STATE **HEALTH ASSESSMENT**

SOUTH DAKOTA DEPARTMENT OF HEALTH

EVERY
South Dakotan
HEALTHY
and Strong

2023

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Executive Summary

The South Dakota Department of Health (SD DOH) believes in a vision of every South Dakotan being healthy and strong. Strengthening community health and improving the capacity of the public health department will advance the mission of working together to promote, protect, and improve health.

The State Health Assessment is an opportunity to engage in a statewide collaboration process and to gain insights on population health issues, factors that influence health, and community needs and assets. Health improvement begins with the collection and translation of qualitative and quantitative data.

The community health assessment process began in 2019, was interrupted by the demands to manage and prevent the spread of COVID-19 and relaunched in October 2022. Every effort was made to maintain data integrity and consistency for the two time periods by replicating the initial set of public health data sources and engagement methods.

Three primary data collection strategies were used to engage stakeholders in the collaboration and assessment process:

1. Priority Health Indicator Assessment
   Using an established list of 46 health indicators, over 700 community and health care leaders helped establish a condensed list of 24 priority health indicators.

2. Community Conversations
   Stakeholder feedback was gathered in eight communities with diverse populations and geographic areas.

3. Key Informant Interviews
   Personal interviews were conducted with individuals representing or serving population groups with a higher risk of health disparity.

Combining the direct feedback of South Dakotans with existing health data enhances the ability to identify priority health issues and move toward a statewide health improvement plan. Secondary data sources were incorporated within the assessment to determine the impact of general health status, health behaviors, and socioeconomic and environmental factors.

The following factors and behaviors contribute to increased health disparity and disease risk for South Dakotans:

Aging	Alcohol Use	Commercial Tobacco Use
Less Education	Low Income	Obesity
Minority	Rural/Remote Area	Unmarried or Widowed

South Dakota Department of Health

https://doh.sd.gov/

Vision: Every South Dakotan Healthy and Strong

Mission: Working together to promote, protect, and improve health

Guiding Principles:

- Serve with integrity and respect
- Focus on evidence-based prevention and outcomes
- Support data-driven innovation
- Achieve health equity in all communities
- Demonstrate proactive leadership and strengthen partnerships
- Exhibit transparency and accountability

Strategic Plan Goals:

1. Enhance the accessibility, quality, and effective use of health resources.
2. Provide services to improve public health.
3. Plan, prepare, and respond to public health threats.
4. Maximize partnerships to address underlying factors that determine overall health.
5. Strengthen and support a qualified workforce.

State Health Improvement Coalition

Achieving health equity in all communities has been identified as a guiding principle for the SD DOH. Health equity is integrated within the 2022-2025 Strategic Plan and sits at the center of the 10 Essential Public Health Services framework.

The Health Improvement Coalition (HIC) was established in June 2022 to develop a State Health Improvement Plan (SHIP) for the State by utilizing partner data sources and expertise to identify areas of improvement.

HIC Mission:

To improve population health in South Dakota, the public health system must engage nontraditional partners to focus on various determinants of health that affect a broad range of health and quality of life outcomes.

HIC Goals:

1. Build organizational capacity
2. Community engagement
3. Expand understanding of health equity
4. Health improvement focused on evidence-based strategies
5. Evaluation

HIC Guiding Principles:

1. Prioritize South Dakotans
2. Seek Diverse and Inclusive Feedback
3. Communicate Courageously
4. Maximize Collaboration
5. Embrace Data Transparency

Membership consists of representation from 24 key stakeholders including government agencies, health care facilities, nonprofit organizations, and tribal entities who share a commitment to improve health and achieve health equity. Details related to the HIC can be found on the SDDOH Health Equity page (https://doh.sd.gov/healthequity/). HIC members engaged in the health assessment collaborative process by participating in data collection activities and attending multiple in-person and virtual sessions focused on prioritizing health challenges and identifying potential solutions.

Represented HIC Member Organizations

- Avera Health
- Black Hills Special Services Cooperative
- City of Sioux Falls Health Department
- Disability Rights of South Dakota
- Helpline Center
- Horizon Health Care
- Indian Health Services
- Lutheran Social Services
- Monument Health
- Pennington County Health & Human Services
- Sanford Health
- South Dakota Association of Healthcare Organizations
- South Dakota Council of Community Behavioral Health
- South Dakota Department of Education
- South Dakota Department of Health
- South Dakota Department of Labor & Regulation
- South Dakota Department of Social Services
- South Dakota Department of Transportation
- South Dakota Department of Tribal Relations
- South Dakota Department of Veterans Affairs
- South Dakota Sheriff's Association
- South Dakota State University Extension
- Wellmark Blue Cross Blue Shield
- WIC Breastfeeding Peer Counselor Program

Public Health Accreditation Board

The Public Health Accreditation Board (PHAB) exists to support health departments with improving quality, accountability, and performance. Achieving PHAB accreditation occurs when state, local, or tribal health departments meet the standards and measures that align with the 10 Essential Public Health Services framework. (See diagram below.) This State Health Assessment was developed to meet PHAB Domain One criteria, which focuses on assessing and monitoring population health status, factors that influence health, and community needs and assets.

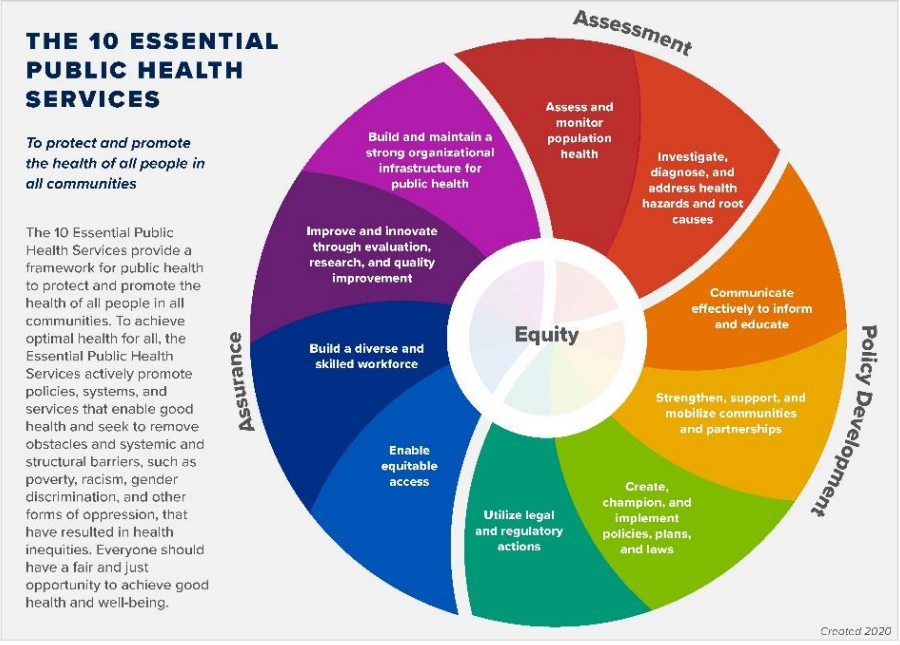
This collaborative process is used to identify public health conditions and population health status. Efforts to engage stakeholders in the community health assessment process began in 2019 and were interrupted by demands to manage the spread of COVID-19.

Domain One requires collection and translation of qualitative and quantitative data. The initial set of public health data sources and engagement methods from 2019 were replicated during the relaunch. Three primary data collection methods were used to engage stakeholders in the collaboration and assessment process.

1. Priority Health Indicator Assessment
2. Community Conversations
3. Key Informant Interviews

Given the time lapse and subsequent impact of the pandemic on the state and health landscape, variations were anticipated. Every effort was made to maintain data integrity and consistency throughout the data collection and translation process. A detailed description of the collection methodology and results from each period are included within this report.

PHAB Domain One criteria was updated July 1, 2022, and the South Dakota Foundation for Medical Care (SDFMC) was contracted to ensure updated standards and measures are achieved.



PHAB Domain 1: State Health Assessment Timeline

Date	Event	
06/28/2019	**State Health Assessment Launch Meeting**	
	Department of Health employees reviewed 413 health indicators and used a voting methodology to condense the list down to 46 priority health indicators.	
08/09/2019 to 09/11/2019	**Priority Health Indicator Assessment**	
Duration: 33 days **Responses: 377**	A Priority Health Indicator Assessment was distributed to key stakeholders to further refine the list of 46 health indicators. Respondents identified the top five health indicators in each health category, resulting in a list of 22 priority health indicators.	
03/03/2020 to 03/09/2020	**Community Conversations**	
	Hot Springs McLaughlin	Rapid City Yankton
03/10/2020	**First Cases of COVID-19 in South Dakota**	
	Remaining Community Conversations Postponed	
	Sioux Falls Brookings	Aberdeen
06/01/2022	Health Improvement Coalition Established	
07/01/2022	**Public Health Accreditation Board Standards Version 2022**	
08/26/2022	Health Improvement Coalition In-Person Meeting 1	
10/01/2022	South Dakota Foundation for Medical Care Contract Begins	
12/05/2022 to 12/23/2022	**Priority Health Indicator Assessment Relaunch**	
Duration: 18 days **Respondents: 365**	The Priority Health Indicator Assessment was redistributed to key stakeholders to redefine the list of 46 health indicators. Respondents identified the top five health indicators in each health category. Results from 2019 and 2022 were combined to create a list of 24 priority health indicators.	
12/09/2022	Health Improvement Coalition Virtual Meeting 1	
01/31/2023 to 02/21/2023	**Community Conversations** **Total attendance: 91**	
	Huron Aberdeen	Chamberlain Sioux Falls
04/11/2023	Health Improvement Coalition In-Person Meeting 2	
05/15/2023 to 06/15/2023	Key Informant Interviews	
06/21/2023	Health Improvement Coalition In-Person Meeting 3	

08/01/2023	Target Date for State Health Assessment
10/01/202	Target date for State Health improvement Plan

Priority Health Indicator Assessment Methodology

The SDDOH staff engaged in a strategic planning and voting process to condense the original list of 413 health indicators down to 46 priority health indicators. These health indicators were assigned unique identifiers and distributed among six health categories and five age groupings. An online Priority Health Indicator Assessment tool containing the 46 health indicators was distributed to community and health care stakeholders.

Respondents were asked to identify the top five health indicators for each health category and age grouping. The unique identifier was used to eliminate duplicates from the top five list resulting in a final list of priority health indicators. This process was initiated in August 2019 and replicated in December 2022. The following tables illustrate variations among the demographics, representation, and results for each collection period.

Priority Health Indicator Assessment Respondents

Community and health care leaders representing and serving population groups across the state were selected to receive the Priority Health Indicator Assessment. Stakeholders were encouraged to complete and share the assessment information with peers and colleagues. Approximately 900 individuals received the Priority Health Indicator Request in 2022 and just over 40% responded.

These individuals were expected to possess a base understanding of the health care landscape, health indicators, and population health concerns. Less than ten individuals intentionally refrained from responding, indicating a lack of expertise or qualification. Responses from college-educated individuals ranging from 35-64 years old align with the targeted respondent list. Both collection periods recorded majority respondents were female, Caucasian/white, 35-64 years old with a college degree.

Sector Representation

Description	2019	2022	Total/Avg
Total Respondents	377	365	742
Healthcare	9%	49%	29%
State agencies: 2019: DOH (208), DSS (6), DHS (6), DOE (3), DOT (1) 2022: DOH (78), DSS (4), DPS (1)	59%	23%	41%
Community Organizations	7%	11%	9%
Advisory Groups	2%	8%	5%
Colleges and Universities	2%	5%	3.5%
Pharmacy	1%	2%	1.5%
Tribal Partners	7%	1%	4%
Professional Organizations	1%	1%	1%
Law Enforcement/Public Health/Education/Legislature	2%	1%	1.5%

Priority Health Indicator Assessment Demographics

Variations: *2019 respondents were allowed to skip demographic questions. Gender included the option of "Nonbinary" in the 2019 assessment. Three responses were accepted by request after the 12/23/2022 deadline.*

Description	2019	2022	Total/Avg
Start Date	8/9/2019	12/05/2022	
End Date	09/11/2019	12/23/2022	
Duration in Days	33	18	51
Number of Respondents	377	365	742
Percent Providing Demographics	82%	100%	91%
Sex/Gender			
Female	70%	83%	77%
Male	11%	16%	14%
Nonbinary (2019 only)	1%	-	
Prefer Not to Answer	1%	1%	1%
Race/Ethnicity			
American Indian/Alaska Native	7%	3%	5%
Asian	0	0	0%
Black/African American	0	<1%	
Caucasian/White	73%	93%	83%
Hispanic/Latino	1%	1%	1%
Native Hawaiian/Pacific Islander	<1%	0	
Prefer Not to Answer	1%	2%	2%
Age Range			
18 to 34	17%	13%	15%
35 to 64	57%	78%	68%
65 and older	6%	7%	7%
Prefer Not to Answer	2%	1%	2%
Education Level			
College Degree	73%	94%	84%
Some College	7%	4%	6%
High School Graduate	2%	1%	2%
Prefer Not to Answer	1%	0	1%

Combined Priority Health Indicator List

The 2019 and 2022 results for the top five priority health indicators for each health category and age group were combined to create a list of **24** priority health indicators. State and national data percentages and rates are provided for comparison. Data source years vary and are indicated.

Percent: Higher is better | **Rate:** Lower is better (All rates are per 100,000 unless indicated.)

Bolded state data points indicate a rate or percent **worse** than the **national average.**

#	Priority Health Indicator	SD	SD | US	US
Behavioral and Mental Health				
1	Percent of the population living in a mental health provider shortage area	100%	2020 | -	-
SD: Health Resources and Services Administration				
2	Percent of adults with diagnosed depression	16.5%	2021 | 2021	20.5%
SD| US: Behavioral Risk Factor Surveillance System | CDC				
3	Rate of death from suicide	**22.6**	2021 | 2019	14.5
SD: Office of Health Statistics, SD DOH			*US: National Center for Health Statistics.2021*	
4	Rate of hospitalization from suicide attempt	46.9	2021 | -	-
SD: South Dakota Association of Healthcare Organizations (SDAHO), prepared by SD DOH				
Unintentional Injury				
1	Rate of death from drug overdose (all drugs)	11.6	2021 | 2019	21.5
2	Rate of death from motor vehicle collisions	**19.2**	2021 | 2019	11.5
3	Rate of death from accidental falls	**25.6**	2021 | 2019	12.0
SD: Office of Health Statistics | SD DOH			*US: National Center for Health Statistics | CDC*	
4	Rate of hospitalization from falls	242	2021 | -	-
SD: SDAHO, prepared by SDDOH				
Risk Behaviors, Emphasis on Youth				
1	Percent of high school students who are obese	**16.6%**	2021 | 2021	16.3%
2	Percent of high school students who binge drink (i.e., 5 or more drinks within 2 hours)	**11.1%**	2021 | 2021	10.5%
SD | US: High School Youth Risk Behavior Survey Data | CDC				
3	Percent of Medicaid children (aged 3-18 years) receiving routine oral health service in the past year	**33%**	2021 | 2021	48%
SD | US: Medicaid				
4	Percent of adults who currently smoke cigarettes	**15.3%**	2021 | 2021	14.4%
SD | US: Behavioral Risk Factor Surveillance System | CDC				

Disease Burden: Cancer

1	Rate of lung and bronchus cancer	**48.1**	2020 | 2020	47.1
2	Rate of breast cancer in females	117.1	2020 | 2020	119.2

SD | US: United States Cancer Statistics | CDC

3	Percent of 50–75-year-olds with recommended colorectal cancer screening	76.2%	2020 | 2020	74.3%

SD | US: Behavioral Risk Factor Surveillance System | CDC

Disease Burden: Chronic Disease

1	Percent of adults with diagnosed diabetes	10.8%	2021 | 2021	10.9%
2	Percent of adults with high blood pressure	**33.5%**	2021 | 2021	32.4%

SD | US: Behavioral Risk Factor Surveillance System | CDC

Disease Burden: Infectious Disease

1	Rate of gonorrhea infection	**363.9**	2021 | 2021	214
2	Rate of syphilis infection	**48.7**	2021 | 2021	16.2

SD | US: Atlas Plus | CDC

Maternal Health

1	Rate of infant deaths (death before the infant's first birthday)	**6.3***	2021 | 2020	5.4*
2	Percent of pregnant women receiving early prenatal care	**76.2%**	2021 | 2020	77.7%

SD: Office of Health Statistics | SD DOH *US: National Center for Health Statistics | CDC*

**Rate per 1000 live births*

Immunization

1	Percent of children receiving recommended vaccinations at 24 months	77.4%	2018 | 2018	71.3%
2	Percent of teens receiving the recommended HPV vaccine series	74.7%	2021 | 2021	61.7%
3	Precent of persons aged 6 months or older receiving the recommended influenza vaccine	55.1%	21-22 Season	51.4%

SD | US: VaxView Vaccination Coverage | CDC

Community Conversations Methodology

The South Dakota Department of Health invited partners, stakeholders, and community members to discuss health concerns facing South Dakotans. A neutral public space was used to host the forums, and participation was open to all. The goal was to capture feedback and insights representing every population and geographic region in the state.

A total of eight communities were selected based on demographic makeup, data gaps, presence of collaborating partners, and geographic diversity. Four of the original seven communities completed the forum activity in early March 2020. Two of the remaining three communities were included in the second round of conversations completed in February 2023.

Community Conversation Details

Date	Community	County
03/03/2020	Hot Springs	Fall River
03/04/2020	McLaughlin	Corson
03/05/2020	Rapid City	Pennington
03/09/2020	Yankton	Yankton
03/17/2020	Brookings	Moody
01/31/2023	Huron	Beadle
02/07/2023	Aberdeen	Brown
02/14/2023	Chamberlain	Brule
02/21/2023	Sioux Falls	Minnehaha/Lincoln

Community Conversation Format

Key stakeholders were identified and engaged to promote registration and encourage interaction during large and small group discussions. A Community Conversation Guide was provided to each participant and collected at the end of the discussion. Some guides reflected an individual response and others were completed by a group. Feedback from both rounds of community conversations was reviewed and compiled to create a priority health topics list.

A common agenda and discussion questions were used for the 2020 and 2023 gatherings.

1. Overview of the South Dakota Department of Health
2. Explanation of the State Health Assessment
3. Review of the 24 Priority Health Indicator List
4. Large and Small Group Discussion
    a. What health issues are missing?
    b. What health issues are getting worse?
        i. Why is it getting worse?
        ii. What are the gaps and barriers?
    c. What is being done/could be done to create improvement?
        i. How did/could the improvement begin?
        ii. Share a success story.
5. Top Three Community Health Priorities

Response Review and Analysis

The Community Guide entries and large group discussion responses were reviewed and captured by the community and documented as individual records. This process provided a common value system to assist in the process of identifying, grouping, and prioritizing health concerns. The following variations were considered when compiling and prioritizing community responses for the 2020 and 2023 discussions.

1. Respondents were community and health care leaders whose responses represented a larger population group or industry.
2. The ratio of Community Conversation attendees to community population varied significantly. Smaller communities had a similar number of attendees as urban communities.

An existing analysis from the 2020 Community Conversations was incorporated with the 2023 responses to create a final list of community health priorities.

Community Health Priorities

1. Increasing Access to Health Care Services
2. Maintaining Health Services and Care Quality
3. Improving the Mental/Behavioral Health of South Dakotans
4. Advancing Health Literacy/Efficacy using Culturally Appropriate Strategies
5. Enhancing Environmental Infrastructure to Support Health
6. Reducing the Burden of Disease

These six community health priorities were accompanied by corresponding lists of both challenges to overcoming health concerns and ideas or best practices for creating positive health outcomes. The following section will provide a narrative of the discussion and a bulleted breakdown of the contributing factors for each community health priority.

Increasing Access to Health Care Services

1. Cost of healthcare services
    a. Health coverage/insurance options
    b. Medication costs
2. Limited health care access points, especially in rural areas
    a. Large distances to health care facilities
    b. Specialty care service limitations
    c. After hours and urgent care options

Conversations related to increasing access to health care services focused on the aspect of consuming health care services and addressed the needs of every population group and geographic region.

