



SOUTH DAKOTA
DEPARTMENT OF HEALTH



American Indian Health Data Book

Selected Health Concerns in South Dakota

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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:

- *January 11, 2024: This version updates the Top 5 Causes of Pregnancy-associated Deaths by Race, Vital Records, SD, 2012-2021 (page 10) to reflect American Indian race to include American Indian alone or in combination with other races (includes multi-racial). The prior analysis included only persons identifying as American Indian race.*
- *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

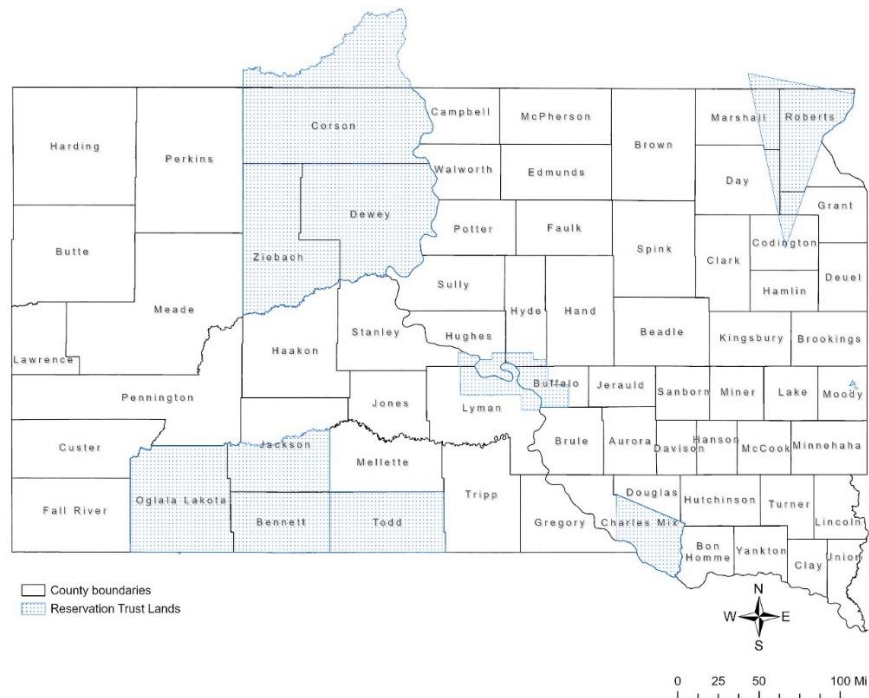
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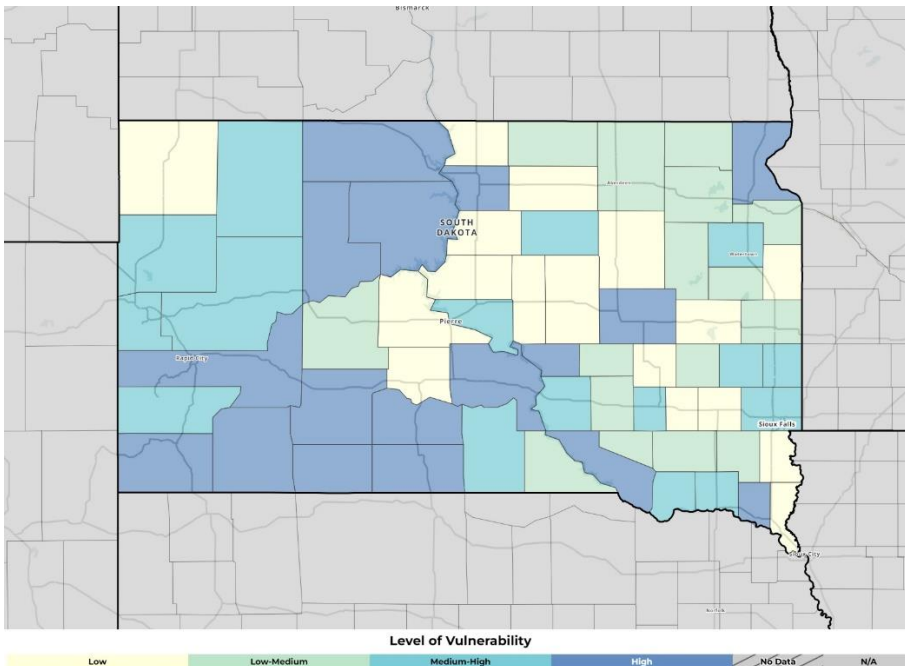
SD Counties Containing Tribal Lands

