SOUTH DAKOTA DEPARTMENT OF HEALTH

American Indian Health Data Book Full Report

Selected Health Concerns in South Dakota

Published: January 2024
Health Data Collected By: South Dakota Department of Health

Contents

Glossary of Abbreviations and Acronyms

AWC! – All Women Count Program which helps provide breast and cervical cancer screening

BRFSS – Behavioral Risk Factor Surveillance System which collects health outcomes and behaviors on adults

EDSS – Electronic Disease Surveillance System which contains case information on all reportable diseases

RFA – Request for Application, a formal statement that solicits grant or cooperative agreement applications in a well-defined scientific area to accomplish specific program objectives

SEER – National Cancer Institute's Surveillance, Epidemiology, and End Results Program which contains cancer information

SD DOH – South Dakota Department of Health

USPSTF – The United States Preventive Services Task Force is a panel of experts that systematically reviews the evidence of effectiveness and develops recommendations for clinical preventive services

YTS – Youth Tobacco Survey which collects tobacco use data on middle schoolers

Erratum:

- *Denotes the definition used based on the data source.*
  * American Indian alone or in combination with other race(s)
  † American Indian alone

Use the links provided below for the following:

- Executive Summary: https://doh.sd.gov/media/4k0f512d/american-indian-health-data-book_es-2024.pdf
- Full Report: https://doh.sd.gov/media/htxbhvmu/american-indian-health-data-book_2024.pdf

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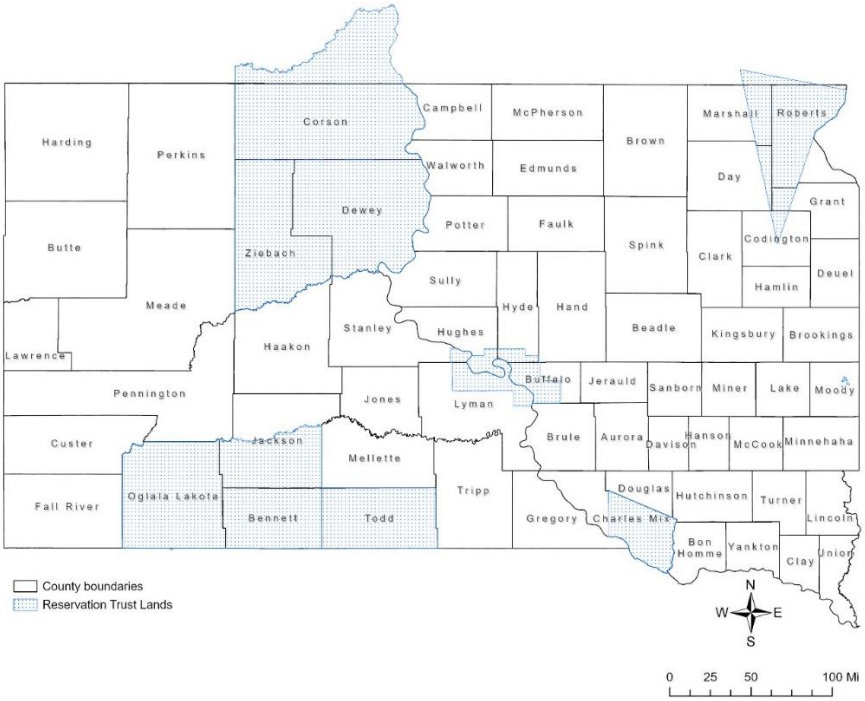
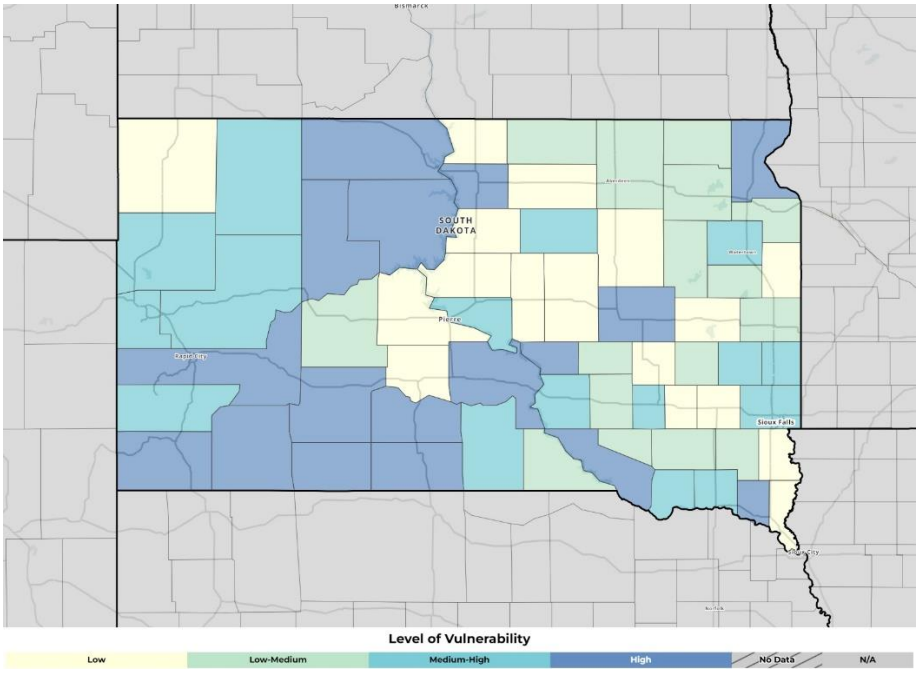
SD Counties Containing Tribal Lands

Map of SD Counties Containing Tribal Lands



SD Counties with Social Vulnerability

Map of SD Counties with Social Vulnerability



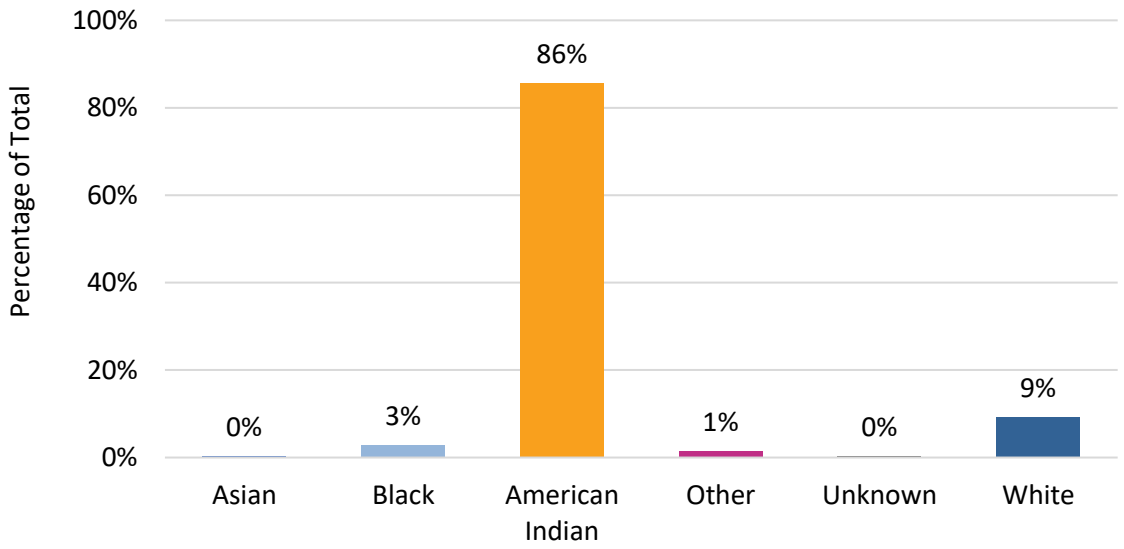
INTERPRETATION

Counties with darker blue color have a higher social vulnerability, meaning the county might expect to be less resilient when an emergency happens. This vulnerability results from factors, such as poverty, lack of access to transportation, or crowded housing. In total, there are four themes (socioeconomic status, household characteristics, racial and ethnic minority status, and housing type/transportation) for the 16 factors included in the vulnerability calculation.

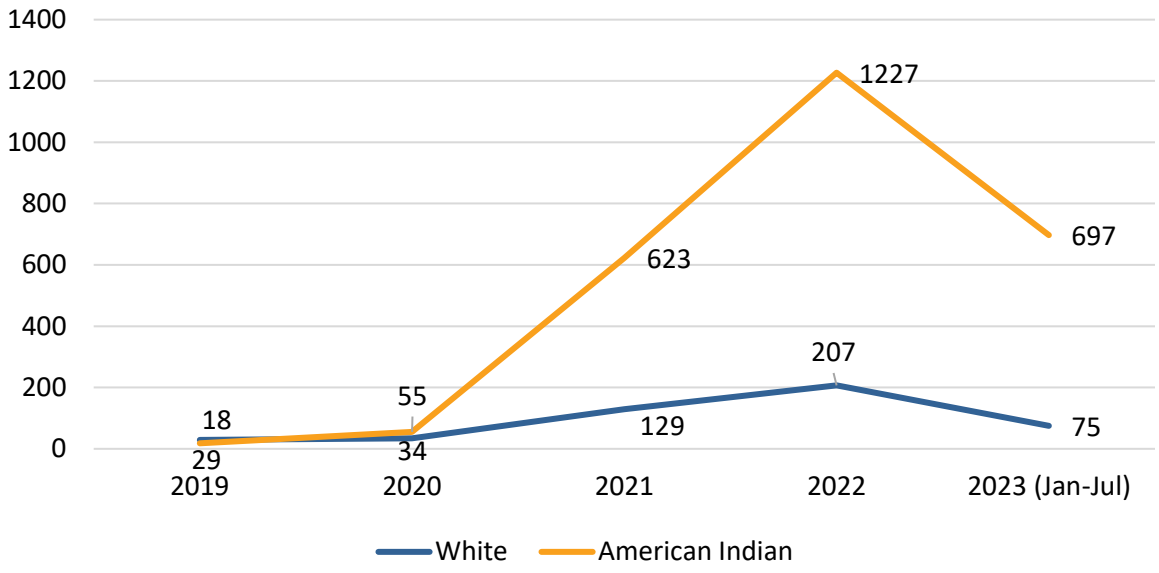
Infectious Diseases

Syphilis, early

Early Syphilis Cases by Race, EDSS, SD, January-July 2023

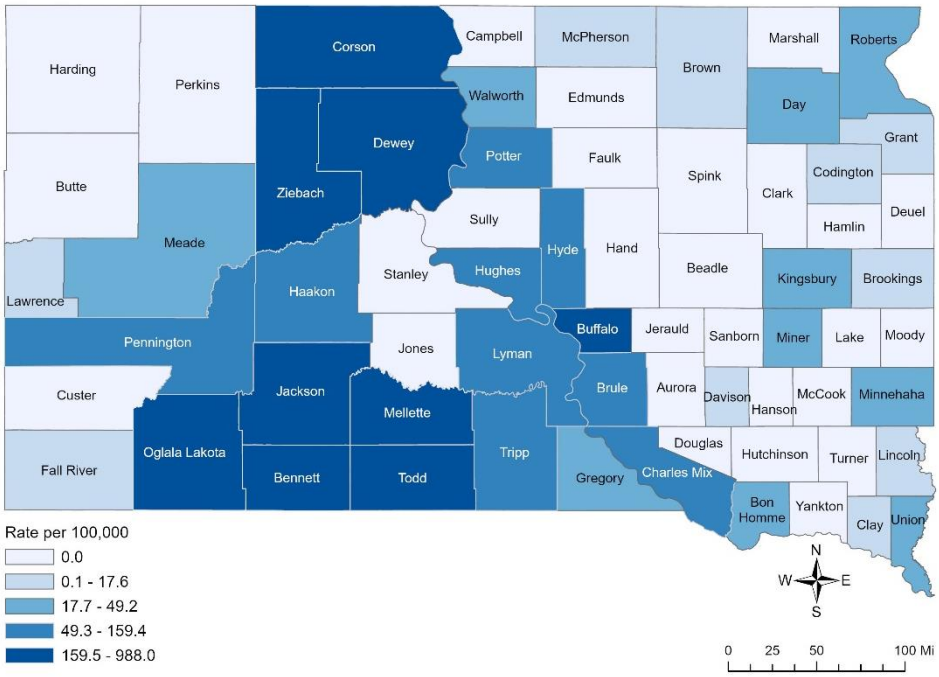


Early Syphilis Cases by Race, EDSS, SD, 2019- 2023



2023 AMERICAN INDIAN HEALTH DATA BOOK

Early Syphilis Rates by County, EDSS, SD, January-July 2023



<u>Interpretation</u>: Syphilis disproportionately affects American Indians and those living on Tribal lands. Counties where we see high early syphilis infection coincide with the counties having high chlamydia and gonorrhea rates.

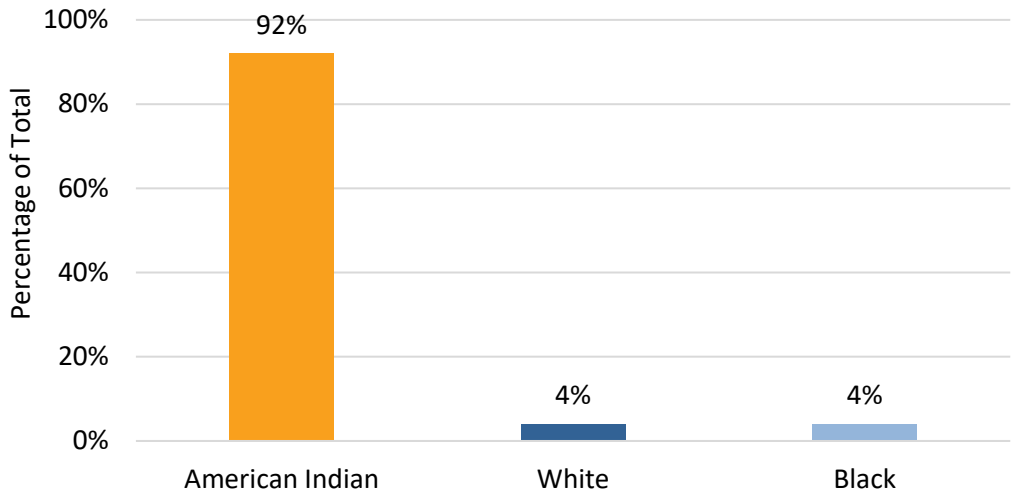
<u>Program activities</u>:

- The STI and HIV Programs lead a monthly workgroup call with STI/HIV partners throughout SD, with many of the partners having a Native American population focus.
  - Quarterly data is shared with the statewide syphilis workgroup and with the South Dakota Department of Health (SD DOH) STI/HIV Partner workgroup.
- The STI Program:
  - Provides provider education through presentations, publications, and individual technical assistance.
  - Hosts CDC site visits.
  - Supported the recent CDC Epi Aid requested by Great Plains Tribal Epidemiology Center.
  - Provides enhanced testing and screening events throughout the state including opportunity to provide educational information.
  - Implemented the CDC syphilis reactor grid that prioritizes case intervention services.
  - Purchased and placed ChemBio Syphilis/HIV Rapid tests to be utilized in a strategic manner.
  - Aided entities with securing 340b pricing through the SD STI Programs eligibility as a 318 candidate.
- The SD Disease Intervention Specialists:
  - Support testing events by providing educational materials, test kits, personnel support for blood draws, and contact tracing services for persons who test positive.
  - Coordinate weekly with Indian Health Services Public Health Nurses and Tribal Health Nurses to locate clients in the field.
  - Conduct weekly field visits to high-morbidity counties to assist with case intervention services.
- The STI RFA was created as a funding opportunity to support enhanced testing and treatment of syphilis.
- The onboarding of standing orders to provide syphilis treatment in the field is a program activity that the SD DOH is completing.

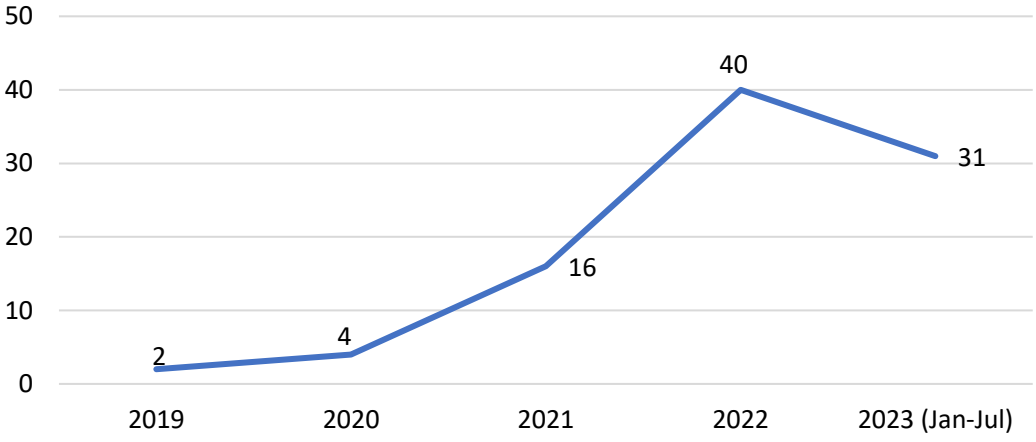
<u>Context</u>: It is helpful to understand that there are underlying factors to the observed syphilis cases that contribute to the health disparity by race. See the section on Social Vulnerability Index for more information.