Increasing access to health care services focused on options for reducing the cost of care and the clear need to provide more access points for all types of health care services. Health insurance and medication expenses were emphasized and increasing enrollment for health and medication coverage options was recommended. The rural nature of the state results in large distances to health care facilities, and transportation infrastructure was a recurring topic. In addition to vehicle maintenance and gas expense, community members expressed a need for a

shuttle or transport service for those whose health or physical limitations prevent or restrict their ability to drive.

An overarching lack of access to primary and specialty health care services in rural and urban areas was acknowledged, with special concern over long-term care facility closures and staffing limitations. The necessity to use emergency services for urgent care needs was also recognized as a cause of rising health care costs and a strain on the healthcare workforce.

Maintaining Health Services and Care Quality

1. Healthcare professional shortages
    a. Rural recruitment challenges
    b. Education program limitations
    c. Licensing regulations
2. Care payment options
    a. Medicaid reimbursement rates
    b. Proper service utilization
    c. Care coordination support

While initial comments consistently revolved around access to care, the direction of the conversation naturally transitioned to maintaining staff at existing health care facilities. The high stress demands of the COVID-19 pandemic elevated historical professional shortages. The loss of seasoned professionals to early retirement combined with challenges of rural recruitment left remaining employees with extended shifts and extra duties. These shortages, low reimbursement rates, and care quality penalties have led to empty beds, financial burden, and facility closures for long-term care facilities statewide.

Establishing a stronger pipeline by expanding access to state university health care and nursing programs was presented in every community. Increasing allowable and reimbursable services at every license level for dental and medical care professionals inspired hope for reducing burden. The promising growth of community health workers to improve service utilization and care coordination was a recurring theme. Participants expanded on the benefits, value, and support for programs implemented by the state to expand this professional network.

Improving the Behavioral and Mental Health of South Dakotans

1. Mental health professional shortage areas (HPSA)
    a. Substance use disorder
    b. Suicide prevention
    c. Depression

Community conversation attendees were well-aware of the substance use disorder issues and listed tobacco, vaping, alcohol, methamphetamine, and marijuana as primary targets. Deep concern for reducing substance use and depression among South Dakota youth was heard in the voices of those who spoke out. The added aspect of state suicide rates reaching an all-time high fueled the sense of urgency to improve the mental and behavioral health of South Dakotans.

Recognizing close to half of South Dakotans live in a mental health professional shortage area, community and health care leaders listed challenge after challenge waiting for an innovative idea to present itself. Expanding telehealth offerings gained some traction and seemed to fall

short as a long-term solution. Overcoming the mental health provider deficit and tackling the mental health stigma prevalent in rural communities were identified as top issues for further exploration.

Advancing Health Literacy/Efficacy using Culturally Appropriate Strategies

1. Growing diversity of community populations
    a. Language and translation
    b. Health implications for race/ethnicity
    c. Cultural stigma regarding mental health
2. Prevention emphasis over acute care treatment
    a. Lifestyle and behavior change
    b. Health educators
    c. Credible resources

Multiple communities chosen to participate in the forum activity are home to a growing number of refugee and immigrant populations. Integrating languages and cultures into health and education systems has been an ongoing process for years and even decades. Aberdeen and Huron have a growing Asian and Hispanic population with primary languages of Karen and Spanish, among others. Enhancing education and job training options has been identified as a dual-purpose best practice for reducing the workforce shortage and advancing culturally appropriate care strategies.

The concept of emphasizing a prevention health culture over a treatment focus was bolstered with suggestions for improved education for mental and physical health topics to combat stigma. Incorporating health educators, community health workers, and other similar roles to promote and encourage lifestyle programs was recommended. Combating information overload by providing trusted and credible resources was brought forward as a necessity for empowering South Dakotans to take charge of their health.

Enhancing Environmental Infrastructure to Support Health

1. Basic needs
    a. Food insecurity
    b. Housing
    c. Poverty
    d. Child care
    e. Broadband/internet access

2. Public policy impact
    a. Reproductive rights
    b. Medicaid expansion

Within the realm of environment, ensuring access to food for the children of South Dakota was a clear priority. While most communities have organizations who actively stock and distribute food items, a centralized listing for sharing this information with the community was repeated as a high-level need. Positive feedback was provided for the free and reduced lunch school programs and the expansion to offer weekend and summer food support.

Economic stability for some families has been impacted by the drastic reduction in daycare options resulting from a shift in work location during COVID-19. Meeting childcare needs to accommodate for after school or evening shifts would improve earning opportunities and expand the community workforce.

Broadband access was another multi-faceted environmental factor for creating positive outcomes. Rural areas with limited Internet access are inhibited from utilizing telehealth services, accessing valuable health and education resources, pursuing lucrative employment opportunities, and more.

The environment discussion closed with praise for Medicaid expansion as a positive step to improve health followed by concerns related to policy restrictions for reproductive rights and gender affirming treatment services.

Reducing the Burden of Disease

1. Infectious disease
    a. Sexually transmitted diseases
    b. Tuberculosis

2. Chronic disease
    a. Risk factors
        i. Obesity
        ii. Mental health
    b. Prevention and management
        i. Diabetes
        ii. Cardiovascular

Concerns about the spread of infectious disease centered on sexually transmitted varieties, with a focus on syphilis. Tuberculosis was brought forward as a growing concern as well. Screening and treatment options were briefly addressed before discussion turned to options for improving education to prevent spread among youth and young adults.

With an earlier focus on promoting a culture of prevention, discussion around disease shifted to reducing risk factors and incorporating preventive measures over management and treatment. Lifestyle and behavior change was revisited to address the growing number of overweight and obese South Dakotans. Improving mental health was also highlighted as connections were made to food as a coping strategy for depression.

Key Informant Interviews

Key informant interviews were conducted in 2019 to gain insights and increased understanding for populations who are traditionally impacted by health disparities. This process was repeated in June 2023 and efforts were made to reconnect with each of the original 25 key informants. Connecting with individuals who represent and/or serve these key populations reinforced concepts discovered during the Community Conversations.

Key Informant Interviews provided an opportunity to gain in-depth insights to high-risk populations through community leaders, organizational leadership, researchers, and subject matter experts.

Populations addressed experience the circumstances and/or represent the specific demographics listed below:

Food Insecure	Homeless	Veterans
LGBTQ+	Hutterite	At-risk Youth
Farmers/Producers	Refugees/Immigrants	American Indian
Medicaid Recipients	Correctional	Rural
55+ Age	Severely Mentally Ill	Students in Higher Education
Students in Technical School	Disabled	

Each key informant responded to a common set of questions. The responses were compiled to identify priority health issues and factors, describe barriers, share best practices, and recommend improvement to create positive health outcomes for each population group.

1. Please tell me about the population you represent/serve.
2. Identify one or two pressing health issues affecting this population and the associated factors.
3. What are the barriers for addressing these issues?
4. What efforts are working well and who is involved?
5. What unique experiences does your target population face when accessing care or working to become healthier?
6. Do you have suggestions for strategies to allow your population to be healthier?
7. What can the public health system or other partners do to support health for your population?

Common response categories aligned with community priorities.

- Access to Care
- Behavioral and Mental Health
- Support for Caregivers
- Chronic Disease/Risk Factors
- Health Literacy/Language
- Integrated Care/Care Coordination
- Workforce

General Comments and Shared Successes

The Community Conversations and Key Informant Interviews were intended to identify and verify health priorities, barriers, and best practices to improve overall health. Both community members and key informants consistently shared these common recommendations and success stories.

Community Collaboration

- Stakeholders from multiple communities inquired during or immediately after the event about the date of the next Community Conversation. They expressed a desire to establish a routine opportunity to identify and brainstorm solutions for improving the health of their community.

- Huron has established a Community Partners Roundtable group led by the Huron Job Service and the United Way. Launched as an in-person gathering, the group converted to virtual and continued engaging throughout the pandemic. Community organizations gather to share resources, request support, seek advice, and promote services.

- Key informants recommended aligning community and state efforts to reduce duplication and create a unified focus on specific health outcomes, corresponding programs, and strategic activities. Informants recognized the volume of work happening and the dedication to improving health. They expressed a need for a concerted effort to connect community-based options with broader state initiatives to magnify results and ensure effective use of resources.

Community Health Workers

- Another example of effective collaboration, the expansion of the community health worker network was highlighted and emphasized in every Community Conversation meeting. Community organizations, health care systems, and academic institutes partnered to promote, recruit, train, and employ community health workers, effectively doubling the number in the existing network. The personal connections and relationships solidified these professionals as trusted and credible resources for addressing social determinants of health and navigating the health care system.

- Key informants recognize the need to educate on navigating the health system and support to improve care coordination among health care services and specialties. Community health workers were brought forward as a solution, with specific reference to the benefits of the connection to the community and culture of the people utilizing the services.

Culturally Appropriate Care

- Huron Regional Medical Center established job shadowing and school-to-work programs for high schoolers. Students from the Karen population increased their awareness of the health system and were inspired to pursue health careers. Adding individuals from within the diverse population group improves the language and culturally appropriate services offered by the facility, which results in positive health outcomes.

- Increased awareness by the health care provider of the realities and daily challenges faced by populations facing health disparities was a high priority for key informants.

Teaching health care professional to communicate effectively, and without judgement, was emphasized.

- Recognizing culture goes beyond language and ceremony and reaches into the attitudes, beliefs, and values of each population group was seen as a barrier for accessing care.

Data Integrity

- Priority health indicator data used for the state and national trend comparisons ranged from 2016 to 2021. Lags in data reporting make it difficult to accurately assess health outcomes and impacts. Public data sources rely on self-reporting, which is often skewed.

- Tribal health data is separated from state health data. Health indicators in geographic regions including tribal reservation lands are often misrepresented. Health data of the tribal members using Indian Health Services or tribal health entities as their primary care provider are omitted from the statewide assessments.

Housing

- Chamberlain is offering free lots for individuals interested in building a home. This innovative strategy helps address the housing shortage, provides an incentive for individuals to move to the community, and helps retain youth and young adults to sustain the workforce.

- Regular and consistent communication is an obstacle for many disparity populations. Frequent changes to phone numbers and addresses are common in disparity populations given the common circumstances of unstable housing and limited income. Inability to provide health care updates and reminders through phone messages and postal services adds a layer of complexity for adhering to a treatment plan and medication regime.

State Population Demographics

Demographics data and graphs throughout this section is based on the US Census Bureau estimate for April 1, 2020, unless otherwise indicated.

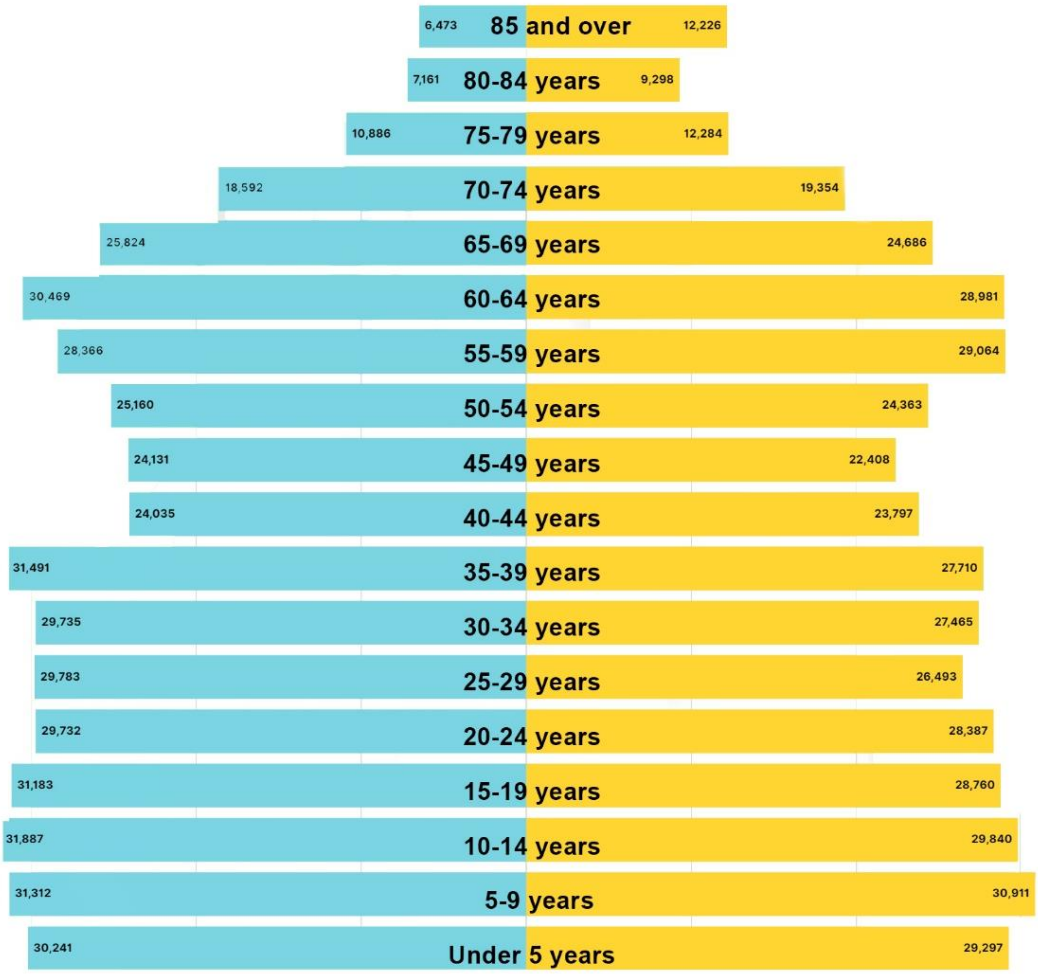
South Dakota is home to about 886,667 individuals and is ranked as the 46th state for total population. The population increased almost 9% since the 2010 US Census and ongoing counts show steady growth. As of July 1, 2022, the estimated count was 909,824, a jump of over 23,000 in just under two years.

Age and Sex

Age Range	Individuals	% Population
0-17 years old	218,120	24.5%
18-64 years old	513,381	57.9%
65 years old or over	155,166	17.5%
Total	**886,667**	

Population Pyramid

Male: 50.8% **Female: 49.2%**



Language

Language Spoken at Home	% Population
English only	93.9%
Spanish	2.1%
Other Indo-European languages	1.4%
Asian and Pacific Islander languages	0.8%
Other languages	1.7%

Race/Ethnicity

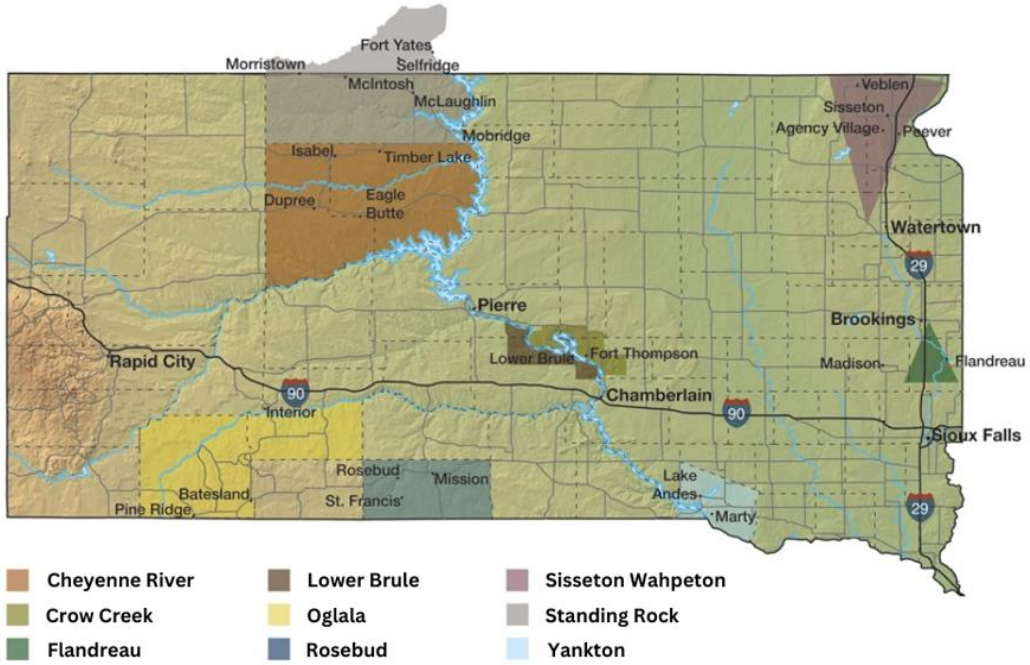
Race/Ethnic Population Groups	Individuals	% Population
White	715,336	80.7%
American Indian and Alaska Native	77,748	8.8%
Hispanic or Latino	23,458	4.4%
Black or African American	17,842	2.0%
Some Other Race	15,057	1.7%
Asian	13,476	1.5%
Native Hawaiian and Other Pacific Islander	543	0.1%

There are nine tribes living within the boundaries of South Dakota. Tribal members make up approximately 9% of the population and their lands cover about five million acres. Dakota, Lakota, and Nakota are the three native dialects spoken by the Sioux tribes.

American Indian Tribal Populations

Sioux Tribe –Headquarters	County	Individuals	% Pop
1. Oglala – Pine Ridge	Oglala Lakota	19,950	2.3%
2. Rosebud - Rosebud	Todd	11,404	1.3%
3. Sisseton Wahpeton Oyate – Agency Village	Roberts	11,095	1.3%
4. Cheyenne River – Eagle Butte	Dewey, Ziebach	8,594	1.0%
5. Standing Rock – Fort Yates, ND	Corson	8,553	1.0%
6. Yankton – Lake Andes	Charles Mix	6,824	0.8%
7. Crow Creek – Fort Thompson	Buffalo	2,176	0.3%
8. Lower Brule – Lower Brule	Brule	1,689	0.2%
9. Flandreau Santee - Flandreau	Moody	444	0.1%

Tribal Reservation Lands



Nine Tribes | South Dakota Department of Tribal Relations (sd.gov)

Race/Ethnicity Distribution

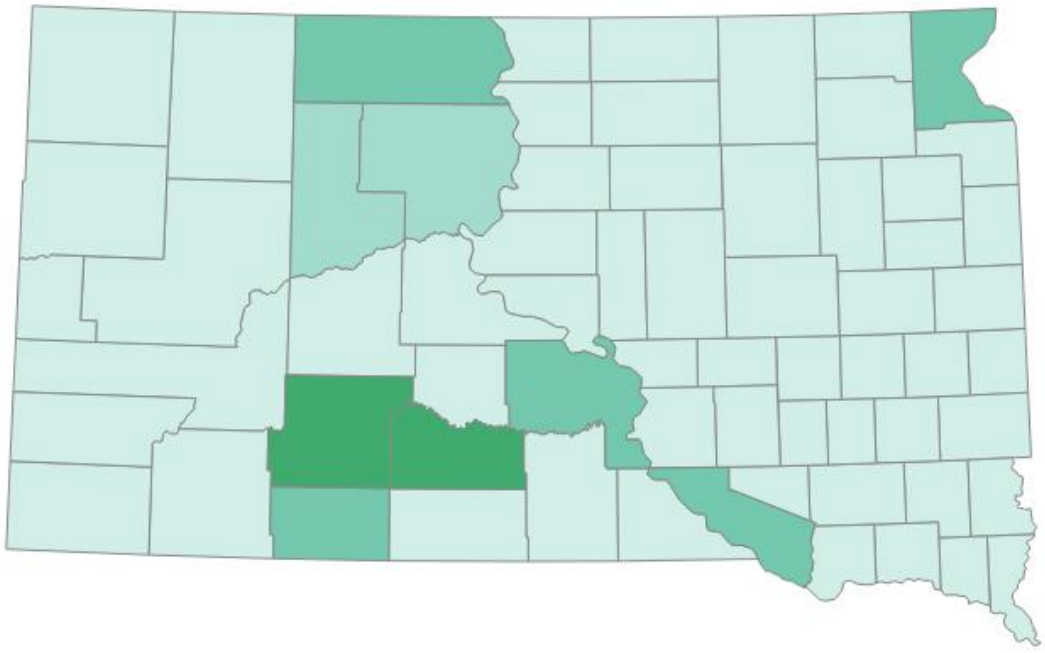
A higher diversity index is expected for the tribal reservation counties and the American Indian population has expanded into surrounding counties. While the American Indian population is the largest ethnic group in the state, the number of individuals identifying with other ethnic groups is growing. The nine counties with a diversity index over 35% in 2010 grew to 16 counties in 2020.