Map of SD Counties Containing Tribal Lands



SD Counties with Social Vulnerability

Map of SD Counties with Social Vulnerability

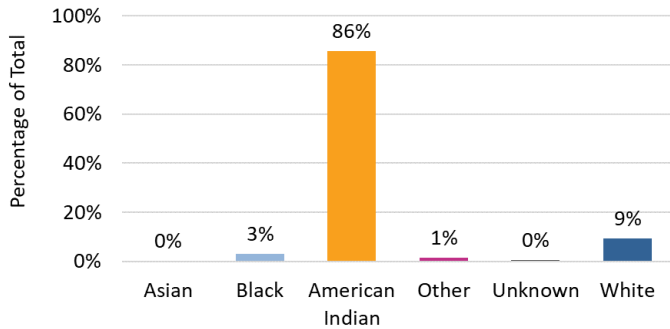


INTERPRETATION

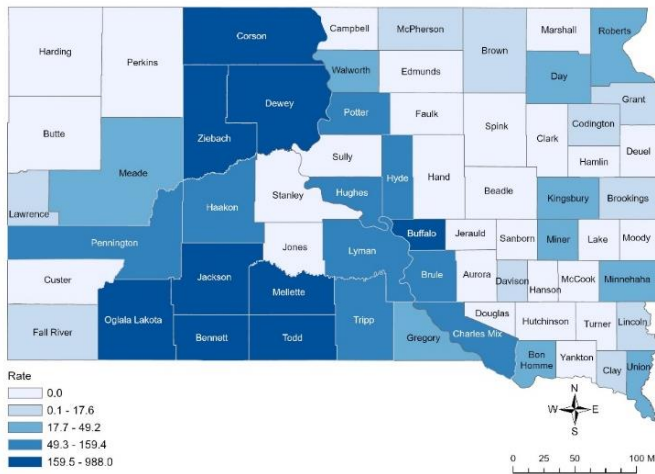
Counties with darker blue color have a higher [social vulnerability](#), meaning the county might expect to be less resilient when an emergency happens. This vulnerability results from factors, such as poverty, lack of access to transportation, or crowded housing. In total, there are four themes (socioeconomic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

Syphilis, early

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



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



INTERPRETATION

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.

PROGRAM ACTIVITIES

- 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.

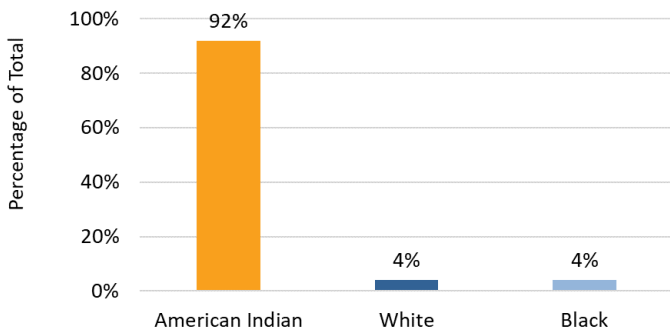
- The STI Program:
 - Provides provider education through presentations, publications, and individual technical assistance.
 - Hosts CDC site visits.
 - Supported the recent CDC Epi Aid requested by the Great Plains Tribal Epidemiology Center.
 - Provides enhanced testing and screening events throughout 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.

CONTEXT

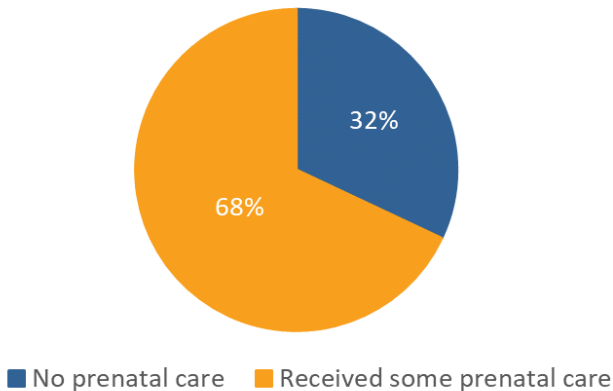
It is helpful to understand that there are underlying factors to the observed syphilis cases that contribute to the health disparity by race. See the section on Social Vulnerability Index for more information.