Congenital Syphilis

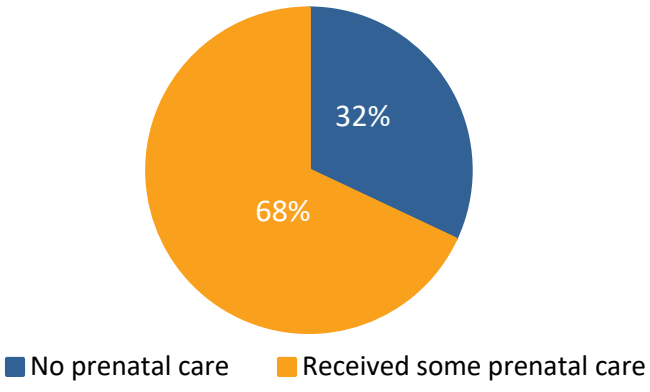
Congenital Syphilis Cases by Race, EDSS, SD, January-July 2023



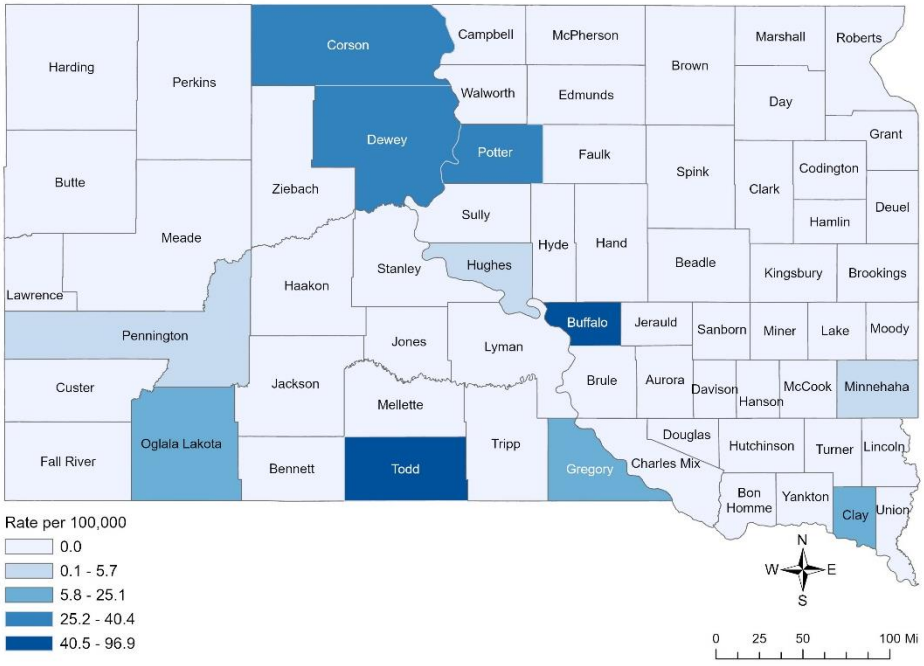
Congenital Syphilis Cases, EDSS, SD, All Races, 2019- 2023



Congenital Syphilis Cases by Prenatal Care Received, EDSS, SD, January-July 2023



Congenital Syphilis Rates by County, EDSS, SD, January-July 2023



<u>Interpretation</u>: Congenital syphilis disproportionately affects American Indians and those living on Tribal lands. Counties where we see high numbers of congenital syphilis cases coincide with the counties having high syphilis case rates and other sexually transmitted infection rates (i.e., chlamydia and gonorrhea).

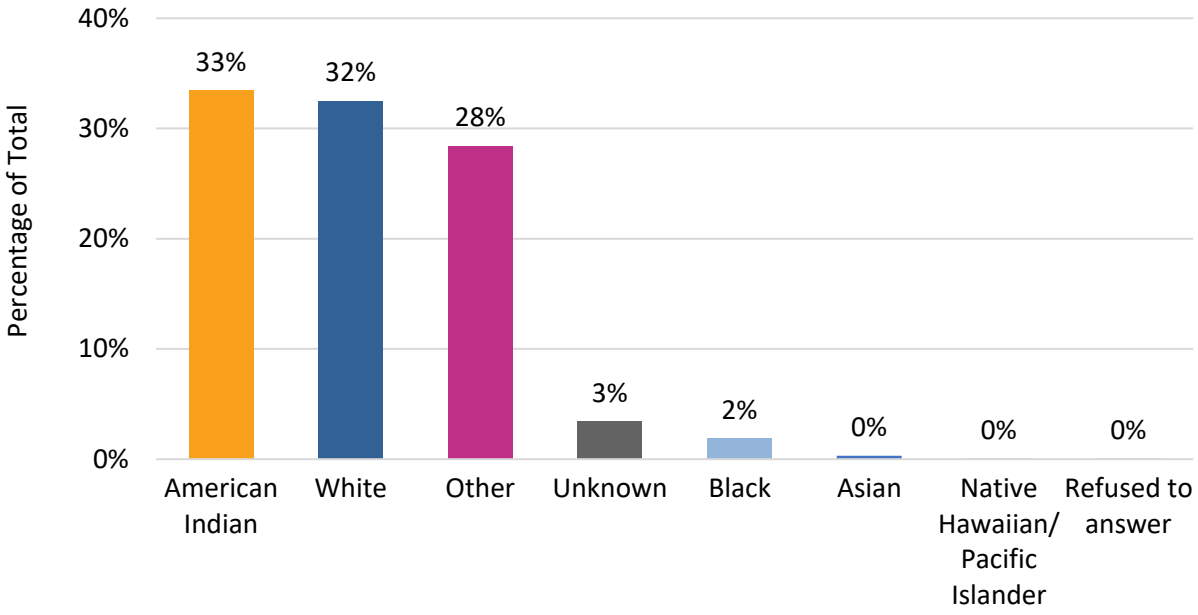
<u>Program activity</u>:

- Syphilis prevention and program activities support congenital syphilis efforts by keeping pregnant mothers from becoming infected or ensuring prompt treatment if they develop infection.
- The STI Program:
  - Developed a statewide syphilis workgroup that focuses on addressing syphilis and congenital syphilis.
  - Works to collaborate efforts with other SD DOH offices to enhance comprehensive services for shared clients.
  - Partnered with the HIV Program to develop guidance to utilize ChemBio Rapid Syphilis/HIV tests effectively in field offices.
- A media campaign focused on congenital syphilis and syphilis has been developed and utilized statewide with advertisements for SD DOH services for individuals aged 18-39 years. These advertisements focus efforts to increase knowledge of SD DOH services and increase focus on health.

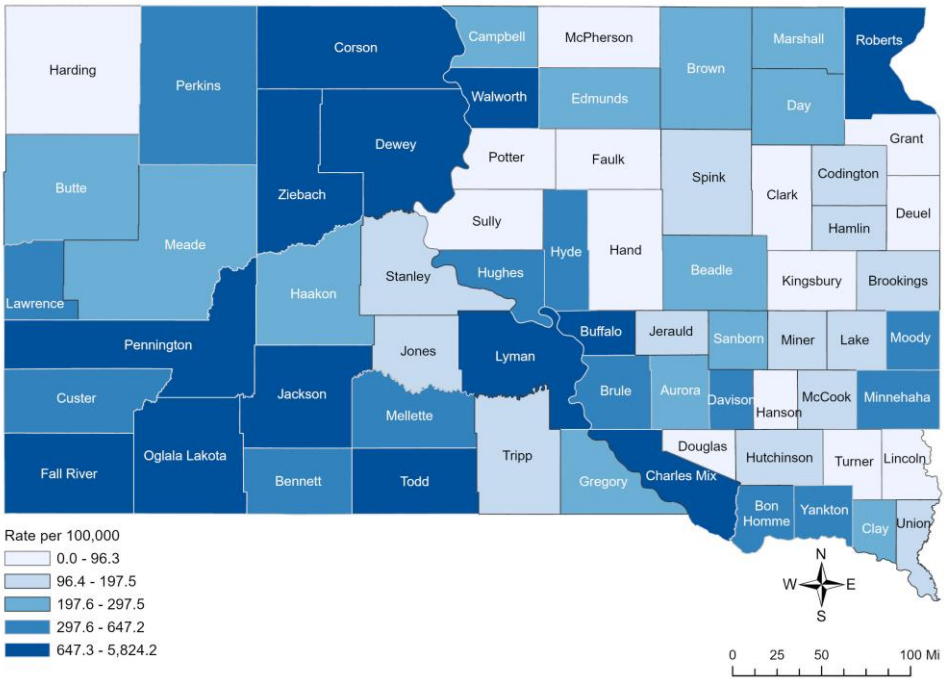
<u>Context:</u> It is helpful to understand that there are underlying factors to the observed congenital syphilis cases that contribute to the health disparity by race. See the section on Social Vulnerability Index for more information. Over one-third of mothers with babies that developed congenital syphilis did not receive prenatal care during pregnancy. Prenatal care is an essential element in congenital syphilis prevention since it offers testing and treatment for syphilis. Prenatal care was not received for multiple social reasons such as fear of disclosing drug use, lack of transportation, or residence in a rural/remote area where options for prenatal care may be limited.

Hepatitis C

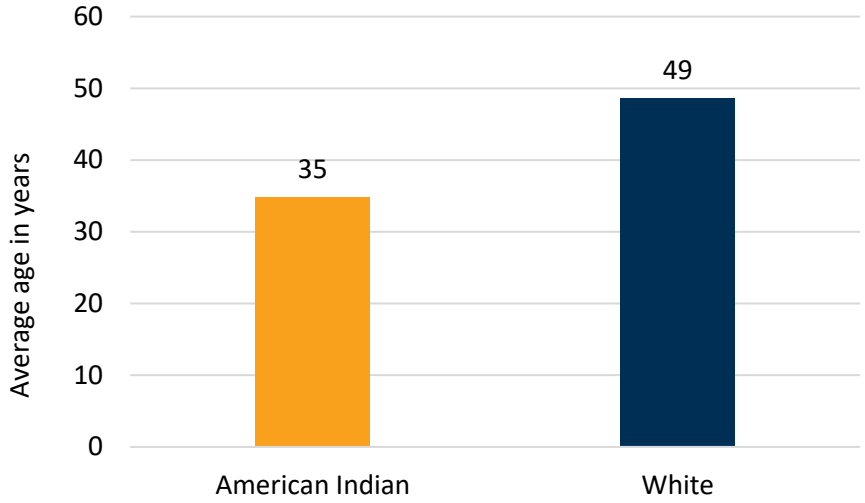
Hepatitis C (Chronic, Acute, Perinatal) Cases by Race, EDSS, SD, January 1, 2019-July 31, 2023



Hepatitis C Rates by County, EDSS, SD, January 1, 2019-July 31, 2023



Average Age at Chronic Hepatitis C Diagnosis by Race, EDSS, SD, 2023

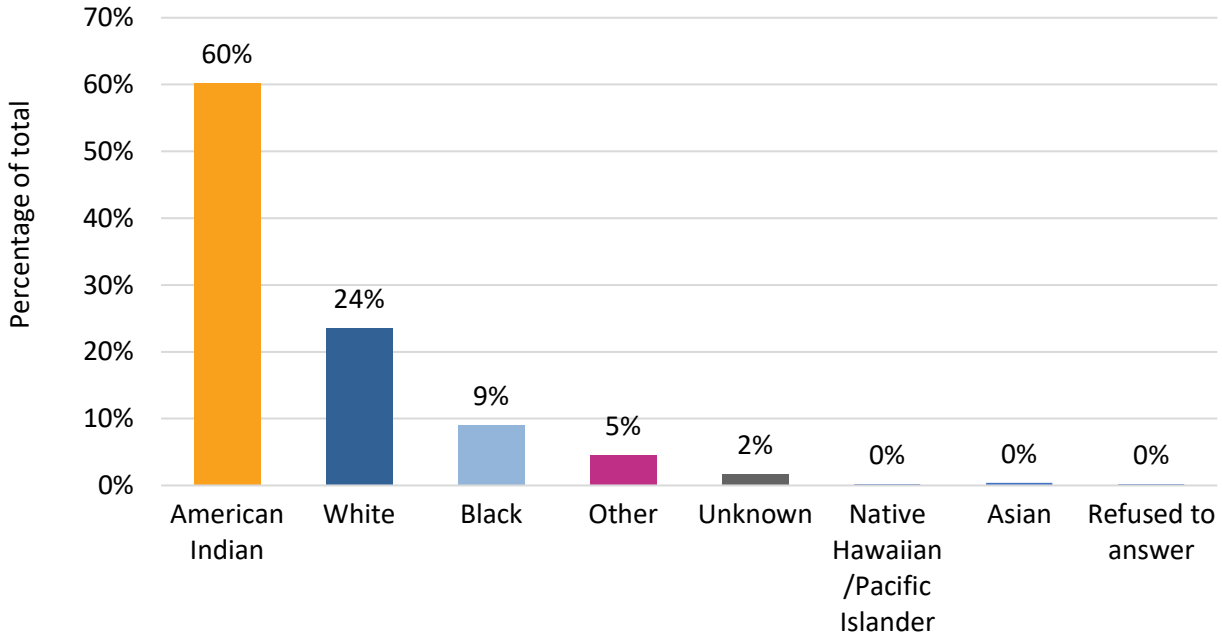


Interpretation: American Indians represented 33% of Hepatitis C cases during January 1, 2019-July 31, 2023, but made up only 9% of the total SD population. The average age at diagnosis is significantly younger for American Indians compared to Whites, possibly indicating a different set of risk factors.

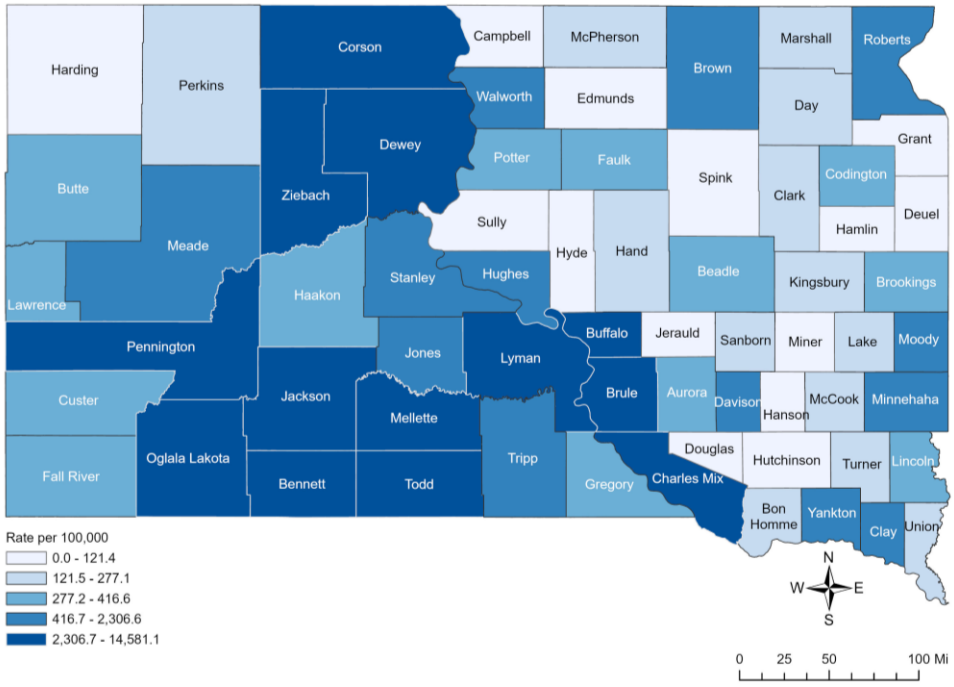
Program activity: SD DOH does not receive federal funding for hepatitis B and C so program activities are limited to data collection for surveillance purposes.

