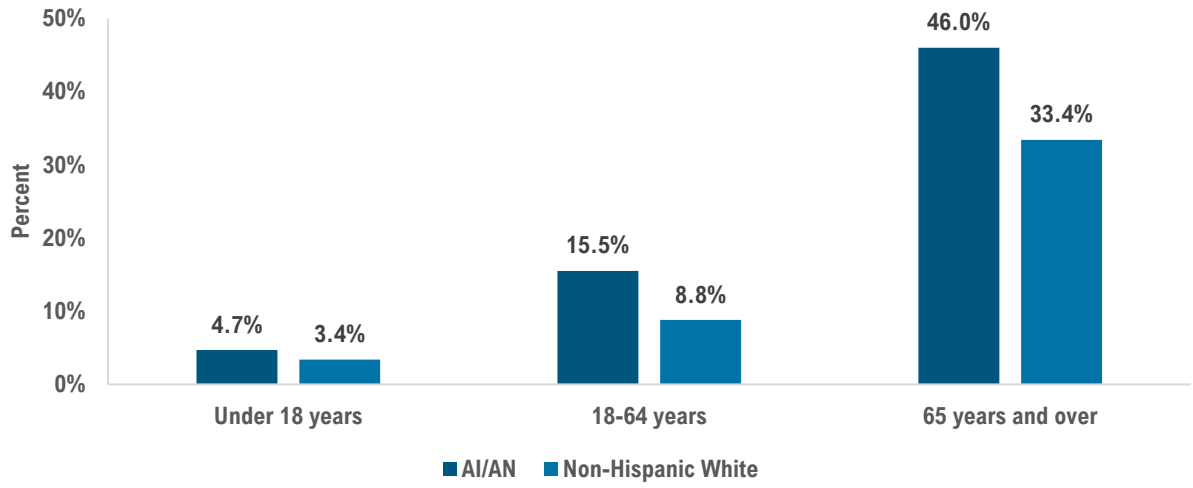
Source: American Community Survey, 2013–2017

Disability Status

A disabling condition can be present at birth, occur early in life, can be acquired through injury or a chronic condition, or can develop later in life.[12] In general, across a range of health indicators and social determinants of health, people with disabilities tend to fare worse than their nondisabled counterparts.[12] It is important to include prevalence of disability as a foundation to monitor health status and existing disparities to inform program planning and to potentially obtain funding for programs for people with disabilities. However, it is important to note that the understanding of disability varies across Indigenous cultures—current ways of understanding disability are largely a result of colonization.[13]

In all UIO service areas, for those under 18, 4.7% of AI/AN people reported having a disability compared to 3.4% of NHW people (Figure 8). For those aged 18–64, the proportion of AI/AN people who reported having a disability was nearly two times that of NHW people in the same age range who reported having a disability (15.5% vs 8.8%, respectively). Additionally, 46.0% of AI/AN people over the age of 65 reported having a disability compared to 33.4% of NHW people over the age of 65.

Figure 8. Population With Disability by Age Group: All UIO Service Areas, 2013–2017



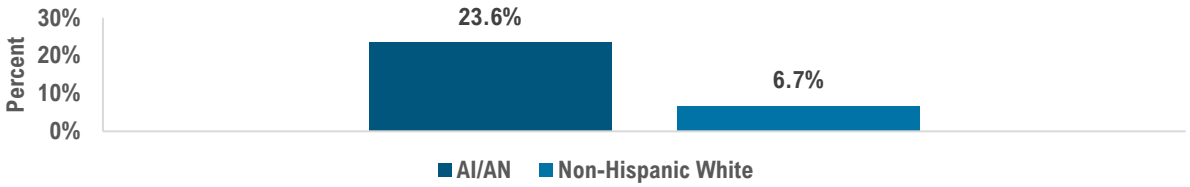
Source: American Community Survey, 2013–2017

Supplemental Nutrition Assistance Program

Households experiencing poverty are more likely to be food insecure.[14] Food insecurity can have a negative effect on the overall health of an individual, which increases the susceptibility to negative health outcomes.[15] As the largest food assistance program in the United States, the Supplemental Nutrition Assistance Program (SNAP), formerly known as the Food Stamp program, is a crucial part of the social safety net.[16] SNAP reduces the prevalence of food insecurity and, in turn, can reduce the prevalence of negative health outcomes.[15] In most states, many households with an income below 130% of the federal poverty level are eligible to receive SNAP benefits.

In all UIO service areas, nearly one-quarter of AI/AN households received SNAP benefits in the past year (23.6%; Figure 9). The proportion of SNAP participation among AI/AN households in these areas was 3.5 times that of NHW households (6.7%).

Figure 9. Households that Received SNAP Benefits in the Past Year: All UIO Service Areas, 2013–2017



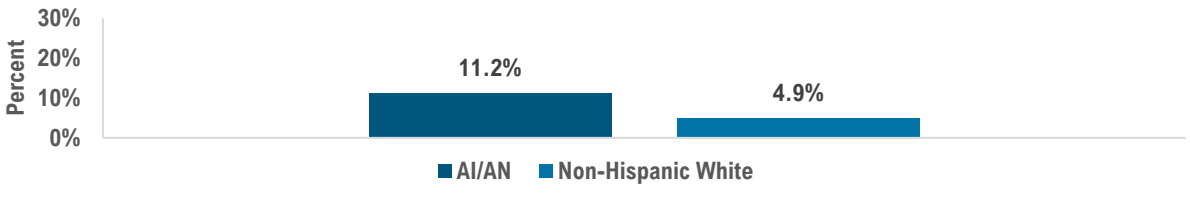
Source: American Community Survey, 2013–2017

Unemployment

Extensive evidence has shown that unemployment has a negative effect on health.[17] Individuals experiencing unemployment may experience financial insecurity and are more likely to lack health insurance coverage.[18] Beyond that, unemployment can be identified as a major stressor, causing lasting damage to the physical and emotional health of an individual.[19]

In all UIO service areas, the percent of unemployed AI/AN people over 16 years of age was 2.3 times that of NHW people (11.2% vs 4.9%; Figure 10).

Figure 10. Unemployment Rates for Civilian Labor Force (16 Years and Older): All UIO Service Areas, 2013–2017



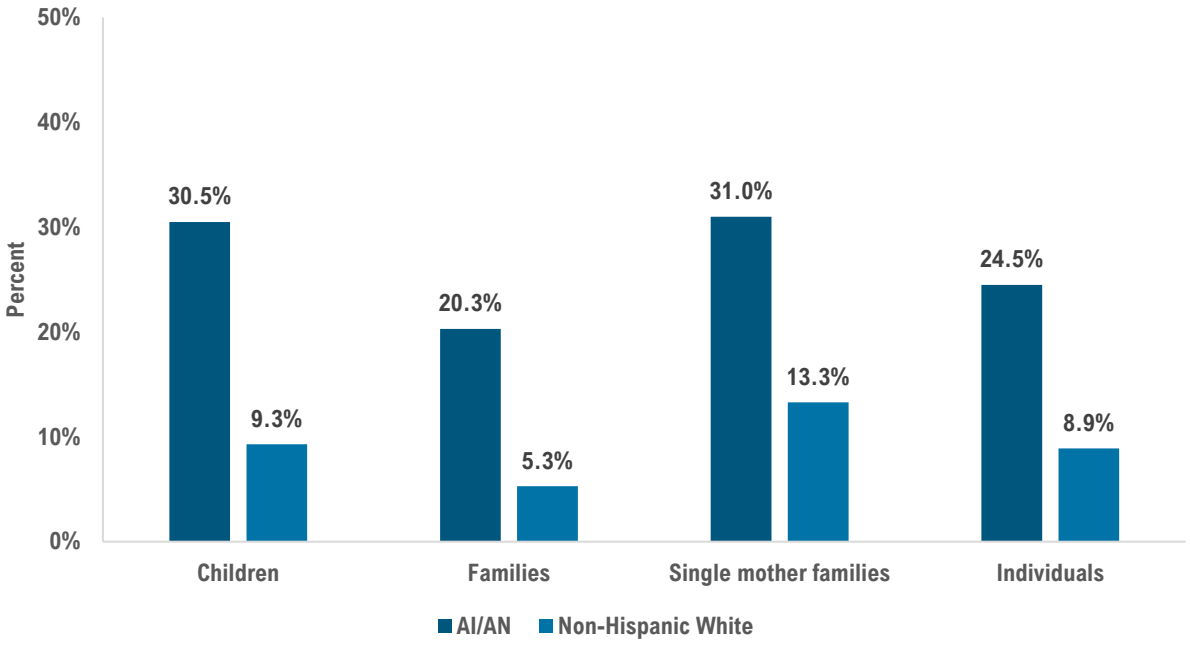
Source: American Community Survey, 2013–2017

Poverty

Poverty limits access to healthy foods, quality housing, economic opportunities, and adequate health care.[20,21] These foundational social and economic factors are inextricably connected to health outcomes. Also, the impacts of poverty on the health and well-being of a child can be detrimental and may have negative effects on early childhood and secondary academic achievement.[22,23]

In all UIO service areas, AI/AN children experienced higher estimates of poverty than NHW children (Figure 11). Nearly one-third of AI/AN children aged 17 and under (30.5%) lived in households with an income below the federal poverty level. This proportion is 3.3 times that of NHW children (9.3%). One in five AI/AN families in all UIO service areas (20.3%) lived in households with an income below the federal poverty level, almost four times that of their NHW counterparts. In addition, 31.0% of single mother households experienced poverty, 2.3 times the proportion of NHW single mother households (13.3%). Finally, nearly one-quarter of AI/AN individuals lived in poverty (24.5%) compared to 8.9% of NHW individuals.

Figure 11. Income Below the Federal Poverty Level in Past Year: All UIO Service Areas, 2013–2017



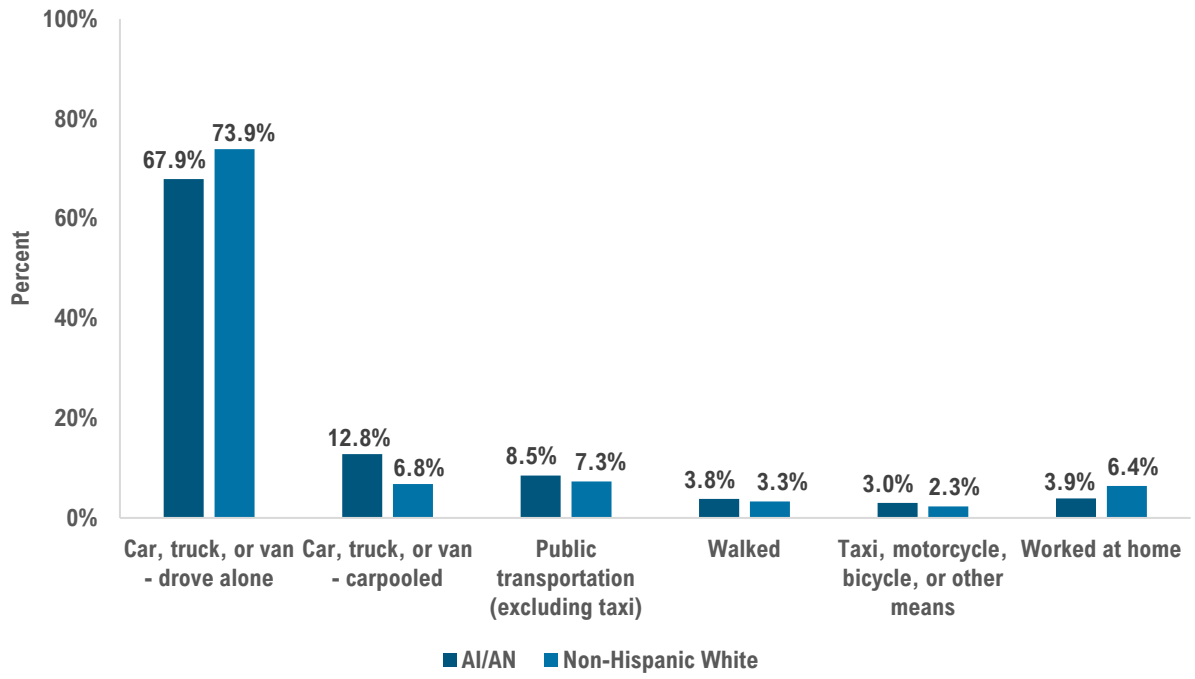
Source: American Community Survey, 2013–2017

Means of Transportation to Work

How individuals travel to work impacts their health[24]. Researchers are still studying the effects long commutes may have on health.[25] Time spent commuting is most often reallocated from physical activity, food preparation, time eating with family, and sleeping.[26] Over time, these changed behavioral patterns can contribute to poor health outcomes. This indicator offers a starting step to understanding how the health of urban AI/AN people may be impacted by their commute.

For all UIO service areas, AI/AN and NHW individuals had similar means of transportation to work. However, two categories differed (Figure 12). The proportion of AI/AN individuals carpooling in a car, truck, or van was approximately two times the proportion among NHW individuals (12.8% vs 6.8%, respectively). A difference was also seen among those who work at home—the number of AI/AN individuals who work at home was 39.0% lower than NHW individuals (3.9% vs 6.8%, respectively).

Figure 12. Means of Transportation to Work: All UIO Service Areas, 2013–2017



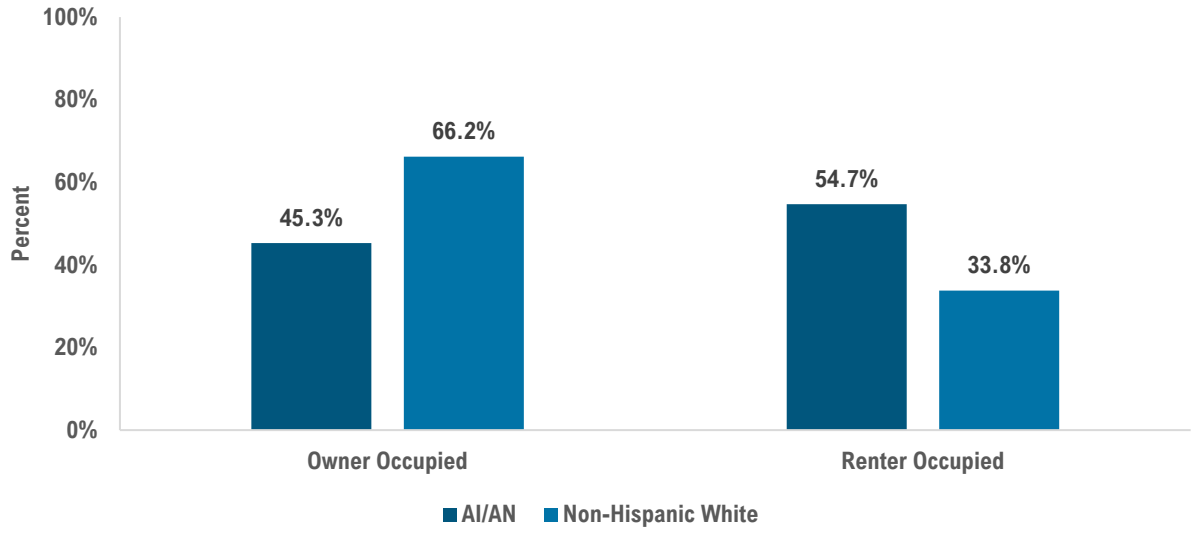
Source: American Community Survey, 2013–2017

Housing

Several studies have found that home ownership is associated with many health benefits.[27,28] These benefits may be explained by the fact that homeowners likely experience higher socioeconomic status, fewer problems of overcrowding, and lower exposure to neighborhood violence. In contrast, renters are more likely to experience poorer self-reported health, higher proportions of coronary heart disease, and more risk factors such as smoking.[29]

In all UIO service areas, less than half of all AI/AN households (45.3%) were owner-occupied compared to two-thirds of NHW households (66.2%; Figure 13). In contrast, in all UIO service areas, renter occupation among AI/AN people was 1.6 times that of NHW people (54.7% and 33.8%, respectively).

Figure 13. Type of Occupied Housing Units: All UIO Service Areas, 2013–2017



Source: American Community Survey, 2013–2017

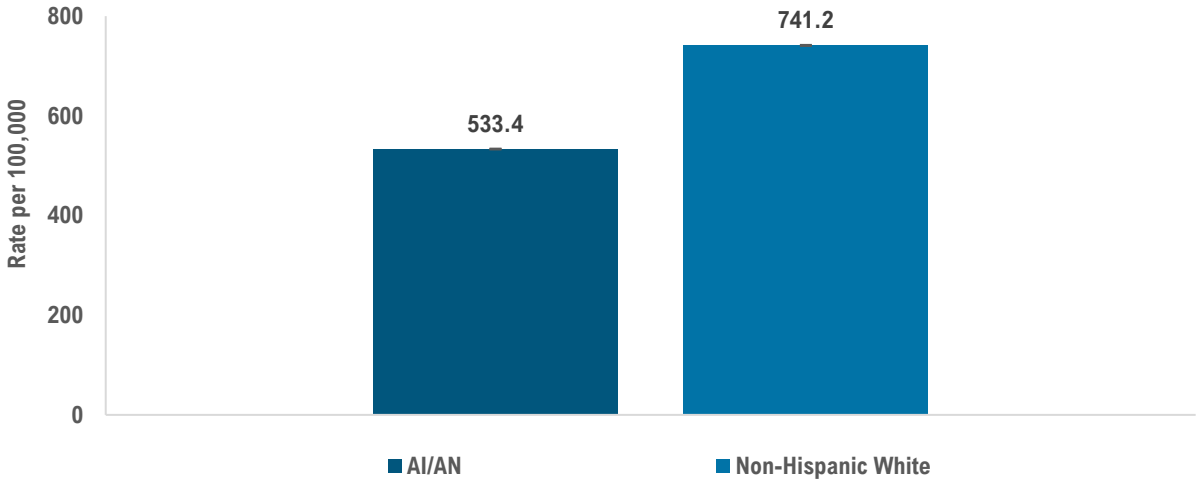
MORTALITY

Mortality data provide an indication of a community's or population's health and socioeconomic development status.[30,31] Mortality data are also a key component to understanding population size and future growth. Examining mortality data is one way to measure the burden of disease in a community or population.[31] Tracking death rates may identify groups that are at an increased risk of premature death and may identify specific underlying causes of death that are more prevalent in certain populations. In addition, high mortality rates may indicate an issue with environmental, risk, and/or socioeconomic factors as well as communicable diseases.

All-cause Mortality

From 2013–2017, there were a total of 26,600 deaths among AI/AN people in all UIO service areas compared to 2,393,556 deaths among NHW people in the same area. The age-adjusted all-cause mortality rate for AI/AN people was approximately 28.0% lower than that of NHW (533.4 per 100,000 and 741.2 per 100,000, respectively), a significant difference (Figure 14).

Figure 14. All-cause Mortality Rate: All UIO Service Areas, 2013–2017

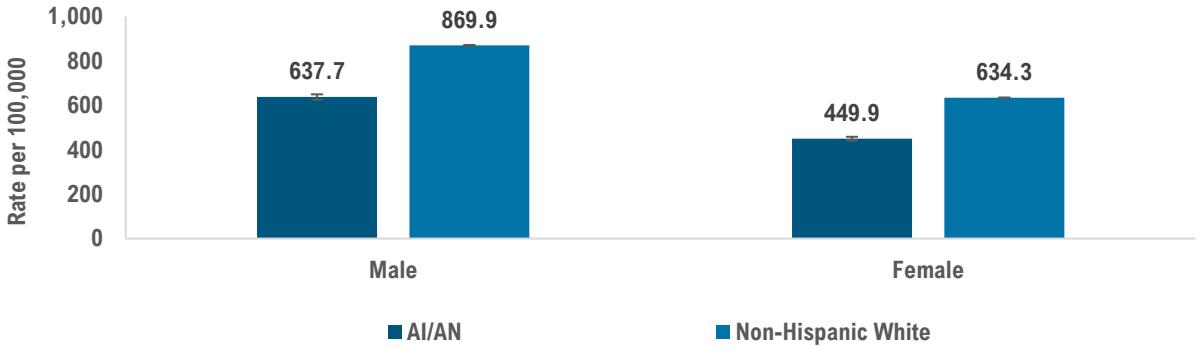


Source: National Vital Statistics, Death Certificates, 2013–2017

All-cause Mortality by Sex

The mortality rates for both males and females were significantly lower among AI/AN people compared to their NHW counterparts (Figure 15). The mortality rate for AI/AN males was 26.7% lower than that of NHW males (637.7 per 100,000 vs 869.9 per 100,000, respectively). AI/AN females (449.9 per 100,000) had a 29.1% lower mortality rate than that of NHW females (634.3 per 100,000). Additionally, the mortality rate for AI/AN females was nearly 30% lower than that of AI/AN males.