Congenital Syphilis

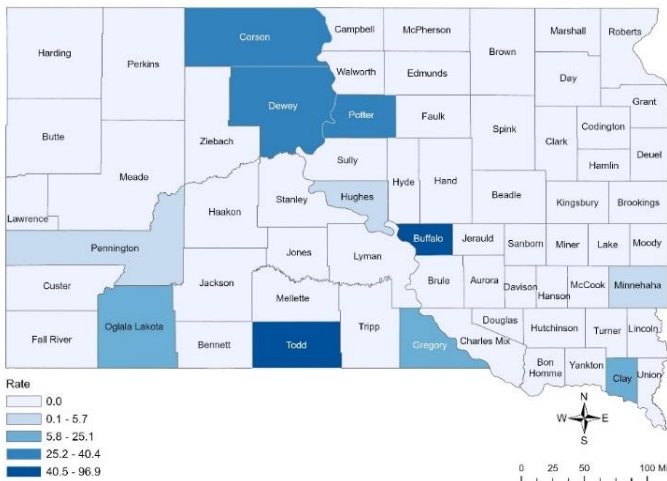
Congenital Syphilis Cases by Race, EDSS, SD, January-July 2023



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



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



INTERPRETATION

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).

PROGRAM ACTIVITY

Syphilis prevention and program activities support congenital syphilis efforts by keeping pregnant mothers from becoming infected or ensuring prompt treatment if they develop infection.

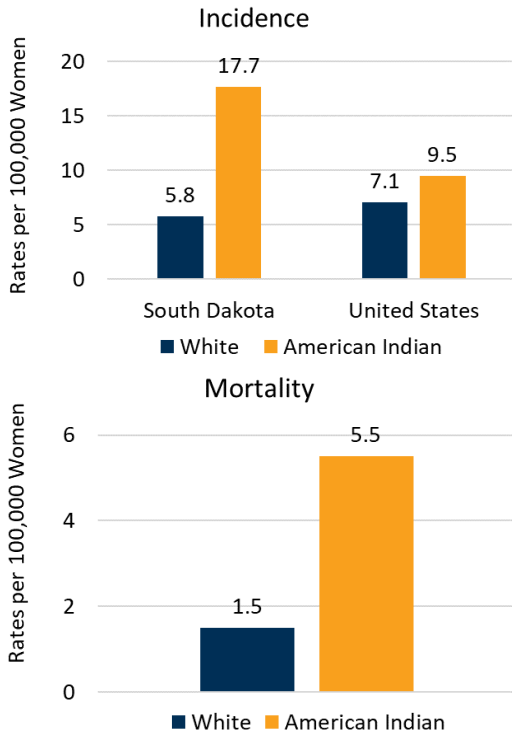
- The STI Program:
 - Developed a statewide syphilis workgroup that focuses on addressing syphilis and congenital syphilis.
 - Works to collaborate efforts with other SD DOH offices to enhance comprehensive services for shared clients.
 - Partnered with the HIV Program to develop guidance to utilize 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.

CONTEXT

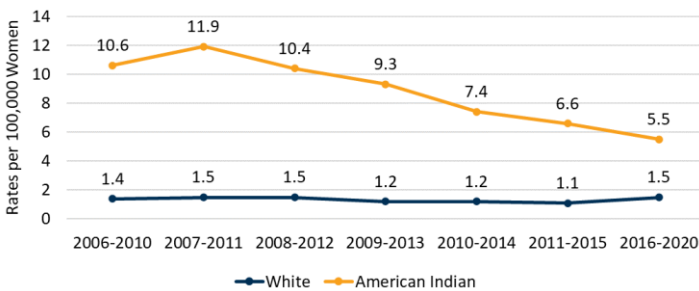
It is helpful to understand that there are underlying factors to the observed congenital syphilis cases that contribute to the health disparity by race. See the section on Social Vulnerability Index for more information. Over one-third of mothers with babies that developed congenital syphilis did not 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 areas where options for prenatal care may be limited.