Gonorrhea

Gonorrhea Cases by Race, EDSS, SD, January 1, 2019-July 31, 2023



Gonorrhea Rates by County, EDSS, SD, January 1, 2019-July 31, 2023



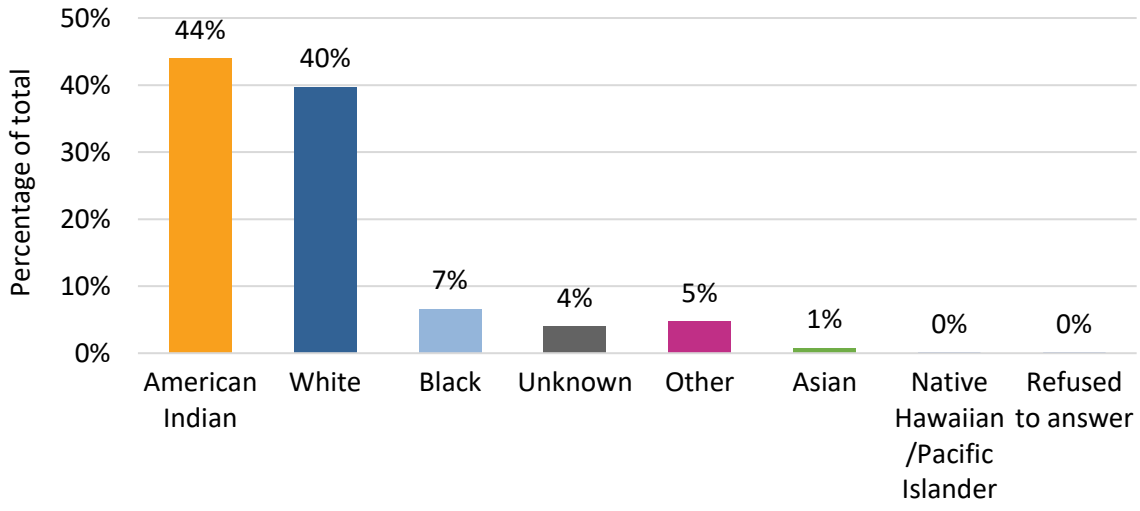
Interpretation: Gonorrhea disproportionately affects American Indians living on Tribal land.

Program activity: The STI Program is leveraging electronic notification for individual gonorrhea cases. However, gonorrhea cases that are co-infected with syphilis and/or HIV are provided case intervention services by SD Disease Intervention Specialists.

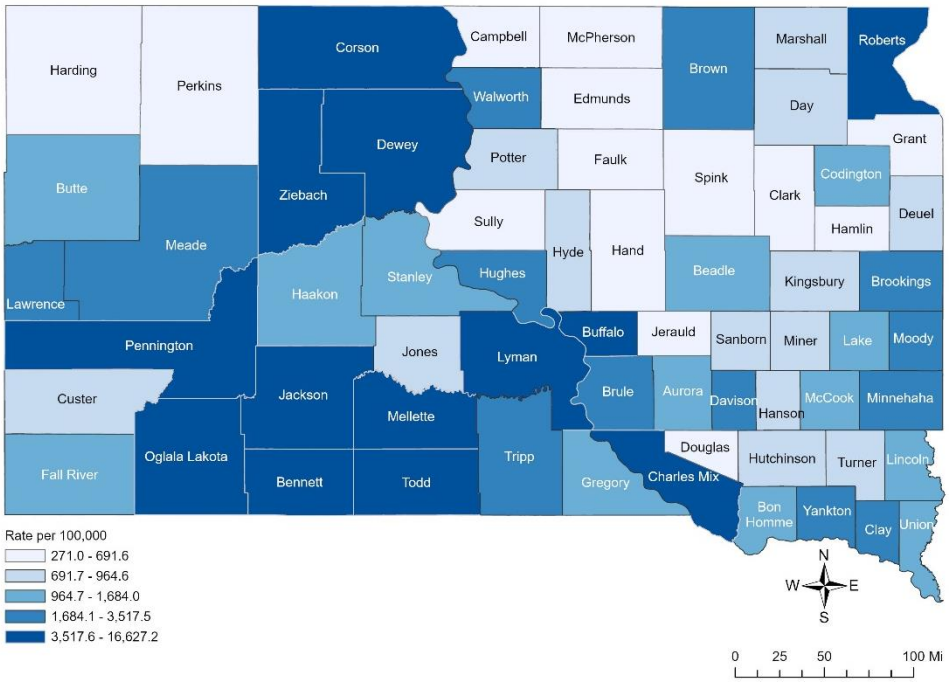
Context: It is helpful to understand that there are underlying factors to gonorrhea cases that contribute to the health disparity by race. See the section on Social Vulnerability Index for more information.

Chlamydia

Chlamydia Cases by Race, EDSS, SD, January 1, 2019-July 31, 2023



Chlamydia Rates by County, EDSS, SD, January 1, 2019-July 31, 2023



Interpretation: Chlamydia disproportionately affects American Indians living on Tribal land.

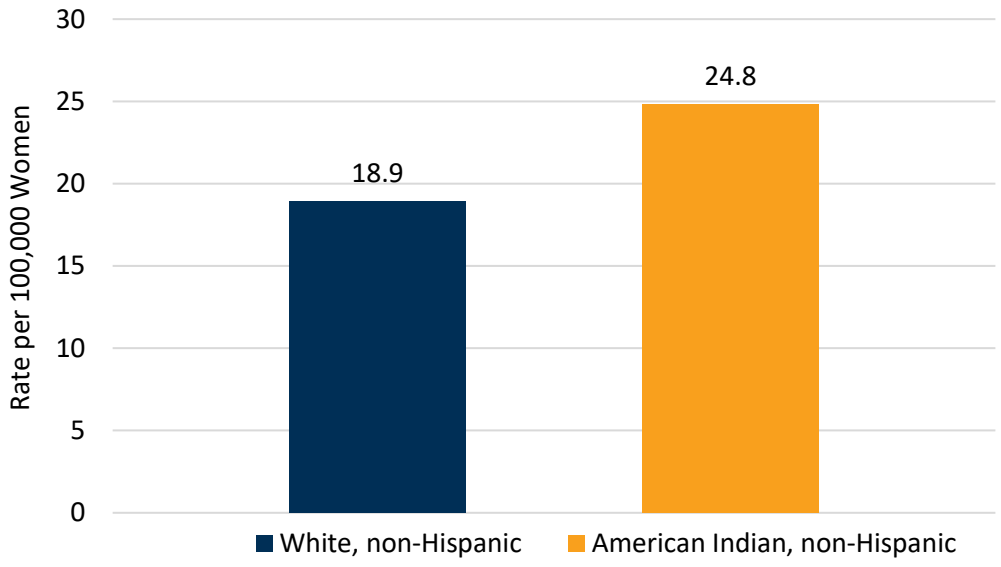
Program activity: The STI Program currently collects chlamydia data for surveillance purposes. Individual chlamydia cases are investigated if testing occurred in a SD DOH Field Office. Chlamydia cases that are co-infected with syphilis and/or HIV also receive case intervention services by SD Disease Intervention Specialists.

Context: It is helpful to understand that there are underlying factors to chlamydia cases that contribute to the health disparity by race. See the section on Social Vulnerability Index for more information.

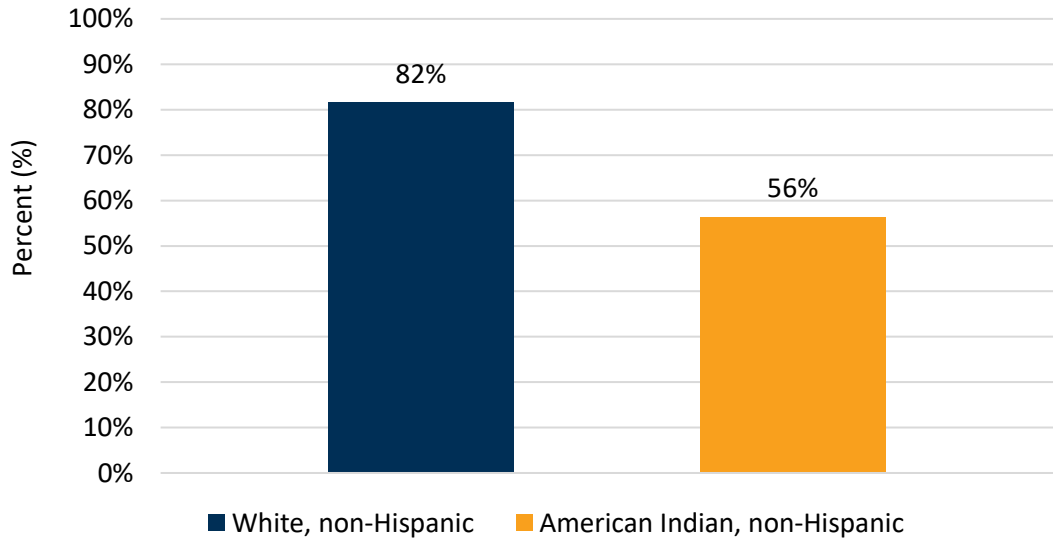
Cancer

Breast Cancer

Age-Adjusted Mortality Rates of Breast Cancer by Race, US Cancer Statistics, SD, 2016-2020



Percentage of Women Ages 50-74 Who Have Had a Mammogram Within the Past Two Years, BRFSS, SD, 2020



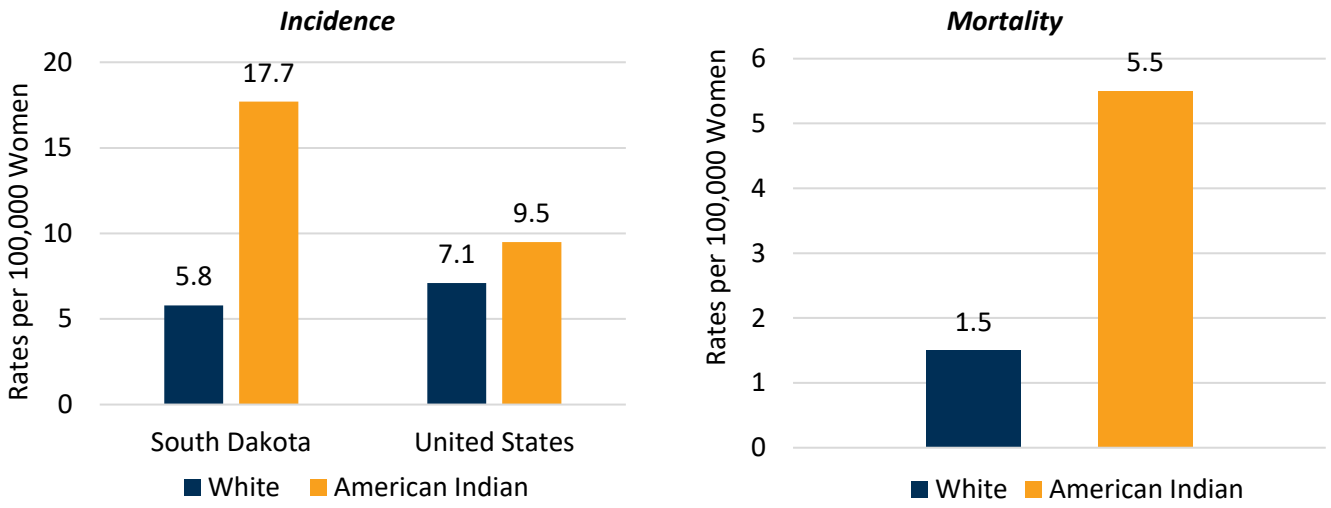
Interpretation: Breast cancer incidence rates from 2016-2020 were lower among American Indian women compared to White women (116.8 vs. 126.4 per 100,000). Mortality rates from 2016-2020 were higher among American Indian women compared to White women. In 2020, breast cancer screening was lower among American Indian women compared to White women with 56.3% of American Indian women ages 50-74 reported receiving a mammogram within the last two years compared to 81.5% of White women.

Program activity: The SD DOH provides a breast and cervical cancer screening program called the All Women Count! (AWC!) Program. Mammograms, Pap smears and related exams are available at no cost to eligible (income-based) women at many doctors' offices, mammography units, family planning and other health clinics. The AWC! Program serves women 30-64 years of age for Pap smears and women 40-64 years of age for mammograms who are without insurance or who have insurance but cannot pay the deductible or co-payment. The program pays providers directly.

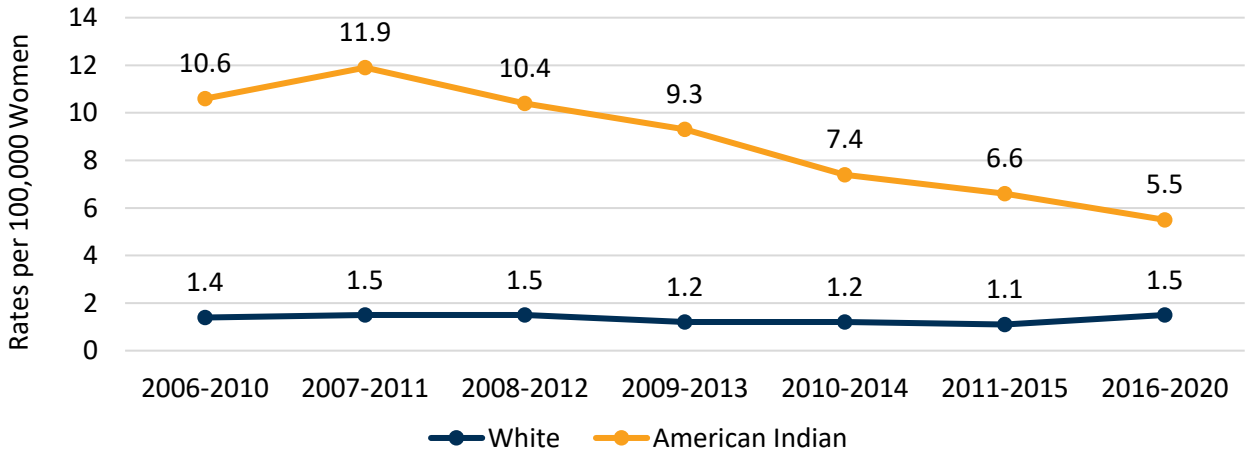
Context: The higher mortality rate among American Indian women may be partially explained by the lower screening percentages among this population. The lower screening percentage may be partially explained by the lack of available mammography locations in rural and tribal areas. The AWC! program continues to work on screening as many AI women as possible. The program has also been working on establishing mobile mammography units in rural areas where there are limited resources for establishing permanent mammography clinics.

Cervical Cancer

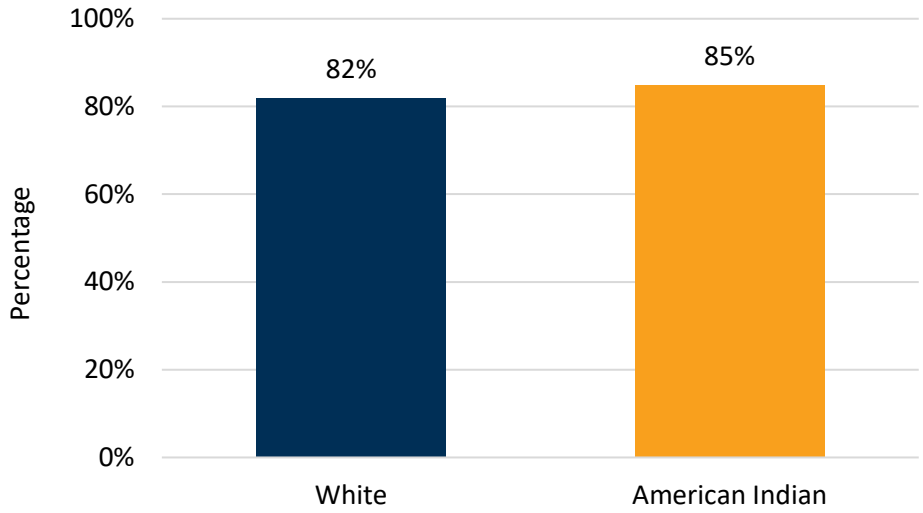
Age-Adjusted Incidence and Mortality Rates of Cervical Cancer by Race, US Cancer Statistics, US and SD, 2016-2020



Age-Adjusted Mortality Rate of Cervical Cancer by Race, Vital Records, SD, 2006-2020



Percentage of Women Aged 21-65 Years Who Have Met Recommendations of Cervical Cancer Screening, BRFSS, SD, 2016-2020



Interpretation: The cervical cancer incidence rate was 3-times higher among American Indian women compared to White women in SD and 1.9-times higher compared to other American Indian women in the US. While the number of cervical cancer deaths among American Indian women should be interpreted with caution (only 7 deaths), the mortality rate was 3.7-times higher among American Indians compared to White women in SD. Cervical cancer screening is slightly higher among AI women than White women. In 2020 alone, 91.3% of AI women ages 21-65 reported receiving either a Pap test or HPV test that are within screening guidelines compared to 86.3% of White women.