2020 Top 10 Diversity Index Counties

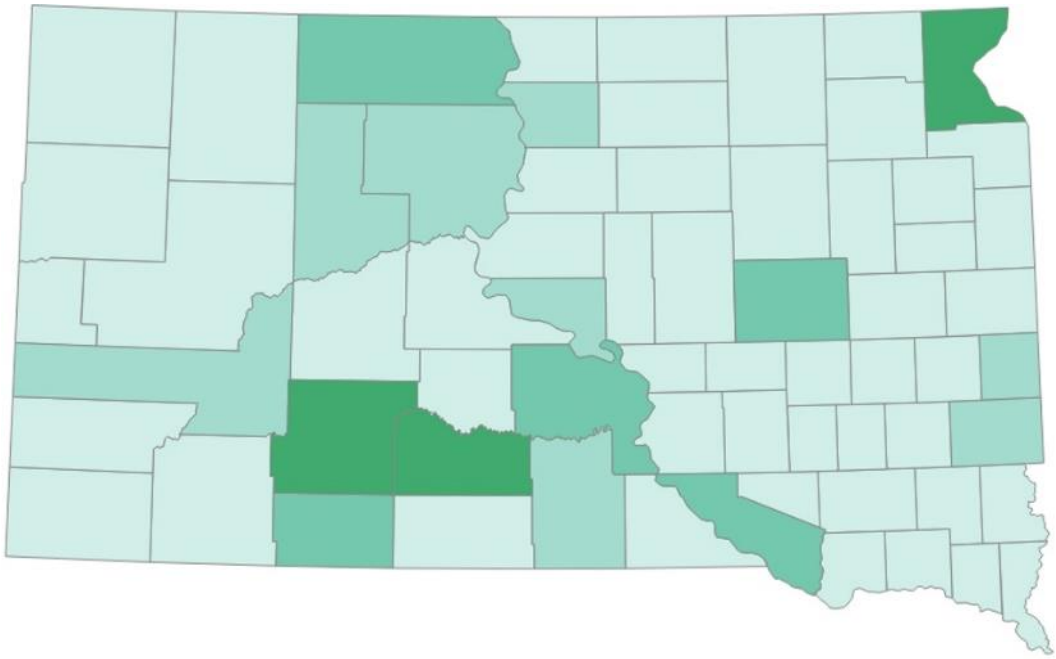
County	White	AI	2+ Races	Hispanic	Asian
Jackson	37.2%	53.8%	5.9%	2.2%	0.2%
Roberts	54.3%	38.2%	4.7%	2.1%	0.3%
Mellette	33.9%	57.4%	6%	2%	0.2%
Lyman	51.5%	43.8%	3.3%	1.2%	0.1%
Bennett	29.5%	60.9%	6.5%	2.6%	0.2%
Charles Mix	61%	32.1%	3.7%	2.4%	0.3%
Beadle	69.8%	1.3%	2.6%	14.3%	10.8%
Corson	24.5%	69.2%	4.4%	1.2%	0.5%
Pennington	75.8%	10%	6.1%	5%	1.3%
Moody	76.2%	11.7%	5.1%	5%	1.4%

Diversity Index Map Comparison

2010 Diversity 27.4% - 9 Counties over 35%



2020 Diversity 35.6% - 16 Counties over 35%

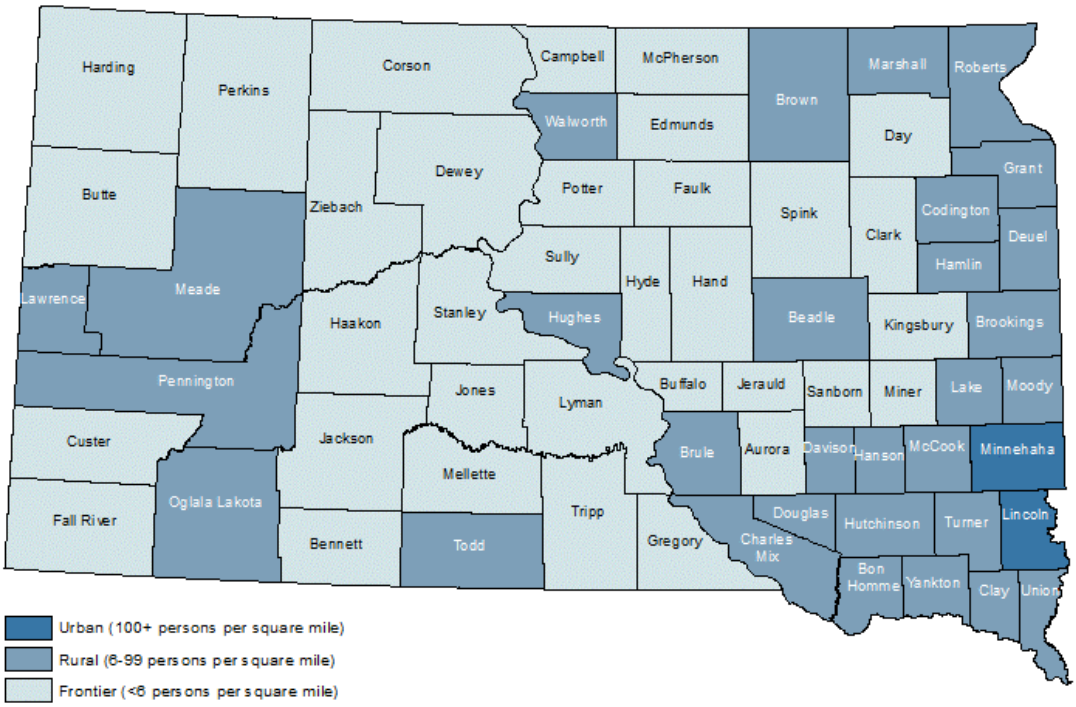


Population Density

The rural nature of South Dakota presents a challenging environment for accessing care, which impacts quality of life. The large distances from health care facilities combined with an aging population are barriers for achieving positive health outcomes. The 2020 Census reports 17.6% of the state's population is 65 years or older. Percentages are even higher in 75% of the rural and frontier counties, with the highest at 31%. Consequently, the number of residents serving as caregivers also increases. SD's State Plan on Aging reported that 35% of respondents to a consumer survey were unpaid caregivers to children and grandchildren, adults with disabilities, or older adults.

According to the 2021 Economic Contribution Study of South Dakota Agriculture, Ethanol and Forestry, South Dakota has 29,968 farm operations, which account for 21% of jobs within the state's economy. The study reported 63% of the 39,136 principal producers in South Dakota are aged 55 and older. Weather complications in multiple growing seasons have resulted in significant loss, endangering the sustainability of the family farms and ranches. The added pressures of maintaining financial stability and generational legacy have increased the levels of anxiety and depression.

South Dakota Counties by Population Density, 2021



Social Determinants of Health

Healthy People 2030 defines social determinants of health (SDOH) as the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

The following section provides a brief overview and specific highlights for various aspects within the five SDOH domains.

1. Economic Stability
2. Education Access and Quality
3. Neighborhood and Build Environment
4. Social and Community Context
5. Health Care Access and Quality

Economic Stability

According to the World Populations Review, South Dakota has the lowest living wage requirements for individuals in the nation. A family of four with two working parents earning $83,274 per year can maintain a minimum standard of living in 2023.

Income (2021 Value) and Economy, 2017-2021	SD	US
Per Capita Income	**$33,468**	$37,368
Median Household Income	**$63,920**	$69,021
Persons in Poverty (2021 estimates)	**12.3%**	11.6%
Percent in Labor Force 16 years +	**67.5%**	63.1%

Source: United States Census Bureau

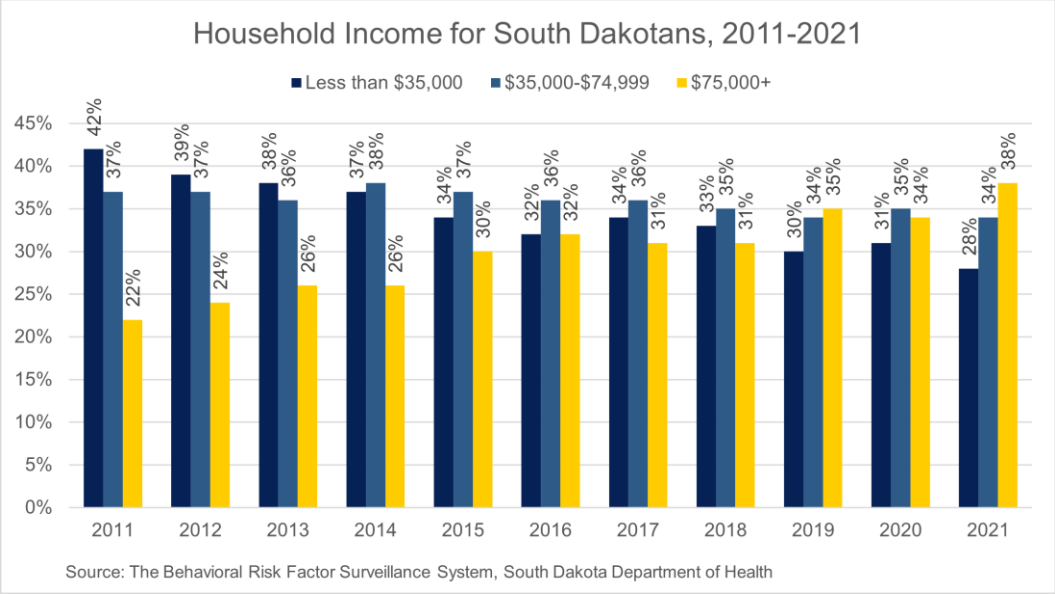
The South Dakota Department of Labor and Regulation reported an unemployment rate of 1.9% in May 2023. The top three areas for employment and wages include health care and social assistance, retail trade, and manufacturing.

Top Five Industries for Employment

1. Trade, transportation, and utilities
2. Government
3. Private education and health services
4. Retail trade
5. Leisure and hospitality

Top Five Industries with Online Job Openings

1. Health care and social assistance
2. Retail trade
3. Manufacturing
4. Educational services
5. Wholesale trade



Poverty by Race	SD	US
Living Below Poverty	12.3%	11.6%
White	8.2%	9.8%
Black and African American	19%	21.8%
American Indian/Alaskan Native	48.2%	21.4%
Asian	6.5%	10.2%
Two or More Races	15%	15.4%
Hispanic/Latino (any race)	21.5%	17.5%

Distribution of Earnings by Sex

Sex	# Workers	% Workers	Avg $/Week	Earnings/$1
Male	238,411	53%	$976.36	$1.00
Female	209,575	47%	$725.18	$0.74

Distribution of Earnings by Race

Race/Ethnicity	# Workers	% Workers	Avg $/Week	Earnings/$1
White	386,238	86.22%	$882.91	$1.00
Black	8,114	1.81%	$525.69	$0.60
American Indian	22,935	5.12%	$727.64	$0.82
Asian-Pacific Islander	7,577	1.69%	$725.81	$0.82
Hispanic/Latino	18,091	4.04%	$693.16	$0.79
Multiracial	5,029	1.12%	$645.85	$0.73

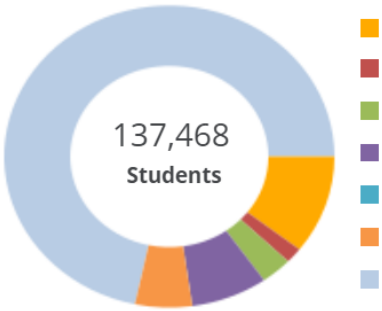
Source: US Census Bureau

Education Access and Quality

Education is provided by 10,005 teachers in 701 schools.

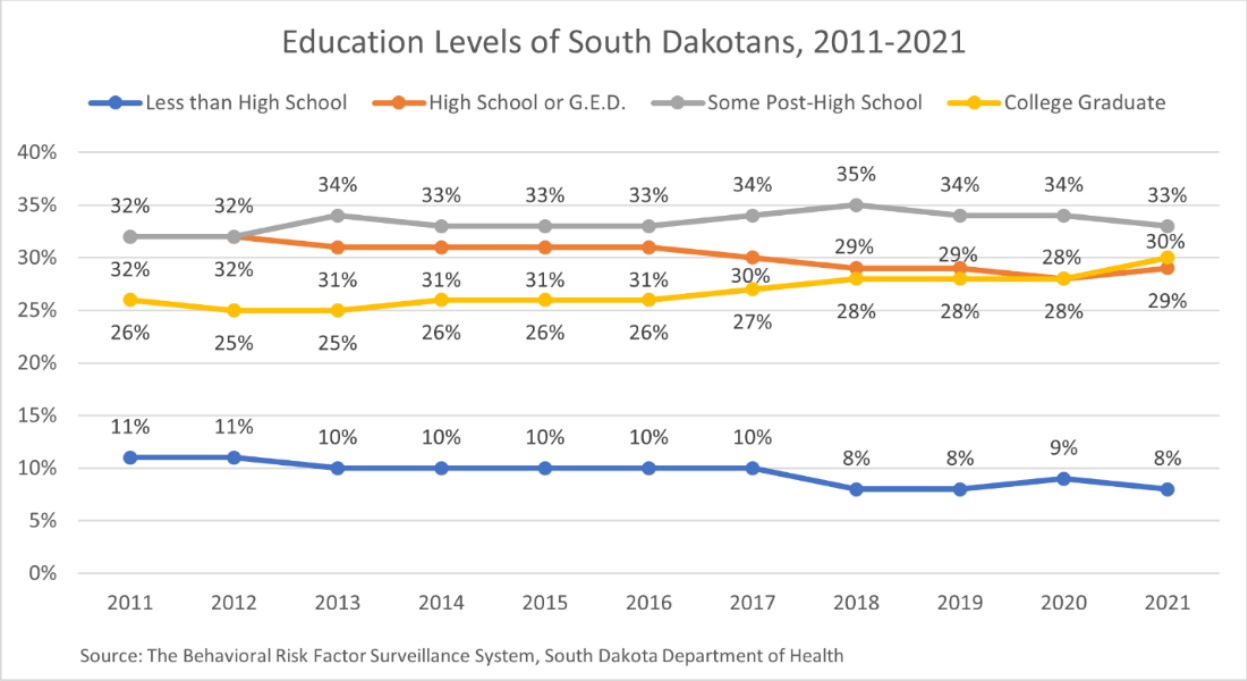
Economic disadvantage (28.3%) and disabilities (14.8%) are the two largest factors for providing additional services to close gaps in achievement.

State Enrollment Diversity, 2021-2022



American Indian/Alaska Native	10.47%
Asian	1.65%
Black/African American	3.16%
Hispanic/Latino	7.48%
Native Hawaiian/Pacific Islander	0.13%
Two or More Races	5.52%
White/Caucasian	71.58%

Source: State Report Card 2021-2022 | SD DOE



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health

High school completion is achieved by 90% of students, with females edging past males at 92% compared to 89%.

Source: State Report Card 2021-2022 | SD DOE

The state's literacy rate of 93% is the fifth highest in the nation.

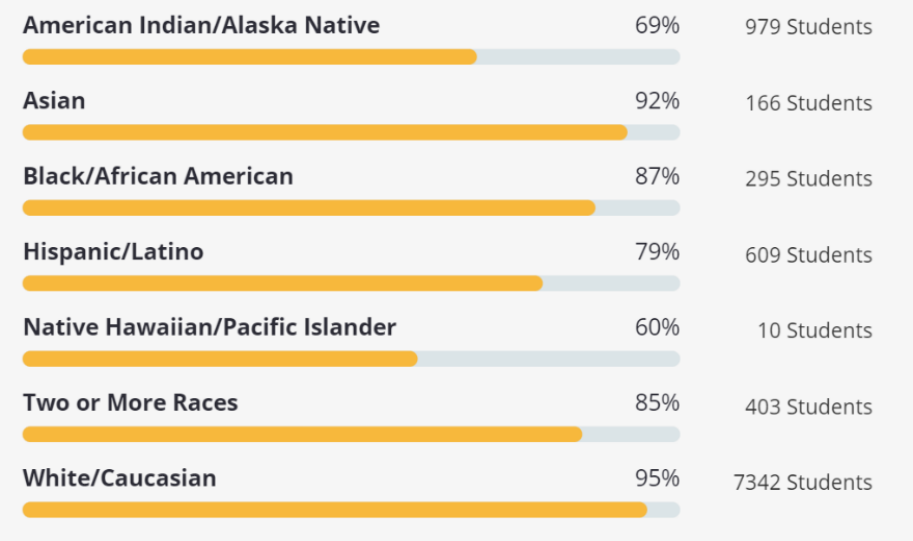
Source: World Population Review

College and career readiness is tracked within the student population to address gaps and ensure all students are ready for college, career, and life.

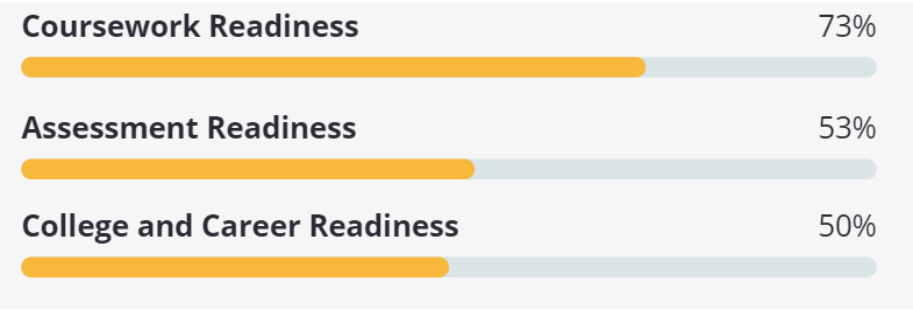
A significantly higher percentage of Asian and White students display readiness compared to other minority groups.

Just over 60% of South Dakotan graduates choose to pursue some level of higher education.

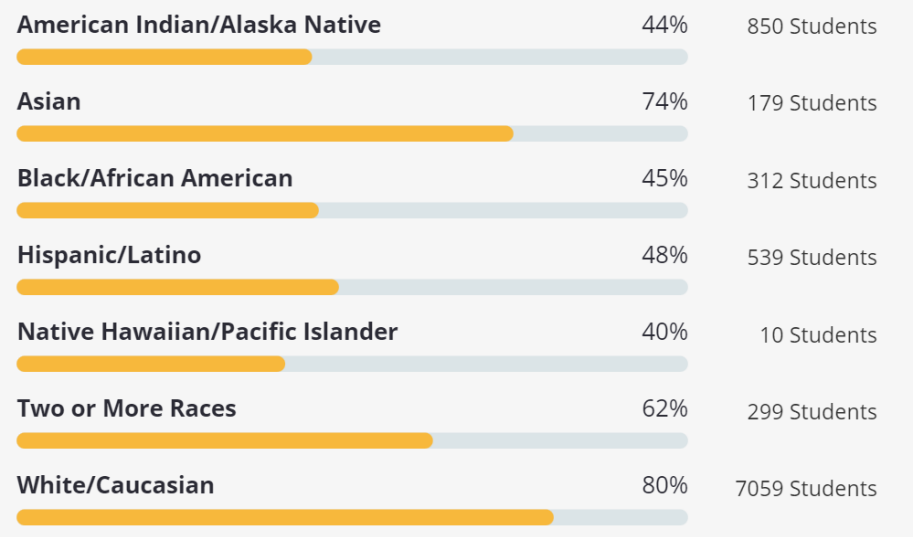
High School Completion by Race, 2021-2022



College and Career Readiness, 2021-2022



Performance by Student Population, 2021-2022



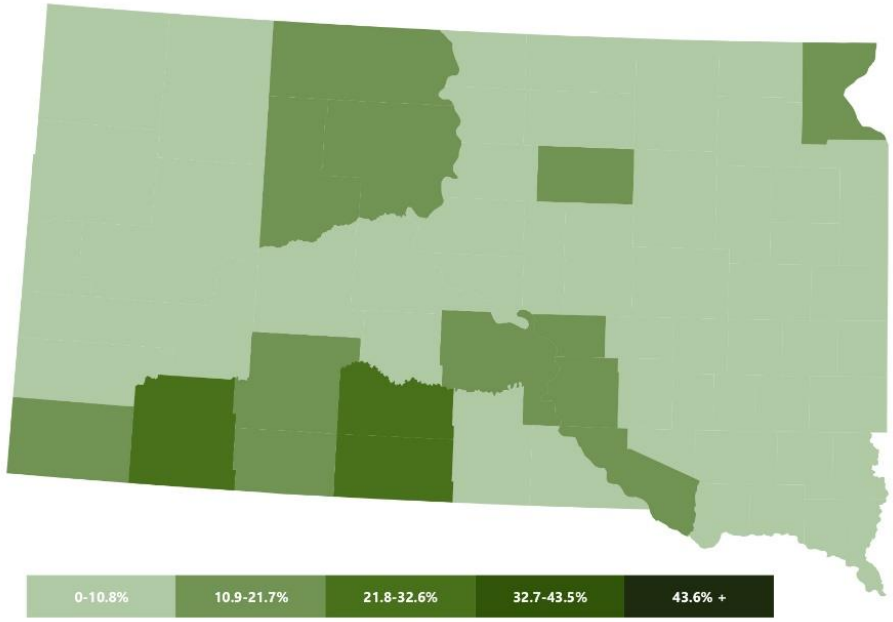
Source: State Report Card 2021-2022 | SD DOE

Neighborhood and Build Environment

Food Security

According to Feeding America's Map the Meal Gap Study, hunger exists in every county in South Dakota, ranging from a low 4.6% in Lincoln up to 26% in Todd.