Figure 15. Mortality Rate by Sex: All UIO Service Areas, 2013–2017



Source: National Vital Statistics, Death Certificates, 2013–2017

All-cause Mortality by Age

All-cause mortality rates among AI/AN and NHW people were compared across age categories (Figure 16). AI/AN people experienced higher mortality rates in the 1–4 age category (23.5 per 100,000) compared to their NHW counterparts (19.6 per 100,000). AI/AN people also experienced higher mortality rates than NHW people among age categories 25–34 (121.1 vs 104.5 per 100,000), 35–44 (191.1 vs 169.2 per 100,000), and 45–54 (391.9 vs 382.8 per 100,000). Both AI/AN and NHW individuals aged 5–14 experienced the lowest mortality rates.

Figure 16. Mortality Rate by Age Group: All UIO Service Areas, 2013–2017

	<1 Years	1-4 Years	5-14 Years	15-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65-74 Years	75-84 Years	85 Years Plus
AI/AN	367.4	23.5	9.3	59.3	121.1	191.1	391.9	728	1415.3	3195.5	7532
Non-Hispanic White	427.6	19.6	10.9	63.8	104.5	169.2	382.8	820.3	1745	4760.4	14835.1

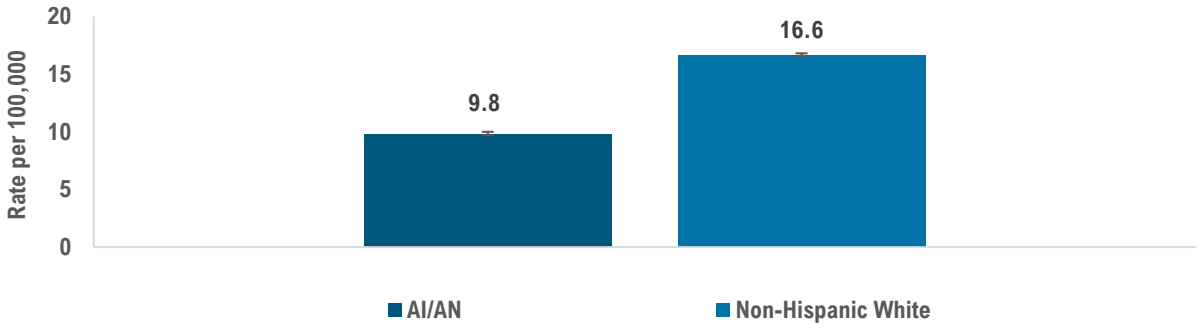
Source: National Vital Statistics, Death Certificates, 2013–2017

Suicide Mortality

Suicide is defined as a death caused by intentional self-directed injury.[32] It is recognized as a critical public health issue on a global, national, and regional scale.[32] The rates of completed suicide have been increasing in the AI/AN population since 2003.[33] Accurate and reliable information on levels and trends of suicide mortality are needed to inform suicide prevention and postvention efforts.[32]

In all UIO service areas, AI/AN people had a lower suicide mortality rate than NHW people (Figure 17) with a suicide mortality rate of 9.8 per 100,000, approximately 40% lower than that of the NHW suicide mortality rate (16.6 per 100,000).

Figure 17. Overall Suicide Mortality Rate: All UIO Service Areas, 2013–2017

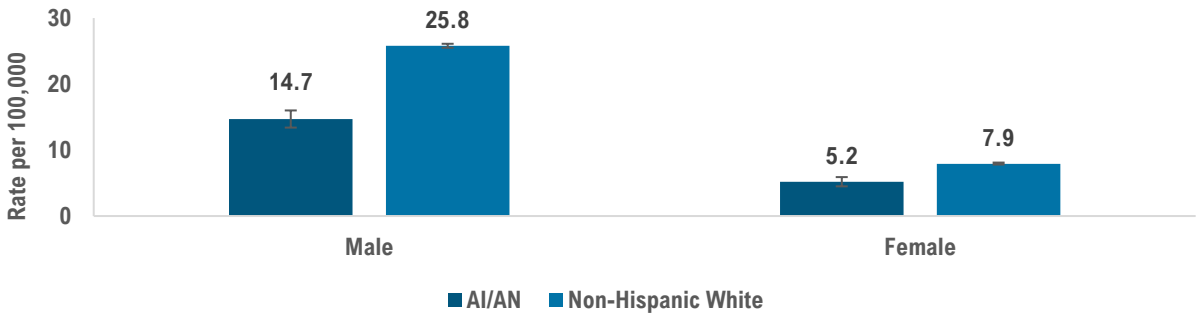


Source: National Vital Statistics, Death Certificates, 2013–2017

Suicide Mortality Rate by Sex

When looked at by sex, the mortality rates by suicide remained lower among both AI/AN males and females when compared to their NHW counterparts (Figure 18). Among AI/AN males, the suicide mortality rate was 14.7 per 100,000, 43% lower than the suicide mortality rate of NHW males (25.8 per 100,000). Additionally, the suicide mortality rate of AI/AN females was 34% lower than their NHW counterparts (5.2 vs 7.9 per 100,000, respectively).

Figure 18. Suicide Mortality Rate by Sex: All UIO Service Areas, 2013–2017

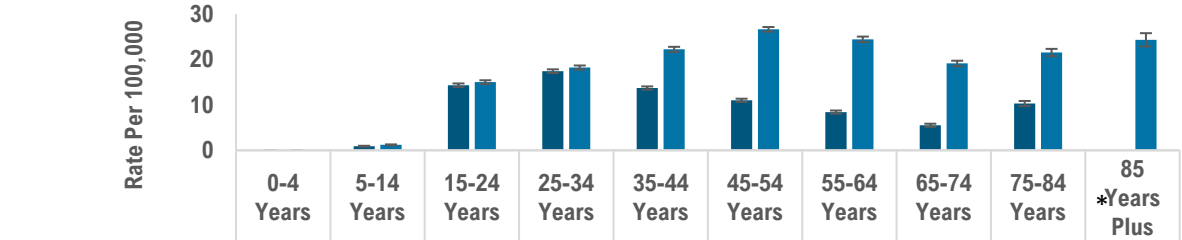


Source: National Vital Statistics, Death Certificates, 2013–2017

Suicide Mortality Rate by Age

Across all age categories, the suicide mortality rate was lower among AI/AN people than NHW people (Figure 19). AI/AN people aged 15–34 had the highest mortality rates by suicide out of all age categories. The suicide mortality rate for 25- to 34-year-old AI/AN people was 17.4 per 100,000, 4.3% lower than their NHW counterparts (18.2 per 100,000), not a significant difference.

Figure 19. Suicide Mortality Rate by Age: All UIO Service Areas, 2013–2017



	0-4 Years	5-14 Years	15-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65-74 Years	75-84 Years	85 *Years Plus
AI/AN	0	0.9	14.3	17.4	13.7	11	8.4	5.5	10.3	
Non-Hispanic White	0	1.2	15	18.2	22.2	26.6	24.4	19.1	21.5	24.3

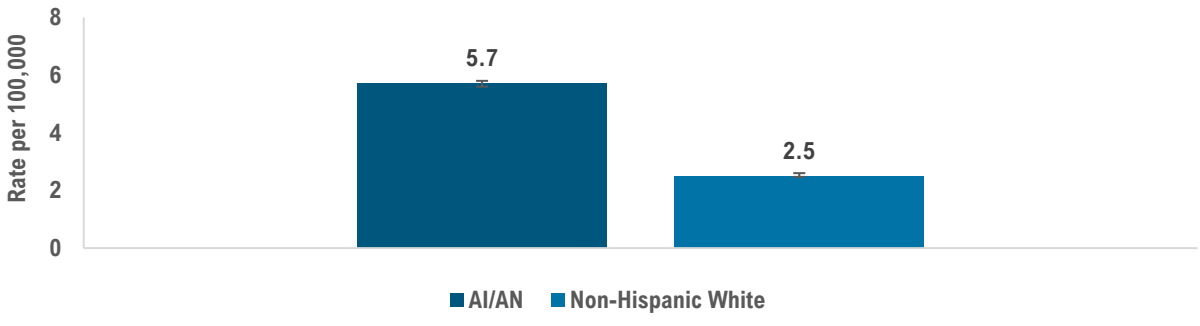
Source: National Vital Statistics, Death Certificates, 2013–2017
* Data suppressed, count less than 10

Homicide Mortality

Homicide refers to any death caused by an assault. Non-Hispanic AI/AN individuals have been shown to have elevated mortality rates by homicide[34,35]. Though there are elevated cases for AI/AN people, it is still thought that the reported homicide mortality rates are an underestimation due to racial misclassification. Data on homicide deaths by race, age, and sex can provide a more accurate depiction to better inform public health and homicide prevention efforts.

From 2013–2017 in all UIO service areas, there was a significant difference between the homicide mortality rate of AI/AN people compared to NHW people (Figure 20) with a homicide mortality rate of nearly 2.3 times that of their NHW counterparts (5.7 vs 2.5 per 100,000, respectively).

Figure 20. Overall Homicide Mortality Rates: All UIO Service Areas, 2013–2017

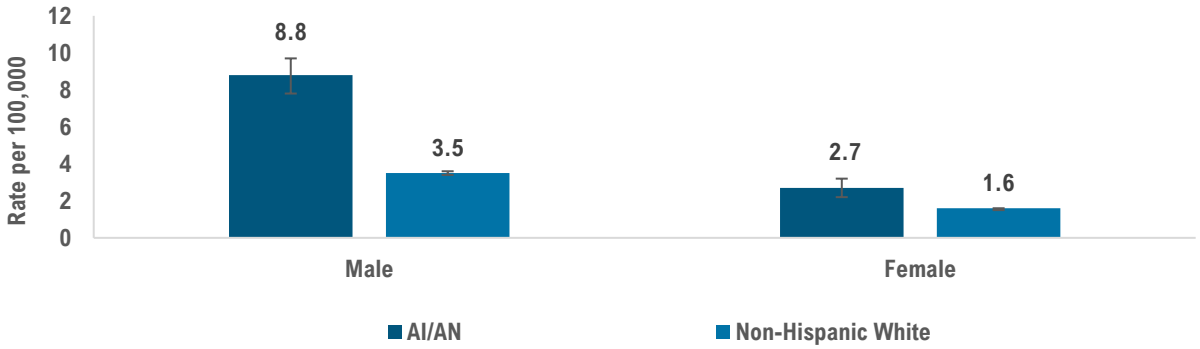


Source: National Vital Statistics, Death Certificates, 2013–2017

Homicide Mortality Rate by Sex

Looking at homicide mortality rate by race and sex, both AI/AN males and females experienced higher homicide mortality rates compared to their NHW counterparts (Figure 21). AI/AN males experienced a homicide mortality rate of 8.8 per 100,000, roughly 2.5 times that of NHW males (3.5 per 100,000) and 3.2 times that of AI/AN females (2.7 per 100,000).

Figure 21. Homicide Mortality Rates by Sex: All UIO Service Areas, 2013–2017

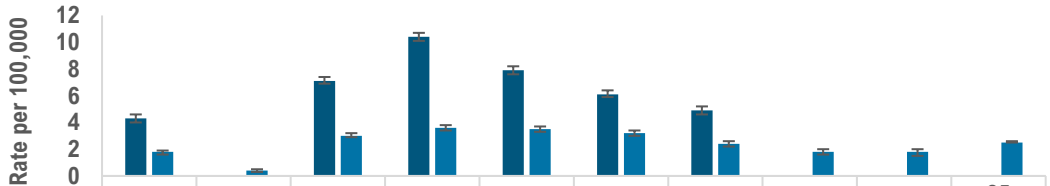


Source: National Vital Statistics, Death Certificates, 2013–2017

Homicide Mortality Rate by Age

Age groups where data on AI/AN people were suppressed due to counts in those age groups that were fewer than 10 individuals are denoted with an asterisk. AI/AN people experienced higher mortality rates by homicide compared to their NHW counterparts in all age groups presented here (Figure 22). AI/AN individuals aged 25–34 experienced the highest homicide mortality rate at 10.4 per 100,000, which is 2.9 times that of NHW in the same age category.

Figure 22. Homicide Mortality Rates by Age: All UIO Service Areas, 2013–2017



	0-4 Years	5-14 Years	15-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65-74 Years	75-84 Years	85 Years Plus
AI/AN	4.3		7.1	10.4	7.9	6.1	4.9			
Non-Hispanic White	1.8	0.4*	3	3.6	3.5	3.2	2.4	1.8*	1.8*	2.5*

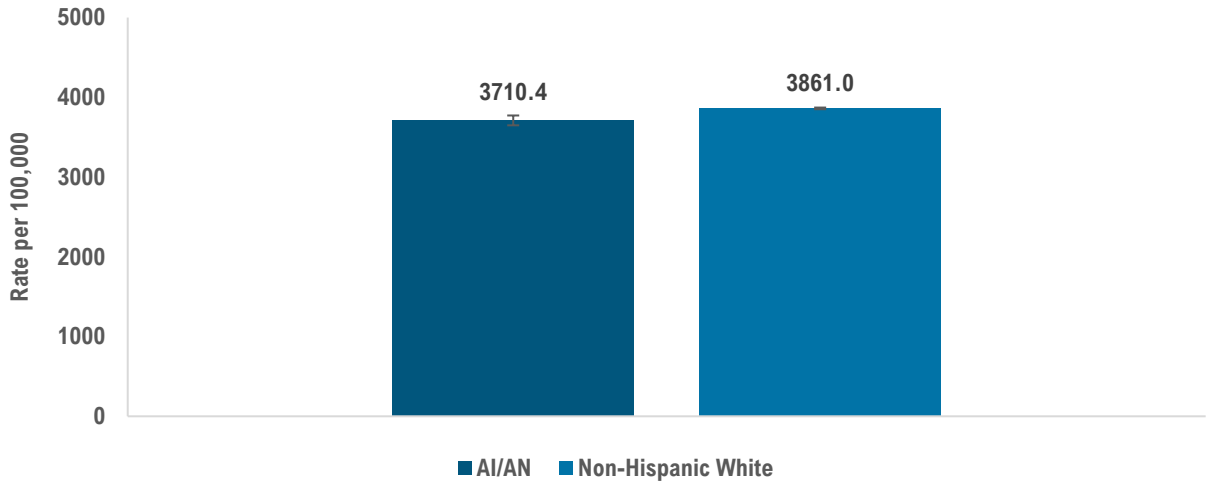
Source: National Vital Statistics, Death Certificates, 2013–2017
* Data suppressed, count less than 10

Years of Potential Life Lost

Years of Potential Life Lost (YPLL) is a measure that estimates the number of years lost due to premature death. It is used as a representation of the health of a population.[36] Tracking YPLL may identify groups that are at an increased risk of premature death and, when looked at by cause of death, may identify underlying causes of death that are more prevalent in certain populations.

From 2013 through 2017, the crude YPLL rate among AI/AN people under the age of 65 was significantly lower than the YPLL rate among NHW—3,710.4 and 3,861.0, respectively (Figure 23).

Figure 23. Years of Potential Life Lost (YPLL): All UIO Service Areas, 2013–2017



Source: National Vital Statistics, Death Certificates, 2013–2017

Top Causes of Mortality

Mortality rates often reflect the influence of environments, risk factors, socioeconomic status, and communicable diseases.[37] Understanding the top underlying causes of mortality can inform disease prevention goals, priorities, and strategies.[37]

Of the 26,600 AI/AN deaths in all UIO service areas from 2013–2017, the top cause of mortality was vascular diseases (6,173 deaths). Deaths attributed to vascular diseases include heart disease, essential hypertension and hypertensive renal disease, cerebrovascular diseases, atherosclerosis, and other diseases of the circulatory system. When looked at by sex, vascular diseases remained the top cause of mortality among both AI/AN males and females.

Table 1. Top Causes of Mortality

AI/AN			NHW		
Rank	Cause	Rate (per 100,000)	Rank	Cause	Rate (per 100,000)
1	Vascular disease	143.2	1	Vascular disease	223.4
2	Cancer	93.1	2	Cancer	165.2
3	Unintentional injuries	44.7	3	Unintentional injuries	45.1
4	Diabetes mellitus	29.3	6	Diabetes mellitus	18.0
5	Chronic lower respiratory disease	27.3	4	Chronic lower respiratory disease	43.6

Table 2. Male Top Causes of Mortality

AI/AN Males			NHW Males		
Rank	Cause	Rate (per 100,000)	Rank	Cause	Rate (per 100,000)
1	Vascular disease	175.1	1	Vascular disease	271.2
2	Cancer	112.3	2	Cancer	193.6
3	Unintentional injuries	58.6	3	Unintentional injuries	60.4
4	Diabetes mellitus	35.3	7	Diabetes mellitus	23.3
5	Chronic lower respiratory disease	31.6	4	Chronic lower respiratory disease	45.9

Table 3. Female Top Causes of Mortality

AI/AN Females			NHW Females		
Rank	Cause	Rate (per 100,000)	Rank	Cause	Rate (per 100,000)
1	Vascular disease	118.6	1	Vascular disease	184.4
2	Cancer	79.4	2	Cancer	144.9
3	Unintentional injuries	31.7	5	Unintentional injuries	30.6
4	Chronic lower respiratory disease	24.6	3	Chronic lower respiratory disease	42.1
5	Diabetes mellitus	24.6	6	Diabetes mellitus	13.8

Top Cancer Causes of Mortality

Cancer is a leading cause of premature death among AI/AN people.[38] There are many types of cancers, and each have their own risk factors, which include genetic factors, environmental factors, lifestyle behaviors, and workplace factors.[39] It is important to understand which cancers are most prevalent across populations and which have the higher mortality rates, as this could inform prevention efforts.

There was a total of 4,483 AI/AN deaths caused by cancer. Of these deaths, cancer of the trachea, bronchus, and lung (978 deaths) was the top cause. Prostate cancer was the second leading cause of cancer deaths among AI/AN people, followed by breast cancer.

Cancer of the trachea, bronchus, and lung remained the top cause of cancer deaths among both AI/AN males and females. Among AI/AN males, prostate cancer remained the second leading cause of cancer death, with cancer of the colon, rectum, and anus the third leading cause. Among AI/AN females, breast cancer was the second leading cause of cancer deaths, and cancer of the cervix, uterus, and ovary was the third leading cause of cancer deaths.

Table 4. Top Causes of Cancer Mortality

AI/AN			NHW		
Rank	Cause	Rate (per 100,000)	Rank	Cause	Rate (per 100,000)
1	Tracheal/Bronchus/ Lung cancer	21.3	1	Tracheal/Bronchus/ Lung cancer	39.8
2	Prostate cancer	10.9	3	Prostate cancer	20.1
3	Breast cancer	10.6	2	Breast cancer	22.2
4	Colon cancer	8.8	5	Colon cancer	14.1
5	Cervical cancer	8.1	4	Cervical cancer	15.1

Table 5. Male Top Causes of Cancer Mortality

AI/AN Males			NHW Males		
Rank	Cause	Rate (per 100,000)	Rank	Cause	Rate (per 100,000)
1	Tracheal/Bronchus/ Lung cancer	25.6	1	Tracheal/Bronchus/ Lung cancer	45.5
2	Prostate cancer	10.9	2	Prostate cancer	20.1
3	Colon cancer	10.5	3	Colon cancer	16.3
4	Bladder cancer	9.3	4	Bladder cancer	14.6
5	Pancreatic cancer	7.0	5	Pancreatic cancer	13.9

Table 6. Female Top Causes of Cancer Mortality

AI/AN Females`			NHW Females		
Rank	Cause	Rate (per 100,000)	Rank	Cause	Rate (per 100,000)
1	Tracheal/Bronchus/ Lung cancer	18.2	1	Tracheal/Bronchus/ Lung cancer	35.5
2	Breast cancer	10.6	2	Breast cancer	22.2
3	Cervical cancer	8.1	3	Cervical cancer	15.1
4	Colon cancer	7.5	4	Colon cancer	12.3
5	Pancreatic cancer	5.6	5	Pancreatic cancer	10.3

INFECTIOUS DISEASES

With an estimated 20 million new infections occurring each year, STDs represent a significant public health challenge across all communities in the United States.[40] AI/AN individuals experience disproportionately high rates of STDs, with rates of STDs in AI/AN communities 2–6 times greater than among NHW communities. Left untreated, many STDs can lead to significant health impacts including blindness, stroke, heart disease, ectopic pregnancies, miscarriage, stillbirth, and early infant death.[41–43]

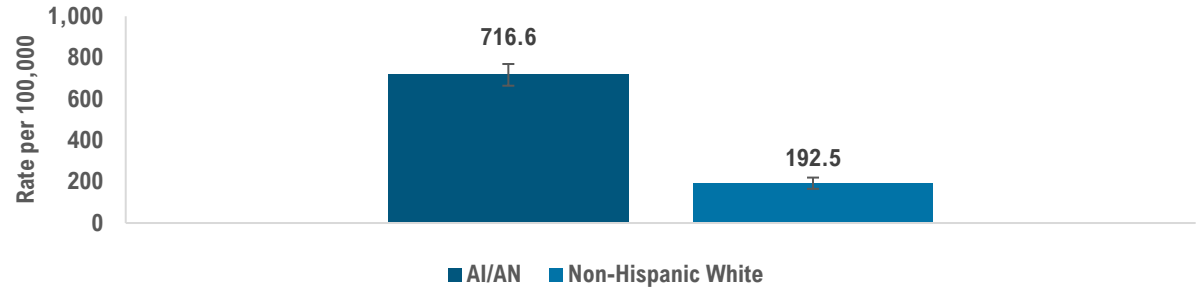
Due to a limitation of the data, STD estimates represent the 27 states where UIO service areas are located. Estimates were not available at the county level. For this section, “all UIO service areas” will be replaced with “all UIO states”.