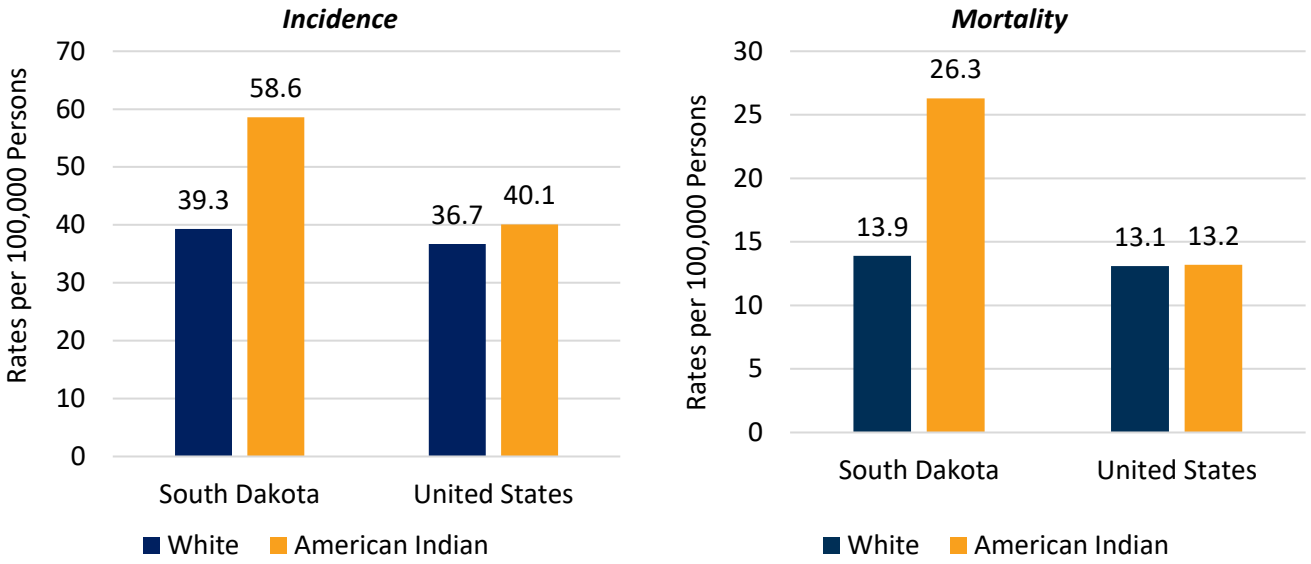
Program activity:

- The SD DOH provides a breast and cervical cancer screening program called the All Women Count! (AWC!) Program. Mammograms, Pap smears and related exams are available at no cost to eligible and income-based women at many doctors' offices, mammography units, family planning and other health clinics.
- The AWC! Program serves women 30-64 years of age for Pap smears and women 40-64 years of age for mammograms who are without insurance or who have insurance but cannot pay the deductible or co-payment. The program pays providers directly.

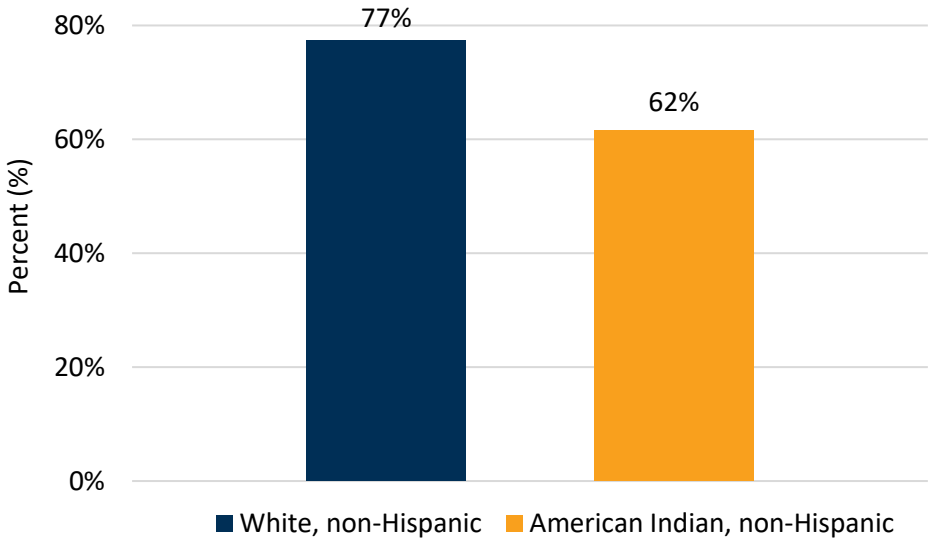
Context: The current cervical cancer screening guidelines from the US Preventive Services Taskforce (USPSTF) include either a Pap test every 3 years for women ages 21-65, a combination of a Pap test and HPV test every 5 years for women ages 30-65, or an HPV test every 5 years for women ages 30-65. There are three cervical cancer screening programs in South Dakota that receive funding from the CDC. Two of the three programs are solely focused on screening AI women, while the third program (AWC!) focuses on screening women of any race. Cervical cancer is not a common cancer with a high percentage of women being screened. The ability for screening to detect pre-cancerous cervical cells has also significantly reduced the incidence and mortality of this cancer over the last several decades.

Colorectal Cancer

Age-Adjusted Incidence and Mortality Rates of Colorectal Cancer by Race, US Cancer Statistics, SD, 2016-2020



Percentage of Adults Ages 50-75 Who Have Met Recommendations of Colorectal Cancer Screening, BRFSS, SD, 2020



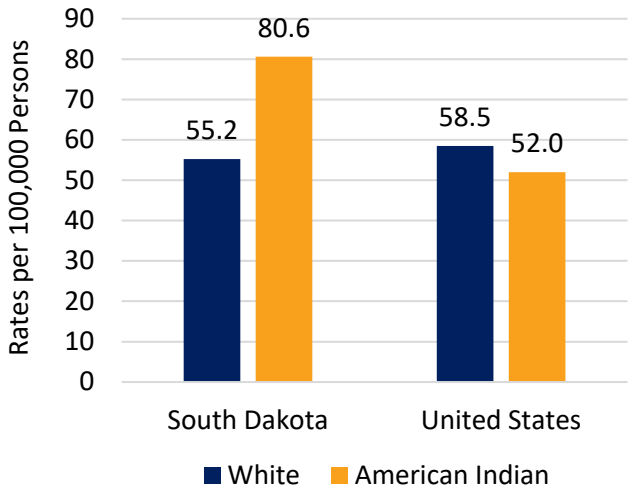
<u>Interpretation:</u> The colorectal cancer incidence rate from 2016-2020 was 1.5-times higher among SD American Indians compared to SD Whites and US American Indians. During this same time, the mortality rate was also nearly 2-times higher among SD American Indians compared to SD Whites and US American Indians. In 2020, the colorectal cancer screening percentage was lower among American Indians at 61.5% compared to 77.3% of Whites.

Program activity: The SD Cancer Coalition works to reduce cancer incidence and mortality and improve screening across the state. There are specific task forces and a steering committee within the coalition that work to reduce the burden of cancer.

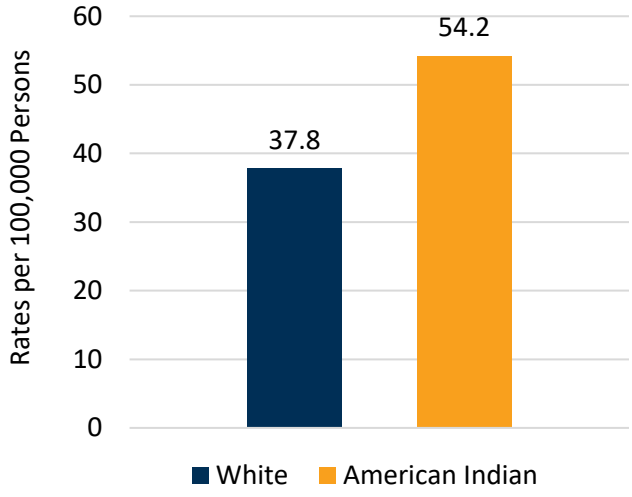
Context: The current colorectal cancer screening guidelines from the US Preventive Services Taskforce (USPSTF) include either a colonoscopy every 10 years, CT colonography every 5 years, sigmoidoscopy every 5-10 years with or without an annual fecal immunochemical test (FIT), or a FIT or other stool-based test every 1-3 years for adults 45-75 years of age. The higher incidence of colorectal cancer might be partially explained by the presence of chronic diseases and riskier health behaviors among American Indians. The higher mortality rate of colorectal cancer among American Indians may be due to the lower screening percentage among this population with the lack of available screening services in rural and tribal areas.

Lung Cancer

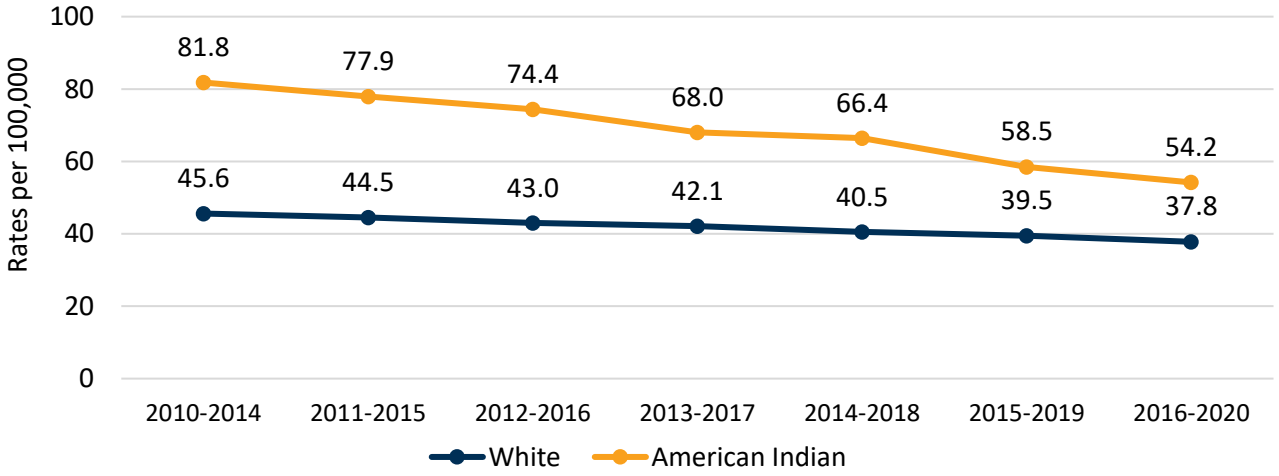
Age-Adjusted Incidence Rates of Lung/Bronchus Cancer by Race, US Cancer Statistics, SD, 2016-2020



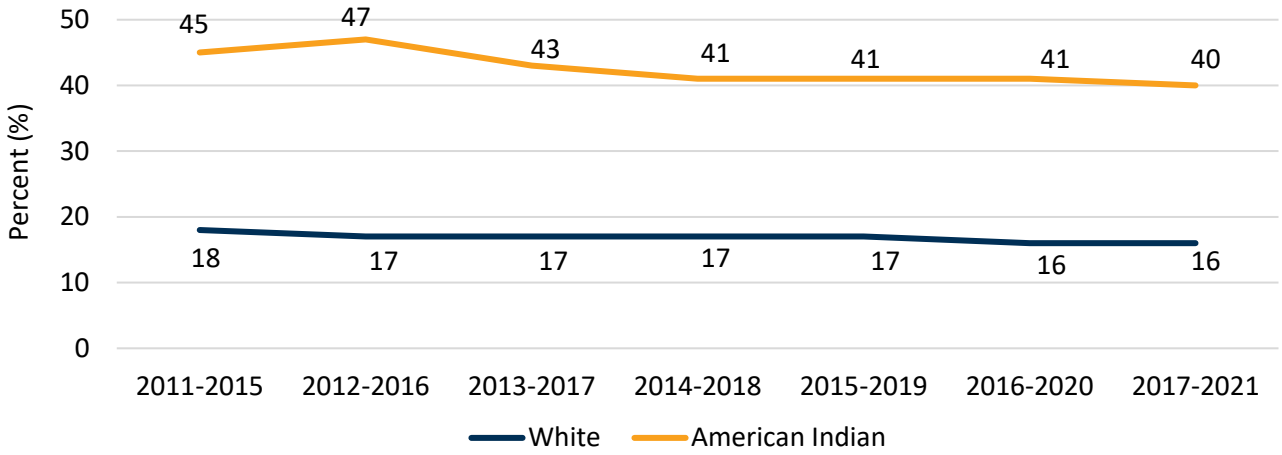
Age-Adjusted Mortality Rates of Lung/Bronchus Cancer by Race, Vital Records, SD, 2016-2020



Age-Adjusted Mortality Rates of Lung/Bronchus Cancer by Race, Vital Records, SD, 2010-2020



Percentage of Adults Who Are Current Smokers, BRFSS, SD, 2011-2021



Interpretation: The lung cancer incidence rate from 2016-2020 was 1.5-times higher among SD American Indians compared to SD Whites and US American Indians. During this same time frame, the mortality rate was also 1.5-times higher among American Indians compared to Whites in SD. As the primary risk factor for lung cancer, 43.2% of American Indians reported smoking cigarettes compared to 13.1% of Whites in 2021.

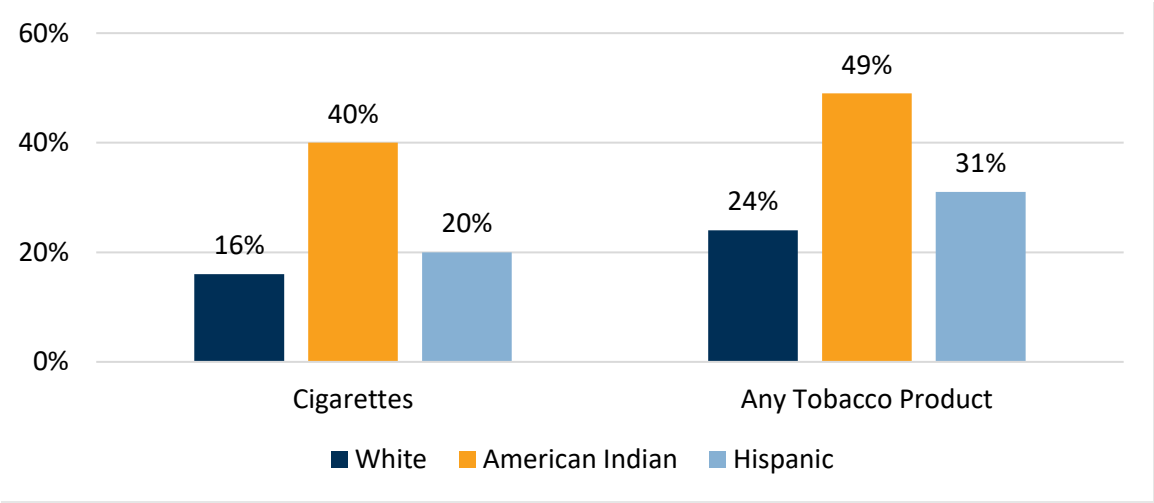
Program activity:

- The South Dakota QuitLine is available free to South Dakotans 13 years and older who desire to quit using tobacco of any type. QuitLine services involve phone coaching, texting, and use of a kickstart kit.
- The SD DOH has a Tobacco Control Program that works to prevent and stop tobacco use and educate the public on the risks and dangers of tobacco use.
- The SD Cancer Coalition works to reduce cancer incidence and mortality and improve screening across the state. There are specific task forces and a steering committee within the coalition that work to reduce the burden of cancer.

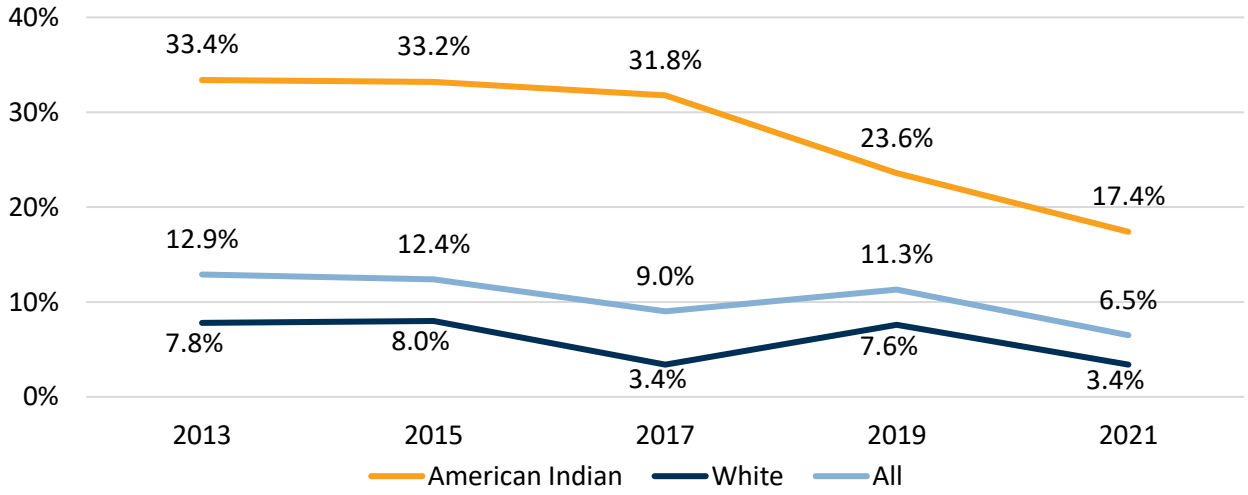
Context: Lung cancer has the highest mortality rate among all cancers. Incidence and mortality rates have been gradually decreasing over the last several decades as fewer people are smoking cigarettes and early diagnoses and treatments improve. Risk factors include cigarette smoking, secondhand smoke, asbestos or radon exposure at work or in the home or having a family history of lung cancer.