Cervical Cancer

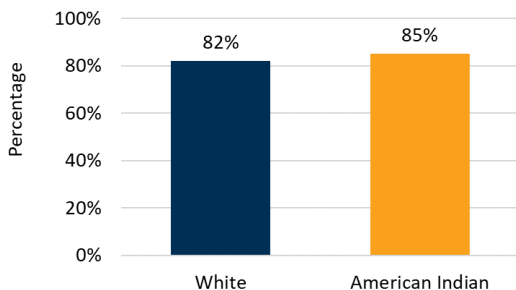
Age-Adjusted Incidence and Mortality Rates of Cervical Cancer by Race, US Cancer Statistics, US and SD, 2016-2020



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

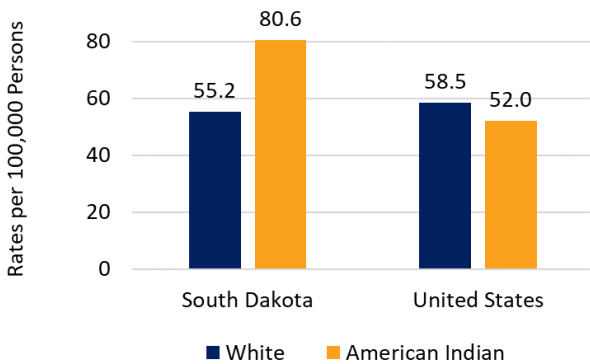
- The SD DOH provides a breast and cervical cancer screening program called the All Women Count! (AWC!) Program. Mammograms, Pap smears and related exams are available at no cost to eligible and income-based women at many doctors' offices, mammography units, family planning and other health clinics.
- 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

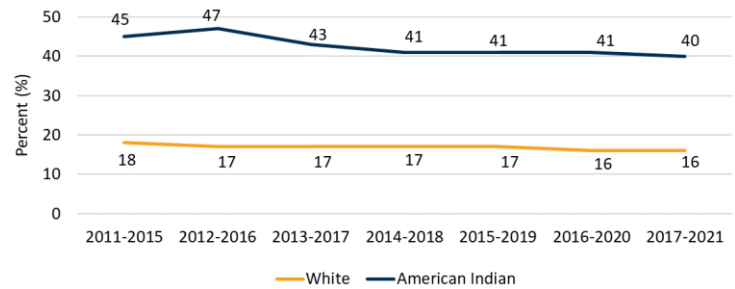
The current cervical cancer screening guidelines from the US Preventive Services Taskforce (USPSTF) include either a Pap test every 3 years for women ages 21-65, a combination of a Pap test and HPV test every 5 years for women ages 30-65, or an HPV test every 5 years for women ages 30-65. There are three 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.

Lung Cancer

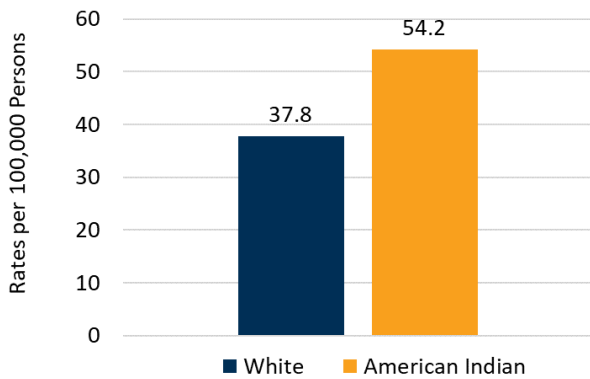
Age-Adjusted Incidence Rates of Lung/Bronchus Cancer by Race, US Cancer Statistics, SD, 2016-2020



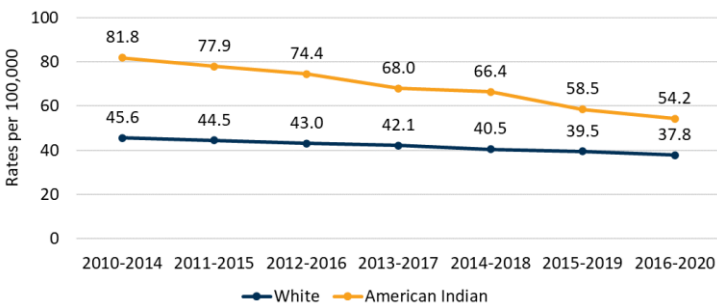
Percentage of Adults Who Are Current Smokers, BRFSS, SD, 2011-2021



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



INTERPRETATION

The lung cancer incidence rate from 2016-2020 was 1.5-times higher among American Indians compared to Whites in SD. 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