Research shows rural and farm communities have unique challenges for accessing healthy food: transportation, lower wages, and higher unemployment.



Food insecurity in South Dakota in 2011 was **14.6%** compared to the 2021 rate of **10.4%,** which matches the US rate.

8% of South Dakotans are low-income and do not live close to a grocery store.

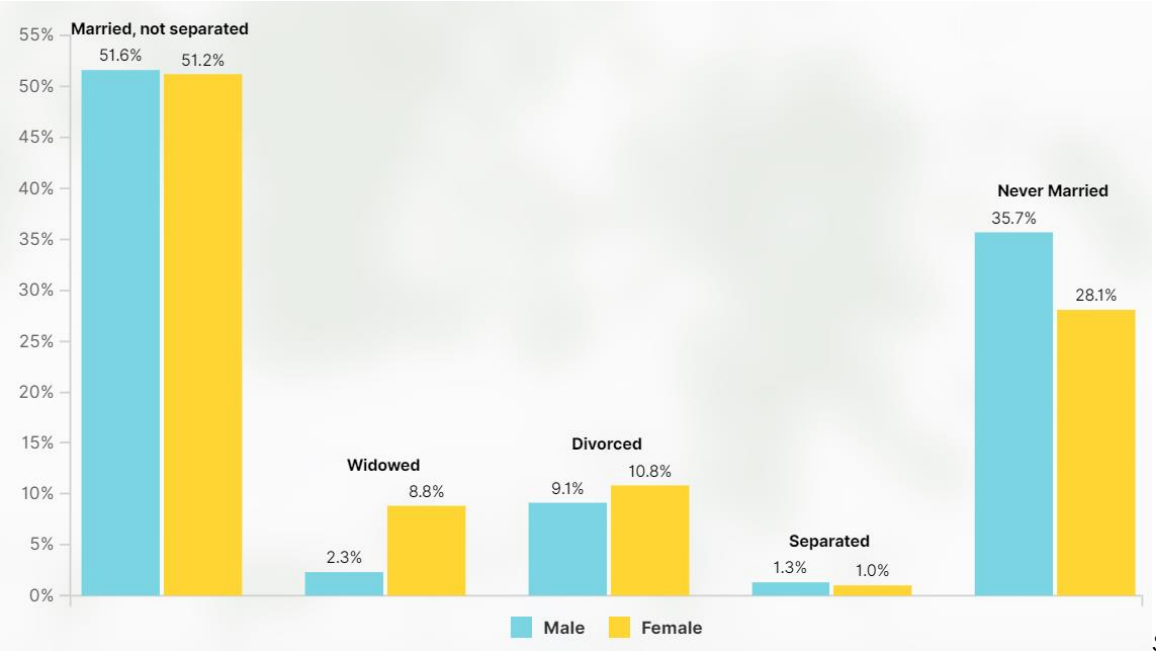
Housing

Affordable Housing	**SD**	
Housing units, July 1, 2021	400,780	
Building permits, 2021	7,917	
2017-2021	**SD**	**US**
Owner-occupied housing unit rate	68.4%	64.6%
Median value of owner-occupied housing units	$187,800	$244,900
Median selected monthly owner costs -with a mortgage	$1,434	$1,697
Median selected monthly owner costs -without a mortgage	$521	$538
Median gross rent	$809	$1,163

Source: US Census Bureau

Social and Community Context

The US Census Bureau calculated the average family size in South Dakota for 2021 as just over three and approximately half are married couples. Without a spouse present, the role of head of house is held by a female for 24% and a male for 20%.



Source: US Census Bureau

Adult Offenders by Sex, Placement and Race, 2023

	Adult Males	Adult Females	Total
State Corrections	**2,971**	**559**	**3,530**
White	1,546	205	1,751
Native American	979	327	1,316
Black	287	15	302
Hispanic	138	14	152
Asian	20	1	21
Native Hawaiian	3	1	4
Other	9	1	10
Federal Corrections	52		52

Juvenile Offenders by Sex and Placement, 2023

	Juvenile Males	Juvenile Females	Total
Juvenile Corrections	75	18	93
Aftercare	69	9	78

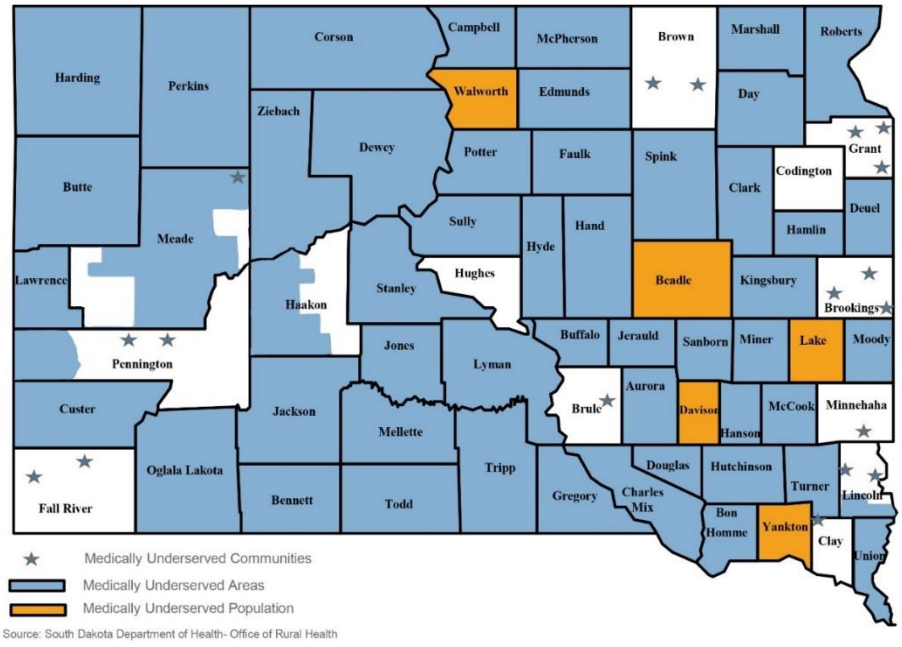
Source: SD Dept. of Corrections

Health Care Access and Quality

Most South Dakota counties are designated as a medically underserved area (MUA) or a health professional shortage area (HPSA). These designations are regulated by the Bureau of Primary Health Care's Division of Shortage Designation and required for some CMS payment programs.

Medically Underserved Areas

December 2022: Medically Underserved Area and Population



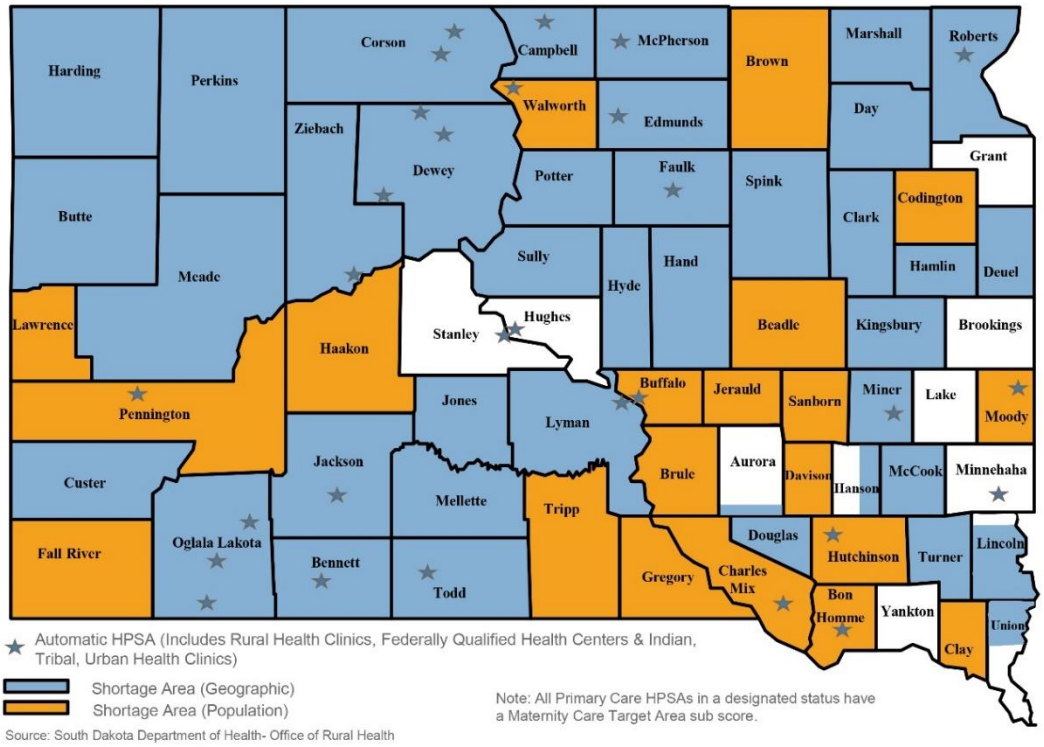
Federally Qualified Health Centers (FQHC)

Designation as an MUA is a prerequisite for designation as a Federally Qualified Health Center (FQHC). There are five FQHC networks providing **integrated primary medical and behavioral/mental health care services** across the state. Several of the systems also operate dental clinics and school-based sites. FQHCs utilize a sliding fee scale and provide care to everyone regardless of age, race, or financial status. There are **39 FQHCs** in the state.

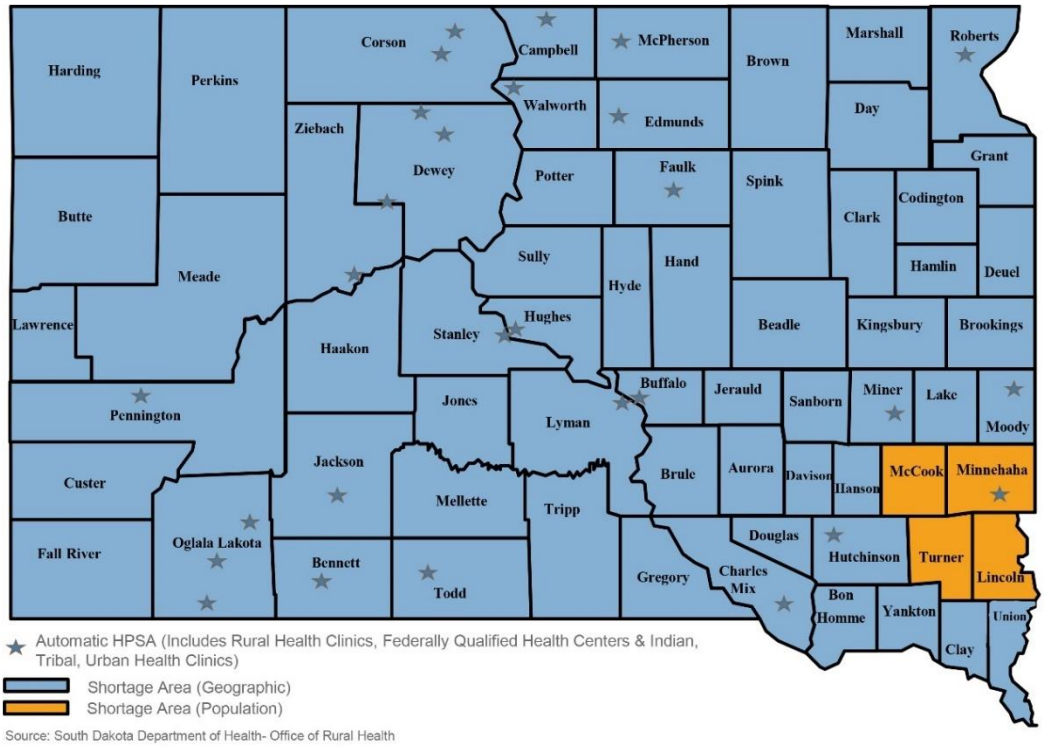
FQHC Network	Integrated Care	Dental	School-based
Community Health Center of the Black Hills - West	3	1	1
Falls Community Health - Sioux Falls	4	1	3
Horizon Health Care. Inc - Statewide	21	3	
Rural Health Care, Inc - Center and East	9		
Urban Indian Health - Pierre, Sioux Falls	2		

Health Professional Shortage Areas

December 2022: Primary Medical HPSA



December 2022: Mental/Behavioral Health HPSA

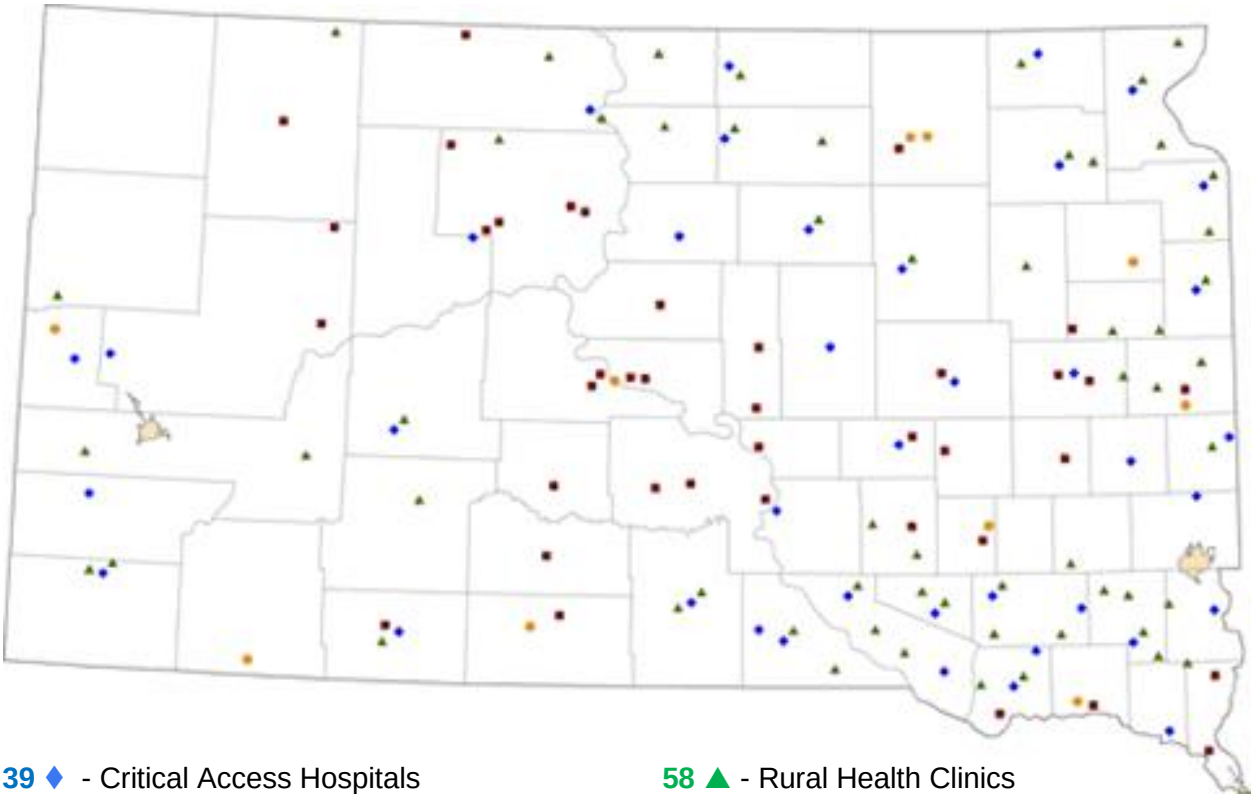


Population to Provider Ratios

Position	SD	US
Primary Care Physicians	1,260:1	1,310:1
Mental Health Providers	500:1	350:1
Dentists	1,610:1	1,400:1

Source: *County Health Rankings*

Designated Health Care Facilities



39 ♦ - Critical Access Hospitals

58 ▲ - Rural Health Clinics

39 ■ - Federally Qualified Health Centers

10 ■ - Short Term/PPS Hospitals

Rural Health Clinic

Designation as a HPSA or MUA is required for Rural Health Clinic (RHC) certification. Team-based care that incorporates physicians, nurse practitioners (NP), physician assistants (PA), and certified midwives (CNM) to increase access to primary care services in rural areas is the foundation for the rural health clinic program. Enhanced reimbursement rates are available from CMS for RHCs who provide access to an NP, PA, or CNM at least 50% of the time, provide outpatient primary care services, and offer basic laboratory services. There are **58 rural health clinics** in South Dakota.

Critical Access Hospital

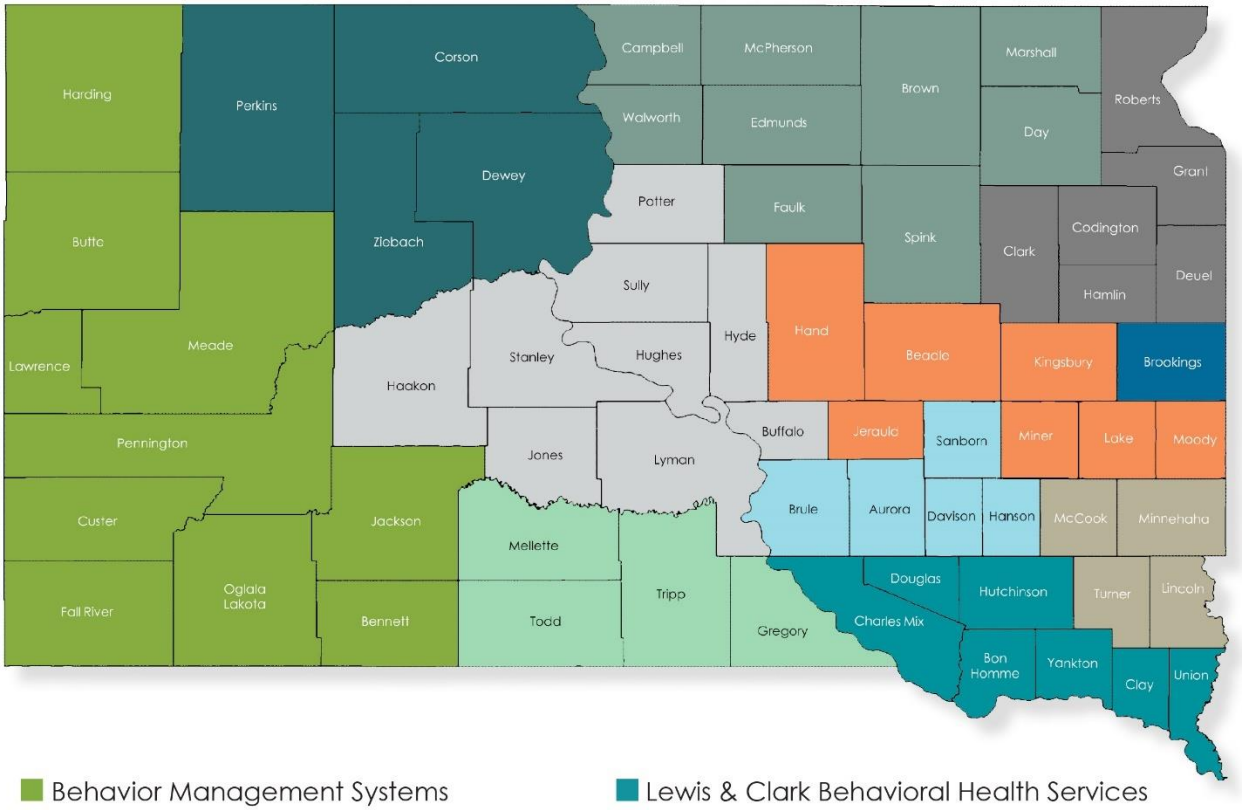
The Critical Access Hospital (CAH) designation was created by Congress in response to over 400 rural hospital closures in the 1980s and early 1990s. The intent for the program was to reduce financial vulnerability and improve access to care in rural areas by providing cost-based reimbursement for Medicare services.