Smoking

Percentage of Adults Who Use Cigarettes and Tobacco Products, BRFSS, SD, 2017-2021



Percentage of Middle Schoolers Who Ever Used Cigarettes by Race, YTS, SD, 2013-2021



Interpretation: American Indians exhibit a significantly higher prevalence of cigarette smoking, chewing tobacco use, and any tobacco use than Whites.

Program Activity:

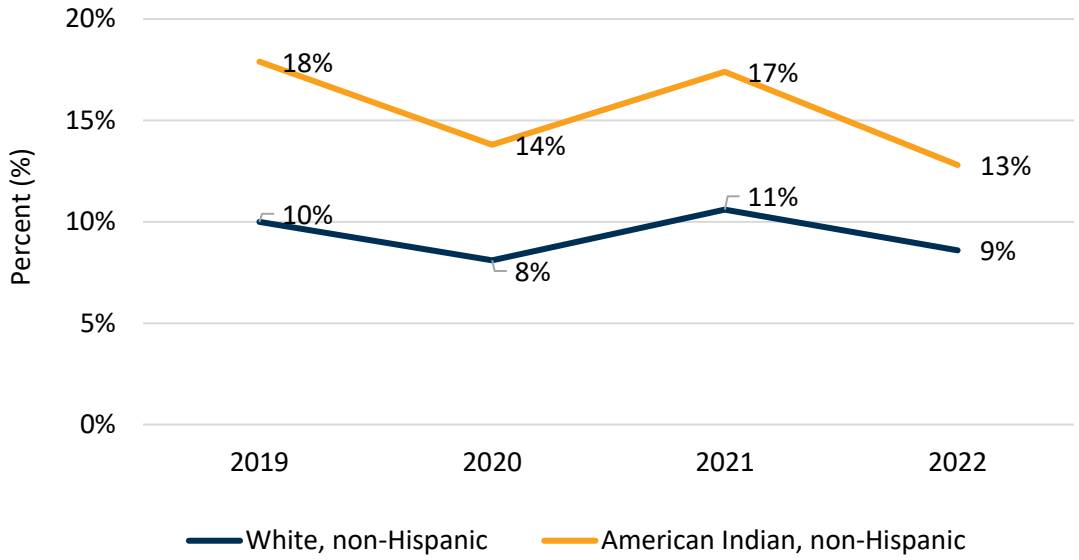
- The South Dakota QuitLine is available free to South Dakotans 13 years and older who desire to quit using tobacco of any type. QuitLine services involve phone coaching, texting, and use of a kickstart kit.
- The SD DOH has a Tobacco Control Program that works to prevent and stop tobacco use and educate the public on the risks and dangers of tobacco use.

Context: A significant racial difference in e-cigarette use has not been shown. While White cigarette smoking rates have significantly decreased from 2011 to 2021, they have not shown the same significant decrease for American Indians. However, while American Indian e-cigarette use has remained fairly steady from 2016 to 2021, White e-cigarette usage has increased significantly.

Chronic Disease

Diabetes

Percentage of Adults Who Have Ever Been Told by a Doctor That You Have Diabetes, BRFSS, SD, 2019-2022



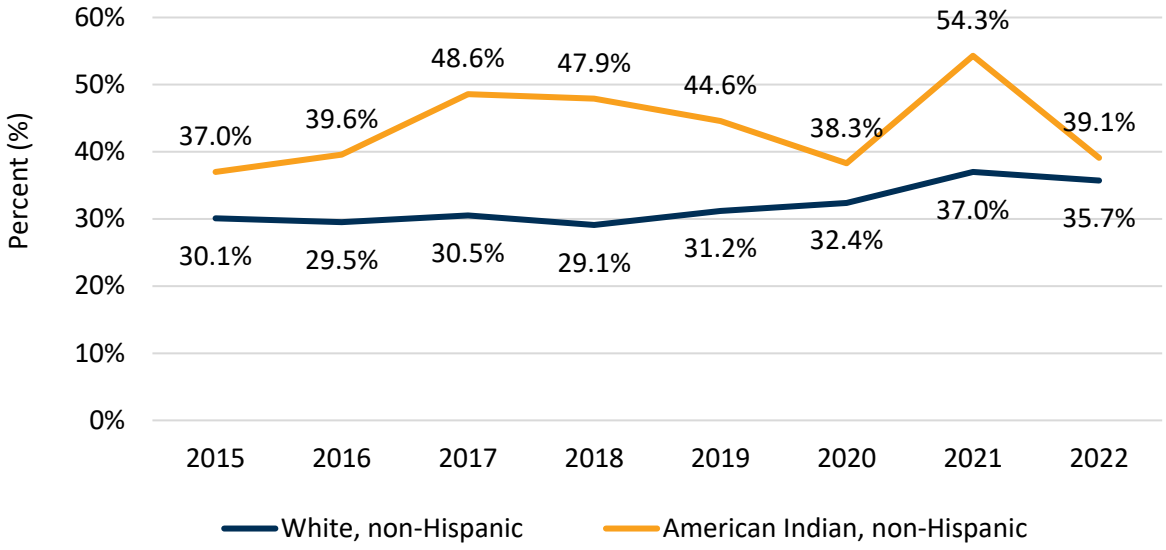
Interpretation: In 2022, 12.8% of American Indian adults had been diagnosed with diabetes compared to 8.6% of White adults in South Dakota. Many more adults live with prediabetes or undiagnosed diabetes.

Program activity: The South Dakota Diabetes Program builds partnerships with various organizations in the state to reach high-risk populations for the prevention and treatment of diabetes. The program works collaboratively to educate the public on the benefits of a healthy lifestyle. The program is funded by the CDC and is part of the National Diabetes Prevention Program. There are 11 program sites in the state that provide education and information for residents desiring to improve lifestyle behaviors to reverse prediabetes and prevent diabetes. The SD Diabetes State Strategic Plan is a five-year program plan with the SD DOH aimed at reducing the impact of diabetes and improving the health of South Dakota residents.

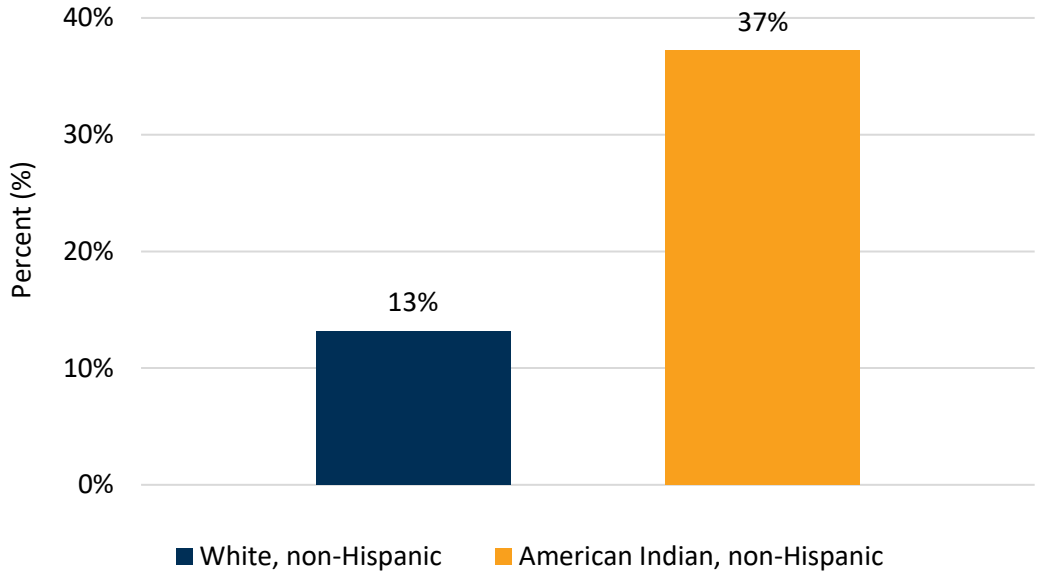
Context: Risk factors for diabetes includes genetics, race and ethnicity, obesity, physical inactivity, and an unhealthy diet. American Indians have the highest prevalence of diabetes among all races and ethnicities. Diabetes is now a common disease and is a costly and demanding health condition in healthcare. It can often lead to kidney, eye, or nerve damage, cardiovascular disease, stroke, and premature death if not properly managed. The prevalence of diabetes is expected to continue to increase in the coming years in South Dakota and the nation.

Overweight/ Obesity (BMI)

Percentage of Adults Considered Obese, BRFSS, SD, 2015-2022



Percentage of Students at or Above the 95th Percentile for Body Mass Index, High School Youth Risk Behavior Survey, SD, 2021



Interpretation: In 2022, 39.1% of American Indian adults were living with obesity (body mass index ≥30.0) compared to 35.7% of White adults. Over the last several years, obesity ranged from a low of 37.0% in 2015 to a high of 54.3% in 2021. While obesity continues to increase among all populations in the state, the percentage of American Indian adults remained higher than compared to White adults. Obesity among White adults ranged from a low of 29.1% in 2018 to a high of 37.0% in 2021. Obesity among American Indian youth in grades 9th-12th has also been increasing from 9.5% in 2009 to 37.2% in 2021. In comparison, 13.2% of White youth in grades 9th-12th were living with obesity in 2021.

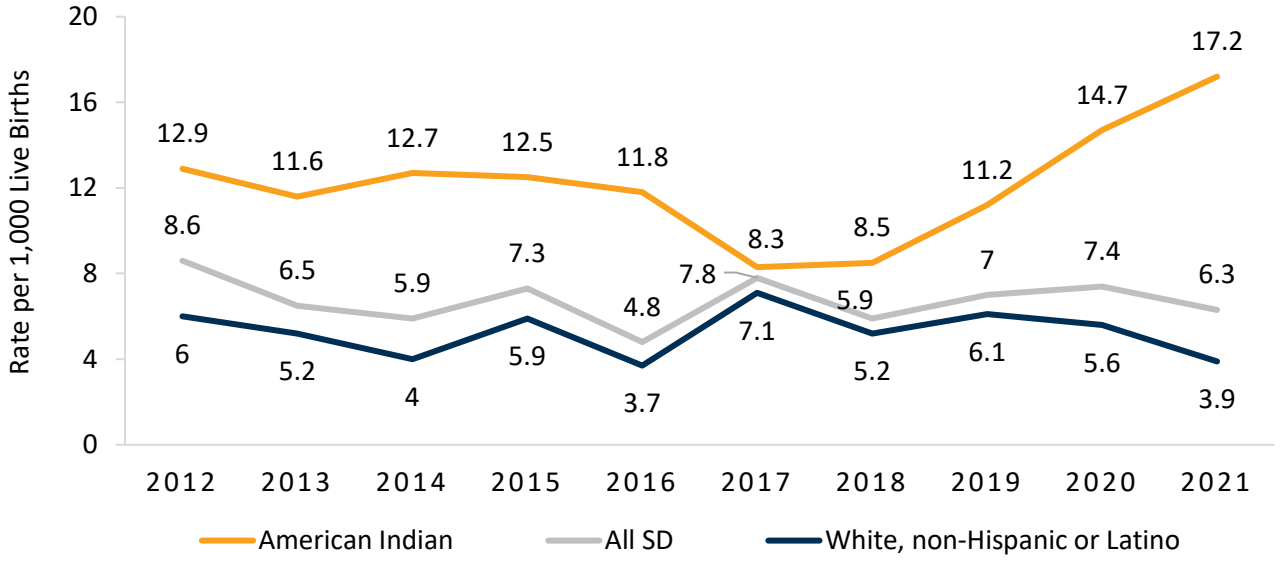
Program activity: The SD Department of Health promotes a healthy lifestyle for South Dakotans. The HealthySD.Gov website provides several resources for residents and workplaces to access. Many activities and funding opportunities exist based on nutrition, physical activity, and health and wellness. Recent campaigns include the Move Your Way and Park Rx programs that incorporate physical activity into daily living. The Better Choices, Better Health (BCBH) SD program provides residents with workshops and activities to help maintain healthy living. The Office of Disease Prevention and Health Promotion has implemented several five-year program plans that work towards reducing obesity and other chronic conditions in the state. These plans include the SD Cardiovascular Collaborative Strategic Plan, SD Diabetes State Strategic Plan, SD Tobacco Control State Plan, and the SD Cancer Plan.

Context: Obesity remains a significant health issue throughout South Dakota and the nation. Obesity is a risk factor for developing many other chronic diseases, such as heart disease, diabetes, and cancer. Children who develop obesity during their youth remain at risk for growing into adulthood with obesity and other associated health conditions. Many diets in the American culture consist of processed foods high in fat, sugar, and sodium with lower consumption of fruits and vegetables. Shifting lifestyle behaviors related to economic, social, and technological demands have also resulted in less physical activity. The treatment and prevention of obesity and its impacts are a major cause of expenditure in the healthcare industry. The prevalence of obesity is expected to continue to increase in the coming years in South Dakota and the nation.

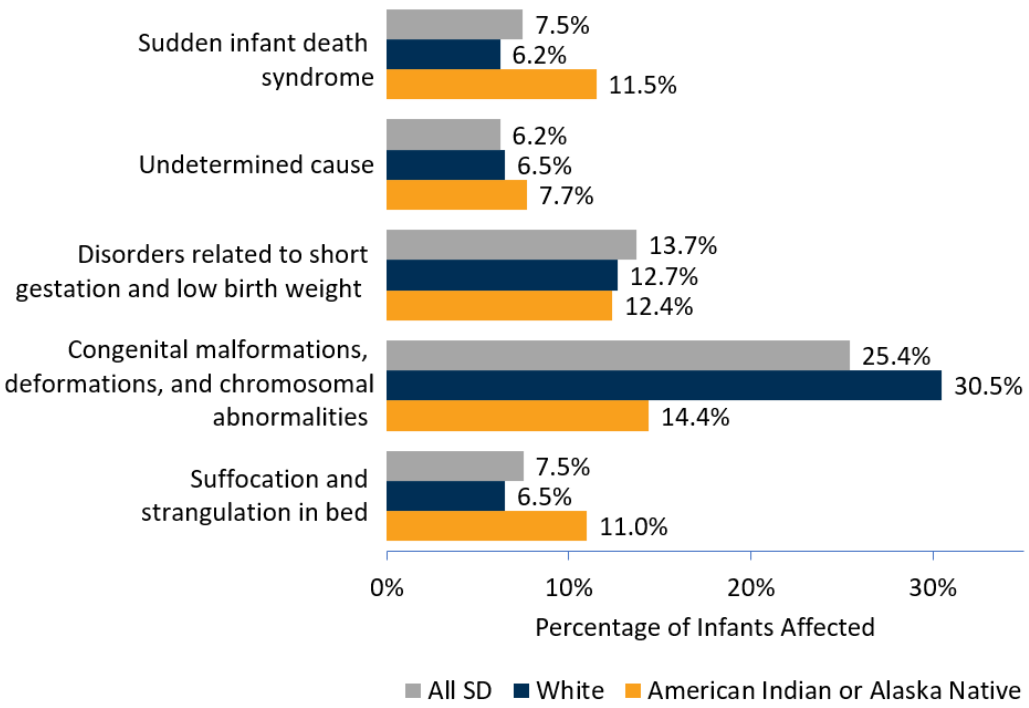
Maternal and Child Health

Infant mortality

Infant Mortality Rates by Race and Ethnicity, Vital Records, SD, 2012-2021



Top 5 Causes of Infant Deaths by Race, Vital Records, SD, 2012-2021



Interpretation: Overall trends in American Indian infant deaths in South Dakota have shown increasing rates with the American Indian infant mortality rate being four to five times higher than the White infant mortality rate. Congenital malformations among White Infants and accidents among American Indian infants are the most frequent causes of death.