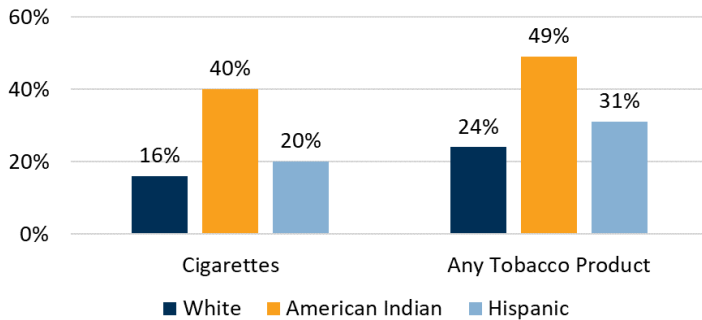
- The South Dakota QuitLine is available free to South Dakotans 13 years and older who desire to quit using tobacco of any type. QuitLine services involve phone coaching, texting, and use of a kickstart kit.
- The SD DOH has a Tobacco Control Program that works to prevent and stop tobacco use and educate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

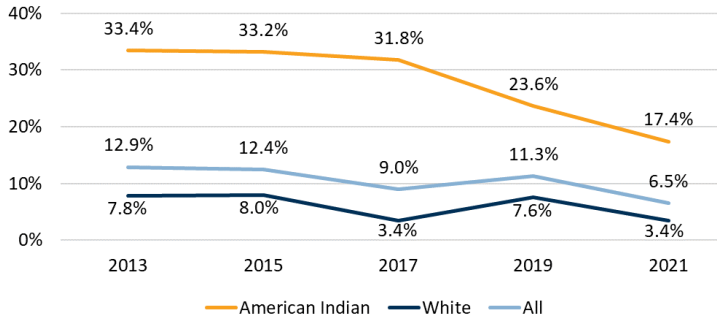
Lung cancer has the highest mortality rate among all cancers. Incidence and mortality rates have been gradually decreasing over the last several decades as fewer people are smoking cigarettes and early diagnoses and treatments improve. Risk factors include cigarette smoking, secondhand smoke, asbestos 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

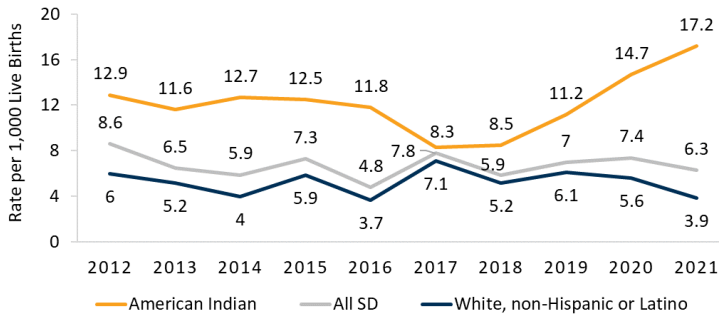
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CONTEXT

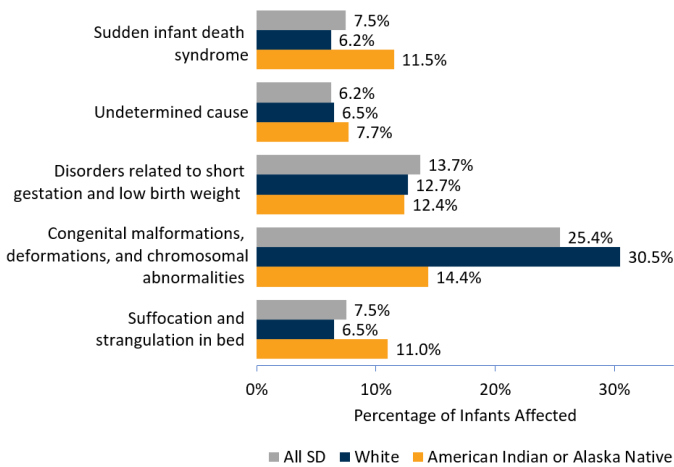
A significant racial difference in e-cigarette use has not been shown. While White cigarette smoking rates have significantly decreased from 2011 to 2021, they have not shown the same significant decrease for American Indians. However, while American Indian e-cigarette use has remained fairly steady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

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.