Chlamydia

Chlamydia is the most common STD in the United States. It is a bacterial STD that is often asymptomatic and underreported.[40] Disparities in chlamydia infections between AI/AN and NHW individuals is likely due to the many structural and social factors afflicting Native communities, including historical and ongoing trauma, lack of access to healthcare and screening services, poverty, and geographic isolation.[39, 40] Due to the asymptomatic nature of chlamydia, both screening and treatment are essential to preventing and controlling its spread.[38] Untreated chlamydia can further spread the infection in a community, lead to permanent damage of an individual's reproductive organs, and cause pregnancy complications.[38] Serious, untreated cases can even result in infertility.

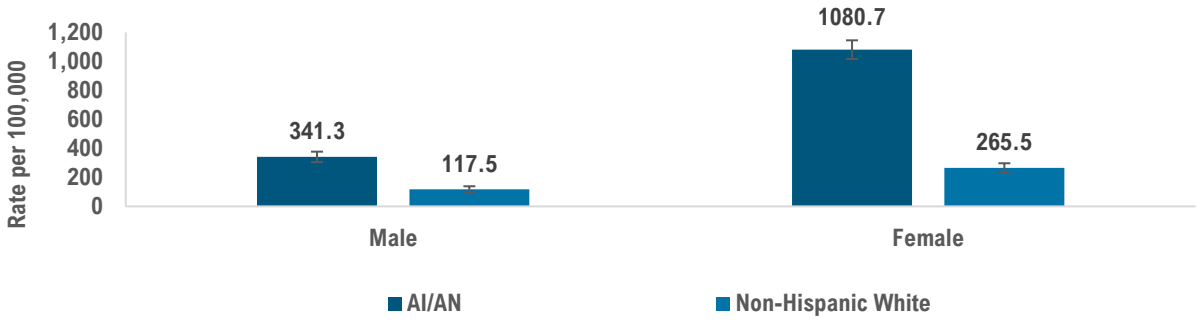
Across all UIO states, the rate of chlamydia among AI/AN people (716.6 per 100,000) was 3.7 times that of NHW people (192.5 per 100,000; Figure 24). The chlamydia infection rate for AI/AN females (1080.7 cases per 100,000) was the highest among sex and race categories and was 3.2 times that of AI/AN males (341.3 cases per 100,000; Figure 25). Among the NHW population, female rates of chlamydia were 2.3 times that of males (265.5 cases vs 117.5 cases per 100,000 population, respectively).

Figure 24. Years of Potential Life Lost (YPLL): All UIO States, 2013–2017



Source: National Notifiable Disease Surveillance System, 2013–2017

Figure 25. Chlamydia Infection Rate by Sex: All UIO States, 2013–2017

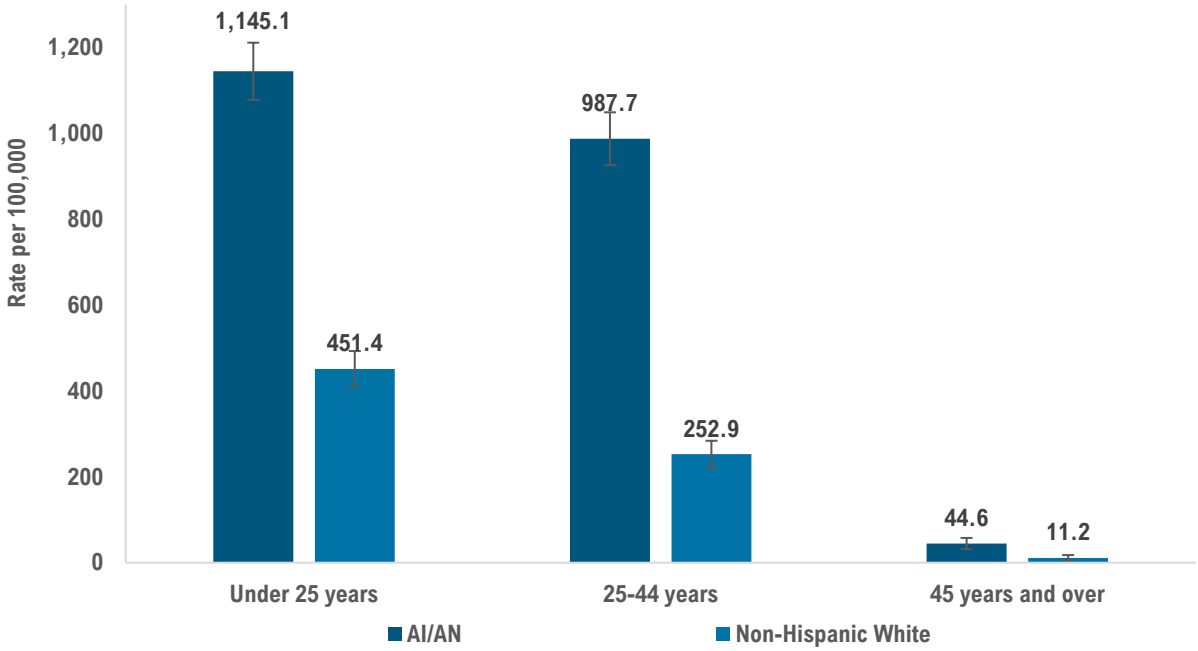


Source: National Notifiable Disease Surveillance System, 2013–2017

Chlamydia Infection Rate by Age Group

Across all UIO states, chlamydia infection rates were highest in young adults (<25 years) for both AI/AN and NHW people (Figure 26). However, the rate for AI/AN people (1145.1 cases per 100,000) was 2.5 times that of NHW people (451.4 cases per 100,000). The chlamydia rate among AI/AN people aged 25–44 years old was 987.7 cases per 100,000. Infection rates among those 45 and older were even lower (44.6 cases per 100,000) among AI/AN people.

Figure 26. Chlamydia Infection Rate by Age Group: All UIO States, 2013–2017



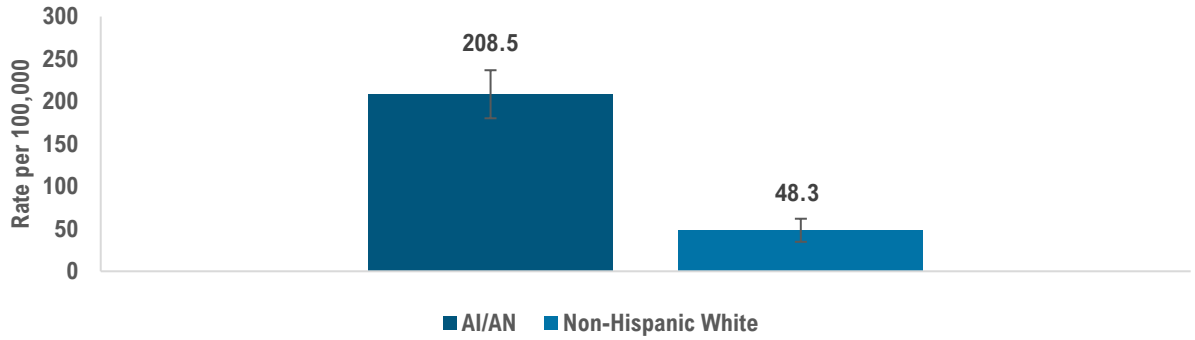
Source: National Notifiable Disease Surveillance System, 2013–2017

Gonorrhea

In the U.S., cases of gonorrhea increased by 67% between 2013 and 2017.[41] Gonorrhea is a bacterial STD that is often asymptomatic. When left untreated, it can cause serious complications such as pelvic pain, ectopic pregnancy, and infertility.[42] Untreated gonorrhea can also increase the risk of HIV transmission.[42] Although it is currently treatable with antibiotics, gonorrhea has become progressively more resistant to multiple antibiotics over the past three decades. Consequently, there is a need for robust public health monitoring and response to prevent the spread of these emerging resistant strains.[42]

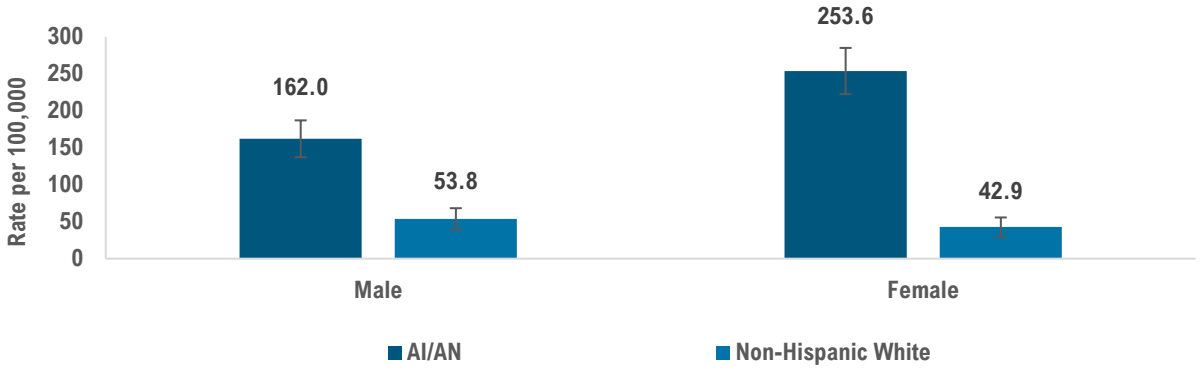
Across all UIO states, the rate of gonorrhea among AI/AN people (208.5 per 100,000) was 4.3 times that of NHW people (48.3 per 100,000; Figure 27). The gonorrhea infection rate for AI/AN females (253.6 cases per 100,000) was the highest among sex and race categories (Figure 28). AI/AN females had a gonorrhea infection rate 1.6 times that of AI/AN males (162.0 cases per 100,000). This difference was less pronounced among the NHW population, with infection rates lower in females than males (42.9 cases vs 53.8 cases per 100,000, respectively).

Figure 27. Gonorrhea Infection Rate: All UIO States, 2013–2017



Source: National Notifiable Disease Surveillance System, 2013–2017

Figure 28. Gonorrhea Infection Rate by Sex: All UIO States, 2013–2017

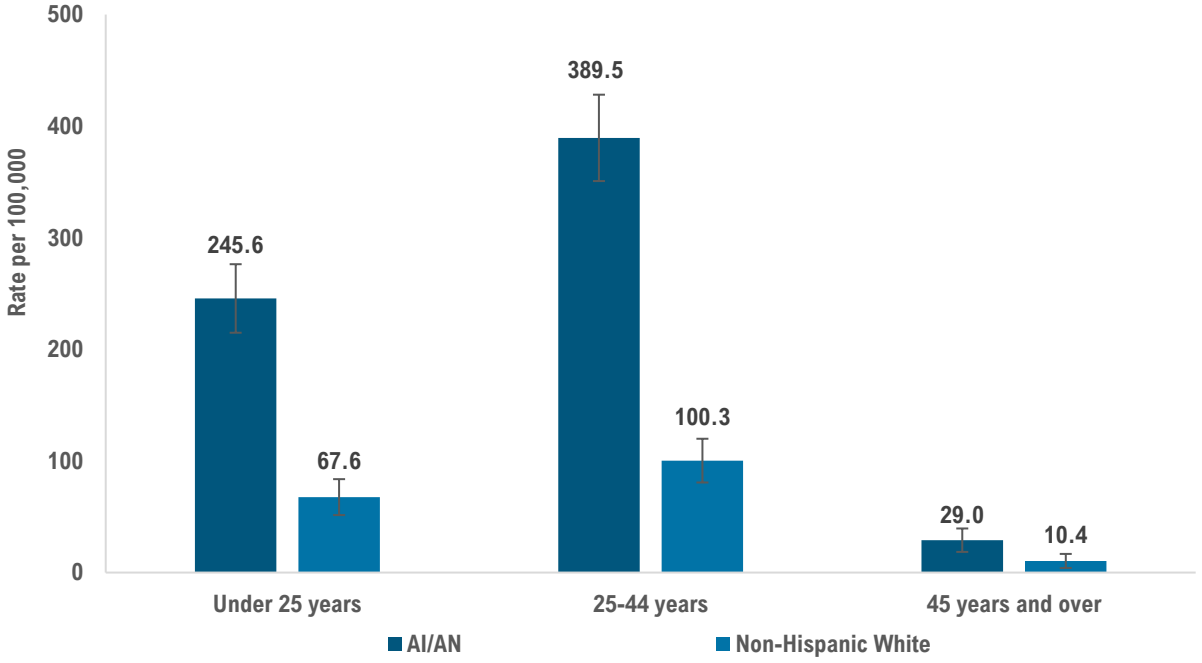


Source: National Notifiable Disease Surveillance System, 2013–2017

Gonorrhea Infection Rate by Age Group

Among AI/AN people under 25 years of age, the rate of gonorrhea infection was 245.6 cases per 100,000 (Figure 29). Across all UIO states, gonorrhea infection rates were highest in the 25–44 age group for both AI/AN and NHW people. However, in this age group, the rate for AI/AN individuals (389.5 cases per 100,000) was nearly four times that of NHW individuals (100.3 cases per 100,000). Infection rates for those over the age of 45 were significantly lower among AI/AN individuals (29.0 cases per 100,000).

Figure 29. Gonorrhea Infection Rate by Age Group: All UIO States, 2013–2017



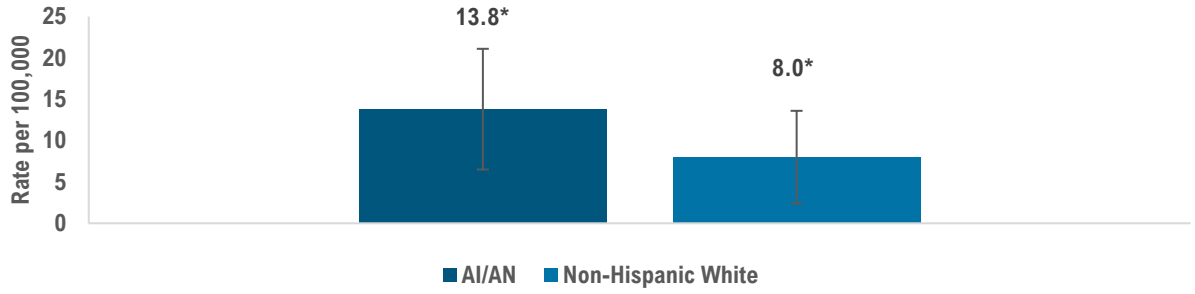
Source: National Notifiable Disease Surveillance System, 2013–2017

Syphilis

Syphilis is a serious STD caused by a bacterial infection.[43] Syphilis is divided into stages: primary stage, secondary stage, latent stage, and tertiary stage. Early symptoms are often minor but, if left untreated, can cause severe medical problems such as paralysis, dementia, and death.[43] Due to the underreporting of syphilis, the numbers recorded are likely an undercount of the true number of cases, even as the U.S. has reported for 2017 its highest rate of syphilis since 1993.[44] Incidence of syphilis in the U.S. varies by racial and ethnic groups, which is likely a reflection of the social determinants of health that contribute to syphilis presence in a community.[45]

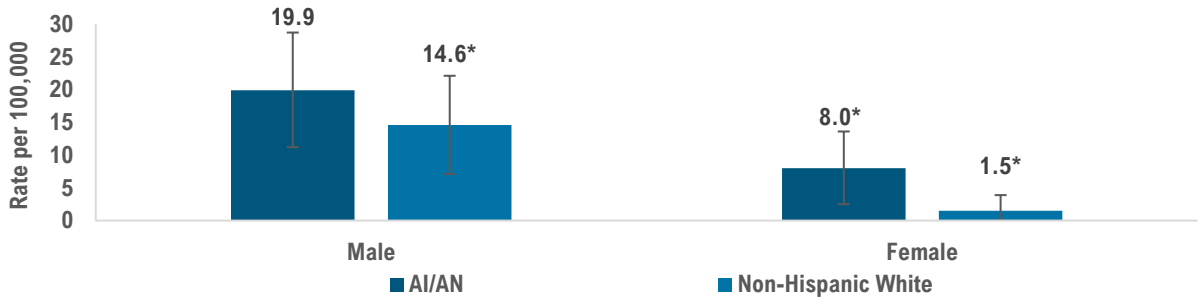
Across all UIO states, the syphilis infection rate among AI/AN people (13.8 cases per 100,000) was 1.7 times that of NHW people (8.0 cases per 100,000; Figure 30)—this is not a significant difference. The syphilis infection rate for AI/AN males (19.9 cases per 100,000) was the highest among the sex and race categories and was 2.5 times that of AI/AN females (8.0 cases per 100,000; Figure 31). There was also a stark difference between NHW males and females. NHW males had a syphilis infection rate 9.7 times that of females (14.6 compared to 1.5 cases per 100,000, respectively).

Figure 30. Syphilis Infection Rate: All UIO States, 2013–2017



Source: National Notifiable Disease Surveillance System, 2013–2017
*Rates presented here have a relative standard error (RSE) that exceeds 25%. RSE provides a measure of reliability. Where RSE is or exceeds 25%, the estimate is imprecise and may not be reliable.

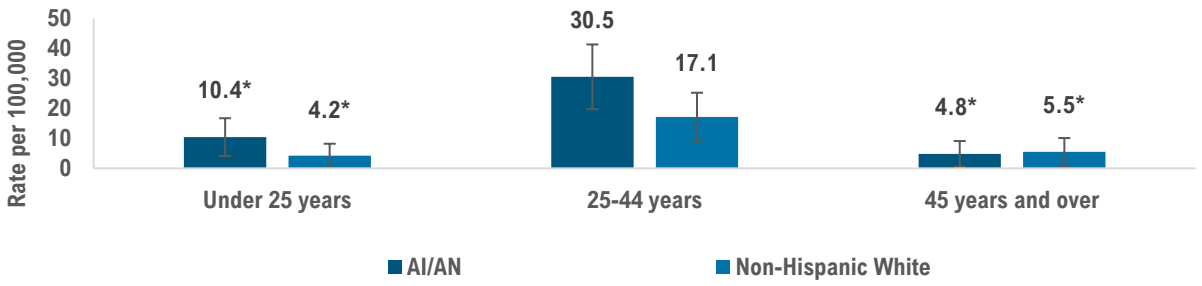
Figure 31. Syphilis Infection Rate by Sex: All UIO States, 2013–2017



Source: National Notifiable Disease Surveillance System, 2013–2017
*Rates presented here have a relative standard error (RSE) that exceeds 25%. RSE provides a measure of reliability. Where RSE is or exceeds 25%, the estimate is imprecise and may not be reliable.

Among AI/AN individuals less than 25 years of age, syphilis infection rates were 10.4 per 100,000, nearly 2.5 times that of NHW individuals (4.2 per 100,000; Figure 32). Across all UIO states, syphilis infection rates were highest among the 25–34 age group for both races. However, the rates for AI/AN people (30.5 cases per 100,000) were nearly two times that of NHW people (17.1 cases per 100,000). Syphilis cases were lowest amongst those aged older than 45 years for both AI/AN and NHW people (4.8 and 5.5 per 100,000, respectively).