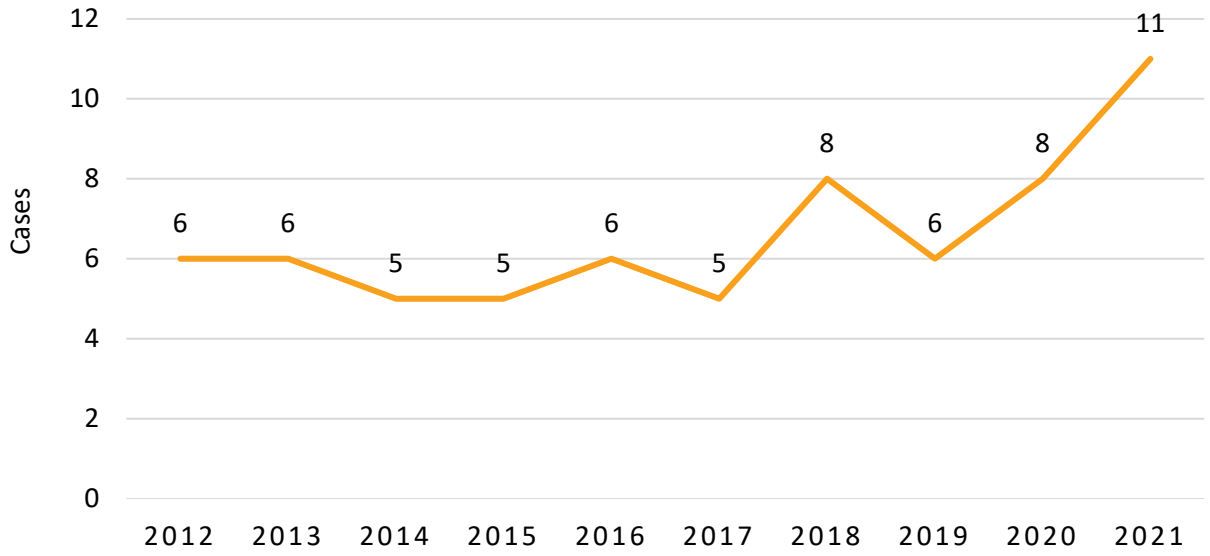
Program activity:

- Reducing infant mortality is a public health priority in SD. Efforts to decrease the infant mortality rate within the SD DOH include:
  - Conducting infant death review statewide to better understand why infants die to prevent future deaths and disseminate these findings to all South Dakotans.
  - The SD DOH collaborates with the Governor's Office to promote safe sleep to parents of newborns by including the Sleep Baby Safe and Snug book (Charlie's Kids Foundation) in the governor's Strong Families mailings. These mailings go out to mothers who recently delivered a baby in SD.
  - The SD DOH partners with the National Cribs for Kids program to distribute safe sleep kits (which include a Graco Pack 'n Play) through their Community Health Offices and partners. Close to 1000 kits are distributed each year to families in need of a safe place for baby to sleep.
  - The Office of Child and Family Services (OCFS) continues to educate families on the importance of infant safe sleep practices through safe sleep posts on For Baby's Sake Facebook page, on the For Baby's Sake pages of the SD DOH website, and through print materials like the client-centered Safe Sleep Every Sleep infographic developed using data from Child Death Review.
  - One of the newest collaborative strategies to decrease infant mortality is between the OCFS and birthing hospitals in the state. Hospitals are currently working with the National Cribs for Kids program to promote bronze-level Hospital Safe Sleep Certification across their systems. This certification ensures that hospital policies and staff messaging are consistent with evidence based safe sleep practices. There are currently 4 birthing hospitals bronze-level certified and 1 with gold- certification.

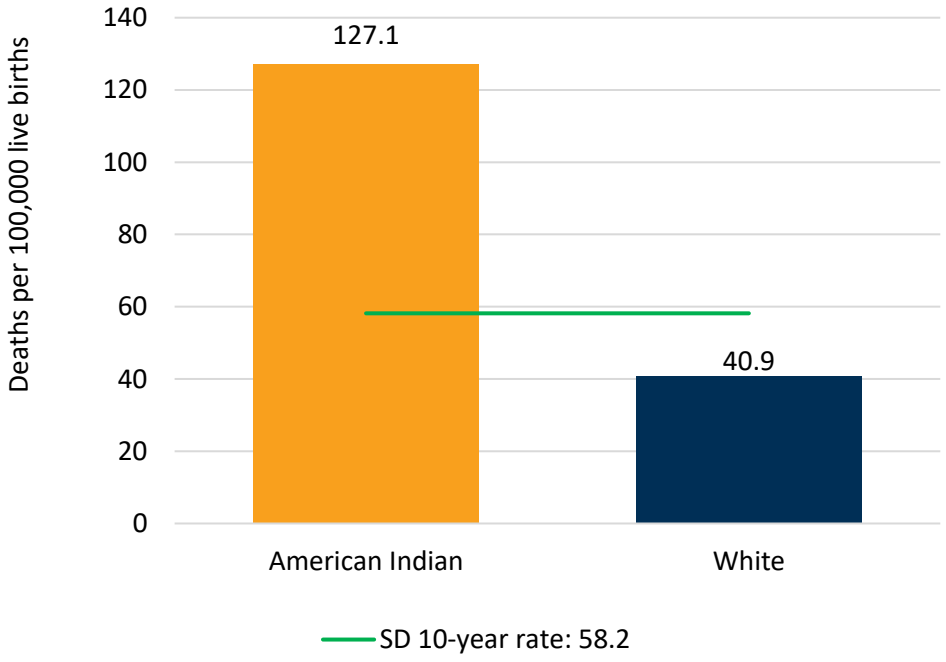
- The SD DOH expanded the Bright Start program across the state which supports expectant, first-time moms by connecting them with a free personal nurse to walk alongside them every step of pregnancy and through their child's second birthday.
- The SD DOH Pregnancy Care program provides guidance to pregnant families through Community Health Nurses across the state. The program promotes early and adequate prenatal care and provides prenatal education and support throughout the pregnancy and postpartum period to help decrease infant mortality.

Pregnancy-associated deaths

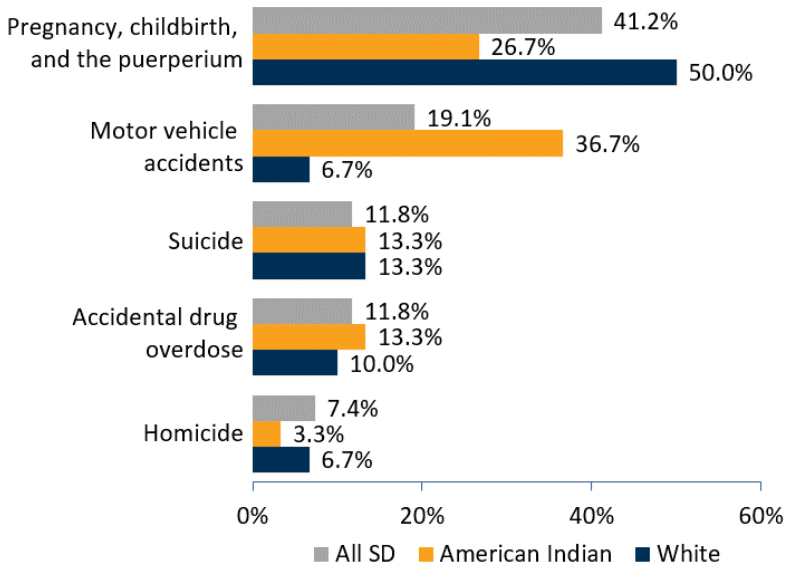
Cases of Pregnancy-Associated Deaths, Vital Records, SD, 2012-2021



Pregnancy-Associated Deaths by Race, Vital Records, SD, 2012-2021



Top 5 Causes of Pregnancy-Associated Deaths by Race, Vital Records, SD, 2012-2021



Interpretation: American Indians represented 20.2% of all live births in SD between 2012-2021 and 44.1% of all deaths. Pregnancy-associated death rates are 4 times higher among American Indian than among White women.

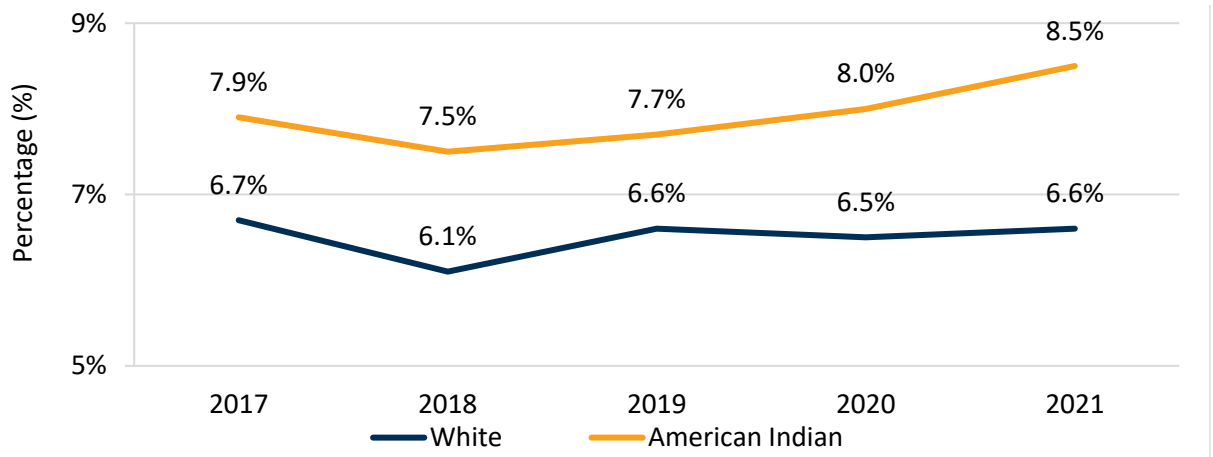
Program activity:

- The Maternal Mortality Review Committee, housed in the Office of Child and Family Services, started activities in 2021. The Committee reviews each case of pregnancy-associated death (medical records, autopsies, social history), to put together the stressors and risk factors and to list possible interventions that could be adopted by the SD DOH to prevent those deaths. The committee has reviewed deaths that occurred from 2018-2020.

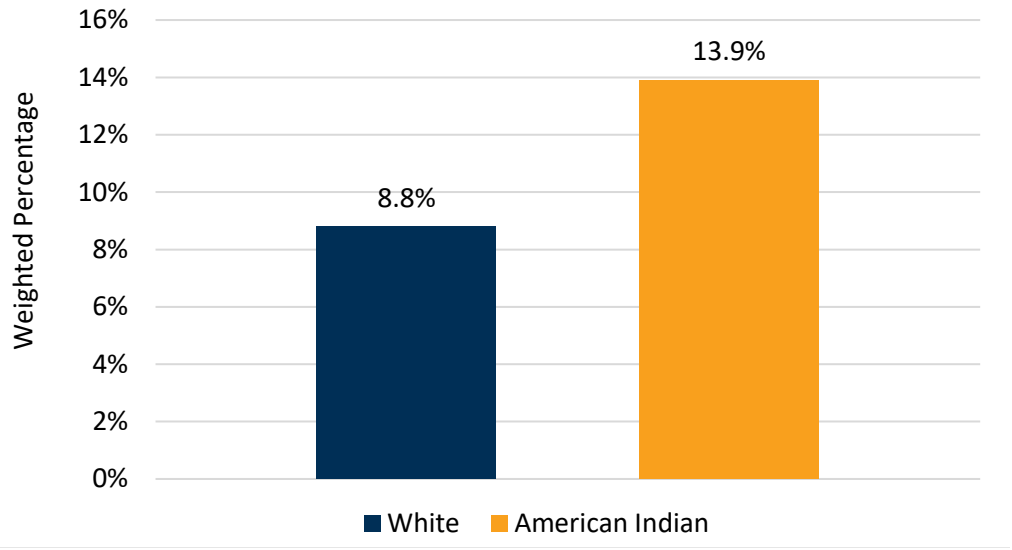
Context: The vast majority of Tribal lands in SD are also Maternity Care deserts – that is, counties where there is no health facility, physician, or midwife available to provide pregnancy-related healthcare.

Preterm births and low birth weight

Percentage of Babies Born with Low Birth Weight, SD, 2017-2021



Percentage of Babies Born Preterm (<37 weeks), SD, 2017-2021



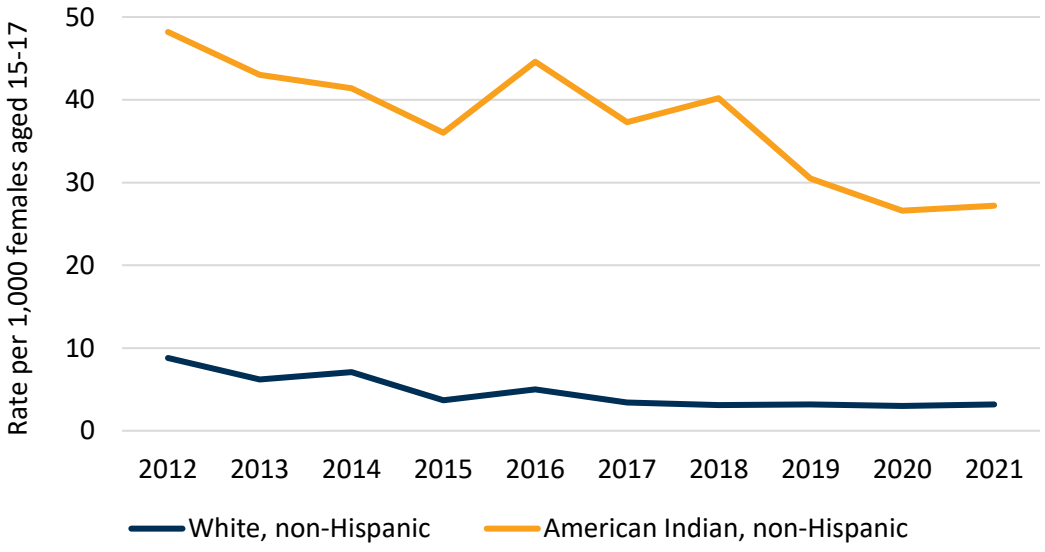
Interpretation: American Indian babies had lower weights at birth than White babies; the percentage of babies born pre-term was also higher.

Program activity: The SD DOH Bright Start program supports expectant, first-time moms by connecting them with a free visit with a nurse to walk alongside every step of the pregnancy. Moms that are not eligible to join the program can receive support from the Pregnancy Care Program.

Context: Data from the Pregnancy Risk Assessment Monitoring System (PRAMS) shows that in 2021, over 40% of American Indian mothers had inadequate pre-natal care visits compared with 9.6% of White mothers.

Teen births

South Dakota Resident Teen Births and Rates by Year and Mother's Race/Ethnicity, Vital Records, SD, 2012-2021

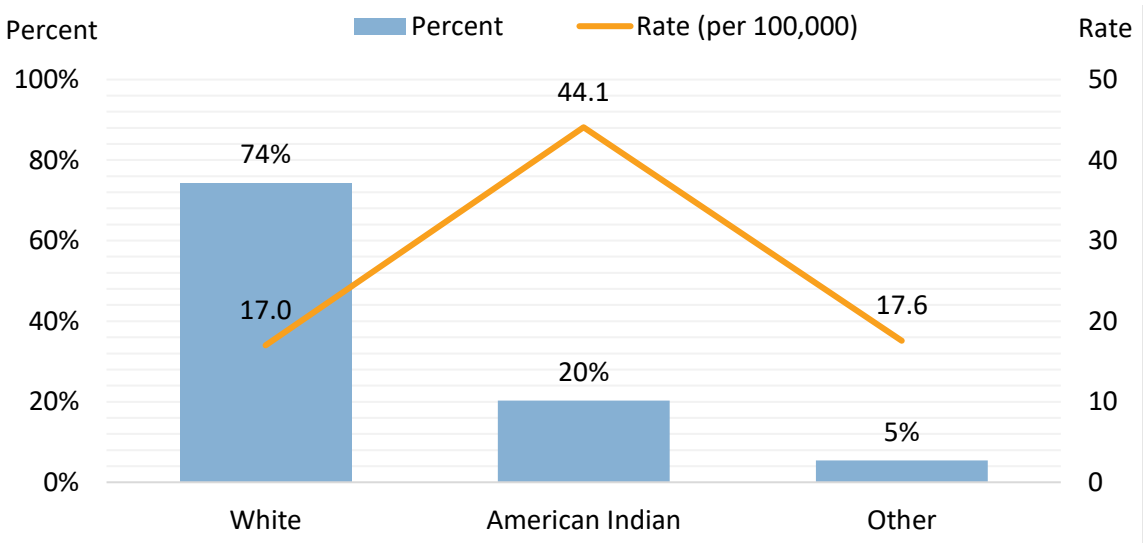


Interpretation: Teen birth rates have been decreasing substantially in South Dakota in recent years. The statewide teen birth rate was 19.3 in 2000 and decreased to 8.6 in 2021. Teen birth rates for Whites have decreased from 12.2 in 2000 to 3.2 in 2021 and have decreased for American Indians from 63.5 in 2000 to 27.2 in 2021. While both races have seen large decreases over the past 20 years, the rate for American Indians is still approximately 8.5 times higher than the rate for Whites.