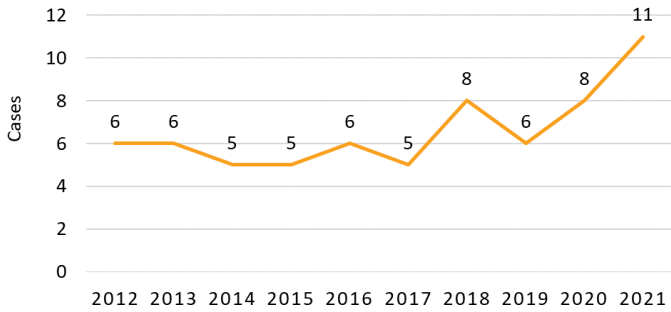
PROGRAM ACTIVITY

- 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.

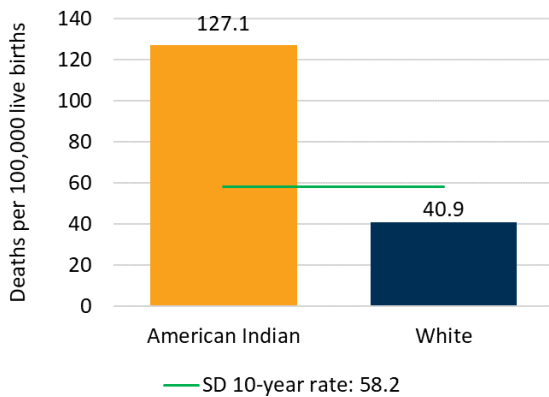
- The SD DOH collaborates with the Governor’s Office to promote safe sleep to parents of newborns by including the Sleep Baby Safe and Snug book (Charlie’s Kids Foundation) in the governor’s Strong Families mailings. These mailings go out to mothers who recently delivered a baby in SD.
- The SD DOH partners 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 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

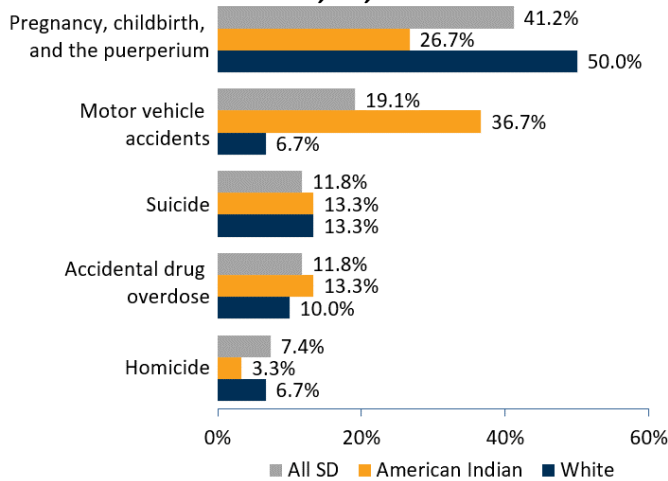
Cases of Pregnancy-Associated Deaths, Vital Records, SD, 2012-2021



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

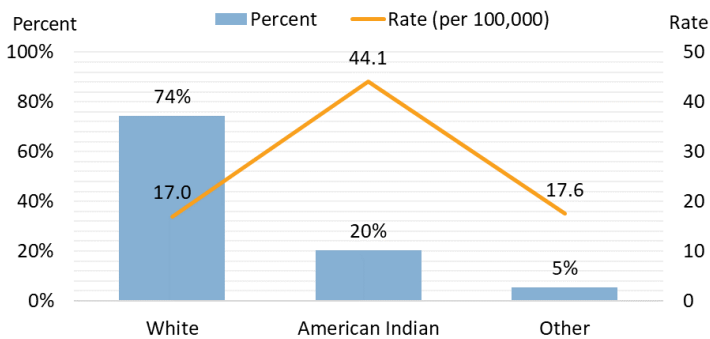
- The Maternal Mortality Review Committee, housed in the Office of Child and Family Services, started activities in 2021. The Committee reviews each case of pregnancy-associated death (medical records, autopsies, social history), to put together the stressors and risk factors and to list possible interventions 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.