Figure 32. Syphilis Infection Rate by Age Group: All UIO States, 2013–2017



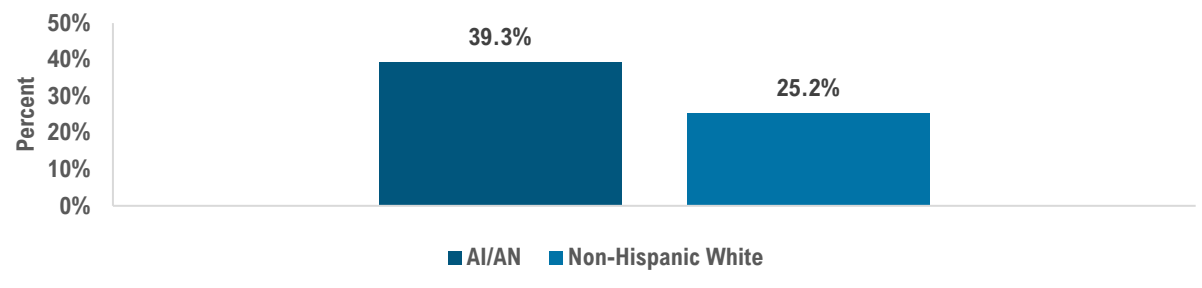
Source: National Notifiable Disease Surveillance System, 2013–2017
*Rates presented here have a relative standard error (RSE) that exceeds 25%. RSE provides a measure of reliability. Where RSE is or exceeds 25%, the estimate is imprecise and may not be reliable.

HIV Screening

Human Immunodeficiency virus (HIV) remains a pressing public health threat throughout marginalized communities. It is estimated that 3,000 AI/AN people are living with HIV.[44] Both structural and environmental factors contribute to increased risk of HIV infection, including environmental resources, access to care, stigma, and economic status.[45] Among the general U.S. population, about 1 in 7 individuals with HIV do not know they are positive.[46] It is important for individuals to get tested and to start treatment as soon as possible, if necessary.

Across all UIO states, nearly 39.3% of AI/AN people responded “yes” when asked whether they had ever been screened for HIV (Figure 33). This response was 1.6 times that of NHW who were surveyed (25.2%).

Figure 33. Population Ever Been Tested for HIV: All UIO States, 2013–2017



Source: National Notifiable Disease Surveillance System, 2013–2017

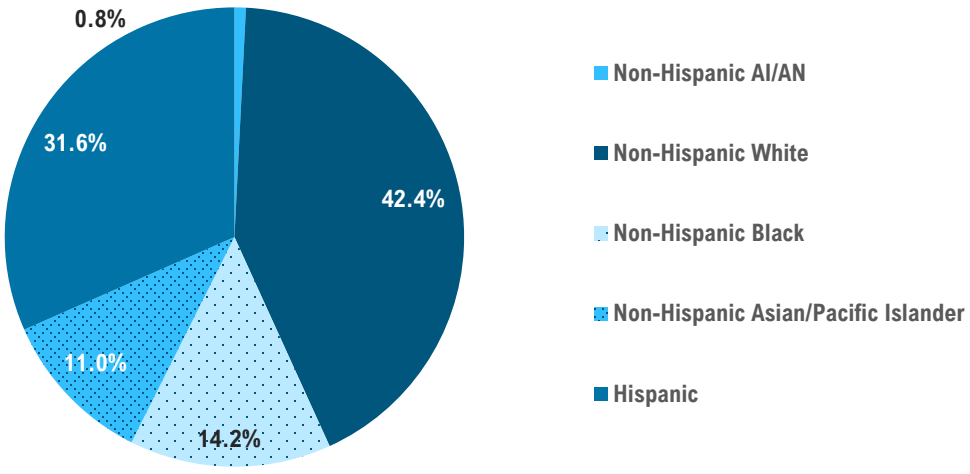
MATERNAL AND CHILD HEALTH

Understanding the state of maternal and child health (MCH) for urban Indians is key to creating the foundation for healthy children, mothers, and future generations. Tracking maternal smoking, gestational diabetes, prenatal care, and preterm births can help urban Indian health organizations make the best decisions regarding programs for pregnant mothers and infants. For the purposes of this report, language around birth and maternal health data includes traditionally female terminology, but it is understood that not every person who gives birth identifies as such.

Births by Race/Ethnicity

From 2013 to 2017 there were a total of 5,903,094 live births across all UIO service areas. Among those births, about 1.0% were to women who identified as non-Hispanic AI/AN alone (Figure 34). The largest proportions of births among the racial/ethnic groups were among NHW women (42.4%) and Hispanic women (31.6%). Births to non-Hispanic Black women accounted for 14.2% of all births while births to non-Hispanic Asians and Pacific Islanders were 11.0% of all births.

Figure 34. Births by Maternal Race/Ethnicity: All UIO Service Areas, 2013–2017



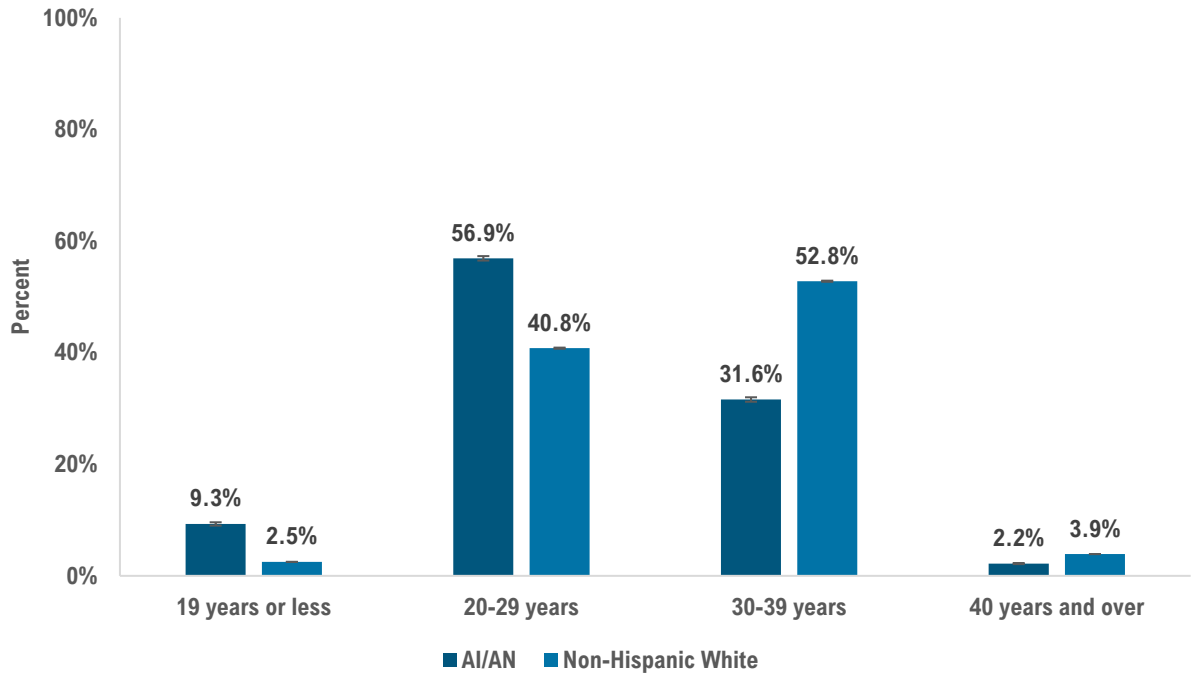
Source: National Vital Statistics, Birth Certificates, 2013–2017

Births by Maternal Age Group

Birth by maternal age group is a valuable indicator to estimate access to family planning resources and services.[47] For example, pregnant adolescents have an increased risk of preterm labor and birth, preeclampsia, and demonstrated greater odds of other health complications for both the mother and infant.[47] In addition, pregnant women over the age of 35 also demonstrated increased odds of preterm delivery, hypertension, and other complications.[47]

In general, AI/AN women tend to give birth at a younger age than their NHW counterparts (Figure 35). Across all UIO service areas, 9.3% of births among AI/AN women were to teenage women (19 years or younger) compared to 2.5% of NHW births. The proportion of births to teenage women was 3.7 times higher in AI/AN women compared to NHW women. In addition, 56.9% of all births among AI/AN women were to women in their 20s; higher than 40.8% among NHW women. Conversely, NHW women had more children in their 30s compared to AI/AN women (52.8% vs. 31.6%).

Figure 35. Births by Maternal Age Group: All UIO Service Areas, 2013–2017



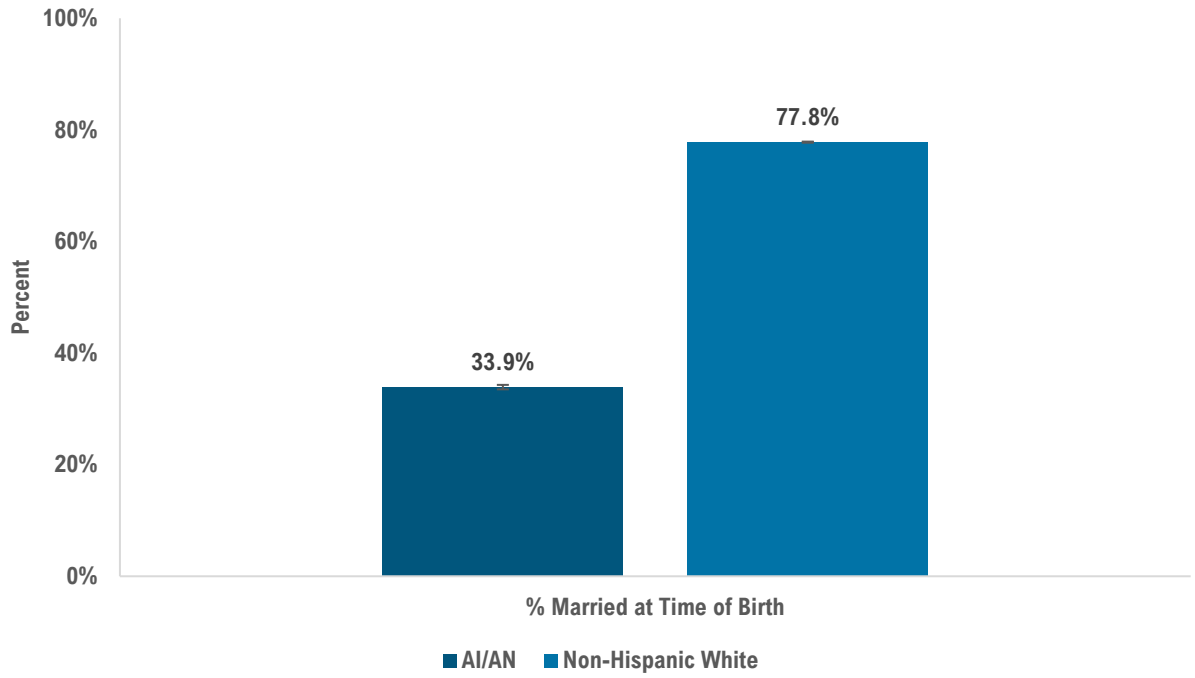
Source: National Vital Statistics, Birth Certificates, 2013–2017

Births by Marital Status

Studies have shown positive associations between marriage and health outcomes.[48] Married couples tend to have more than one income source providing for their family, allowing them to afford nutritious food and access to other health resources.[48] Marital status during first birth has been found to be associated with health outcomes later on in their lives for white and black women.[49,50]

Across all UIO service areas, 33.9% of all births to AI/AN women were to women who were married (Figure 36). This was significantly lower than NHW women in which 77.8% of births were to married mothers. The proportion of births to unmarried women was 3.0 times higher in AI/AN women compared to NHW women.

Figure 36. Births by Marital Status: All UIO Service Areas, 2013–2017



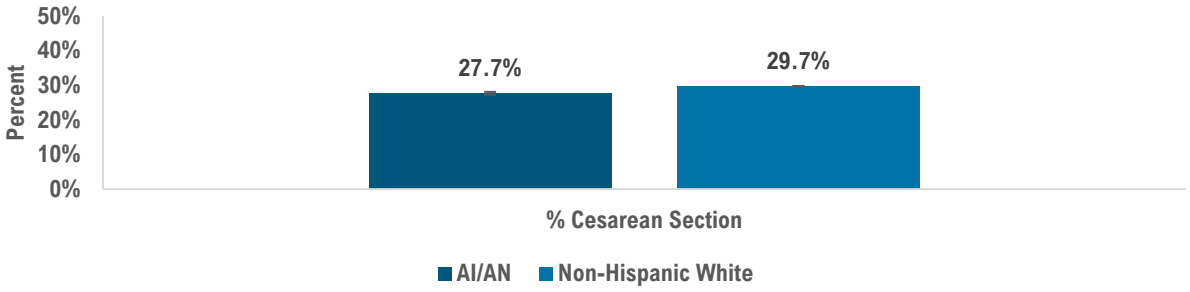
Source: National Vital Statistics, Birth Certificates, 2013–2017

Cesarean Section

Cesarean sections can often be a life-saving intervention when necessary. This procedure can also lead to longer hospital stays and higher costs.[51] While cesarean sections can prevent maternal and infant mortality and morbidity, there is little to no advantage for women who have the procedure electively.[52,53] Cesarean sections are associated with both short- and long-term risks that come along with a major surgery such as infection, blood loss, and damage to organs.[54–56] The incidence of severe complications from cesarean sections increases significantly in those over the age of 35.[57] Moreover, the rate of cesarean sections has only increased among the general population, therefore we need to understand the disparities between the women receiving this procedure.[51]

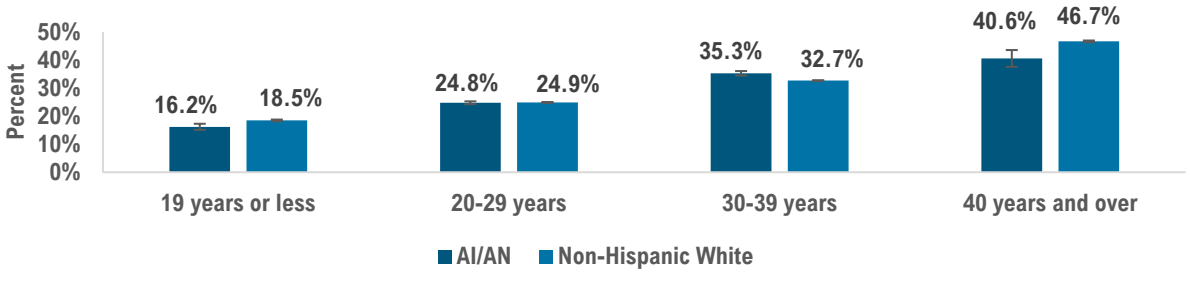
Across all UIO service areas, an estimated 27.7% of births were delivered by cesarean section among AI/AN females (Figure 37). This was statistically lower than the proportion of deliveries by cesarean section among NHW births at 29.7%. The proportion of cesarean deliveries increased significantly as maternal age increased for both AI/AN and NHW women (Figure 38). However, this rise in cesarean sections across age groups was not equal for AI/AN and NHW women. Significant differences could be seen between AI/AN women and NHW women 19 years and younger (16.2% and 18.5%, respectively), 30–39 years of age (35.3% and 32.7, respectively), and those 40 years and older (40.6% and 46.7%, respectively).

Figure 37. Births by Cesarean Section: All UIO Service Areas, 2013–2017



Source: National Vital Statistics, Birth Certificates, 2013–2017

Figure 38. Cesarean Sections by Maternal Age Group: All UIO Service Areas, 2013–2017



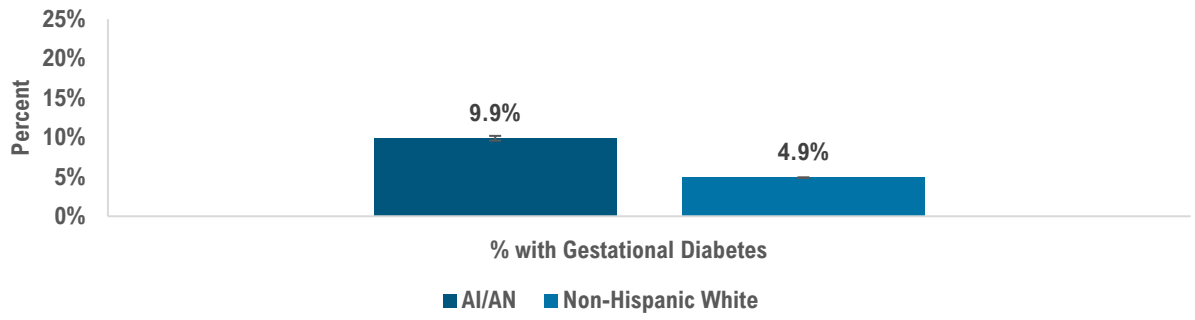
Source: National Vital Statistics, Birth Certificates, 2013–2017

Gestational Diabetes

Every year in the U.S., 2–10% of pregnancies are affected by gestational diabetes.[58] Gestational diabetes can increase the risk of high blood pressure during pregnancy as well as the likelihood of a high birthweight baby that will need to be delivered by cesarean section.[58] A lack of access to prenatal care and screening services contributes to disparities in gestational diabetes seen across racial groups.[59] Age of a pregnant person can increase their risk of developing gestational diabetes during a pregnancy. The risk of gestational diabetes tends to increase as the age of the pregnant person increases.[60]

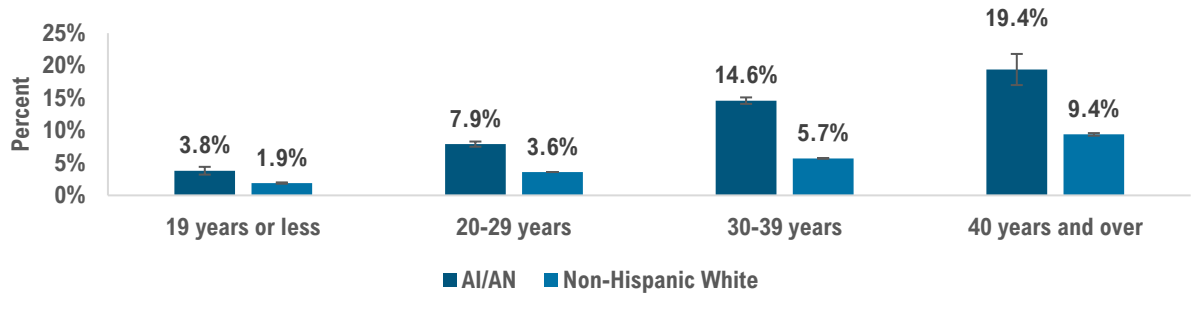
Across all UIO service areas, approximately 9.9% of AI/AN births were to women who were diagnosed with gestational diabetes (Figure 39). This proportion was significantly higher than for NHW women, where 4.9% of women were diagnosed with gestational diabetes. AI/AN pregnant women were 2.0 times as likely to be diagnosed with gestational diabetes than their NHW counterparts. The risk of gestational diabetes during pregnancy significantly increased with maternal age for both AI/AN and NHW women (Figure 40). Across each maternal age group, the proportion of gestational diabetes among AI/AN women was higher than seen in NHW women—the difference within each age group was statistically significant.