Injury

Suicide

Suicide Deaths by Race, Vital Records, SD, 2012-2021

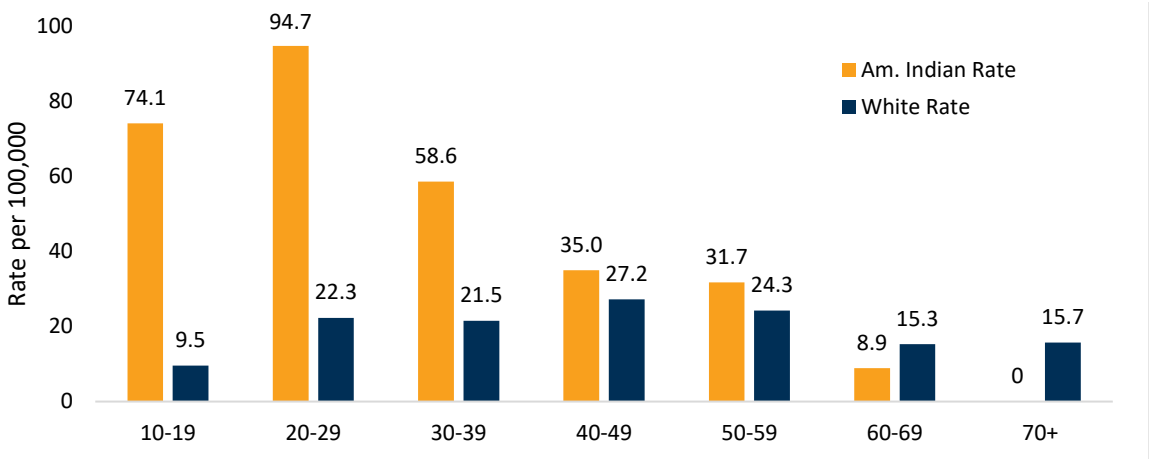


Interpretation: From 2012-2021, there were 1,689 suicide deaths with 74% occurring among Whites and 20% occurring among American Indians. American Indian suicide death rates were 2.6 times higher than White death rates.

Program activity: SD DOH and the SD Department of Social Services prioritized population-specific materials and resources be included on the SDSuicidePrevention.org website. Suicide prevention was included in the 2023 priority strategies of the SD Suicide Prevention plan.

Context: In SD, suicide was the 10th leading cause of death in 2021 and the 7th leading cause of death among American Indians. Nationally, suicide is the 9th leading cause of death among American Indian people and suicide rates are 1.6 times higher among American Indian people compared to White people (28.1 vs 17.4 per 100,000).

Age-Specific Suicide Rates by Race, SD, 2012-2021

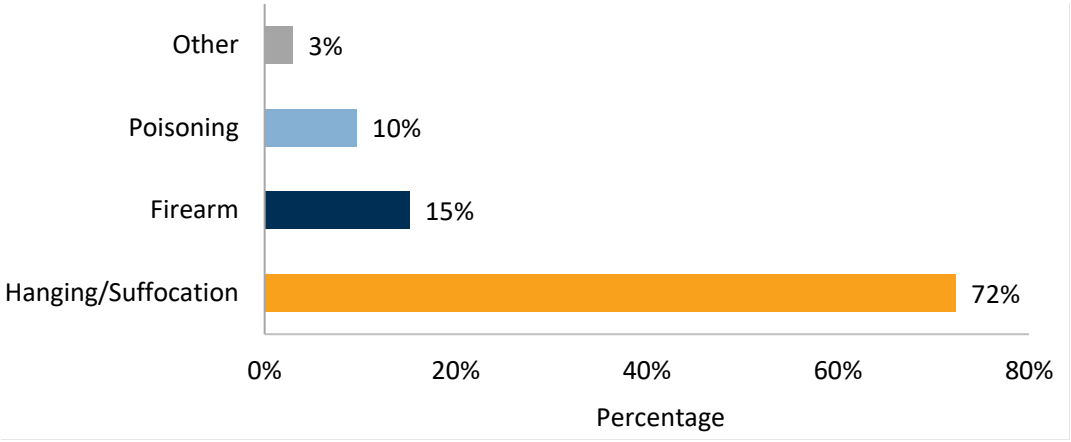


Interpretation: By age group during 2012-2021, suicide rates are highest among American Indian young adults, aged 20-29 years. Suicide rates were highest among White adults aged 40-49 years.

Program activity: SD DOH and the SD Department of Social Services prioritized population-specific materials and resources be included on the SDSuicidePrevention.org website. Suicide prevention was included in the 2023 priority strategies of the SD Suicide Prevention plan.

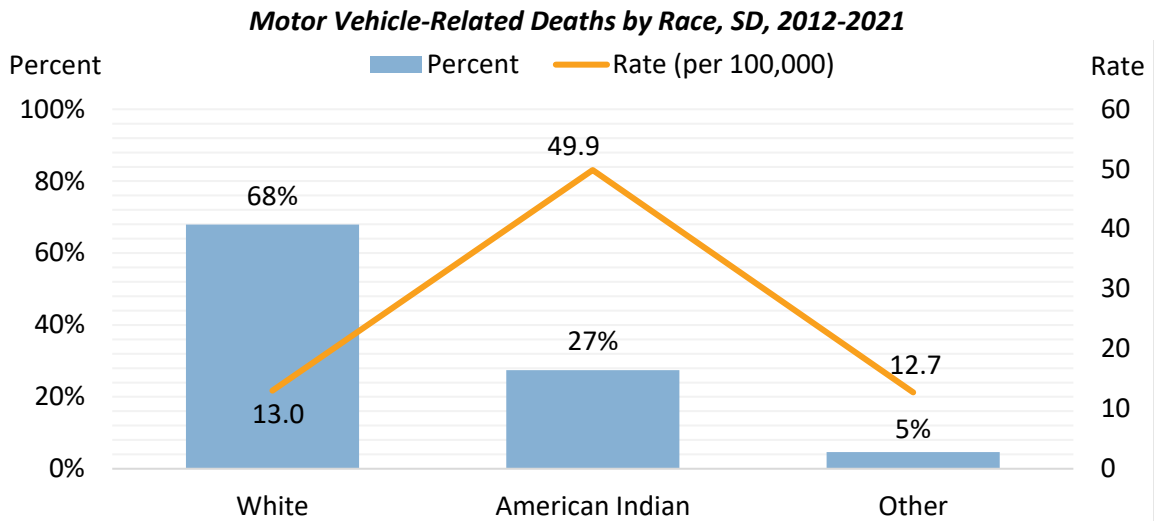
Context: National trends are similar to South Dakota. Nationally, suicide death rates are highest among American Indian young adults, aged 20-29 years, with a rate of 24.7 per 100,000. Nationally, White death rates are highest among ages 50-59 years, with a rate of 23.4 per 100,000.

Suicide Methods Among American Indians, SD, 2012-2021



Interpretation: Hanging/suffocation makes up the largest proportion of American Indian suicide deaths at 72%. In South Dakota, firearms make up the largest proportion of suicide deaths at 50%.

Motor vehicle-related deaths

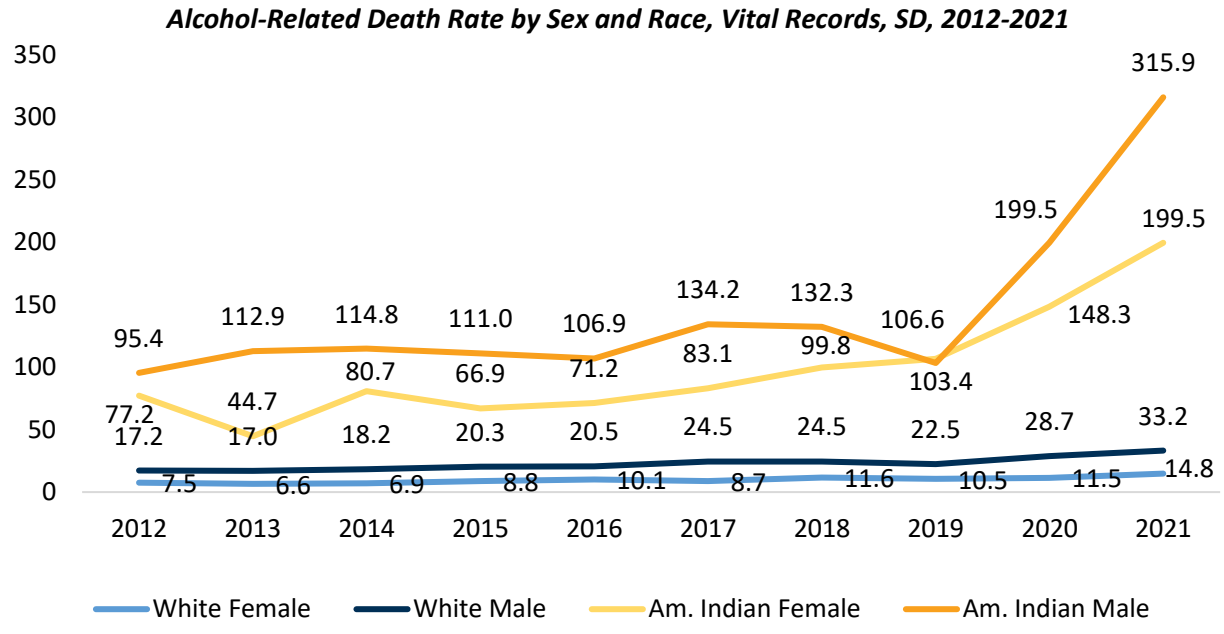


Interpretation: There were 1,416 motor vehicle-related deaths from 2012-2021. Of these deaths, 27% were among American Indian. American Indian motor vehicle related death rates were 3.8 times higher than White rates.

Program activity: SD DOH participates in a quarterly prevention meeting to discuss injury prevention and is working to identify partners in prevention.

Context: In SD, motor vehicle accidents were the 6th leading cause of death among American Indians. Nationally, the American Indian motor vehicle-related death rate was 1.4 times higher than the White death rate (16.9 vs 12.4 per 100,000).

Alcohol-related deaths



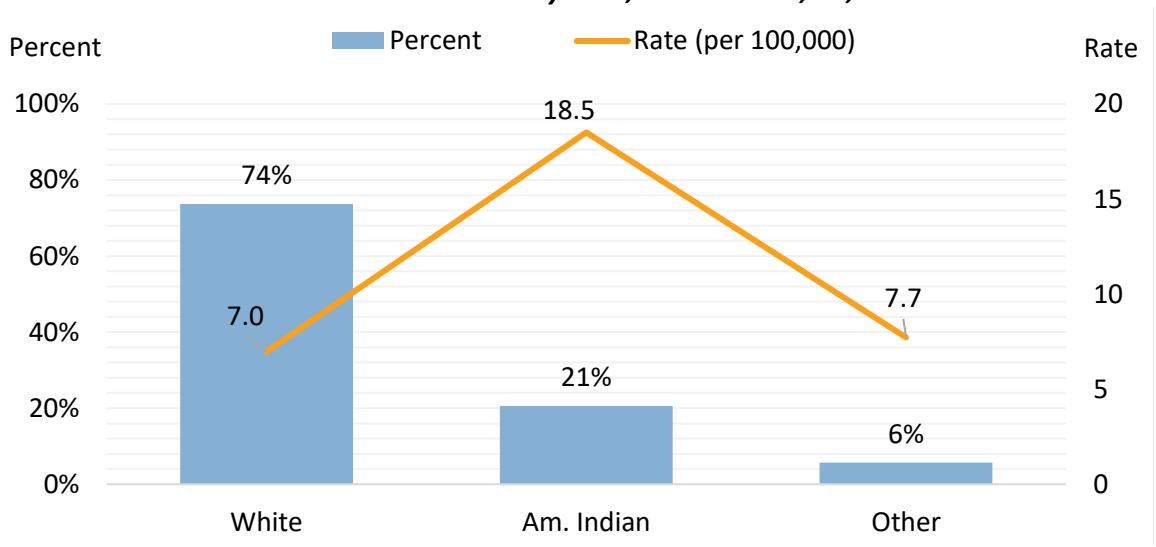
Interpretation: American Indian alcohol-related death rates were 7 times higher than White death rates (120.9 vs 16.3 per 100,000). American Indian males and females experience higher rates compared to White males and females.

Program activity: SD DOH participates in a quarterly prevention meeting to discuss injury prevention and is working to identify partners in prevention.

Context: In SD, chronic alcohol abuse was the 10th leading cause of death among American Indians.

Overdose-related deaths

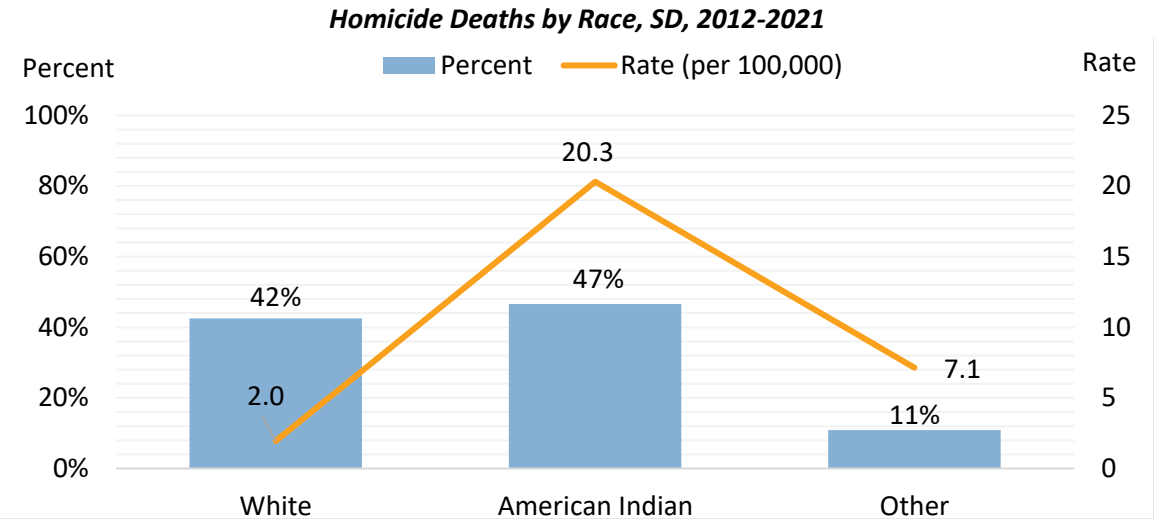
Overdose-Related Death Rate by Race, Vital Records, SD, 2012-2021



Interpretation: From 2012-2021, there were 699 overdose-related deaths. American Indian overdose-related death rates were 2.6 times higher than White rates.

Program activity: In SD, accidental drug overdose was the 9th leading cause of death among American Indians. Overdose Data to Action funding has provided an opportunity to enhance surveillance efforts around fatal and nonfatal overdoses and increase prevention outreach and activities across the state.

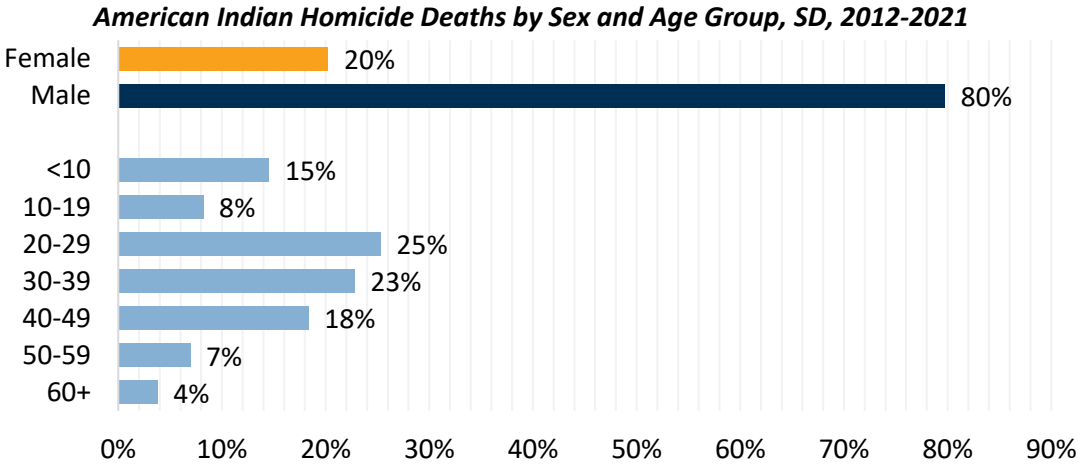
Homicides



Interpretation: From 2012-2021, there were 339 homicides. Of these deaths, 47% were American Indian. American Indian homicide rates were 10.2 times higher than White homicide rates (20.3 vs 2.0 per 100,000).

Program activity: Data collection with the South Dakota Violent Death Reporting System provides a better understanding of homicides in South Dakota and provides an opportunity to share information and identify prevention partners.