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

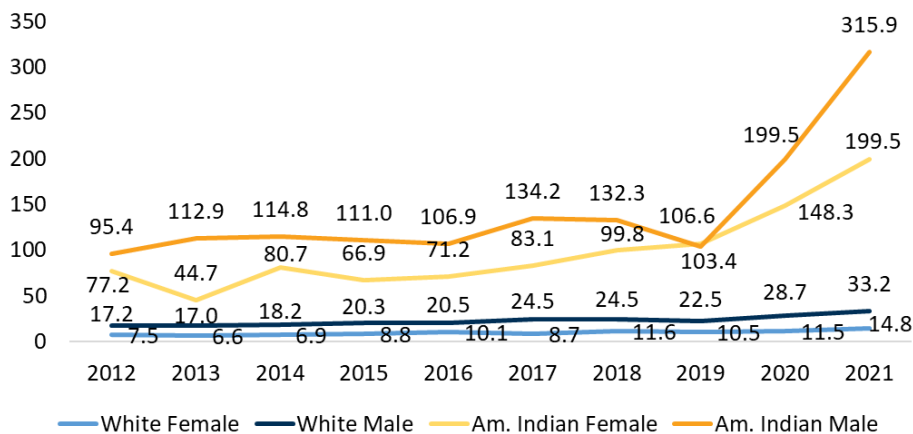
SD DOH and the SD Department of Social Services prioritized population-specific materials and resources be included on the SDSuicidePrevention.org website. Suicide prevention was included in the 2023 priority strategies of the SD Suicide Prevention plan.

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).

Alcohol-Related Deaths

Alcohol-Related Death Rate by Sex and Race, Vital Records, SD, 2012-2021



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

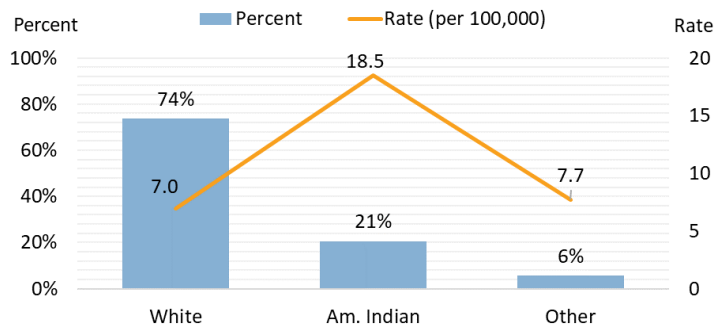
SD DOH participates in a quarterly prevention meeting to discuss injury prevention and is working to identify partners in prevention.

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

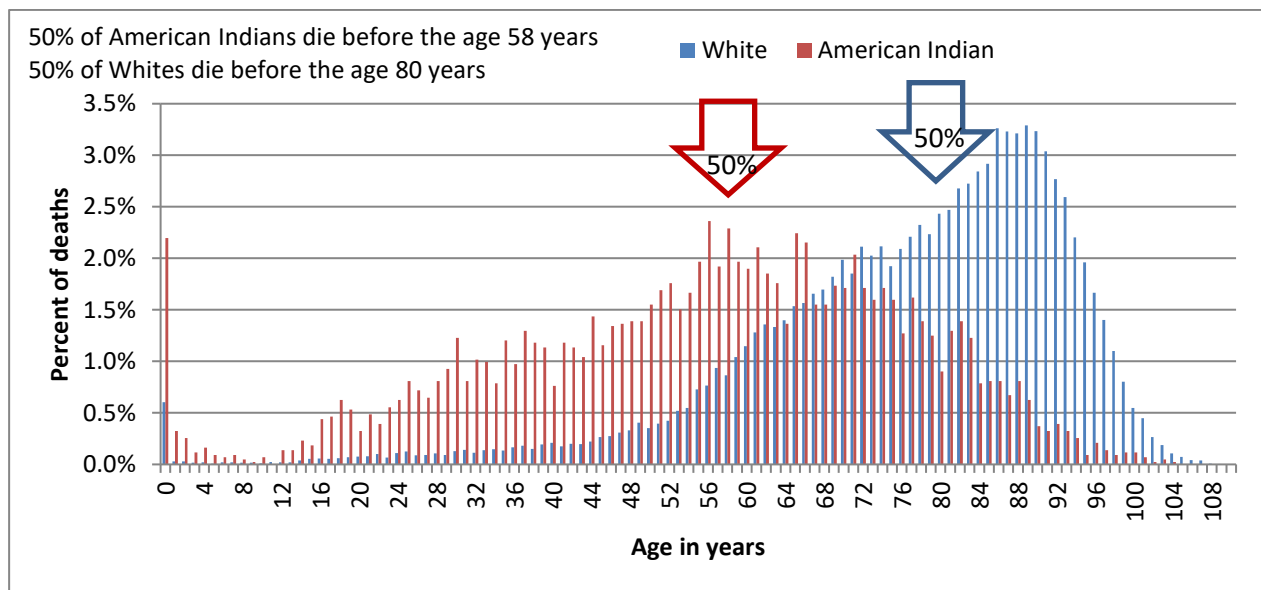
From 2012-2021, there were 699 overdose-related deaths. American Indian overdose-related death rates were 2.6 times higher than White rates.