CAH Criteria:

- 25 or fewer acute care inpatient beds
- 35 or more miles from another hospital
- 96 hours or less acute care patient length of stay
- 24/7 emergency care service

Community Mental Health Centers

The Department of Social Services Division of Behavioral Health contracts with 11 accredited community mental health centers across the state to provide the quality services to both adults and youth.



- Behavior Management Systems
- Brookings Behavioral Health and Wellness
- Capital Area Counseling
- Community Counseling Services
- Dakota Counseling Institute
- Human Service Agency
- Lewis & Clark Behavioral Health Services
- Northeastern Mental Health Center
- Southeastern Behavioral Healthcare
- Southern Plains Behavioral Health Services
- Three Rivers Mental Health and Chemical Dependency Center

- **Outpatient Services:** Outpatient mental health counseling services are provided to individuals of all ages. Group or family therapy and psychiatric services may also be offered.
- **Children, Youth, and Family (CYF) Services:** CYF services are specialized outpatient services provided to youth with serious emotional disturbance (SED). Family counseling may include a strength-based model for building skills to help improve family relationships, reduce behavioral issues, and improve school performance.
- **Comprehensive Assistance with Recovery and Empowerment (CARE) Services:** The CARE Program provides comprehensive outpatient services to adults with serious mental illness (SMI) within an integrated system helping individuals to live successfully in the community and experience the hope of recovery.
- **Individualized and Mobile Program of Assertive Community Treatment (IMPACT):** IMPACT provides intensive services to adults whose SMI significantly impacts their lives.

Long Term Care Facilities

Medicare ranks nursing homes based on data retrieved from quality programs, inspections, MDS data, and surveys using a star rating with five being high and one being low. The Find & Compare feature displays 98 South Dakota nursing homes and the corresponding star ratings. Two nursing homes had reports of abuse, and one had no star rating due to serious quality violations.

South Dakota Nursing Home (NH) Star Ratings, June 2023

Total NHs	5 Star	4 Star	3 Star	2 Star	1 Star	No Rating
98	22	23	16	17	19	1

Secondary Data

Leading Causes of Death by Year - 2012-2022

Cause of Death	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total Deaths	7,283	7,079	7,500	7,724	7,838	7,991	7,971	8,273	9,857	9,183	8,956
1. Heart disease	1,652	1,617	1,695	1,712	1,732	1,708	1,797	1,840	1,819	1,691	1,835
2. Cancer	1,623	1,574	1,679	1,632	1,691	1,717	1,632	1,736	1,728	1,740	1,687
3. COVID-19	0	0	0	0	0	0	0	0	1,497	776	448
4. Alzheimer's disease	462	420	433	421	449	444	437	496	488	396	436
5. Chronic lower respiratory diseases	479	413	440	500	427	505	498	521	429	464	415
6. Stroke	410	414	439	381	420	410	387	373	426	391	392
7. Diabetes	219	239	223	282	253	262	252	287	329	306	336
8. Chronic liver disease and cirrhosis	113	121	128	137	158	152	185	154	235	329	281
9. Accidental falls	143	146	170	181	185	196	149	203	217	229	218
10. Dementia	183	145	188	198	192	183	212	146	194	196	199
11. Suicide	135	147	141	173	161	192	168	185	185	202	192
12. Motor vehicle accidents	142	149	151	143	135	166	156	130	153	172	165
13. Influenza and pneumonia	188	186	180	213	195	217	246	189	142	124	128
14. Hypertension	78	72	95	104	92	102	113	126	127	124	122
15. Malnutrition	11	9	16	13	27	17	49	62	86	71	106
Cause of death not yet determined	0	0	0	0	0	0	0	0	0	0	3
All other causes	1,445	1,427	1,522	1,634	1,721	1,720	1,690	1,825	1,802	1,972	1,993

Note: 2022 data are provisional and subject to change.
Source: South Dakota Department of Health, Office of Health Statistics

Five Leading Causes of Death by Age Group, 5 Years Combined (2017-2021)

#	All Ages	1-9	10-19	20-29	30-39	40-49
1	Heart Disease 1,771	Unintentional Injury: Motor Vehicle Accidents - 5	Suicide 25	Suicide 43	Suicide 30	Heart Disease 48
2	Cancer 1,711	Unintentional Injury: Drowning 2	Motor Vehicle Accidents 16	Motor Vehicle Accidents 28	Chronic Liver Disease and Cirrhosis 27	Cancer 45
3	COVID-19 (2020-2021) 1,137	Unintentional Injury: Smoke and Fire 2	Homicide 3	Accidental Drug Overdose 13	Motor Vehicle Accidents 24	Chronic Liver Disease and Cirrhosis 43
4	Chronic Lower Respiratory Disease 483	Cancer 2	Congenital Malformations, Deformations and Chromosomal Abnormalities - 2	Chronic Liver Disease and Cirrhosis 9	Accidental Drug Overdose 19	COVID-19 (2020-2021) 28
5	Alzheimer's Disease 452	Homicide 2	Accidental Drug Overdose 1	Homicide 9	COVID-19 (2020-2021) 19	Suicide 25
		Congenital Malformations, Deformation, Chromosomal Abnormalities 2				

#	All Ages	50-59	60-69	70-79	80-89	90+
1	Heart Disease 1,771	Cancer 168	Cancer 405	Cancer 483	Heart Disease 497	Heart Disease 455
2	Cancer 1,711	Heart Disease 122	Heart Disease 279	Heart Disease 346	Cancer 424	COVID-19 (2020-2021) 232
3	COVID-19 (2020-2021) 1,137	COVID-19 (2020-2021) 83	COVID-19 (2020-2021) 182	COVID-19 (2020-2021) 266	COVID-19 (2020-2021) 323	Alzheimer's Disease 207
4	Chronic Lower Respiratory Disease 483	Chronic Liver Disease and Cirrhosis 60	Chronic Lower Respiratory Disease 74	Chronic Lower Respiratory Disease 147	Alzheimer's Disease 189	Cancer 163
5	Alzheimer's Disease 452	Diabetes 36	Diabetes 51	Stroke 73	Chronic Lower Respiratory Disease 160	Stroke 117

Source: South Dakota Department of Health, Office of Health Statistics

Table 1 Estimated Percentage and Number of Persons at Risk Due to Selected Factors (Ages 18 and Older Unless Otherwise Specified): South Dakota BRFSS, 2021		
Topic	**Estimated %**	**Estimated Population**
Body Mass Index - Overweight (BMI 25.0+)	72%	487,000
Body Mass Index - Obese (BMI 30.0+)	38%	259,000
Body Mass Index - Severely Obese (BMI 35.0+)	16%	106,000
Body Mass Index - Morbidly Obese (BMI 40.0+)	7%	50,000
No Leisure Time Physical Activity	23%	156,000
Cigarette Smoking	15%	103,000
Smokeless Tobacco Use	6%	44,000
E-Cigarette Use	6%	41,000
Tobacco Use (Cigarette, Smokeless, or E-Cig)	24%	164,000
Diabetes	11%	73,000
No Health Insurance (18-64 Years Old)	7%	39,000
No Health Insurance (0-17 Years Old)	1%	2,000
No Health Insurance (0-64 Years Old)	6%	41,000
No Routine Check-Up in Past Two Years	12%	82,000
High Blood Pressure	33%	226,000
High Cholesterol	37%	248,000
No Flu Shot in Past 12 months (65+ Years Old)	25%	39,000
Never Had a Pneumonia Vaccination (65+ Years Old)	26%	40,000
Ever Had a Heart Attack	4%	29,000
Have Angina or Coronary Heart Disease	4%	30,000
Ever Had a Stroke	3%	19,000
Ever Been Diagnosed with Cancer (Excluding Skin Cancer)	8%	53,000
Ever Been Diagnosed with Skin Cancer	8%	53,000
Current Asthma	8%	56,000
Arthritis	24%	161,000
Chronic Obstructive Pulmonary Disease (COPD)	6%	40,000
Depressive Disorder	17%	112,000
Professional Treatment for Mental Problem	14%	93,000
Mental Health Not Good for 20-30 Days of the Past 30 days	8%	54,000
Kidney Disease	3%	17,000
Severe Vision Impairment	3%	22,000
Hearing Difficulty	7%	49,000
Caregiver	17%	117,000
Caregiver (6+ Months & 9+ hours per week)	6%	38,000
Drank Alcohol in Past 30 Days	57%	386,000
Binge Drinking	20%	132,000
Heavy Drinking	7%	45,000
Taken Prescription Pain Medication in Past 12 Months	12%	78,000
Professional Treatment for Substance Abuse	2%	15,000
Not Currently Using Birth Control (18-49 Females)	17%	30,000
Fair/Poor Health Status	14%	92,000
Physical Health Not Good for 30 of the Past 30 days	5%	35,000
Usual Activities Unattainable for 10-30 Days of the Past 30 Days	8%	51,000
Less Than Two Servings of Fruit per Day	75%	504,000
Less Than Three Servings of Vegetables per Day	88%	594,000
Less than Five Servings of Fruits and Vegetables per Day	88%	596,000
Three or more sugar sweetened beverages per day	6%	38,000
No Advance Directive in Place	72%	487,000
Victim of Sexual Violence	3%	17,000
Never Been Tested for HIV	71%	482,000

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2021

Findings Summary

Each of the priority health indicators identified through the assessment process includes an aspect of disparity, mortality, and related assets. The following section provides an overview of each health topic category, highlights the related priority health indicators, summarizes disparities in populations, provides an abbreviated disparities impact overview, and lists state and community assets available to improve outcome measures.

Each section will highlight the following information:

1. Topic Overview
    a. Priority Health Indicator Outcome Measures for SD and US
        i. Outcome measures are listed as percentages or rates.
        ii. All rates are per 100,000, unless otherwise indicated.
    b. Disparity Impact Populations:
        i. Age
        ii. Sex: Male, Female
        iii. Race/Ethnicity: Asian, Black, Hispanic, American Indian, White
        iv. High Impact Counties: # | Rural, Urban, Tribal or County Name
    c. Mortality Impact
2. Health Indicator State Trend
3. Health Indicator Disparity Impact Narrative
4. Health Outcome Assets

Behavioral and Mental Health Overview

The correlation between mental health and physical health impacts overall health and quality of life. As the SDDOH continues to pursue health equity, behavioral and mental health is an integral part of the equation. The Substance Abuse and Mental Services Health Administration (SAMSHA) describes behavioral health equity as *the right to access quality behavioral health care for all populations regardless of the individual's race, ethnicity, gender, socioeconomic status, sexual orientation, or geographical location.*

Sparse population and large distances between urban centers create service gaps for mental health care spanning the state. (See Health Professional Shortage Areas.) The limited access to mental health services may be a contributing factor for the rising suicide rates, which reached an all-time high in 2021. Suicide was the state's tenth leading cause of death, the leading cause of death for individuals aged 10-29 years, and the seventh leading cause of death among American Indians. This upward swing in suicide rates combined with a clear shortage of mental health professionals highlights the need for increased mental health resources.

Despite the growing care needs illustrated by the escalating outcome measures, the SAMSHA Behavioral Health Barometer reported the annual average percentage of adult South Dakotans with any mental illness who received mental health services in the past year stayed level from 44.8% in 2008-2010 to 44.7% for 2017-2019.[1]

Trying to manage mental health issues without the guidance of a mental health professional is common in South Dakota and may be a contributing factor for the growing mental health crisis. A 2016 survey from the Oregon Health & Science University and the Helmsley Charitable Trust, explored the top reasons South Dakotans in specific geographic areas who need mental health services go without care and listed corresponding perceptions of mental health conditions.

- Many participants viewed mental health conditions as a normal part of life or a "personal problem" rather than diseases that could be treated.
- Coping with a mental health issue or maintaining sobriety was frequently viewed as a result of an individual's willpower.
- Family, friends, and court-mandated treatment could play a role in suggesting needed treatment.
- Trigger for seeking care often related to a substantial life event.
- Stigma was a prominent concern related to seeking mental health or substance use treatment.
- Denial was also viewed as a factor that limited treatment seeking.[2]

Top Six Mental Health Treatment Barriers for South Dakotans

South Dakota	Cost	Personal Choice	Availability	Stigma/Fear	Other Reason	Logistical
Statewide	1	2	3	4	5	6
Urban	1	2	3	4	5	6
Rural	1	2	3	4	5	6
Isolated	1	3	2	5	6	4
Reservation	2	3	1	5	6	4

Source: Oregon Health and Science University and the Helmsley Charitable Trust, 2016

While cost concerns and availability are practical reasons for going without care, South Dakotan's prominent selection of personal choice is a telling indicator. Major life events may trigger action to seek professional support, however, limited access to services may reinforce the self-management mindset and contribute to societal perceptions.

Priority Health Indicators

1	Percent of the population living in a mental health provider shortage area	**100%**	2020 | -	**-**

SD: Health Resources and Services Administration

2	Percent of adults with diagnosed depression	16.5%	2021 | 2021	20.5%

SD\| US: Behavioral Risk Factor Surveillance System, 2021

3	Rate of death from suicide	**22.6**	2021 | 2019	14.5

SD: Office of Health Statistics, SD DOH *US: National Center for Health Statistics.2021*

4	Rate of hospitalization from suicide attempt	46.9	2021 | -	**-**

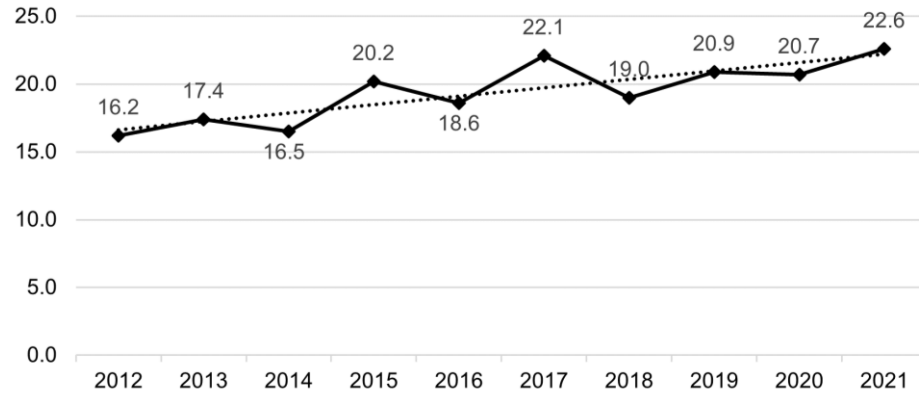
SD: South Dakota Association of Healthcare Organizations (SDAHO), prepared by SD DOH

Disparity Impact Populations

#	Age Group	Sex	Race/Ethnicity	High Impact Counties
1	18-49	Female	All	66 counties
2	18-44	Female	American Indian	
3	15-54	Male	White, American Indian	8 counties, Central
4	15-54	Female	White, American Indian	8 counties, Central

Mortality Impact

Crude Death Rate Due to Suicide by Year of Death, 2012-2021

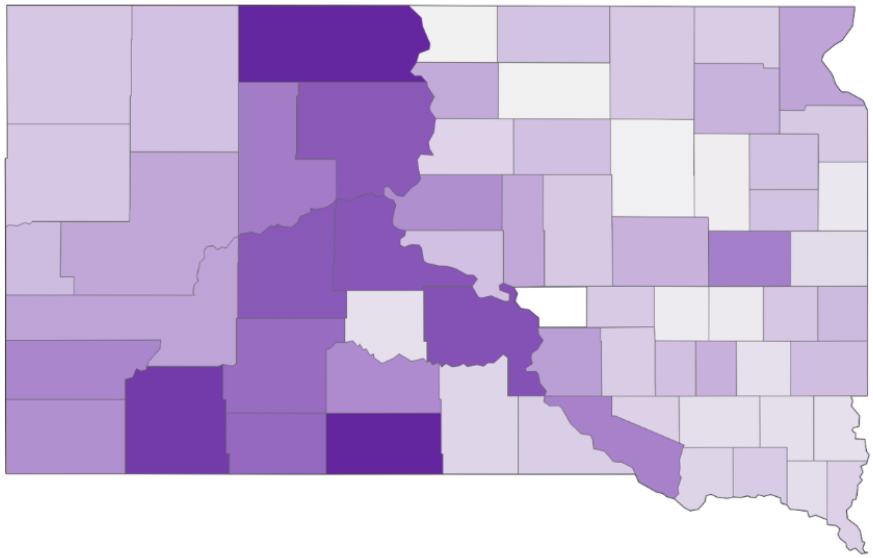


Source: 2021 SD Vital Statistics - Mortality

The state ranks seventh highest in the nation for suicide, and impacts children as young as 10.

Males account for 79% of suicides, and every race/ethnicity is impacted.

Suicide Death Rates by County, 2012-2021



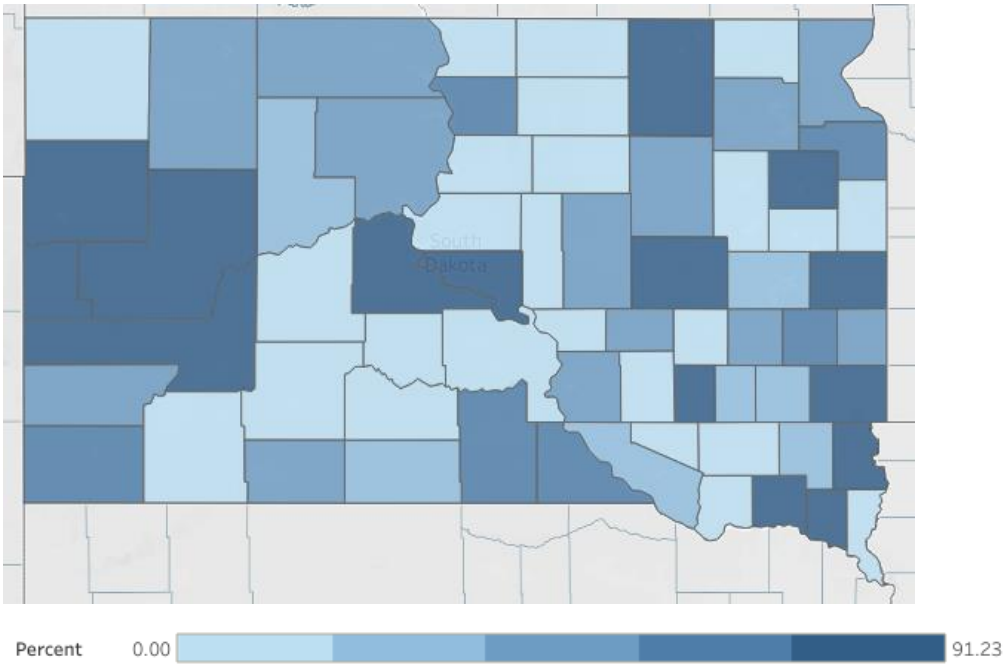
With higher rates in darker shades, the concentrated impact is revealed in the west central part of the state.