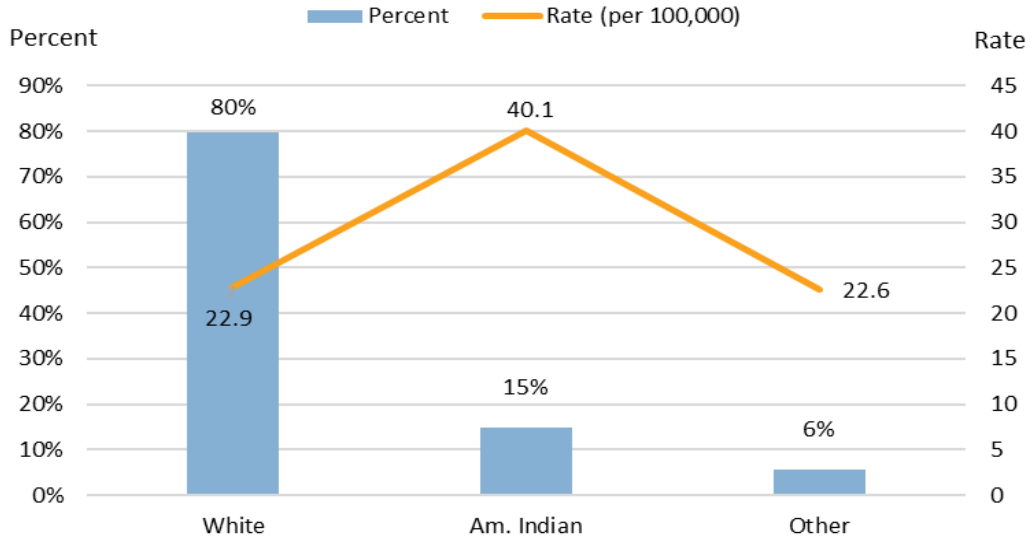
Context: Nationally, the American Indian homicide death rate was 2.1 times higher than the White death rate (7.9 vs 3.7 per 100,000).



Interpretation: American Indian males are almost 4 times more like to die by homicide than American Indian females. The largest proportion of American Indian homicide deaths are among young adults, 20–29-year-olds.

Traumatic brain injury (TBI) deaths

Traumatic Brain Injury-Related Deaths by Race, SD, 2012-2021



Interpretation: From 2012-2021, there were 2,123 TBI-related deaths in South Dakota. Of these deaths, 15% were among American Indian. American Indian TBI-related death rates were almost 1.7 times higher than White rates.

Program activity: SD DOH participates in a quarterly prevention meeting to discuss injury prevention and is working to identify partners in prevention.

Leading Causes of Death

Ten Leading Causes of Death Among American Indians by Year, SD, 2010-2022

Rank	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1	Cancer 84	Heart 79	Cancer 107	Cancer 89	Heart 82	Heart 92	Heart 90	Heart 103	Heart 123	Heart 98	COVID-19 206	Liver 175	Liver 144
2	Heart 76	Cancer 76	Heart 87	Heart 84	Cancer 80	Cancer 77	Cancer 86	Cancer 96	Cancer 105	Cancer 91	Heart 117	Heart 127	Heart 131
3	Diabetes 51	Diabetes 43	Liver 47	Liver 55	Liver 59	Diabetes 53	Liver 58	Liver 62	Liver 79	Liver 64	Liver 109	COVID-19 111	Cancer 103
4	Liver 29	Liver 37	Diabetes 37	MVA 39	Diabetes 42	Liver 52	Diabetes 50	Diabetes 56	Diabetes 70	Diabetes 56	Cancer 101	Diabetes 87	Diabetes 74
5	MVA 29	MVA 30	MVA 34	Diabetes 37	MVA 25	Suicide 47	MVA 38	MVA 48	MVA 45	Suicide 28	Diabetes 82	Cancer 86	MVA 62
6	Suicide 23	Suicide 23	Suicide 19	Suicide 21	Suicide 20	MVA 41	Suicide 33	Suicide 44	Suicide 34	MVA 27	Suicide 42	MVA 61	COVID-19 62
7	CLRD 16	CLRD 21	CLRD 19	Stroke 21	Stroke 20	CLRD 19	I&P 22	CLRD 31	CLRD 25	CLRD 23	MVA 39	Suicide 50	Suicide 43
8	Septicemia 14	Stroke 17	Stroke 15	CLRD 15	Septicemia 13	Stroke 16	CLRD 21	Stroke 21	Septicemia 20	Stroke 21	Stroke 31	CLRD 34	Homicide 35
9	Stroke 13	I & P 16	I&P 13	I&P 15	CLRD 12	I&P 16	Homicide 18	I&P 18	I&P 16	Drug 18	Homicide 29	Drug 25	Drug 23
10	Falls 12	Homicide 11	Falls 11	Homicide 12	I&P 12	Septicemia 14	Kidney 18	Falls 14	Stroke 14	I & P 17	Septicemia 21	Alcohol 24	CLRD 22
Total	**532**	**524**	**580**	**568**	**560**	**636**	**649**	**714**	**732**	**688**	**1,086**	**1,102**	**1,013**
CDR	**765**	**749**	**820**	**799**	**786**	**888**	**898**	**982**	**1,002**	**936**	**1,488**	**1,504**	**1,445**
AADR	**1,339**	**1,266**	**1,343**	**1,322**	**1,280**	**1,354**	**1,406**	**1,517**	**1,549**	**1,392**	**2,174**	**2,140**	**1,993**

Heart: Heart disease
CLRD: Chronic lower respiratory disease, (Chronic obstructive pulmonary disease)
Liver: Chronic liver disease and cirrhosis
Kidney: Kidney disease

CDR: Crude death rate per 100,000 population
MVA: Motor vehicle accidents
I & P: Influenza and pneumonia
Alcohol: Chronic alcohol abuse

AADR: Age-adjusted death rate per 100,000 population
Falls: Accidental falls
Drug: Accidental drug overdose

Interpretation: Local physicians or coroners submit death certificates to the South Dakota Department of Health. In the Ten Leading Causes of Death Among American Indians during the past 13 years (2010-2022), the leading causes of death in any given year have been heart disease, cancer, COVID-19, and chronic liver disease and cirrhosis. Chronic liver disease moved up from the 4th leading cause to the 1st leading cause during 2021 and 2022.

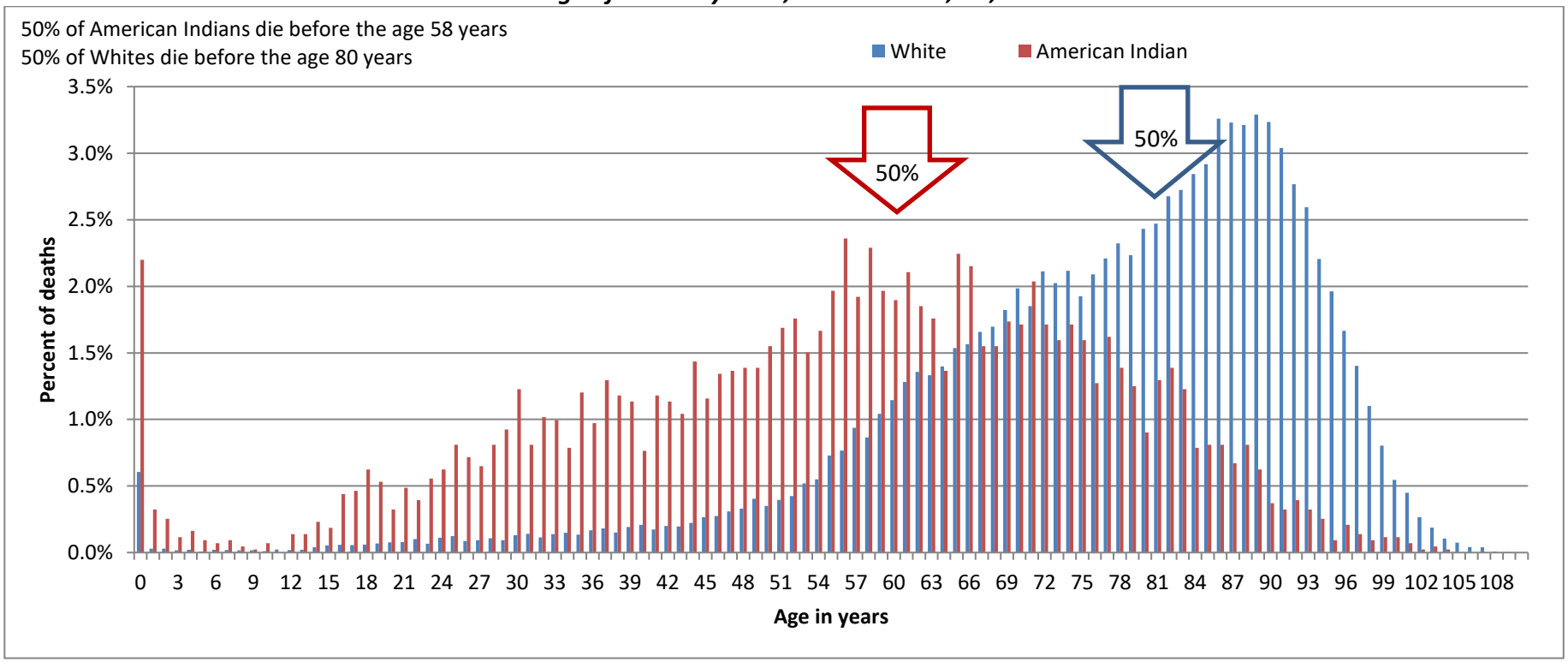
In the Ten Leading Causes of Death by Age Group (next page) during the 10-year period (2013-2022) showed motor vehicle accidents as the leading cause of death in children 1-9 years of age, and young adults 20- 29 years old. Suicide as the leading cause in 10–19-year-olds, Chronic liver disease as the leading cause for 30–59-year-olds, COVID-19 as the leading cause of deaths for 60–89-year-olds, and heart disease as the leading cause in the 90+ age group.

Ten Leading Causes of Death by Age Group Among American Indians by Year, SD, 2013-2022

	Age Group											
	<1	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90+	Total
Rank	Yearly Average 22	Yearly Average 9	Yearly Average 22	Yearly Average 52	Yearly Average 80	Yearly Average 96	Yearly Average 141	Yearly Average 137	Yearly Average 121	Yearly Average 72	Yearly Average 23	Yearly Average 775
1	Congenital malformation 3	Motor vehicle accident 2	Suicide 12	Motor vehicle accident 13	Chronic liver disease 18	Chronic liver disease 23	Chronic liver disease 25	COVID-19 (2020-2022) 36	COVID-19 (2020-2022) 32	COVID-19 (2020-2022) 15	Heart disease 5	COVID-19 (2020-2022) 126
2	Short gestation & low birth weight 3	Homicide 2	Motor vehicle accident 4	Suicide 12	Motor vehicle accident 9	Heart disease 11	COVID-19 (2020-2022) 22	Heart disease 27	Cancer 26	Heart disease 14	COVID-19 (2020-2022) 2	Heart disease 105
3	SIDS 3		Homicide 2	Chronic liver disease 5	COVID-19 (2020-2022) 7	COVID-19 (2020-2022) 10	Heart disease 20	Cancer 26	Heart disease 22	Cancer 11	Chronic lower respiratory diseases 2	Cancer 91
4	Suffocation in bed 2			Homicide 4	Suicide 6	Diabetes 9	Cancer 17	Diabetes 14	Diabetes 13	Diabetes 7	Cancer 2	Chronic liver disease 86
5	Undetermined cause 2			Accidental drug overdose 3	Accidental drug overdose 5	Motor vehicle accident 5	Diabetes 13	Chronic liver disease 11	Chronic lower respiratory diseases 7	Chronic lower respiratory diseases 5	Alzheimer's disease 2	Diabetes 61
6	Placenta cord and membrane complications 1			Heart disease 2	Homicide 5	Cancer 4	Motor vehicle accident 5	Chronic lower respiratory diseases 5	Chronic liver disease 4	Stroke 3	Dementia 2	Motor vehicle accident 43
7				COVID-19 (2020-2022) 2	Heart disease 5	Suicide 3	Stroke 4	Stroke 4	Stroke 4	Influenza & pneumonia 3	Influenza & pneumonia 1	Suicide 36
8				Accidental alcohol poisoning 1	Diabetes 4	Chronic alcohol abuse 3	Septicemia 3	Septicemia 3	Influenza & pneumonia 3	Alzheimer's disease 3	Stroke 1	Chronic lower respiratory diseases 22
9				Exposure to natural cold 1	Cancer 3	Homicide 2	Chronic lower respiratory diseases 3	Motor vehicle accident 3	Kidney disease 3	Dementia 2		Stroke 19
10					Septicemia 2	Accidental drug overdose 2	Chronic alcohol abuse 3	Influenza & pneumonia 3	Septicemia 2	Kidney disease 2		Homicide 18

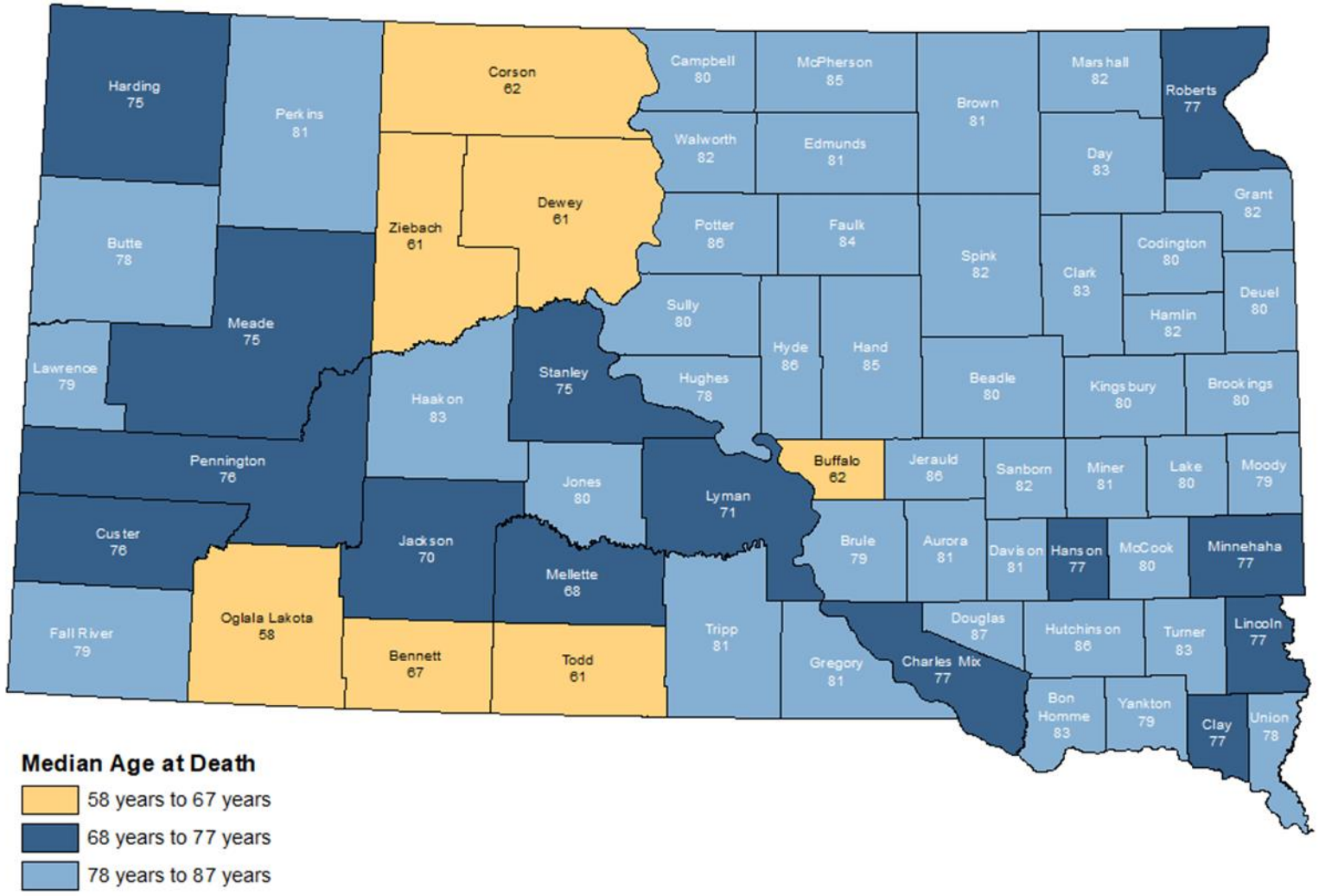
Age of death

Median Age of Death by Race, Vital Records, SD, 2017-2021



Interpretation: The median age at death for American Indians was 22 years younger than Whites during 2017-2021 (80 years old for Whites vs. 58 years old for American Indians). The median age at death for American Indians is younger for all leading causes of death, but the very young ages for deaths due to liver disease, diabetes, suicide, motor vehicle accidents, drug overdoses, and chronic alcohol abuse seem to contribute greatly to the difference.

Median Age at Death by County, Vital Records, SD, 2017-2021



Interpretation: The legend shows the counties with the lowest median age of death (tan), those in the middle category (dark blue), and those counties with the highest median age of death (light blue) that are at or exceeding the overall SD median age of death of 78 years. The three 10-year groups include an unequal number of counties per color.