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.

Age of Death

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

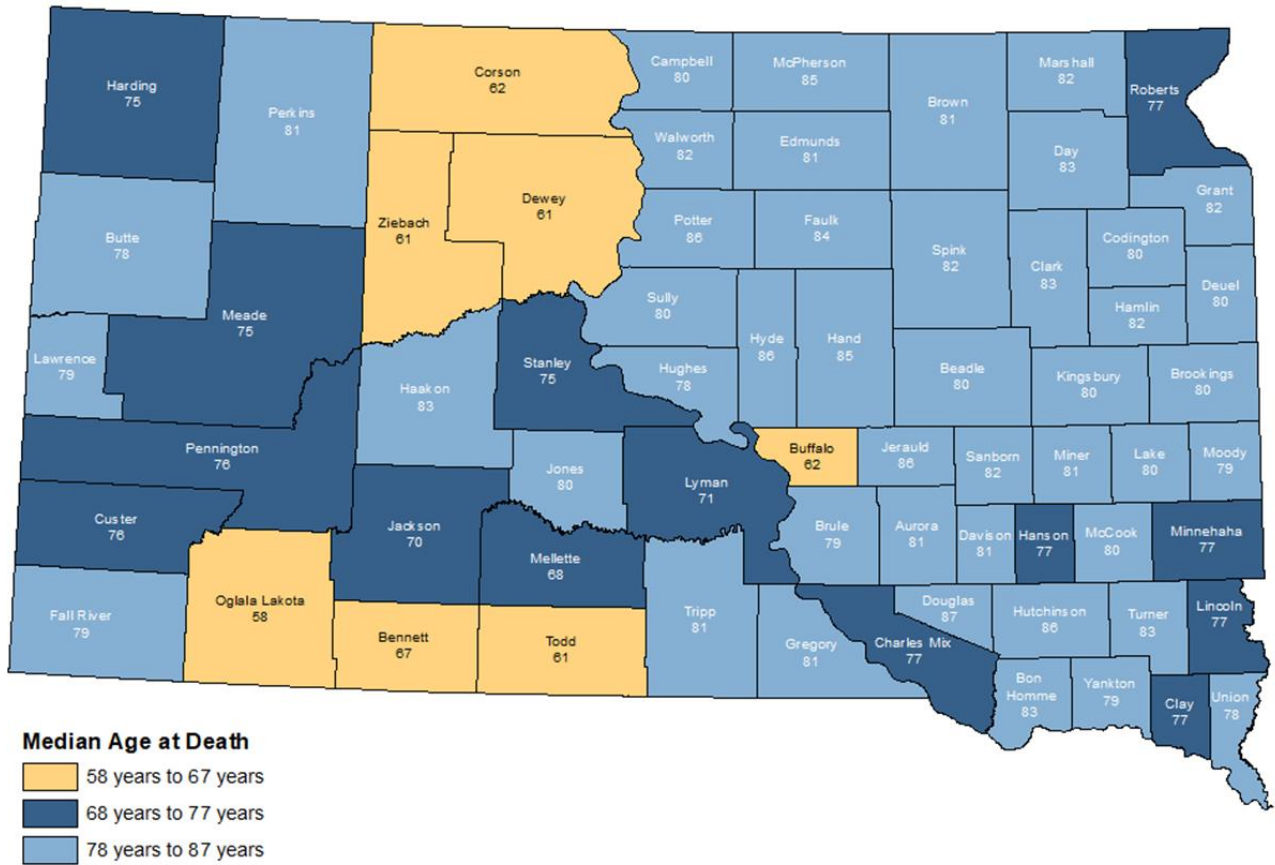


INTERPRETATION

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.

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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.