Beadle County, a county with a higher diversity index, stands out on the eastern side of the state.

Impact Narrative

Every county in the state is designated as a mental health professional shortage area or population. The County Health Rankings reported the South Dakota population to provider ratio as 460:1 in 2022, with the most severe shortages found in the following counties: Grant - 7,520:1, Bon Homme - 7,010:1, and Turner - 4,350:1.

Percent of County Population within 15 minutes of a Behavioral Health Provider



Source: SDDOH, Vulnerability Assessment, County Vulnerability Dashboard; https://doh.sd.gov/statistics/VulnerabilityAssessment.aspx?

Behavioral health services are available through public health channels. Utilization of services by race/ethnicity are in line with state demographics. Females (59.1%) and those 18-39 years of age (58.6%) make up the largest client base using publicly funded behavior health services. The table below provides a breakdown of the percent of clients served by race and age.[3]

Publicly Funded Behavioral Health Services Clients by Sex, Race, Age, 2022

Female	Male	White	American Indian	All Other
59.1%	40.9%	78.2%	12.4%	9.5%
18-29 years	30-39 years	40-49 years	50-64 years	65+ years
33.4%	25.2%	19.1%	17%	5.7%

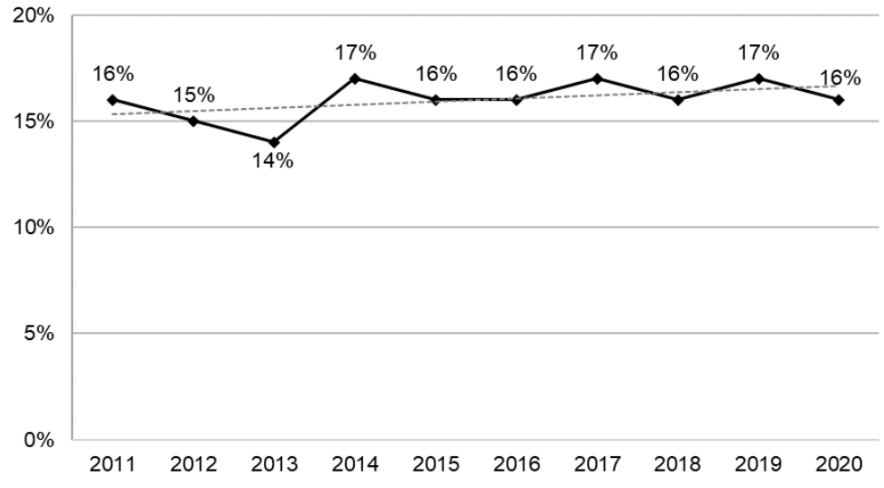
The availability of public inpatient psychiatric beds decreased as the demand for care services has risen. A 2016 review by the Treatment Advocacy Center for South Dakota found 14.9 available beds per 100,000 people. A minimum of 50 beds per 100,000 is recommended to adequately provide treatment needs for individuals with severe mental illness.[4] Staff shortages and more patients being served near their communities resulted in a reduction of state hospital admissions in 2018, according to SAMSHA.[5]

The South Dakota Department of Social Services oversees and administers behavioral health services for the state through eleven community mental health centers, and details are provided in the 2022 state profile of behavioral health treatment services.

Diagnosed Depression: Steady

According to the 2020 Behavioral Risk Factor Survey, females in the state are almost twice as likely to be told they have some form of depression (21% compared to 12%) and 47% are of American Indian descent. Depression impacts a wide age group (18 to 59 years) and is more common for those separated or divorced and/or earning less than $35,000 per year.

Percent of South Dakotans Who Were Told They Have Depression, 2011-2020



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011-2020

Suicide Death Rate: Gradual Increase

The rate of death from suicide has been gradually increasing and tends to run above the national rate. The 2022 rate of 22.6 is the highest in state history, with the largest portion occurring among the 15 to 54 age group. The Injuries in South Dakota report highlights White South Dakotans have a higher rate (75.9%) of suicide than other races, and 78% of suicides occur among males. The primary methods of suicide were firearm (49%), suffocation (35%), and poisoning (12%).[6]

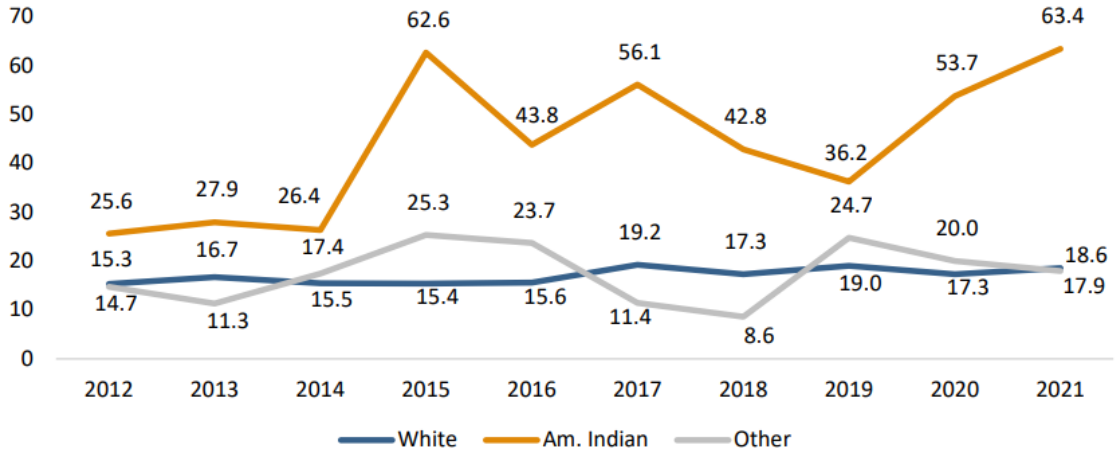
According to CDC data, suicide is the leading cause of death for South Dakota's American Indian/Alaska Native children aged 10-14, and the second leading cause of death for White South Dakotans 10-34 years old.[7]

The Suicide Surveillance Report for 2022 provides an in-depth overview and the rates by age group illustrate the breadth of the issue, with the highest rate in the 20-29 age group.

10-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70+ years
18.5	31.3	25.5	27.4	24.3	14.8	15.2

The American Indian population is a high-risk group, accounting for about 9% of the state population and almost half of the number living in poverty. Socioeconomic issues add to the factors contributing to mental health disparity. The suicide rate in the American Indian population is significantly higher at 63.4 compared to all other races at about 18.[8]

Suicide Rates by Single Race, South Dakota 2012-2021



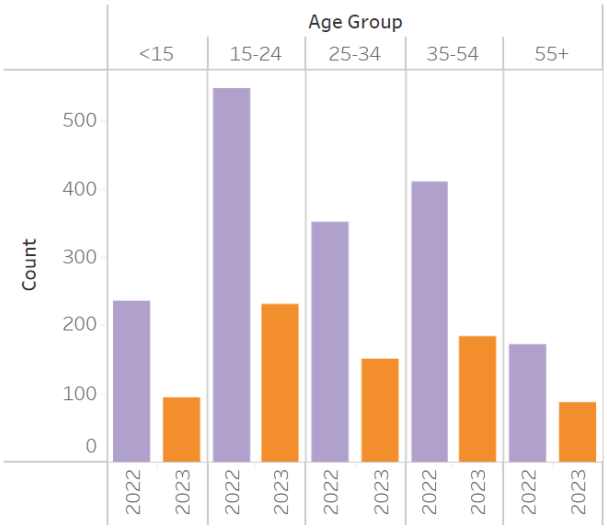
Suicide Hospitalization: No Comparison

The hospitalization rate for suicide (46.9) is more than double the death rate (22.6). Based on the SAMSHA National Survey on Drug Use and Health for 2021, there are approximately 44,000 South Dakotans living with a serious mental illness, and about 30% are in the 18-25 age group. Overall, survey responses indicated just over 80% had serious thoughts of suicide and made a suicide plan. Over half (56%) followed through with a plan to attempt suicide.[9]

A multi-disciplinary team of researchers found mental health-related emergency department visits increased 31% among adolescents aged 12-17 during the COVID-19 pandemic in 2020 compared to the pre-pandemic numbers in 2019. Suspected suicide attempt emergency room visits for females were 50.6% higher compared to their male counterparts at 3.7%. [10]

Drug Overdose Surveillance and Epidemiology (DOSE) data for South Dakota shows a gradual incline for emergency department overdose visits, with a low of 95 around February 2022 and a high of 199 in April 2023. If the pace for the first quarter of 2023 continues, the yearly total could reach double the 2022 numbers. Females contribute to 60% of the emergency department visits for suspected overdose and the higher number for the 15-24 age group is consistent with the suicide death rate. [11]

ED Visits for Suspected Overdoses by Age Group, January 2022-April 2023



Source: Key Data | Avoid Opioid SD

Health Outcome Assets

State Agencies

- Avoid Opioid SD – Joint effort of DSS and DOH
- Department of Social Services
    - Behavioral Health
    - OnTrackSD
- Department of Health
    - Office of Health Statistics
        - Injury Surveillance and Prevention
        - Suicide Prevention
        - Vulnerability Assessment , August 2019

Community Resources

- Avel eCare Virtual Crisis Care program provides law enforcement with 24/7 access to behavioral health professionals to assist individuals experiencing a mental health crisis.
- Disability Rights South Dakota
- Helpline Center
    - 211 Helpline
    - Suicide and Crisis Support
    - 988 Mental Health Line: Launched July 2022
- National Alliance on Mental Illness (NAMI), South Dakota
- Mental Health First Aid
- Great Plains Tribal Leaders' Health Board

    - Behavioral Health
    - Suicide Prevention

Professional Associations

- South Dakota Council of Mental Health Centers, Inc.
- South Dakota Counseling Association
- South Dakota School Counselor Association
- South Dakota Board of Addiction and Prevention Professionals

Unintentional Injury Overview

Injuries are a preventable public health threat resulting in hospital stays, emergency room visits, and tragic loss of life. Unintentional injuries are the leading cause of death for South Dakotans aged 1-39 and Americans aged 1-44.

According to the CDC Injury Center, the leading causes of death for unintentional injury include unintentional poisoning (e.g., drug overdoses), unintentional motor vehicle accidents, unintentional drowning, and unintentional falls. Other ICD-10 unintentional injury categories include cut/pierce, drowning, fall, fire/hot object or substance, firearm, machinery, and transportation.[12]

In 2020 unintentional injury was the number one cause of death in South Dakota for ages of 1 through 44, and the highest percentage (41.7%) was in the 15-24 age range. Over half (52.5%) of deaths for the 15-24 age range were from motor vehicle accidents and 30% were poisonings.[7]

The rate of injury-related deaths in the state for American Indians is 2.8 times higher than Whites. American Indian/Alaska Native experience the highest rate per capita of unintentional injury and injury-related death compared to other groups by racial/ethnic status.[6]

Priority Health Indicators

1	Rate of death from drug overdose (all drugs)	11.6	2021 | 2019	21.5
2	Rate of death from motor vehicle collisions	**19.2**	2021 | 2019	11.5
3	Rate of death from accidental falls	**25.6**	2021 | 2019	12.0

SD: Office of Health Statistics | SD DOH *US: National Center for Health Statistics | CDC*

4	Rate of hospitalization from falls	242	2021 | -	-

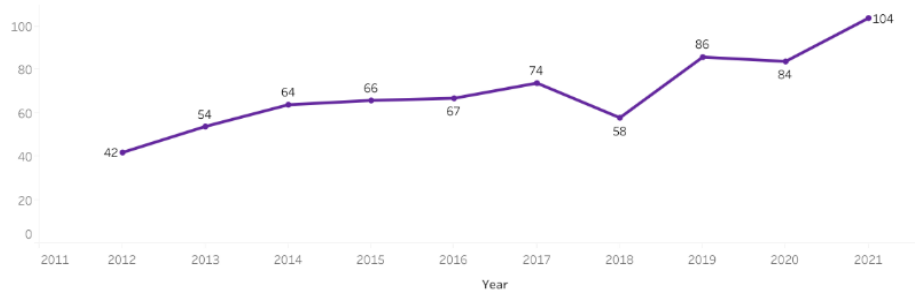
SD: SDAHO, prepared by SDDOH

Disparity Impact Populations

#	Age Group	Sex	Race/Ethnicity	High Impact Counties
1	40-44	Female	American Indian – Rate White - number	Urban, Tribal
2	20-44 years	Male	White American Indian	Rural
3	75+ years	Females	White	
4	55+ years	Females	White American Indian	

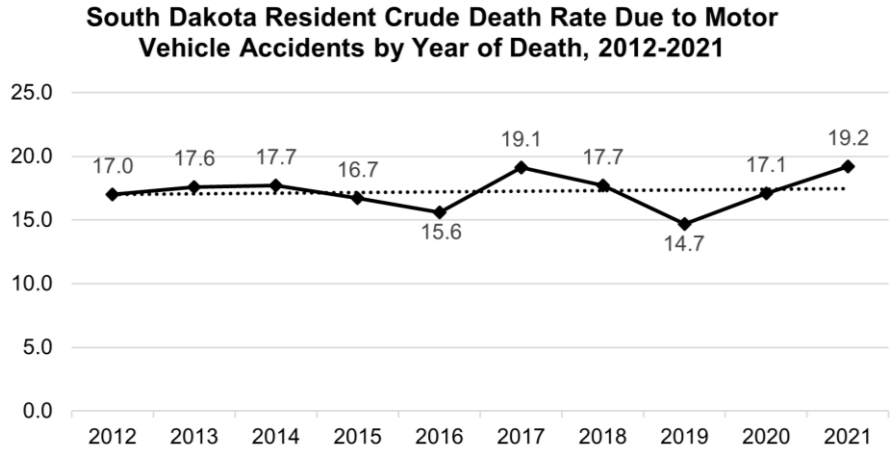
Mortality Impact

Drug-Related Death in South Dakota, 2011-2022



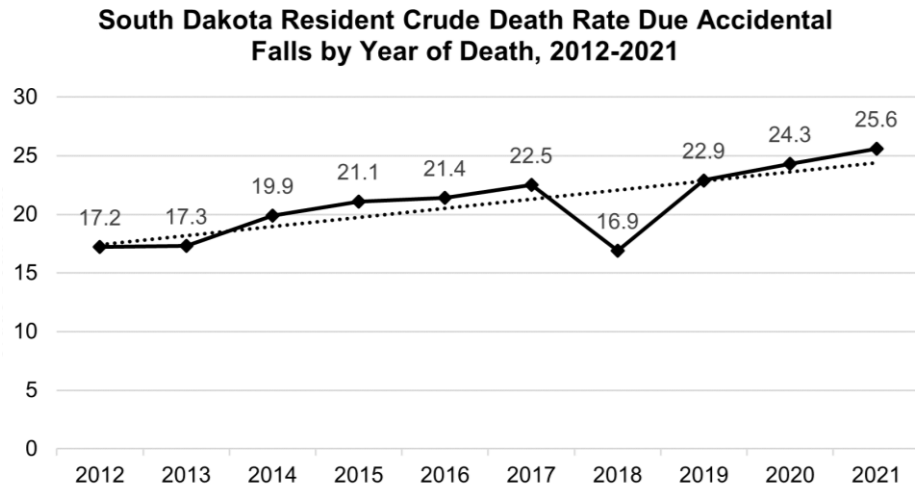
Of the 104 total drug-related death for 2021, 43 were related to opioids.[11]

Source: [Key Data | Avoid Opioid SD]



Alcohol consumption is a risk factor for death from motor vehicle accident.

One in five South Dakotans engage in binge drinking, and one in three are 18-29 years old.[11]



Females over 85 have a substantially higher risk of a fall-related death, and almost half of falls occur in a residential facility.

Medical costs in the state for fall-related fatalities in 2020 was $9.29 million with an average cost of $42,407.00.[7]

Source: [2021 SD Vital Statistics - Mortality]

Impact Narrative

Drug Overdose: Trending Up

When analyzing data for drug overdose, the intent of the action is considered. CDC Web-based Injury Statistics Query and Reporting System (WISQARS) data placed the years of potential life lost at 3,946 years and provided an overview of drug-related death and the corresponding disparities.

From 2010-2020 the number of deaths by unintentional drug poisonings was 499, the number of suicide (intentional) drug poisonings was 145, and the number of undetermined intentional drug poisonings was 48. About 40% of drug related deaths are related to opioids.

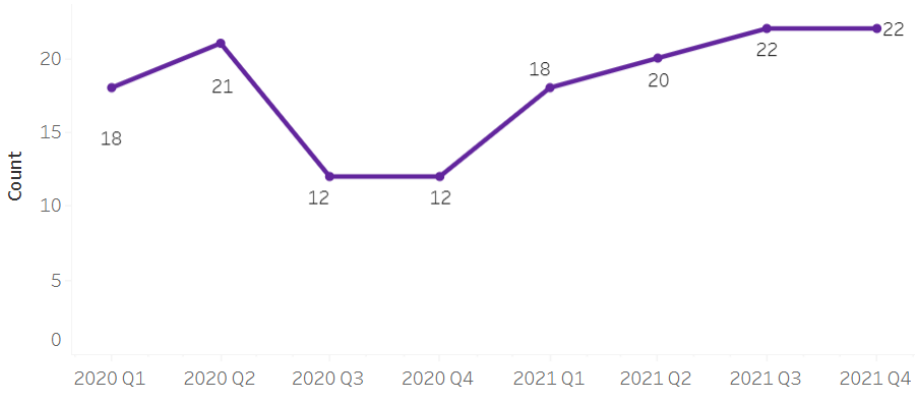
Within the American Indian population, 76.7% of drug-related deaths were unintentional and 23.3% categorized as suicide. Calculating age-adjusted and crude death rates using these three designations (intentional, unintentional, undetermined) shows the disproportionate rates for the American Indian population [7]

Drug-Related Death Rate (intentional, unintentional, and undetermined)

	American Indian	Black	White
Age-Adjusted Rate	18	10	7
Crude Rate	15.2	6.7	6.6

The State Unintentional Drug Overdose Reporting System (SUDORS), a strategy requirement for the CDC Overdose to Action funding, captured an average of 20 cases per quarter in 2021 and almost half were opioid related. Males (61%) and Whites (66%) are the top demographics for unintentional overdose. American Indian is the next closes at 25%.[11]

SUDORS Cases by Quarter



Source: Key Data | Avoid Opioid SD

Total SUDORS cases: 145

97% were unintentional.

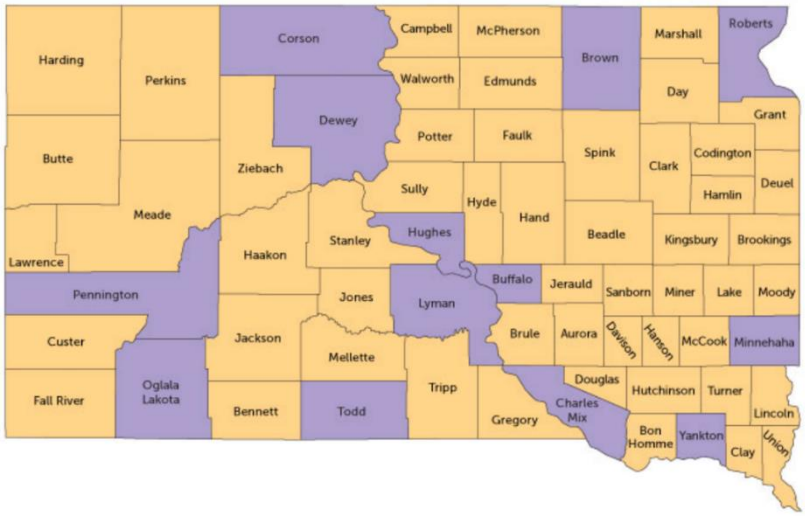
48% were opioid related.