Figure 39. Gestational Diabetes: All UIO Service Areas, 2013–2017



Source: National Vital Statistics, Birth Certificates, 2013–2017

Figure 40. Gestational Diabetes by Maternal Age Group: All UIO Service Areas, 2013–2017



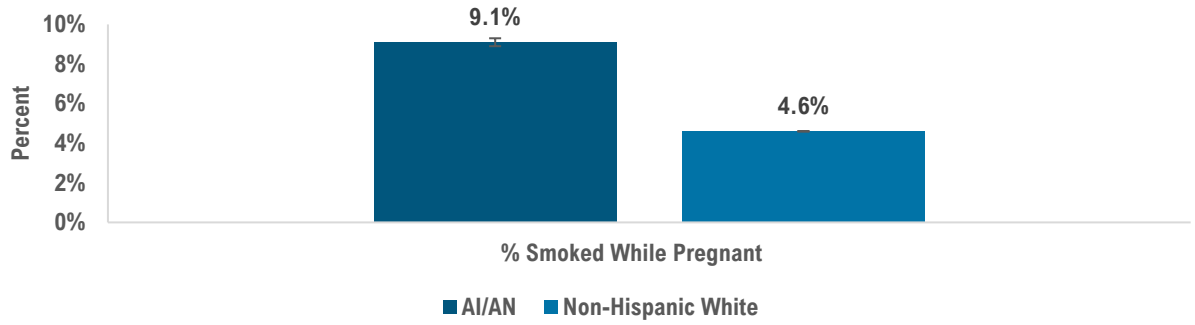
Source: National Vital Statistics, Birth Certificates, 2013–2017

Maternal Smoking

There are many negative infant and child outcomes linked to maternal tobacco use during pregnancy.[61] These negative outcomes include low birthweight, preterm birth, and various birth defects.[61,62] Of racial and ethnic groups, AI/AN women had the highest prevalence of smoking during pregnancy.[61] This disparity can be attributed to a difference in access to resources and tobacco advertising that target these communities.[63] The prevalence of pregnant women who smoke during pregnancy varied by age in national data.[61] In the U.S., women aged 20–24 had the highest prevalence of smoking during pregnancy followed by those aged 15 to 19.[61]

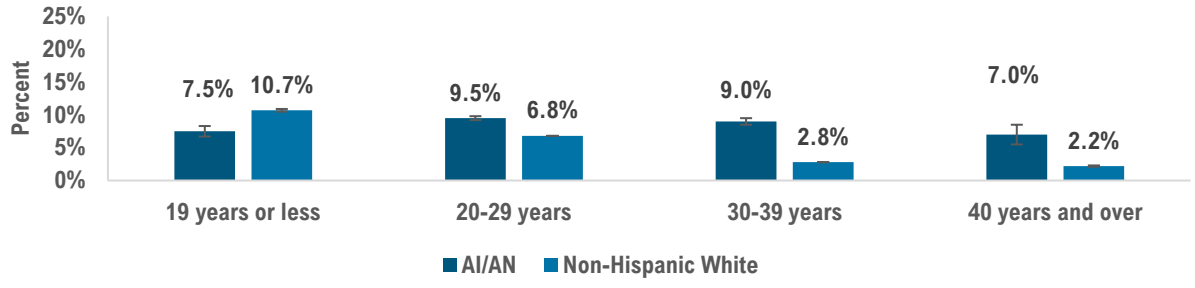
Across all UIO service areas, 9.1% of AI/AN births were to women who smoked while pregnant (Figure 41). AI/AN women were 2.0 times as likely to smoke during pregnancy compared to 4.6% of NHW women. Among births to NHW women, smoking decreased as maternal age increased, while smoking was lowest among births to AI/AN women in both the youngest and oldest maternal age groups (Figure 42). Maternal smoking was significantly higher among AI/AN women in their 20s, 30s, and 40s compared to NHW women. Conversely, AI/AN women under 19 years of age had a significantly lower proportion of maternal smoking than their NHW counterparts.

Figure 41. Maternal Smoking: All UIO Service Areas, 2013–2017



Source: National Vital Statistics, Birth Certificates, 2013–2017

Figure 42. Maternal Smoking by Maternal Age Group: All UIO Service Areas, 2013–2017



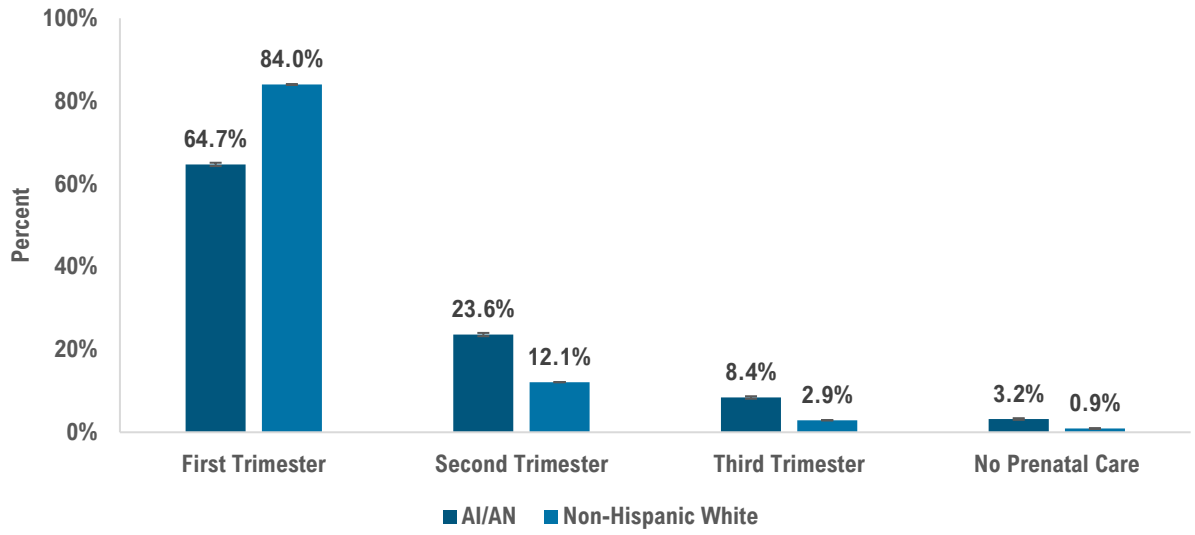
Source: National Vital Statistics, Birth Certificates, 2013–2017

Prenatal Care

Prenatal care refers to the medical attention received by women before or during their pregnancy. Early prenatal care is a significant component in ensuring a healthy pregnancy .[64] Women who receive late or no prenatal care are at risk for having undetected complications during their pregnancy that can result in severe maternal morbidity and mortality and serious consequences to the unborn infant including low birth weight, preterm birth, and morbidity, and mortality.64 In addition, a lack of access, knowledge of resources and other social and structural barriers can also prevent utilization of prenatal care.[65,66] Disparities in prenatal care for AI/AN women varies by region and state.[67]

Among pregnant women across all UIO service areas, 64.7% of AI/AN births were to women who began prenatal care in the first trimester compared to 84.0% of births to NHW women, a statistically significant difference (Figure 43). In addition, 11.6% of AI/AN births were to women who began prenatal care in the third trimester or did not receive any prenatal care during their pregnancy compared to 3.8% of NHW births. The proportion of births to women beginning prenatal care in their third trimester or receiving no prenatal care was 3.1 times higher in AI/AN women compared to NHW women.

Figure 43. Prenatal Care Initiation by Trimester: All UIO Service Areas, 2013–2017



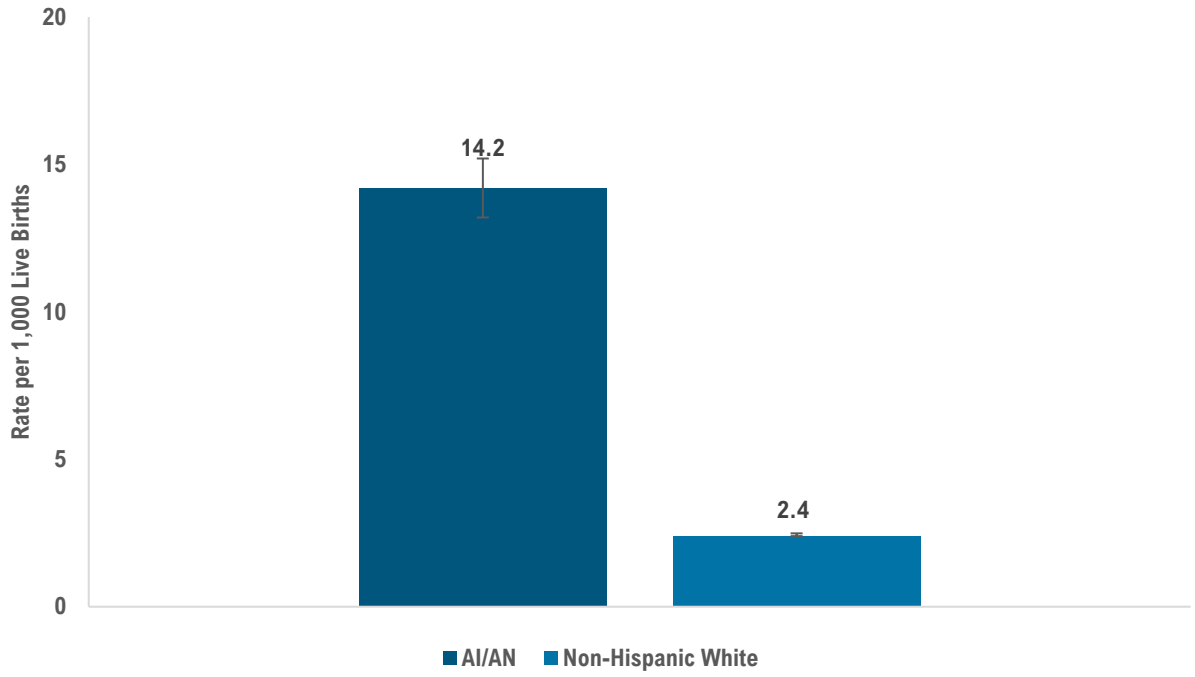
Source: National Vital Statistics, Birth Certificates, 2013–2017

Infant Mortality

Infant mortality, an important indicator of the health of a community, is defined as the number of deaths of infants younger than one year of age per 1,000 live births for a given time period.[68] Infant mortality may be related to the underlying health of the mother, public health practices, socioeconomic conditions, and the availability and use of appropriate pre- and post-natal health care.[68] Causes of infant deaths are primarily due to health problems of the infant or a difficult pregnancy.[69]

The infant mortality rate for AI/AN infants across all UIO service areas was 14.2 per 1,000 live births (Figure 44). This was significantly higher than the infant mortality rate for NHW infants (2.4 per 1,000 live births), with AI/AN infants being nearly six times as likely to die within their first year of life, compared to NHW infants.

Figure 44. Infant Mortality: All UIO Service Areas, 2013–2017



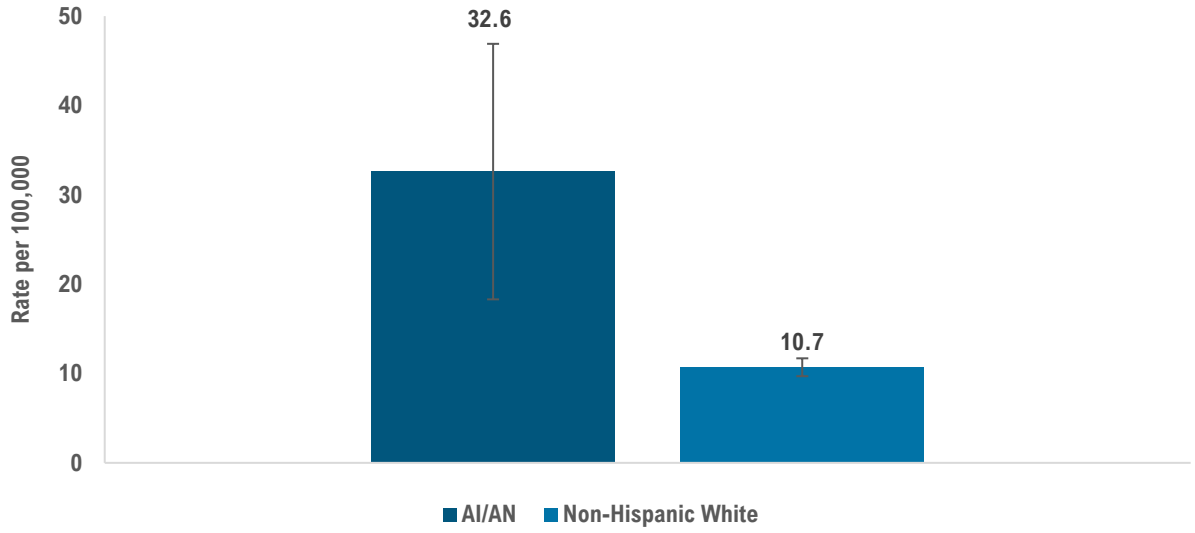
Source: National Vital Statistics, Birth Certificates, 2013–2017

Maternal Mortality

Maternal mortality measures the number of women that die either during pregnancy, childbirth, or in the weeks following. Maternal mortality is high in the U.S. compared to other developed countries, and rates rose to their highest level in 2014 and have remained high since then.[70,71] It has been found that most pregnancy-related deaths were determined to be preventable.[72] In addition, pregnancy-related mortality rates were found to be significantly higher among Black and AI/AN women.[73]

Across all UIO service areas, maternal mortality was 32.6 per 100,000 births for AI/AN women, which was significantly higher than among NHW women (10.7 per 100,000 births; Figure 45). AI/AN women were three times as likely to experience maternal mortality than NHW women.

Figure 45. Maternal Mortality: All UIO Service Areas, 2013–2017



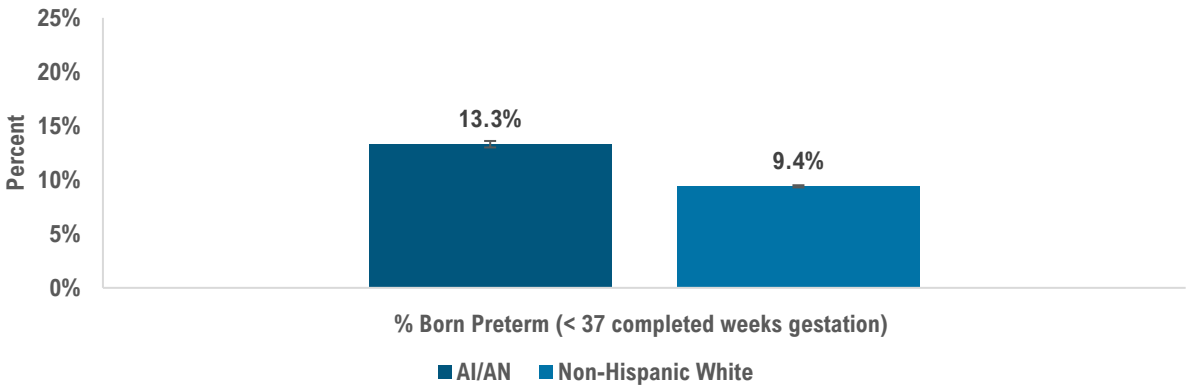
Source: National Vital Statistics, Birth Certificates, 2013–2017

Preterm Births

A preterm birth is defined as a birth that occurs before 37 completed weeks of pregnancy.[74] Preterm birth disproportionately affects AI/AN women.[75] Tobacco use, low socioeconomic status, low maternal age, and single marital status put women at higher risk for having a preterm delivery.[75] A factor associated with preterm birth is age—teens and women over 35 have an increased likelihood of preterm birth.[76]

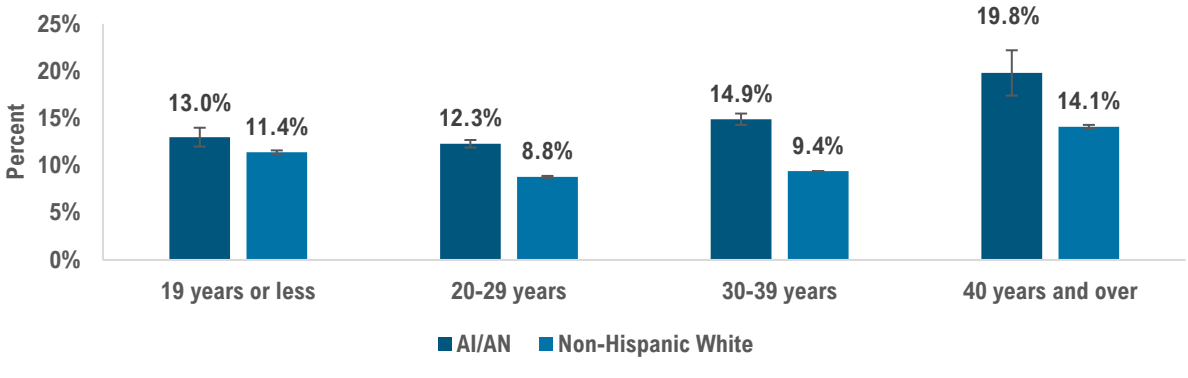
Across all UIO service areas, 13.3% of all infants born to AI/AN women were born preterm, which was significantly higher than their NHW counterparts (9.4%; Figure 46). AI/AN women were 1.4 times as likely to have an infant born preterm than NHW women. When stratified by age group, patterns of preterm births were similar for both NHW and AI/AN women (Figure 47). Although preterm births increased as maternal age increased, women in their 20s had the lowest rate of preterm births than any other age group for both NHW and AI/AN women.

Figure 46. Preterm Births: All UIO Service Areas, 2013–2017



Source: National Vital Statistics, Birth Certificates, 2013–2017

Figure 47. Preterm Births by Maternal Age Group: All UIO Servicea reas, 2013–2017



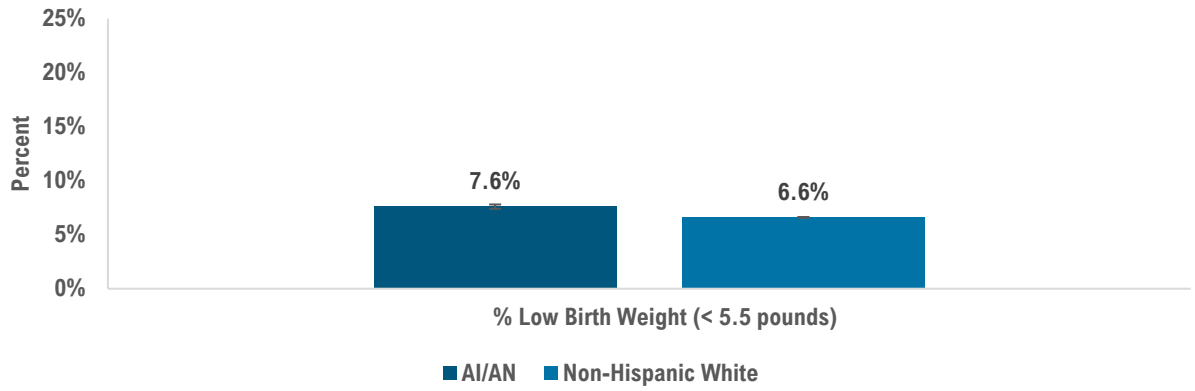
Source: National Vital Statistics, Birth Certificates, 2013–2017

Low Birth Weight

Low birth weight is classified when a baby is born less than 2,500 grams.[77] Preterm birth can result in low birth weight. Smoking during pregnancy is also associated with an increased likelihood of low birth weight.[78] Additionally, it has been strongly suggested that exposure to cumulative stress such as historical trauma is associated with adverse birth outcomes.[78,79] For NHW women, a reduction in the prevalence of low birth weight is seen between the ages of 15–19 and 30–34, a trend not seen in AI/AN women.[78]

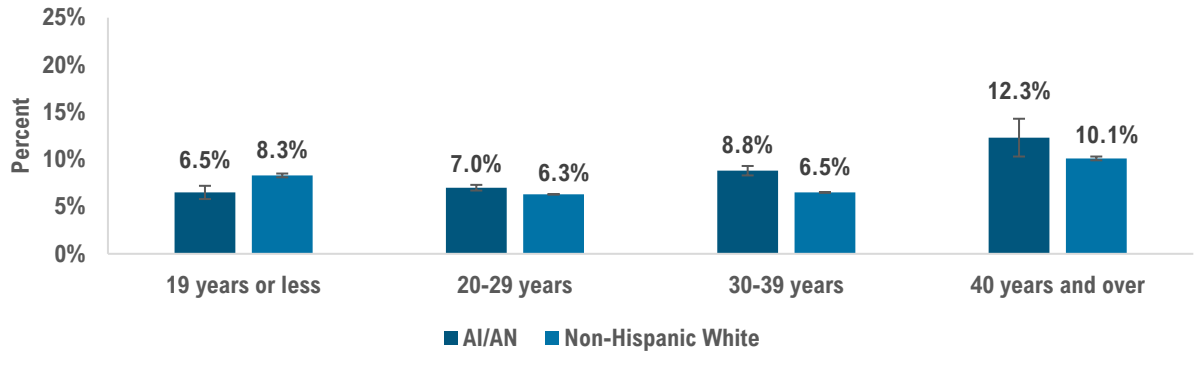
Across all UIO service areas, 7.6% of all infants born to AI/AN women were low birth weight—this was significantly higher than all infants born to NHW women who were low birth weight at 6.6% (Figure 48). AI/AN women were 1.2 times as likely to give birth to a newborn who was low birth weight compared to NHW women. When stratified by maternal age, patterns of low birth weight were similar for both AI/AN and NHW women (Figure 49). The proportion of infants born with a low birth weight was highest in those birthed to mothers 40 years of age and older.

Figure 48. Low Birth Weight: All UIO Service Areas, 2013–2017



Source: National Vital Statistics, Birth Certificates, 2013–2017

Figure 49. Low Birth Weight by Maternal Age Group: All UIO Service Areas, 2013–2017



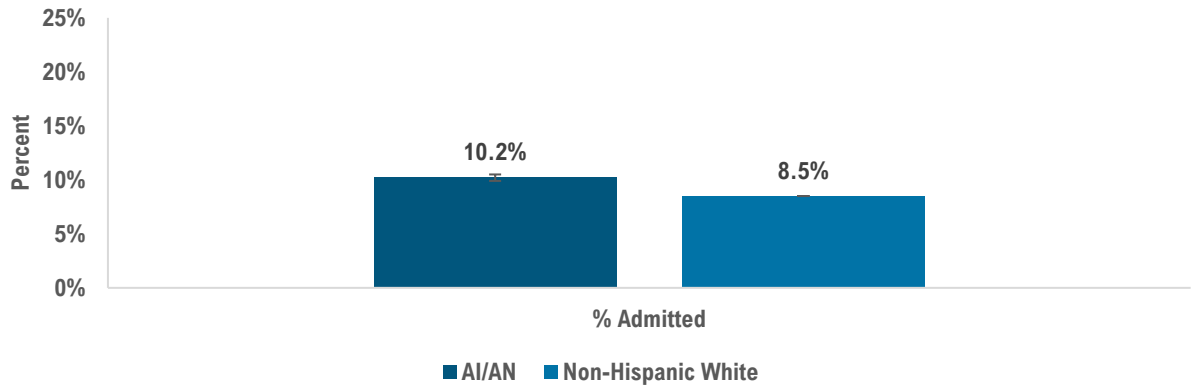
Source: National Vital Statistics, Birth Certificates, 2013–2017

Neonatal Intensive Care Unit Admission

The Neonatal Intensive Care Unit (NICU) is where newborn babies go when they need intensive medical care. Newborns in the NICU can be preterm, have low birth weight, or have a birth defect.[80] Maternal age is a factor associated with admittance to NICU.[80] There is increased risk for an infant to be admitted to NICU if the mother is younger than age 16 or older than age 40.[80]

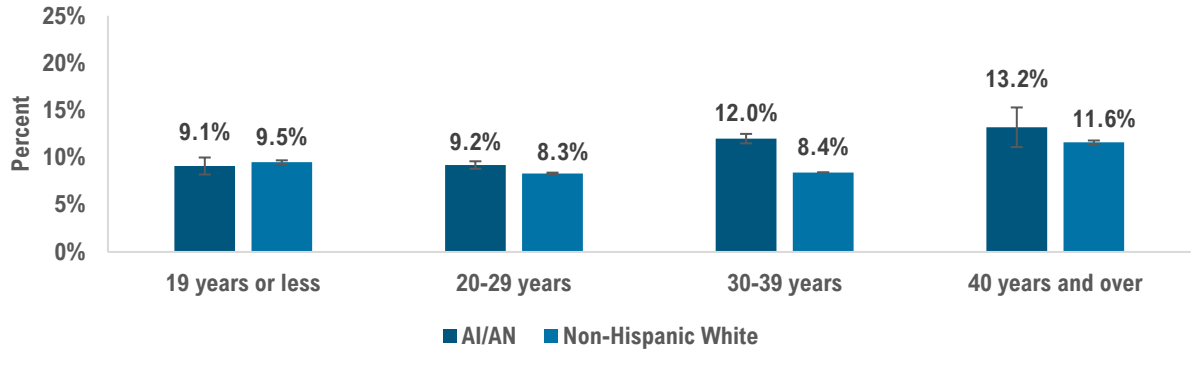
Admission to the NICU for newborns across all UIO service areas was significantly higher among AI/AN newborns than NHW newborns (Figure 50). AI/AN newborns were 1.2 times as likely to be admitted to the NICU compared to NHW newborns, 10.2% and 8.5%, respectively. The number of newborns admitted to the NICU increased with maternal age for AI/AN and NHW women (Figure 51). The biggest differences seen between AI/AN and NHW infants were in the 20–29 and 30–39 maternal age groups. Particularly, amongst the 30–39 maternal age group, the proportion of AI/AN newborns admitted to the NICU was 1.4 times that of NHW newborns, a significant difference.

Figure 50. Newborns Admitted to the NICU: All UIO Service Areas, 2013–2017



Source: National Vital Statistics, Birth Certificates, 2013–2017

Figure 51. Newborns Admitted to the NICU by Maternal Age Group: All UIO Service Areas, 2013–2017



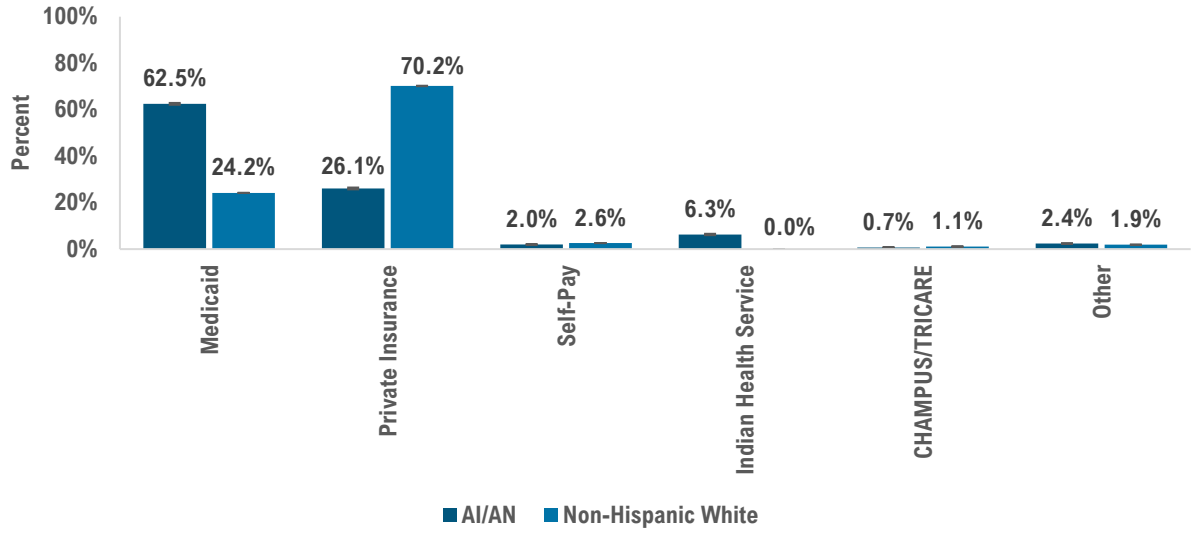
Source: National Vital Statistics, Birth Certificates, 2013–2017

Insurance Status

Maternity health coverage became mandatory in 2014 under the Affordable Care Act. A study prior to 2014 found differences in health insurance coverage could affect the type of care received during childbirth.[81] For example, compared to those covered by private health insurance, those with Medicaid coverage or those who were uninsured were less likely to receive intervention during childbirth (cesarean delivery, labor induction, and episiotomy).[81] Health insurance coverage has also been found to be associated with an increase in use of prenatal care, which can reduce the likelihood of adverse birth outcomes.[82]

Across all UIO service areas, the source of payment for birth procedures was significantly different between AI/AN and NHW women (Figure 52). The biggest differences in payment source were for both Medicaid and private insurance. Approximately 62.5% pregnant AI/AN women were covered by Medicaid, whereas only 24.2% of NHW women were. In contrast, 70.2% of NHW women were covered by private health insurance compared to 26.1% of AI/AN women.

Figure 52. Insurance Status: All UIO Service Areas, 2013–2017



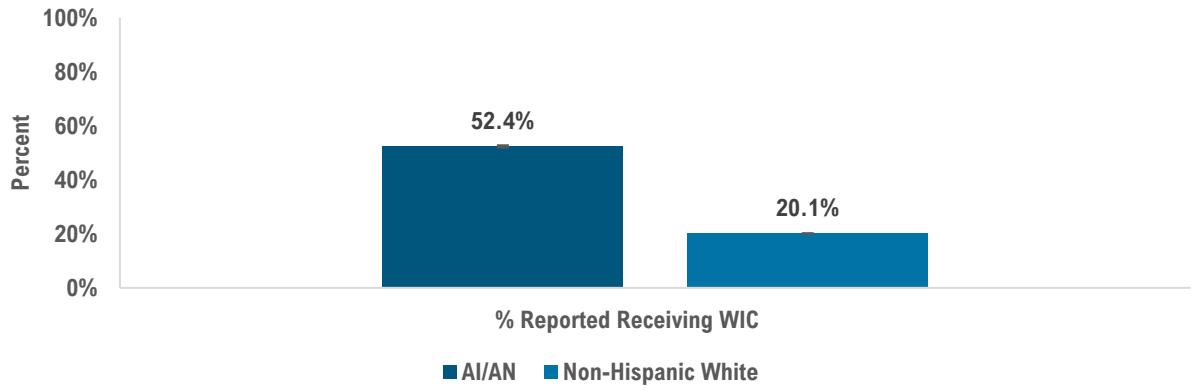
Source: National Vital Statistics, Birth Certificates, 2013–2017

Women, Infants, and Children Status

Women, Infants, and Children (WIC) is a federal program that provides supplemental food to low-income pregnant, post-partum, and breastfeeding women. AI/AN people often experience food insecurity, high rates of hunger, and malnutrition, which increases likelihood of participating in WIC services.[83,84] Food insecurity has been found to have numerous effects on health outcomes, such as birth defects, anemia, and cognitive problems.[15] For that reason, participation in WIC services can be a protective factor for these adverse health outcomes.

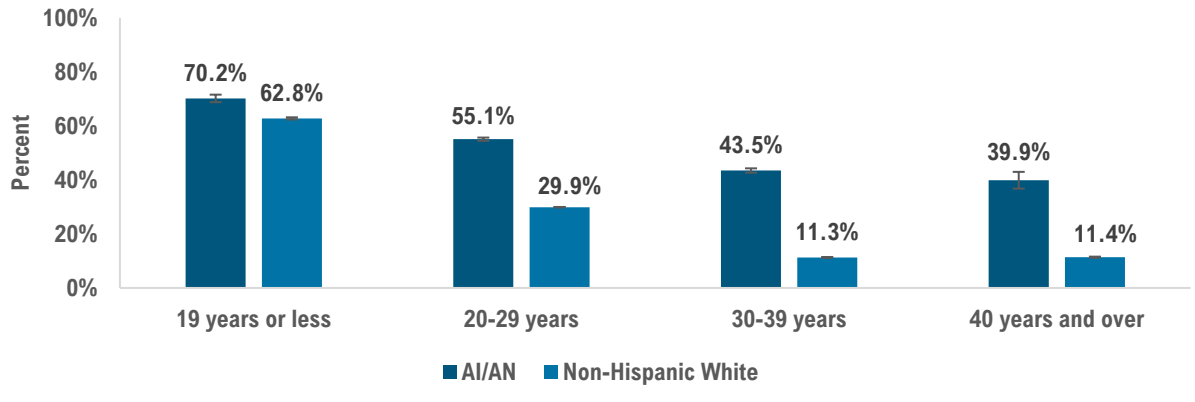
Across all UIO service areas, 52.4% of pregnant AI/AN women participated in WIC services, compared to 20.1% of NHW women (Figure 53). AI/AN mothers were 2.6 times as likely to have accessed these vital services than NHW women. For both AI/AN women and NHW women, the likelihood of accessing WIC services decreased with age (Figure 54). The steepest decline was between mothers 19 and younger and those in the 20–29 age group.

Figure 53. WIC Status: All UIO Service Areas, 2013–2017



Source: National Vital Statistics, Birth Certificates, 2013–2017

Figure 54. WIC Status by Maternal Age Group: All UIO Service Areas, 2013–2017



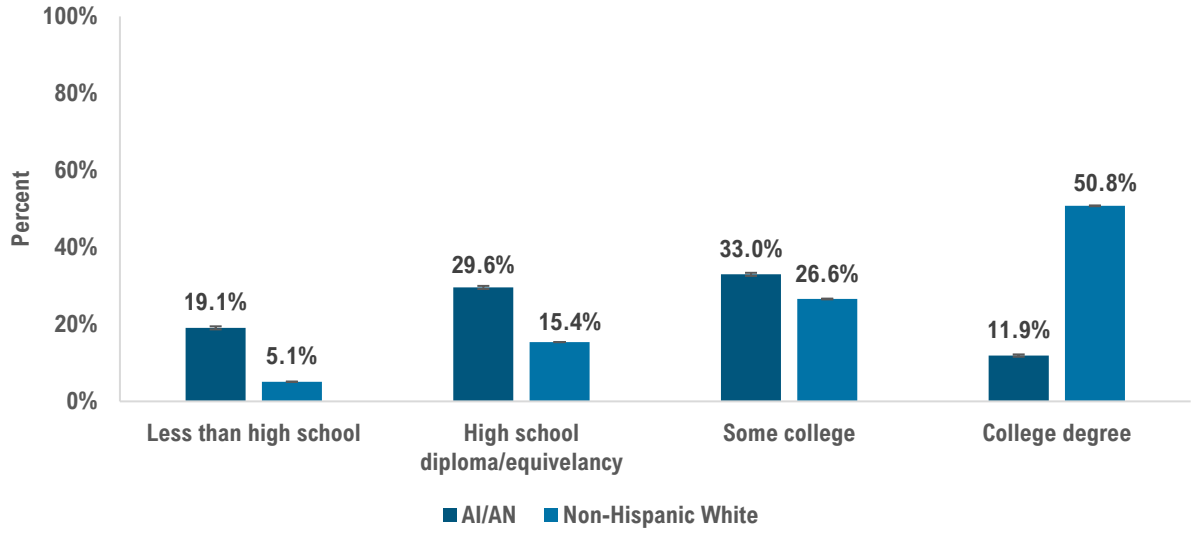
Source: National Vital Statistics, Birth Certificates, 2013–2017

Maternal Education

Numerous studies have looked at the causal link between maternal education and maternal and child health outcomes.[85] A mother's primary school completion was found to be associated with positive infant health outcomes, indicated by birth weight.[86]

Among AI/AN women, nearly one in five births in all UIO service areas were to mothers who did not complete high school and 30% were to mothers whose highest level of education was a high school diploma or equivalent degree (Figure 55). The highest proportion of AI/AN births were to mothers who had attended some college or received an associate degree (33.0%).

Figure 55. Maternal Education: All UIO Service Areas, 2013–2017

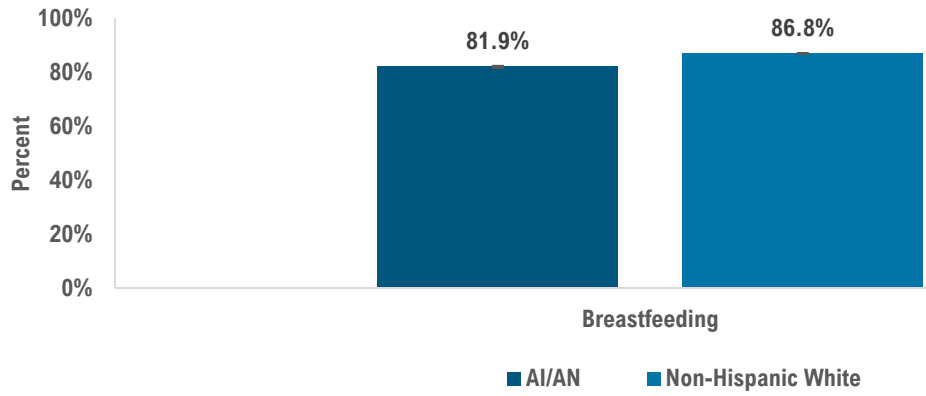


Breastfeeding

Breastfeeding has been viewed as a way to nourish a baby's mind, body, and spirit.[87] Breastfeeding is an important way for infants to get nutrition in the first six months of their life and is tailored to the needs of the infant.[88] Benefits of breastfeeding for the infant include a lower risk of asthma, obesity, ear and respiratory infection, sudden infant death syndrome (SIDS), and gastrointestinal infections.[88]

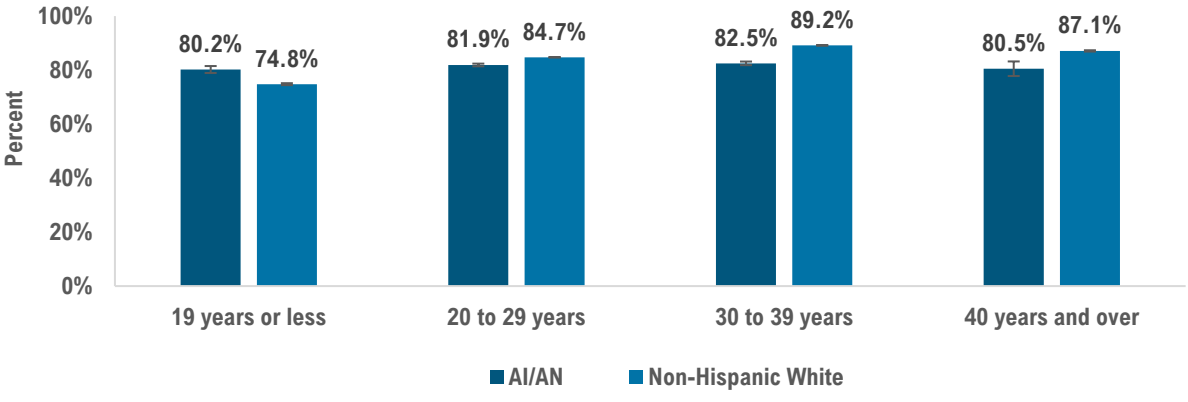
Across all UIO service areas, 81.9% of infants born to AI/AN women were breastfed at discharge from the hospital, compared to 86.8% of infants born to NHW women (Figure 56). This was a statistically significant difference. Across all age groups, a majority of AI/AN and NHW women breastfed at the time of discharge from the hospital (Figure 57). Of note, 80.2% of AI/AN mothers aged 19 and younger breastfed their infants at discharge, compared to only 74.8% of NHW women, which was significantly higher.

Figure 56. Breastfeeding: All UIO Service Areas, 2013–2017



Source: National Vital Statistics, Birth Certificates, 2013–2017

Figure 57. Breastfeeding by Maternal Age Group: All UIO Service Areas, 2013–2017



Source: National Vital Statistics, Birth Certificates, 2013–2017

SUBSTANCE USE

Cultural beliefs can play a huge role in an individual's behavior regarding substance use.[89] For AI/AN people who have endured genocide, forced assimilation, and the loss of ancestral lands, those ties to cultural beliefs were often strained. Many elders believe that the degree to which someone identifies with their culture relates to rates of substance abuse. In fact, higher rates of substance use have been found to be associated with individuals who identify with non-Indigenous values while lower rates were found in individuals who maintained ties to their traditional values [90,91]. Thus, Indigenous values likely serve as a protective factor [89]. This assessment can be seen across other cultures that have experienced similar trauma [89,92].

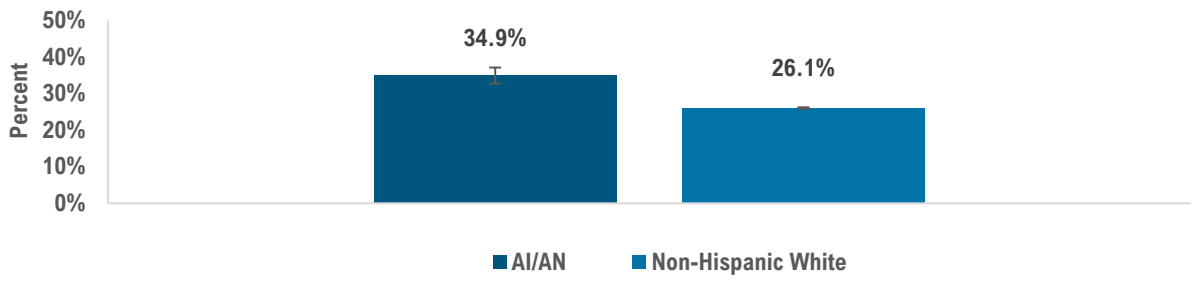
Due to a limitation of the data, all estimates shown here do not represent the UIO service areas, rather they represent individuals who were surveyed in large or small metro areas.