Female: 39%
Male: 61%

American Indian: 28%
White: 66%

The SD DOH identified a disproportionate impact of drug overdose death in rural communities. A vulnerability assessment was launched and a dashboard was developed to display drug-related data, healthcare access information, and socioeconomic data. The subsequent South Dakota Vulnerability Assessment report identified 13 elevated risk counties for opioid overdose and bloodborne infection based. Detailed county reports provide an overview of state to county comparisons for healthcare access, socioeconomic data, infectious disease, and drug-related data.[13]

Vulnerability Assessment Elevated Risk Counties, 2019



Urban

- Brown
- Minnehaha
- Pennington

Tribal

- Corson
- Dewey
- Roberts
- Oglala Lakota
- Hughes
- Lyman
- Buffalo
- Charles Mix
- Yankton

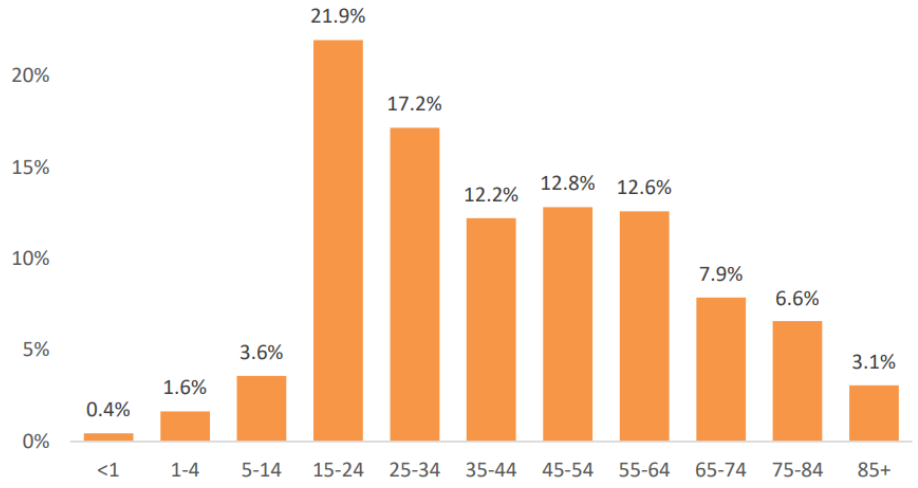
Motor Vehicle Collision: Trending Up

The South Dakota Department of Public Safety (SD DPS) reported 105 drivers were killed in vehicle crashes in 2022. Males were at the wheel for 59% of the reported collisions, and drivers were in the 20-44 age range.

The 2020 Injuries in South Dakota report stated Whites accounted for 68.1% of motor vehicle collision deaths, American Indians for 29.4%, and other races the remaining 2.5% for 2009-2018. The top contributing circumstance for a crash was a wild animal hit (25.8%). Driving too fast (14.6%) and failing to yield (13.6%) rounded out the top three factors contributing to a crash.[6]

Seatbelt use is more prominent on primary/interstate roadways and decreases on county highways and local roadways where animals are more likely to present an issue.[14] A 2021 observation sampling in 38 counties found 92.7% of female vehicle occupants wore seatbelts compared to 84.4% of males.[15] The overall weighted seat belt rate of 86.9% is similar to other states with secondary seatbelt laws (87.9%) and falls below the national rate of 90.3% reported by the National Highway Traffic Safety Administration (NHTSA).

Motor Vehicle Traffic Deaths by Age Group, 2009-2018



Source: *Injuries in South Dakota (sd.gov)*

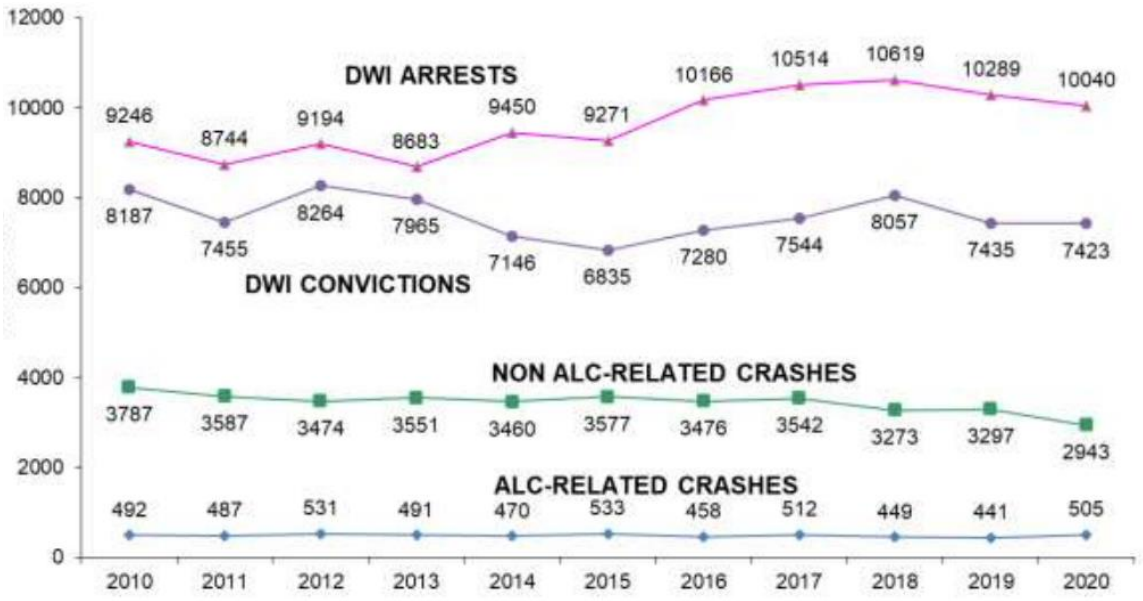
In 2022 there were 29,524 drivers involved in crashes. Of those, 44% were in the 20-44 age group and 59% were male.

Safety equipment was used in 80% of motor vehicle collisions, and only 3% of the total resulted in fatality.

Source: *South Dakota Crash Analysis Tool*

According to a summary by the SD DPS, alcohol-related fatal and injury crashes increased by 14.5% from 2019 totals while non-alcohol related fatal and injury crashes decreased by 10.7%.[16]

Fatal and Injury Crashes and DWI, 2020



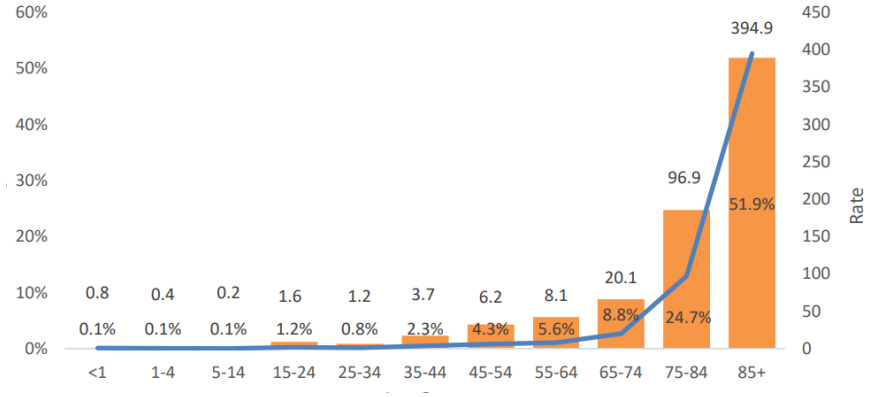
Source: *2020 Department of Public Safety Motor Vehicle Crash Summary*

Accidental Falls: Trending Up

Falls are the leading cause of injury-related deaths for the state with a rate of 25.6 compared to the national rate of 12. Females made up 54% of deaths. Fall death risk rises at age 65 and increases substantially for the 85+ age group. A variety of factors contribute to the risk of falling: lower body weakness; vitamin D deficiency; foot pain or poor footwear; difficulties in seeing, walking, and balance; disabilities; medication effects; and environmental walking obstacles.

South Dakota has the fourth highest rate in the nation for those 65 years and older, with a crude death rate of 106.8 compared to the national rate of 59.1. Almost half of fall-related deaths (47%) in South Dakota from 2011-2020 occurred in residential institutions.[17]

Fall-Related Death by Age Group, 2009-2018



The rate of fall-related deaths among South Dakotans aged 65 years and older was 1.9 times higher than the national mortality rate.[6]

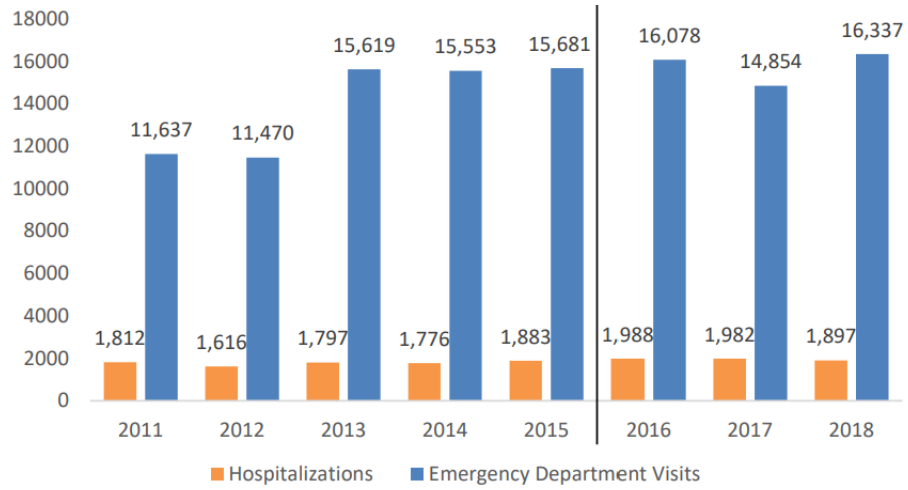
Medicare ranks nursing homes based on data retrieved from quality programs, inspections, MDS data, and surveys using a star rating with five being high and one being low. The Find & Compare feature displays 98 South Dakota nursing homes and the corresponding star ratings. Two nursing homes had reports of abuse, and one had no star rating due to serious quality violations.[18]

The direct medical costs of older adult falls include fees for hospital and nursing home care, doctors, and other professional services, rehabilitation, community-based services, use of medical equipment, prescription drugs, and insurance processing. The associated medical costs of fatalities by unintentional fall in South Dakota in 2020 was $9.29 million with an average cost of $42,407.00.[7]

Hospitalization from Falls Trend: Trending Up

While the average percentage of hospitalizations resulting from a fall-related emergency department visit is relatively small (11%), the burden of care coordination, overall expense, and impact on quality of life for a preventable injury elevates the issue. As the population ages, the number of caregivers grows. Hospitalization from a preventable fall intensifies existing pressures on personal and professional caregivers.

Fall-Related Hospitalizations and Emergency Department Visits, 2011-2018



Source: Injuries in South Dakota (sd.gov)

The American Indian fall-related hospitalization rate was just above the White rate; however, the emergency department visit rate was 1.8 times higher.[6]

Females experienced hospitalization and emergency department visits from falls at a rate 1.7 and 1.2 times higher than males, respectively. The American Indian fall-related hospitalization rate was just above the White rate; however, the emergency department visit rate was 1.8 times higher. South Dakotans aged 55 and older make up the largest percentage of fall-related hospitalizations and have some of the highest rates compared to other age groups.[6]

Health Outcome Assets

State Agencies

- Office of Health Data and Statistics
  - Injury Surveillance and Prevention
    - Traumatic Brain Injury
    - Injuries in South Dakota
    - Alcohol-related Deaths and Hospitalizations
    - Falls Among Older Adults in South Dakota
- Rural Health Trauma System
  - Gen6 Trauma Registry
  - State and Regional Trauma Committees
  - Injury Prevention Resources
- Good & Healthy South Dakota
  - Physical Activity Programs

        - Fit & Strong
        - Walk with Ease

Community Resources

- South Dakota Fall Prevention Coalition
- Sanford Health Evidence-Based Fall Prevention Programs
    - A Matter of Balance
    - Stay Active & Independent for Life (SAIL)
- Voices for Home Modification

Risk Behaviors, Emphasis on Youth

Developing healthy habits at an early age contributes to overall wellbeing and quality of life by reducing the risk of chronic disease or injury. Children make up almost 25% of the state population and the leading causes of death for this age group are suicide and Unintentional Injury.

As mentioned earlier in this assessment, there is a mutual correlation between mental health and physical health that impacts overall health and quality of life. Teaching South Dakota's youth to rely on positive methods to manage a healthy weight and state of mental wellbeing reduces the risk of developing negative coping mechanisms, which may become addiction to alcohol, food, and/or commercial tobacco.

With close to 60% of South Dakota adults drinking alcohol within a 30-day period and 20% engaging in binge drinking, a pattern has developed for the state's youth to follow. Stopping the cycle of risk behavior among youth would pay long-term dividends for improving overall health. The minimum age for purchase, possession, and use of alcohol and tobacco products is 21 years, and South Dakota Medicaid fee-for-service covers individual counseling for tobacco cessation treatment, with co-payments required.

Priority Health Indicators

1	Percent of high school students who are obese	**16.6%**	2021 | 2021	16.3%
2	Percent of high school students who binge drink (i.e., 5 or more drinks within 2 hours)	**11.1%**	2021 | 2021	10.5%

SD | US: High School Youth Risk Behavior Survey Data | CDC

3	Percent of adults who currently smoke cigarettes	**15.3%**	2021 | 2021	14.4%

SD | US: Behavioral Risk Factor Surveillance System | CDC

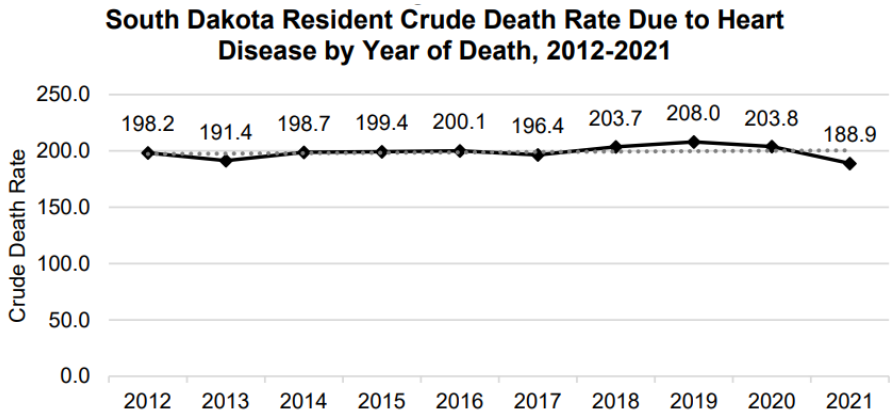
4	Percent of Medicaid children (aged 3-18 years) receiving routine oral health service in the past year	**33%**	2021 | 2021	48%

SD | US: Medicaid

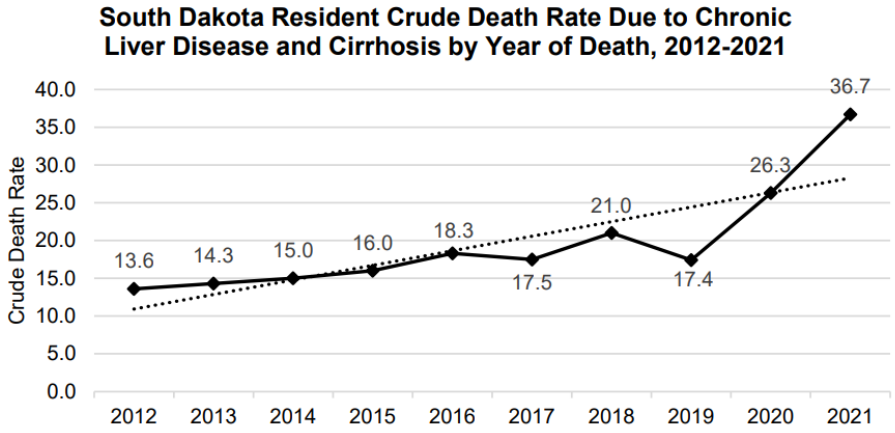
Disparity Impact Populations

#	Age Group	Sex	Race/Ethnicity	High Impact Counties
1	13-17 years	Male	American Indian, Hispanic	Tribal
2	13-17 years		American Indian	Tribal
3	18-59 years		American Indian	Tribal
4	3-18 years		American Indian	Rural, western

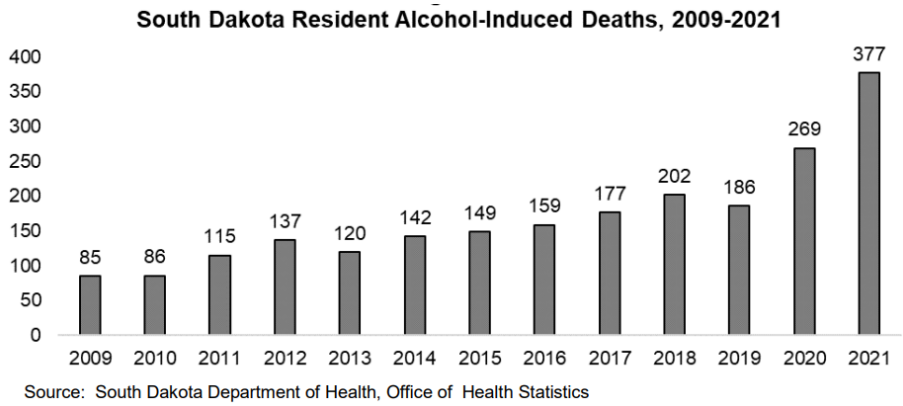
Mortality Impact



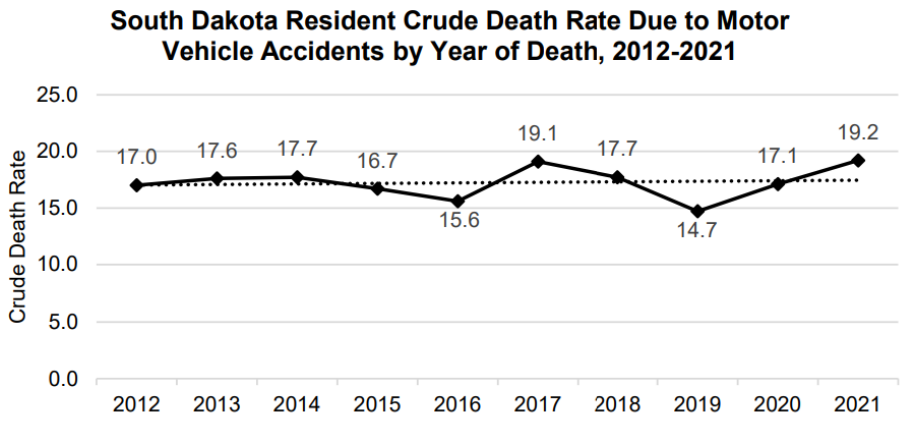
Obesity is a major risk factor for chronic diseases. **Starting at age 40,** cancer and heart disease alternate as the leading causes of death for South Dakotans.



Alcohol consumption can lead to chronic liver disease and cirrhosis, which is among the top four leading causes of death for South Dakotans ages 20-59.

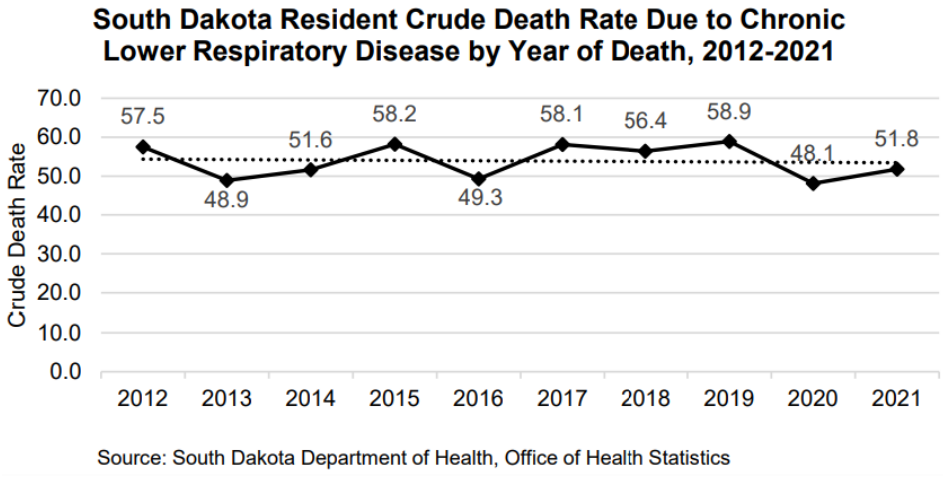


The Technical Notes in the Vital Statistics report includes over a dozen ICD-10 codes for alcohol-induced death. These numbers exclude accidents, homicides, and other indirect causes connected to alcohol use.