Tobacco Use in Past Month

Tobacco has been utilized by many Indigenous communities as a medicine for spiritual, mental, and emotional health. The introduction of commercial tobacco has had devastating impacts. Commercial tobacco use has been shown to cause heart disease, stroke, multiple types of cancer, among many other adverse health consequences.[93] AI/AN people have the highest prevalence of cigarette smoking compared to other ethnic groups, and it has been found that tobacco companies specifically target AI/AN communities due to the traditional uses of tobacco.[94] Heart disease, caused in part by tobacco use, is the leading cause of death in AI/AN communities, followed by malignant neoplasms.[95]

Among AI/AN people living in urban areas, 34.9% reported using tobacco in the past month, compared to 26.1% of NHW people (Figure 58). However, it is important to note that the higher prevalence of tobacco use for AI/AN individuals may relate to the ceremonial, religious, and medicinal components of tobacco.

Figure 58. Tobacco Use in the Past Month



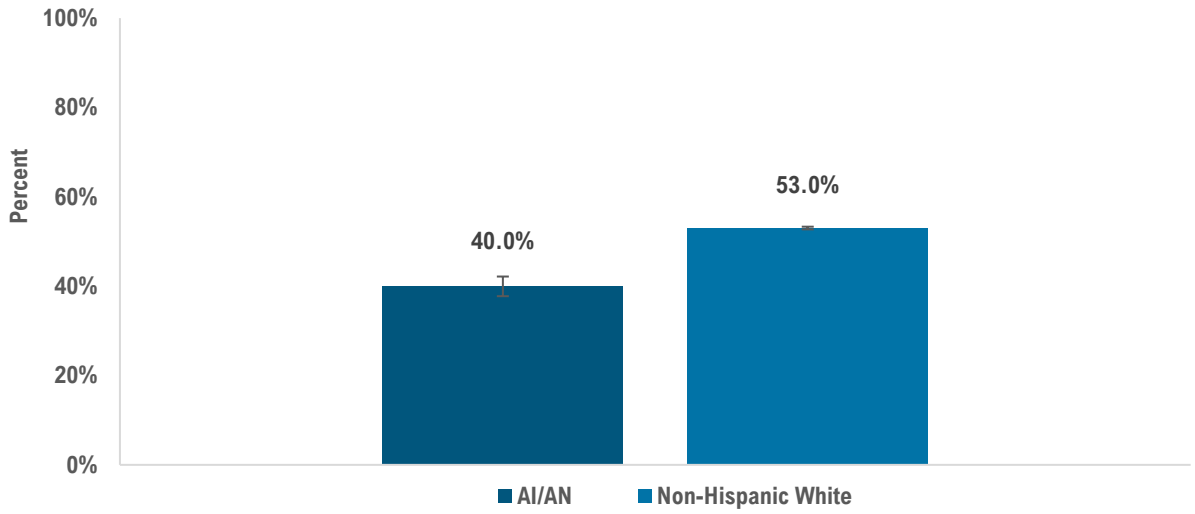
Source: National Survey of Drug Use and Health, 2013–2017

Alcohol Use in Past Month

Studies have found AI/AN individuals had lower or comparable rates to NHW individuals across a range of alcohol measures.[96] This challenges the assumption that AI/AN individuals have an elevated alcohol consumption compared to NHW individuals. Stereotypes can have a negative impact on how a group or individual belonging to a certain group may be perceived, even as far as influencing health outcomes.[96,97] It is important to present full and accurate information to challenge negative stereotypes and minimize potential negative consequences.[97]

Among those surveyed living in urban areas, 40.0% of AI/AN people reported having used alcohol in the past month compared to 53.0% of NHW people (Figure 59). AI/AN people were 24.5% less likely to respond as having used alcohol in the past month, which is a significant difference.

Figure 59. Alcohol Use in the Past Month



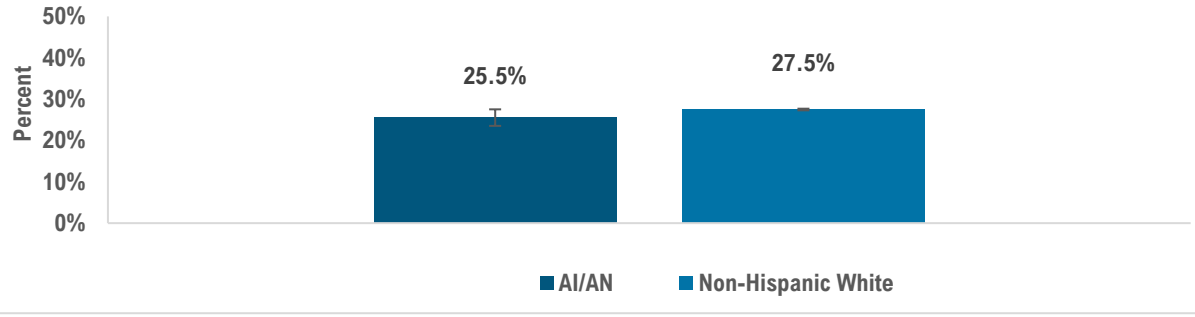
Source: National Survey of Drug Use and Health, 2013–2017

Binge Drinking in Past Month

Binge drinking, referring to when men consume five or more drinks within two hours and when women consume four or more drinks, is associated with many health problems.[98] Some of the health problems include chronic diseases; some cancers; unintentional injuries; violence such as homicide, suicide, and intimate partner violence; and SIDS.[98]

Among individuals living in urban areas who were surveyed, 25.5% of AI/AN people reported binge drinking in the past month, compared to 27.5% of NHW, which is not a significant difference (Figure 60).

Figure 60. Binge Alcohol Use in the Past Month



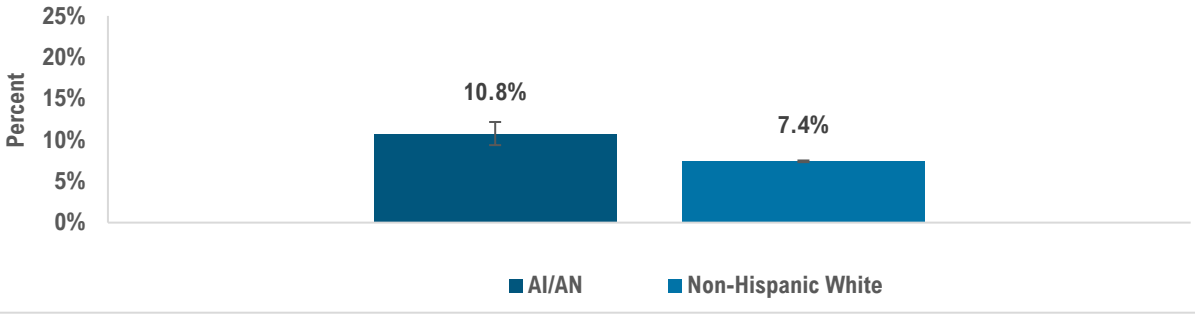
Source: National Survey of Drug Use and Health, 2013–2017

Alcohol Abuse or Dependence

Heavy drinking has been found to lead to a multitude of health disorders, such as cardiovascular disease, cancers, and liver cirrhosis.[99] Additionally, alcohol use disorder often co-occurs with certain mood disorders such as anxiety and major depression.[99]

Among AI/AN people living in urban areas, about 10.8% reported alcohol abuse or dependence in the past year, which was 1.5 times that among NHW people (7.4%), a significant difference (Figure 61).

Figure 61. Alcohol Abuse or Dependence in Past Year



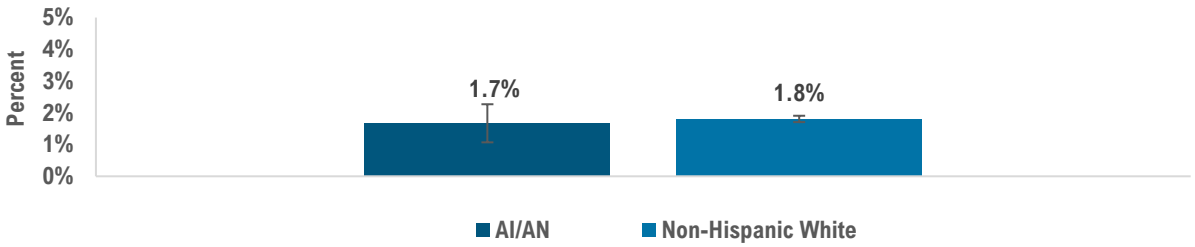
Source: National Survey of Drug Use and Health, 2013–2017

Pain Reliever Use

Nonmedical prescription pain reliver use is a major public health issue in the U.S.[100] There have been an increasing number of emergency department visits, treatment admissions, and fatal overdoses as a result.[100] Nonmedical use of pain relievers is thought to progress to use of other drugs such as heroin for some individuals.[100]

Among individuals living in urban areas, the proportion of pain reliever use in the past month was similar for both AI/AN and NHW people, at 1.7% and 1.8% respectively (Figure 62).

Figure 62. Pain Reliever Use in the Past Month



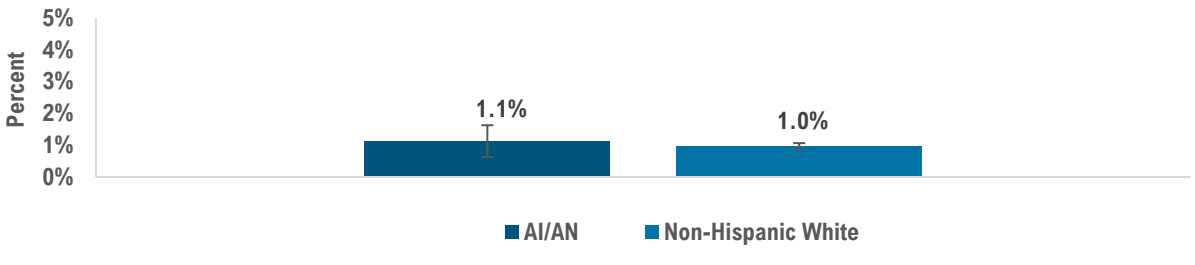
Source: National Survey of Drug Use and Health, 2013–2017

Pain Reliever Abuse and Dependency

According to the American Psychiatric Association (APA), abuse and dependency refer to a diagnostic category that determines the individual is unable to stop using the substance on their own, and it has had negative impacts on their well-being and social structures.[101] Lack of culturally competent care and the well-documented evidence of emotional, physical, and historical trauma can all contribute to the increased rates of opioid addiction, abuse, and relapse among AI/AN people.[102,103] The Indian Health Service (IHS) has worked to address this issue by implementing new prescribing policies and focusing on education for providers, among other initiatives.[102]

The proportion of pain reliever abuse or dependence in the past year was similar for both AI/AN and NHW individuals living in urban areas, 1.1% and 1.0%, respectively (Figure 63).

Figure 63. Pain Reliever Abuse or Dependence in the Past Year



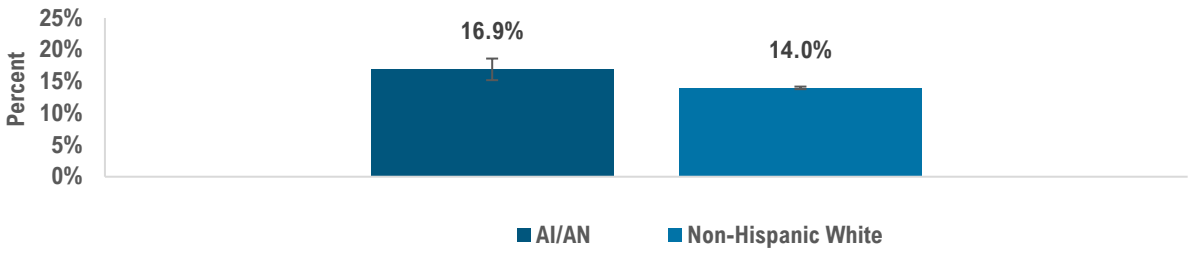
Source: National Survey of Drug Use and Health, 2013–2017

Illicit Drug Use

There are many different classes of illicit drugs, including stimulants, narcotics, hallucinogens, and depressants/sedatives. Chronic use of illicit drugs over long periods of time, such as with drug dependence, can lead to infections, chronic disease, and mental disorders, depending on the drug used.[104] Though AI/AN people make up about 1% of the population, they make up 2.5% of American adults admitted for substance abuse treatment.[105] AI/AN individuals are at risk of dependence and drug use due to social isolation, poverty, lack of access to education and healthcare, and lack of culturally sensitive outreach and treatment programs.[105]

Among AI/AN people living in urban areas, 16.9% reported having used an illicit drug other than marijuana in the past month (Figure 64). This was significantly higher than the 14.0% of NHW people who reported using illicit drugs in the past month.

Figure 64. Illicit Drug Use Other than Marijuana in the Past Month



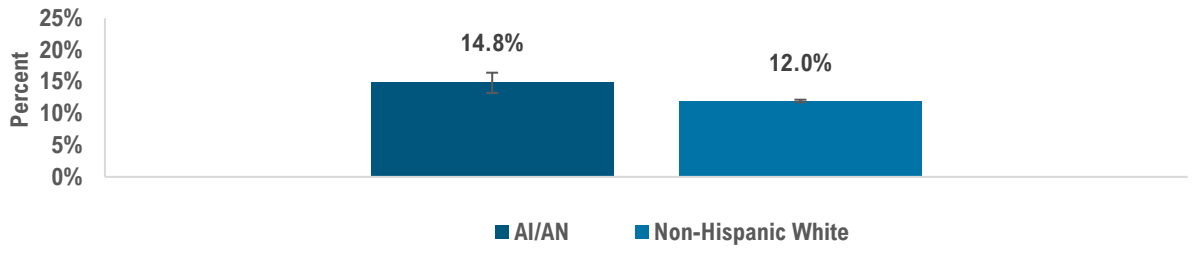
Source: National Survey of Drug Use and Health, 2013–2017

Marijuana Use

The positive and negative health impacts of marijuana are still unclear. It has been found that marijuana use in AI/AN youth is much higher than that of their non-Native peers.[106] This is of concern because some research shows that adolescent marijuana use may cause long term irreversible changes in the brain.[107]

Among AI/AN people living in urban areas, 14.8% reported having used marijuana in the past month (Figure 65). This was significantly higher than 12.0% of NHW people surveyed.

Figure 65. Marijuana Use in the Past Month



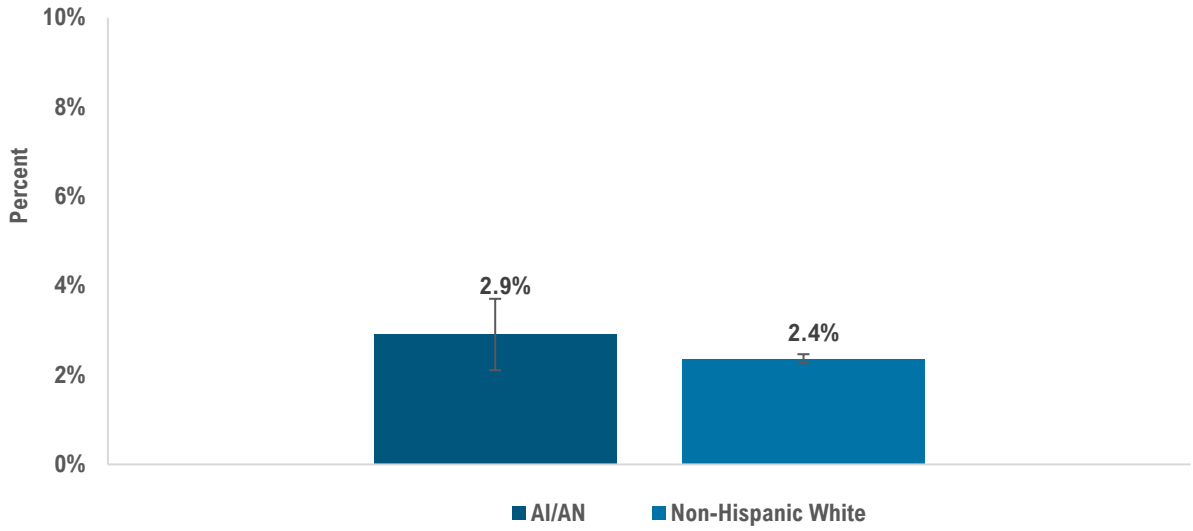
Source: National Survey of Drug Use and Health, 2013–2017

Marijuana Abuse or Dependence

Contrary to popular belief that marijuana is not addictive, marijuana use disorder can lead to psychological addiction and even withdrawal.[107] Between 9% and 30% of marijuana users could be classified as having some degree of marijuana use disorder.[107]

Among individuals living in urban areas, the proportion of marijuana abuse or dependence in the past year was similar for both AI/AN and NHW people, 2.9% and 2.4%, respectively (Figure 66).

Figure 66. Marijuana Abuse or Dependence in Past Year



Source: National Survey of Drug Use and Health, 2013–2017

MENTAL HEALTH

For AI/AN people, several historical and sociocultural factors—including the forced removal of AI/AN people from their lands and policies against AI/AN culture and spirituality—have been associated with detrimental mental health effects.[108] Lack of access to adequate mental health care is a barrier that many AI/AN people face due to lack of affordability and the availability of culturally attuned mental health services.[109]

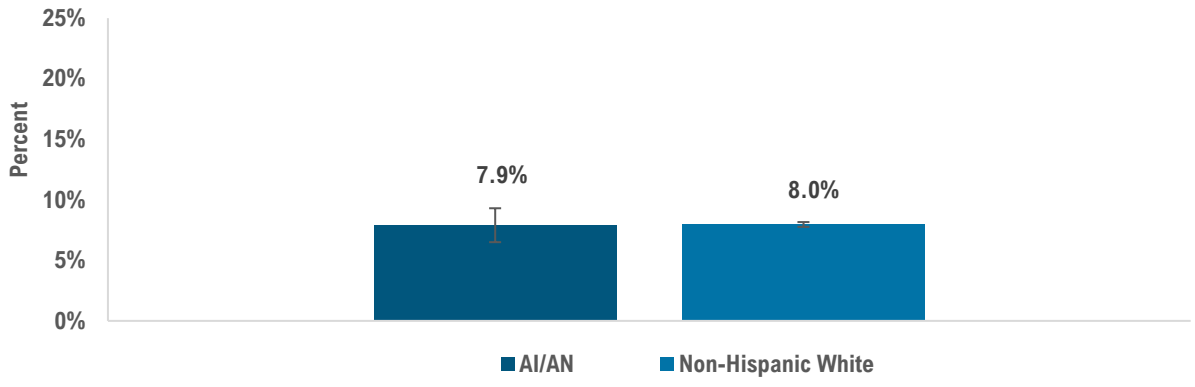
Due to a limitation of the data, all estimates shown here do not represent the UIO service areas, rather they represent individuals who were surveyed in a large or small metro area.

Adult Mental Health: Unmet Needs

Lack of access to adequate mental health care is a barrier that many AI/AN people face. That is partially due to lack of affordability and a limited supply of mental health professionals in Indian Country.[109] Over half of AI/AN people rely on IHS for healthcare, and although IHS providers have identified mental health as the number one health problem confronting AI/AN communities, only 7% of their budget is allocated to mental health services.[110,111] It has been found that AI/AN people often prefer discussing mental health with people of their own background, such as family and friends, due to their unique historical and cultural traumas including forced relocation, removal of children, and the prohibition of language and cultural traditions.[109]

Among adults living in urban areas, there was no significant difference between the proportion of AI/AN and NHW people who experienced unmet needs for mental health services, 7.9% and 8.0%, respectively (Figure 67).

Figure 67. Adults with Unmet Needs for Mental Health Services in the Past Year



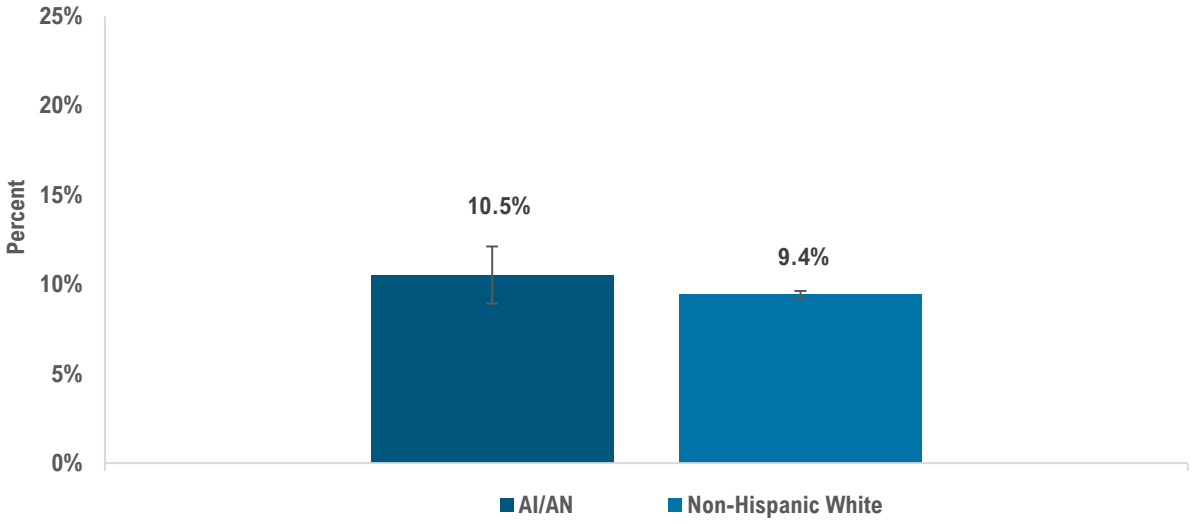
Source: National Survey of Drug Use and Health, 2013–2017

Adult Mental Health: Major Depressive Episode in past year

Mental health disorders, such as major depression, can cause severe impairment to an individual's ability to manage well at home or work, in relationships, or in their social life.[112] Major depression often co-occurs with other mental health disorders such as PTSD.[113] Major depression is also the third most commonly occurring lifetime disorder among AI/AN women.[110]

Among adults living in urban areas, there was no significant difference between the proportion of AI/AN and NHW people who experienced a major depressive episode in the past year, 10.5% and 9.4%, respectively (Figure 68).

Figure 68. Adults Experiencing a Major Depressive Episode (MDE) in the Past Year



Source: National Survey of Drug Use and Health, 2013–2017

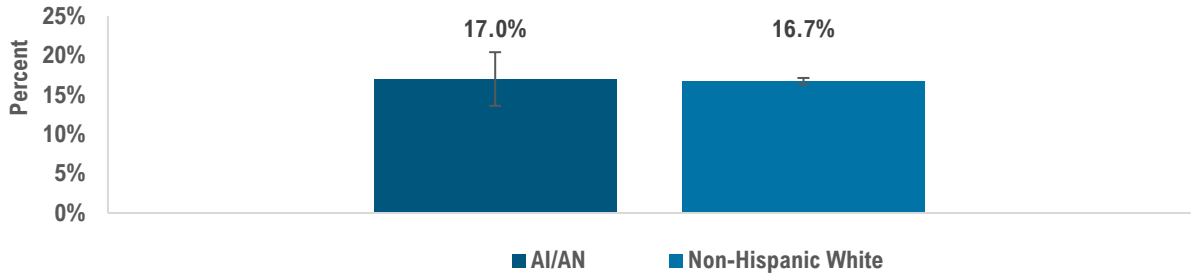
Adolescent Specialty and Non-Specialty Mental Health Services

Mental illness has the ability to influence an adolescent's behavior, and about half of all lifetime cases of mental disorders begin in adolescence.[114,115] Thus, it is important to identify and engage mental illness at an early stage. Unfortunately, not all who need treatment are able to receive it.[115] When treated, adolescents often receive mental health services in a specialty, educational, or general medical setting.[114] Knowing how and where adolescents are receiving care can improve access to care by helping to identify gaps.[114]

Specialty mental health services can include psychiatric inpatient hospital services, rehabilitative services, and other psychiatrist/psychologist services. Among adolescents living in urban areas, there was no significant difference between the proportion of AI/AN and NHW adolescents who reported receiving specialty mental health services, 17.0% and 16.7%, respectively (Figure 69).

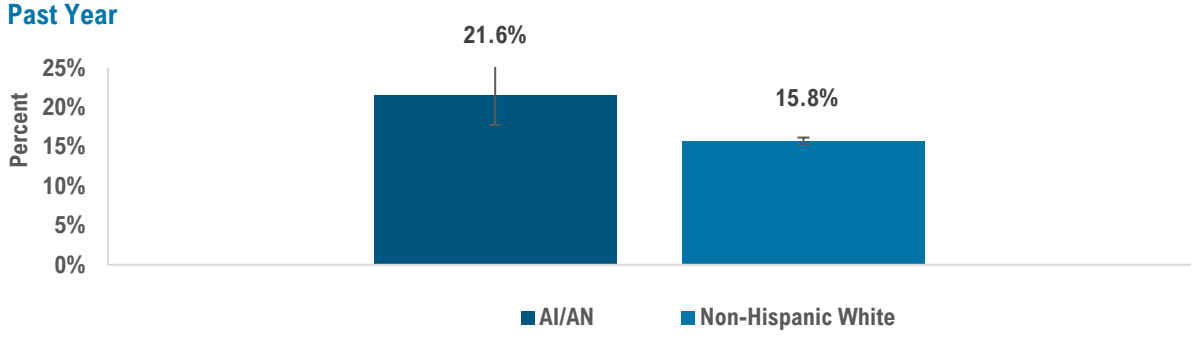
Non-specialty mental health services can include care given in primary medical care settings, schools, criminal justice settings, shelters, and other social service settings where mental health is not the primary focus. Among AI/AN adolescents living in urban areas, the proportion reported as having received non-specialty mental health services was 21.6% (Figure 70). This was significantly higher than the 15.8% of NHW adolescents who received the same services.

Figure 69. Adolescents that Received Specialty Mental Health Services in the Past Year



Source: National Survey of Drug Use and Health, 2013–2017

Figure 70. Adolescents that Received Non-Specialty Mental Health Services in the Past Year



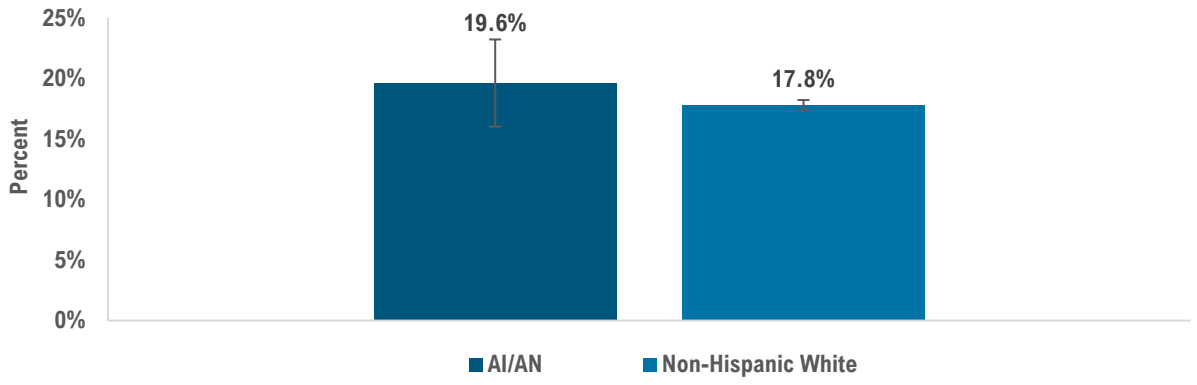
Source: National Survey of Drug Use and Health, 2013–2017

Adolescent Major Depressive Episodes

In adolescents, major depression can cause severe impairment to their ability to do well in school, stay connected with friends, or get along with their family.[112] Trauma is a major risk factor for depression, and AI/AN youth between the ages of 12 and 19 are more likely to be victims of serious violent crime and assault than their non-Native counterparts.110,116 However, protective factors from various mental health disorders do exist for AI/AN youth.111 These protective factors include a strong cultural connection, sense of family, and adaptability.111

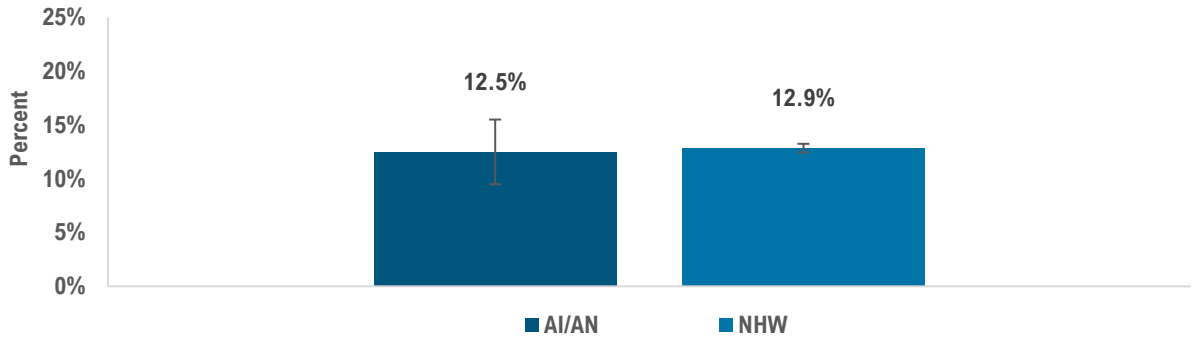
There was no significant difference between the proportion of AI/AN and NHW adolescents living in urban areas who experienced a major depressive episode in their lifetime, 19.6% and 17.8%, respectively (Figure 71). There was also no significant difference between the proportion of AI/AN and NHW adolescents who experienced a major depressive episode in the past year, 12.5% and 12.9%, respectively (Figure 72).

Figure 71. Adolescents Having a Major Depressive Episode (MDE) in their Lifetime



Source: National Survey of Drug Use and Health, 2013–2017

Figure 72. Adolescents Experiencing a Major Depressive Episode (MDE) in the Past Year



Source: National Survey of Drug Use and Health, 2013–2017

PRIORITIZATION MATRIX

To summarize the aggregated 2013-2017 data presented in this report, the following table includes the estimates of all indicators for both AI/AN and NHW individuals living across UIO service areas. Additionally, a column indicating a significant difference between the AI/AN and NHW estimates has been included to allow for easy identification of key areas where these two populations differ and where prioritization may be considered. Significance tests were not run for sociodemographics.

INDICATOR	AI/AN ALL SERVICE AREAS	NHW ALL SERVICE AREAS	AI/AN COMPARED TO NHW
SOCIODEMOGRAPHICS			
Educational Attainment (HS graduate or higher)	79.5%	94.5%	
No Health Insurance Coverage (Under 65)	19.7%	6.0%	
No Health Insurance Coverage (Under 18)	12.6%	3.4%	
SNAP	23.6%	6.7%	
Unemployment	11.2%	4.9%	
Poverty Status (Single mother family)	31.0%	13.3%	
Household Type (Owner occupied)	45.3%	66.2%	
MORTALITY			
All-cause Mortality (per 100,000)	533.4	741.1	▼
Suicide (per 100,000)	9.8	16.6	▼
Homicide (per 100,000)	5.7	2.5	▲
INFECTIOUS DISEASE			
Chlamydia Infection Rate	716.6	192.5	▲
Gonorrhea Infection Rate	208.5	48.3	▲
Syphilis Infection Rate	13.8	8.0	▲
HIV Testing Percentage	39.3	24.9	▲

▲ AI/AN value significantly higher than NHW value | ▼ AI/AN value significantly lower than NHW value | -- No significant difference

INDICATOR	AI/AN ALL SERVICE AREAS	NHW ALL SERVICE AREAS	AI/AN COMPARED TO NHW
MATERNAL AND CHILD HEALTH			
Cesarean Section	27.7%	29.7%	--
Gestational Diabetes	9.9%	4.9%	▲
Maternal Smoking	9.1%	4.6%	--
Prenatal Care (first trimester)	64.7%	84.0%	▼
Infant Mortality (per 1,000)	14.2	2.4	▲
Maternal Mortality (per 100,000)	32.6	10.7	▲
Preterm Births	13.3%	9.4%	--
Low Birth Weight	7.6%	6.6%	--
NICU Admission	10.2%	8.5%	--
WIC Status	52.4%	20.1%	▲
Maternal Education (High school diploma and higher)	74.5%	92.8%	▼
Breastfeeding	81.9%	86.8%	--
SUBSTANCE USE			
Tobacco Use	34.9%	26.1%	▲
Alcohol Use	40.0%	53.0%	▼
Binge Drinking	25.5%	27.5%	--
Alcohol Abuse or Dependence	10.8%	7.4%	--
Pain Reliever Use	1.7%	1.8%	--
Pain Reliever Abuse or Dependence	1.1%	1.0%	--
Illicit Drug Use	16.9%	14.0%	--
Marijuana Use	14.8%	12.0%	--
Marijuana Abuse or Dependence	2.9%	2.4%	--

▲ AI/AN value significantly higher than NHW value | ▼ AI/AN value significantly lower than NHW value | -- No significant difference

INDICATOR	AI/AN ALL SERVICE AREAS	NHW ALL SERVICE AREAS	AI/AN COMPARED TO NHW
	MENTAL HEALTH		
Adult Mental Health: Unmet Needs	7.9%	8.0%	--
Adult Mental Health: Major Depressive Episode (past year)	10.5%	9.4%	--
Adolescent Specialty Mental Health Services	17.0%	16.7%	--
Adolescent Non-Specialty Mental Health Services (past year)	21.6%	15.8%	▲
Adolescent Lifetime Major Depressive Episodes	19.6%	17.8%	--
Adolescent Major Depressive Episodes (past year)	12.5%	12.9%	--

▲ AI/AN value significantly higher than NHW value | ▼ AI/AN value significantly lower than NHW value | -- No significant difference

APPENDIX A: SERVICE AREA

Akron, Ohio
Cuyahoga County, OH
Summit County, OH

Albuquerque, New Mexico
Bernalillo County, NM
Sandoval County, NM

Anchorage, Alaska
Anchorage, AK

Bakersfield, California
Kern County, CA

Baltimore, Maryland
Anne Arundel County, MD
Baltimore City, MD
Baltimore County, MD
Carroll County, MD
Howard County, MD
Prince George's County, MD

Billings, Montana
Big Horn County, MT
Yellowstone County, MT

Bismarck, North Dakota
Burleigh County, ND
Morton County, ND

Boston, Massachusetts
Essex County, MA
Middlesex County, MA
Norfolk County, MA
Plymouth County, MA
Suffolk County, MA

Buffalo, New York
Erie County, NY
Niagara County, NY

Butte, Montana
Silver Bow County, MT

Chicago, Illinois
Cook County, IL

Dallas, Texas
Collin County, TX
Dallas County, TX
Denton County, TX
Ellis County, TX
Hood County, TX
Johnson County, TX
Kaufman County, TX
Parker County, TX
Rockwall County, TX
Tarrant County, TX
Wise County, TX

Denver, Colorado
Adams County, CO
Arapahoe County, CO
Boulder County, CO
Broomfield County, CO
Denver County, CO
Douglas County, CO
Gilpin County, CO
Jefferson County, CO

Detroit, Michigan
Livingston County, MI
Macomb County, MI
Monroe County, MI
Oakland County, MI
St. Clair County, MI
Washtenaw County, MI
Wayne County, MI

Flagstaff, Arizona
Coconino County, AZ

Fresno, California
Fresno County, CA
Madera County, CA
Tulare County, CA

Great Falls, Montana
Cascade County, MT

Helena, Montana
Broadwater County, MT
Jefferson County, MT
Lewis and Clark County, MT

Indianapolis, Indiana
Marion County, IN

Kansas City, Missouri
Cass County, MO
Clay County, MO
Jackson County, MO
Platte County, MO

Lincoln, Nebraska
Woodbury County, IA
Douglas County, NE
Lancaster County, NE
Sarpy County, NE
Washington County, NE

Los Angeles, California
Los Angeles County, CA

Milwaukee, Wisconsin
Milwaukee County, WI
Waukesha County, WI

Minneapolis, Minnesota
Hennepin County, MN
Ramsey County, MN

Missoula, Montana
Missoula County, MT

New York, New York
Bronx County, NY
Kings County, NY
New York County, NY
Queens County, NY
Richmond County, NY

Oakland, California
Alameda County, CA
Contra Costa County, CA

Oklahoma City, Oklahoma
Canadian County, OK
Cleveland County, OK
Pottawatomie County, OK
Oklahoma County, OK

Phoenix, Arizona
Maricopa County, AZ

Pierre, South Dakota
Brown County, SD
Hughes County, SD
Minnehaha County, SD
Stanley County, SD

Portland, Oregon
Clackamas County, OR
Multnomah County, OR
Washington County, OR
Clark County, WA

Reno, Nevada
Churchill County, NV
Douglas County, NV
Storey County, NV
Washoe County, NV
Carson City, NV

Sacramento, California
Sacramento County, CA

Salt Lake City, Utah
Davis County, UT
Salt Lake County, UT
Tooele County, UT
Utah County, UT
Weber County, UT

San Antonio, Texas
Bexar County, TX

San Diego, California
San Diego County, CA

San Francisco, California
Marin County, CA
San Francisco, CA
San Mateo, CA

San Jose, California
Santa Clara County, CA

Santa Barbara, California
San Luis Obispo County, CA
Santa Barbara County, CA
Ventura County, CA

Seattle, Washington
King County, WA

Spokane, Washington
Spokane County, WA

St. Louis, Missouri
St. Louis City, MO
St. Louis County, MO

Tucson, Arizona
Pima County, AZ

Tulsa, Oklahoma
Tulsa County, OK

Wichita, Kansas
Butler County, KS
Reno County, KS
Sedgwick County, KS
Sumner County, KS

APPENDIX B: NATIONAL SURVEY OF DRUG USE AND HEALTH CRITERIA

Substance abuse is defined as meeting one or more criteria and was determined not to be dependent upon the substance of interest:

1. Respondent reported having serious problems due to substance use at home, work, or school.
2. Respondent reported using substance regularly and then did something where substance use might have put them in physical danger.
3. Respondent reported substance use causing actions that repeatedly got them in trouble with the law.
4. Respondent reported having problems caused by substance use with family or friends and continued to use substance even though it was thought to be causing problems with family and friends.

Substance dependence is defined as meeting three or more of the following criteria:

1. Spent a great deal of time over a period of a month getting, using, or getting over the effects of the substance.
2. Unable to keep set limits on substance use or used more often than intended.
3. Needed to use substance more than before to get desired effects or noticed that using the same amount had less effect than before.
4. Unable to cut down or stop using the substance every time he or she tried or wanted to.
5. Continued to use substance even though it was causing problems with emotions, nerves, mental health, or physical problems.
6. Reduced or gave up participation in important activities due to substance use.

A seventh question pertaining to withdrawal symptoms was asked for the following drugs: alcohol, pain relievers, cocaine, heroin, sedatives, stimulants, and methamphetamine.

An individual was classified as having a major depressive episode (MDE) if five out of the nine criteria were met and where at least one of the criteria was a depressed mood or loss of interest or pleasure in daily activities:

1. Depressed mood most of the day.
2. Noticeable loss of interest or pleasure in all or almost all activities most of the day.
3. Change in weight.
4. Insomnia or hypersomnia.
5. Psychomotor agitation or retardation.
6. Fatigue or loss of energy.
7. Feeling worthless.
8. Decreased capability for thinking or focusing or indecisiveness.
9. Recurring thoughts of death or suicide ideation.

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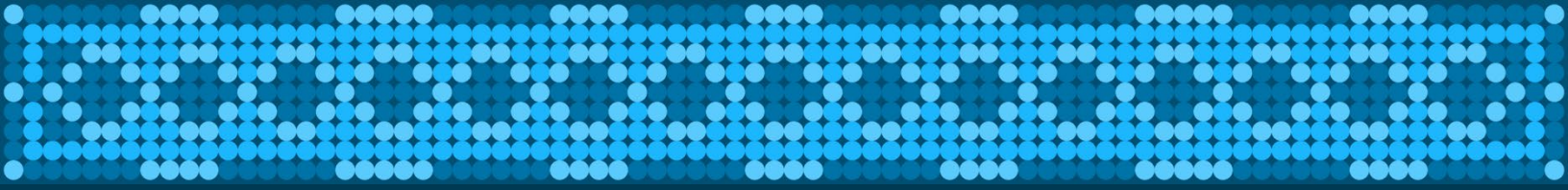

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611 12th Avenue South, Seattle, WA 98144
206–812–3030 | info@uihi.org | www.uihi.org