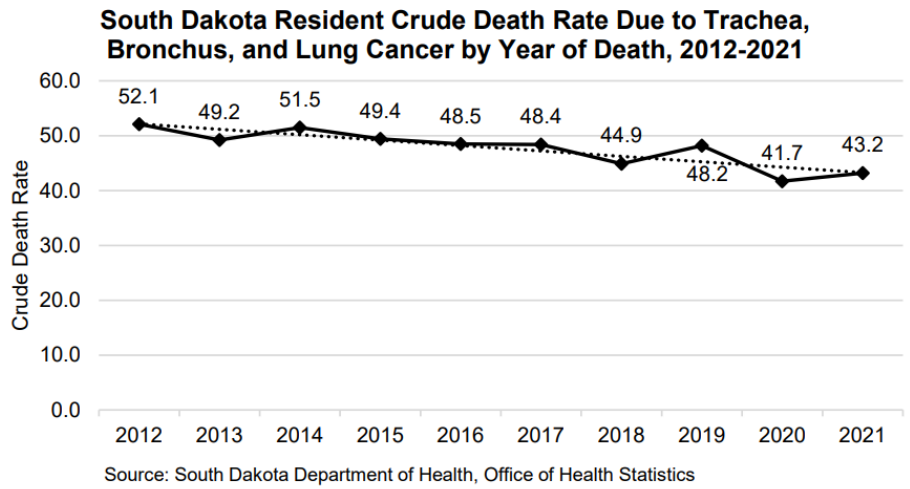
There were 148 traffic fatalities across the state in 2021 and 52 (35.1%) were caused by alcohol-impaired driving.

Source: National Highway Traffic Safety Administration



Persons with behavioral health conditions are among the five priority populations for tobacco-related disparity.

Behavioral/Mental Health challenges include provider shortages and limited access to services.



Turning to negative coping methods, such as tobacco and alcohol, increases the risk of a chronic disease and/or cancer diagnosis.

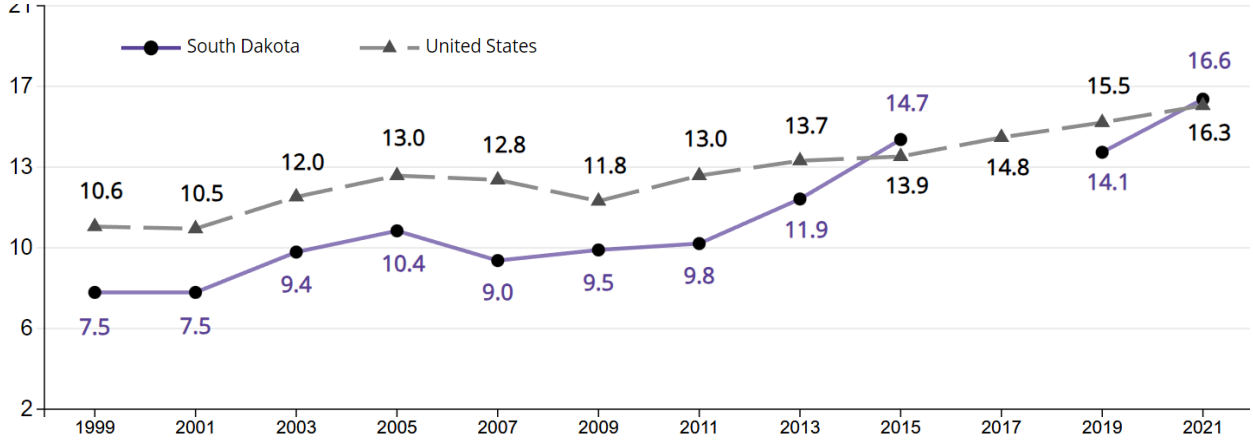
Source: 2021 SD Vital Statistics - Mortality

Impact Narrative

Youth Obesity: Steady Increase

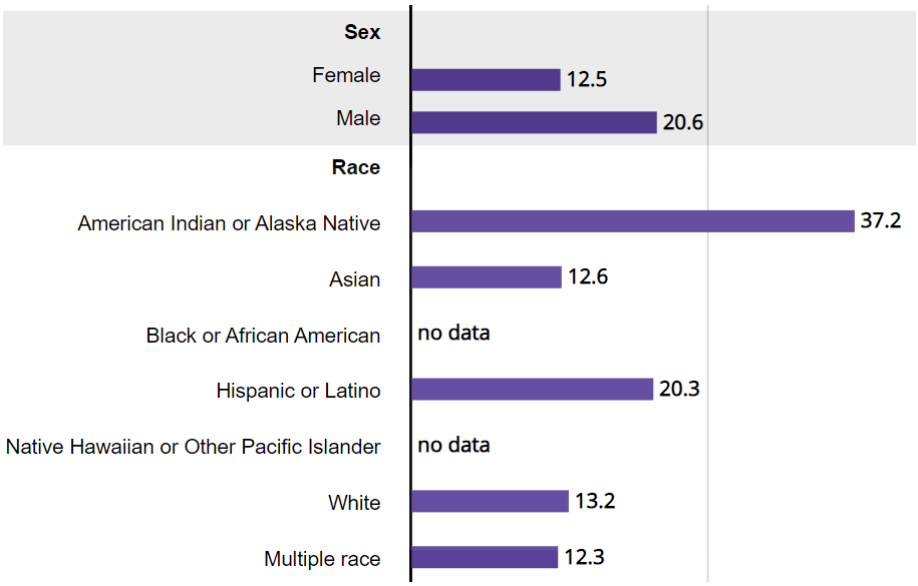
The percentage of high school students who were obese continues to increase as the corresponding behaviors for consuming healthy foods are decreasing. One in five (19%) South Dakota teens enter adulthood as obese and by age 50 that percentage has doubled, according to the Health Behaviors of South Dakotans for 2021.

High School Students Who Had Obesity, 1999-2021



Source: *Youth Risk Behavior Surveillance System, 2021*

Obesity by Sex and Race, 2021



Rate of obesity for the American Indian/Alaska Native teens was more than double the total rate (16.6) at 37.2. Hispanic teens earned a rate of 20.3, while the white and multi-race teens were 13.2 and 12.3, respectively. The rate for males is 20.6 compared to the female rate of 12.5.

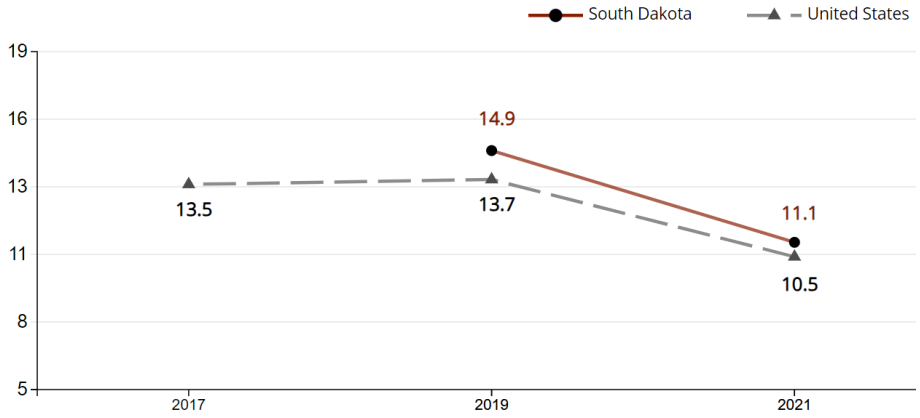
Variance: 95% Confidence Interval

Source: *Youth Risk Behavior Surveillance System, 2021*
no data < 30 respondents for the subgroup

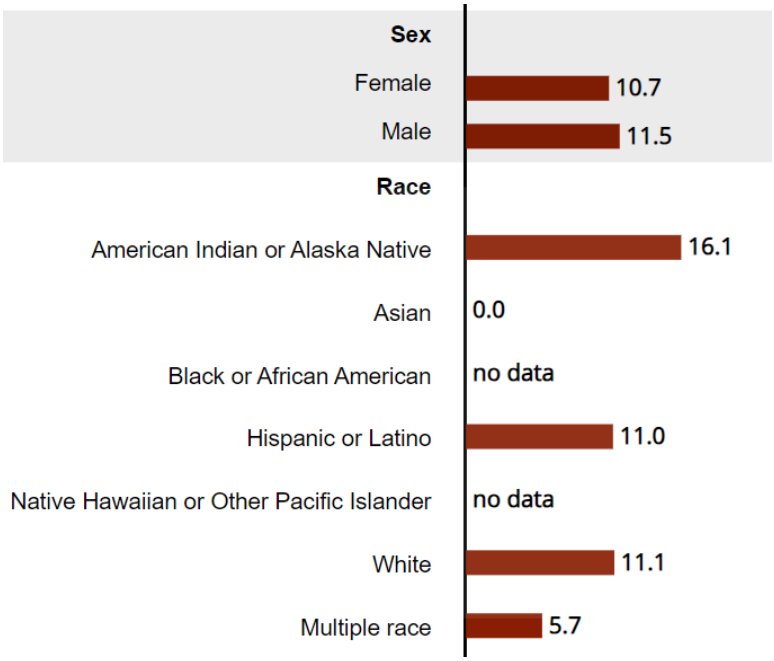
Youth Binge Drinking: Decline

Binge drinking is defined as consuming four (female) or five (male) drinks in a row and was added to the Youth Risk Behavior Surveillance System (YRBSS) survey in 2019. Results for 2021 show a slight decrease from 14.9% to 11.1%. The larger data set for teens who had at least one drink in the past 30 days reflects a consistent decrease with a total drop of almost 15% (39.2% to 24.3%) from 2011 to 2021.

Youth Binge Drinking in South Dakota, 2017-2021



Youth Binge Drinking by Race in South Dakota, 2021



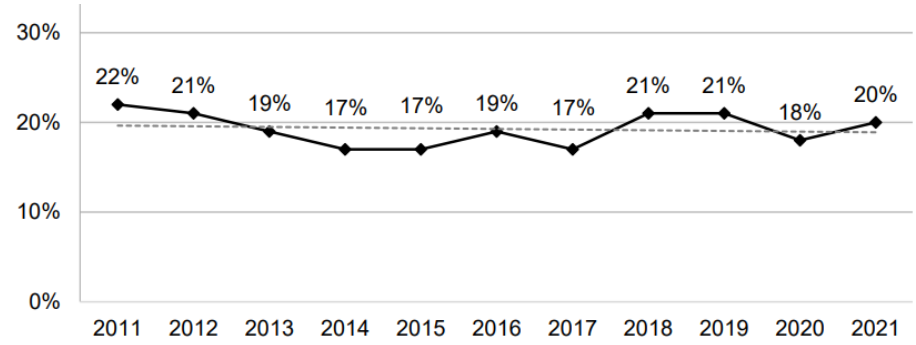
Source: *Youth Risk Behavior Surveillance System, 2021*
no data < 30 respondents for the subgroup

Just over 16% of American Indian teens were binge drinking in the past 30 days, while Hispanic and White teens were consistent at 11.1%.

Comparatively, 24.3% of teens reported at least one drink within the last 30 days, and the race/ethnicity groups were in the 20-25% range with the Asian population recording a lower 9.1%

Variance: 95% Confidence Interval

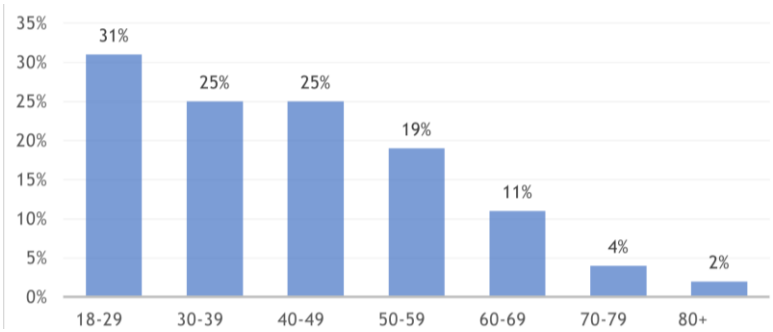
Adult Binge Drinking in South Dakota, 2011-2021



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2011-2021

South Dakota adults have established a consistent pattern over the past decade: 20% binge drink and 57% drink alcohol in a 30-day period.

Binge Drinking by Age in South Dakota, 2017-2021



Source: The Health Behaviors of South Dakotans, 2021

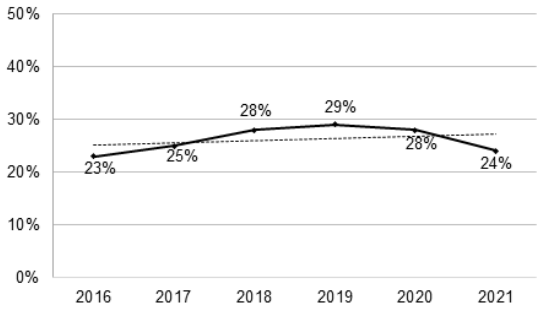
Commercial Tobacco Use: Neutral

Commercial tobacco refers to cigarettes, cigars, pipe tobacco, smokeless tobacco, and e-cigarettes. Traditional tobacco used for ceremonial or other cultural purposes is excluded from this data.

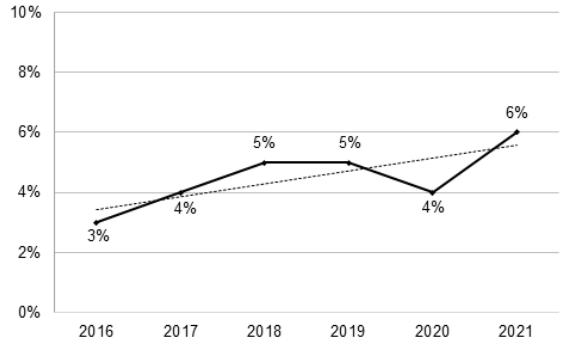
Commercial tobacco-related disparities are evident in South Dakota. Five priority population groups are identified in relation to commercial tobacco use: American Indians, persons with behavioral health conditions, persons of low socioeconomic status, pregnant and postpartum women, youth, and young adults.

Percent of South Dakotan Who Currently Use Commercial Tobacco Products, 2016-2021

Cigarettes, Smokeless Tobacco, or E-Cigarettes



E-Cigarettes

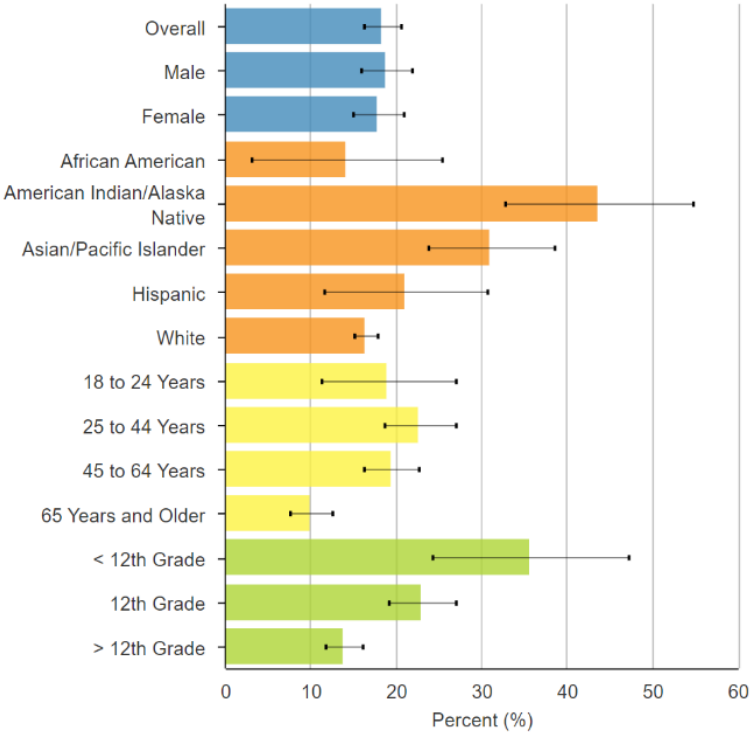


Smoking cigarettes harms nearly every organ and leads to disability, disease, and other complications. Increased risk for cancer, diabetes, heart disease and stroke, lung disease, and pregnancy complications would seem to be a deterrent.

Despite the negative impact of commercial tobacco use, 24% of state residents continue to consume these products. While the overall commercial tobacco use has declined 5% since 2019, the use of e-cigarettes is recognized as a growing concern.

South Dakota American Indian adult commercial tobacco use is 47.8% compared to 16.5% in other races. American Indian children start using commercial tobacco products at an earlier age than their White counterparts.[19]

Percent of Adults Who Smoke by Population Group†, 2018-2019, 2019



†Estimates for education are based on adults aged 20 years and older. Estimates for racial/ethnic groups are based on combined data for two years.

Source: Behavioral Risk Factor Surveillance System (BRFSS)[19]

Commercial Tobacco Product Use by Age Group, 2017-2021

	18-29	30-39	40-49	50-59	60-69
Cigarettes	17%	**27%**	22%	19%	14%
E-Cigarettes	**14%**	5%	3%	3%	1%
Smokeless	8%	8%	9%	6%	3%

South Dakota's smoke free law went into effect November 10, 2010; banning smoking in public buildings and places of employment, including restaurants, bars, and casinos/gambling establishments. In March 2019, legislation passed to include e-cigarettes or other vaping products in the definition of a tobacco product. South Dakota lacks legislation to enforce smoke-free campuses for public and private schools and colleges.[20] In an evaluation of tobacco-free policies in South Dakota schools it was found that 70.4% of schools who responded to a survey had district wide policies in place.[21]

The American Lung Association provides a tobacco report card for each state using five categories.[22]

South Dakota Tobacco Report Care, American Lung Association, 2023

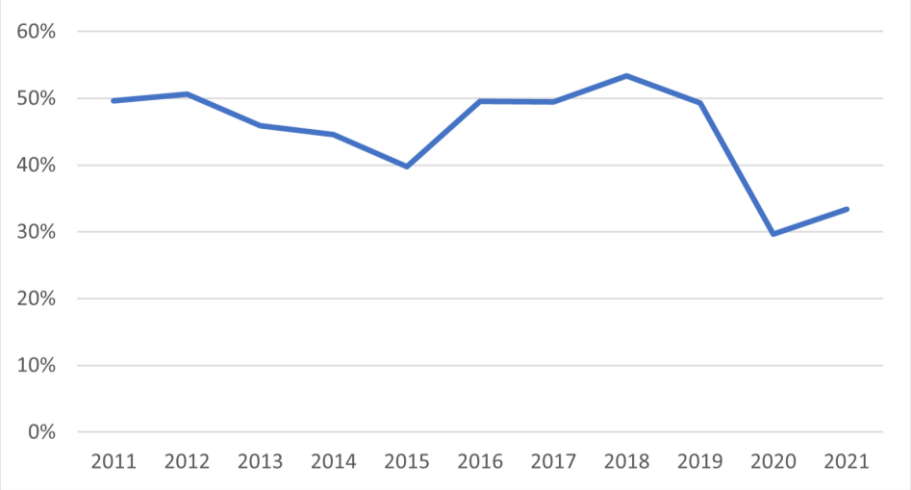
Category	Grade
Smokefree Air	B
Access to Cessation Services	D
Tobacco Prevention and Cessation Funding	F
Tobacco Taxes	F
Flavored Tobacco Services	F

Oral Health Services

Medicaid Children Oral Health:

Oral health contributes to overall health and quality of life. Proper oral health care reduces oral caries, prevents the spread of disease, and reduces the chance of infection. Tooth decay can occur even before the age of one as babies frequently consume beverages containing sugars (breast milk, formula, fruit juice).

Percent of Children (3-18 years) on Medicaid Receiving Oral Health Services, 2011-2021



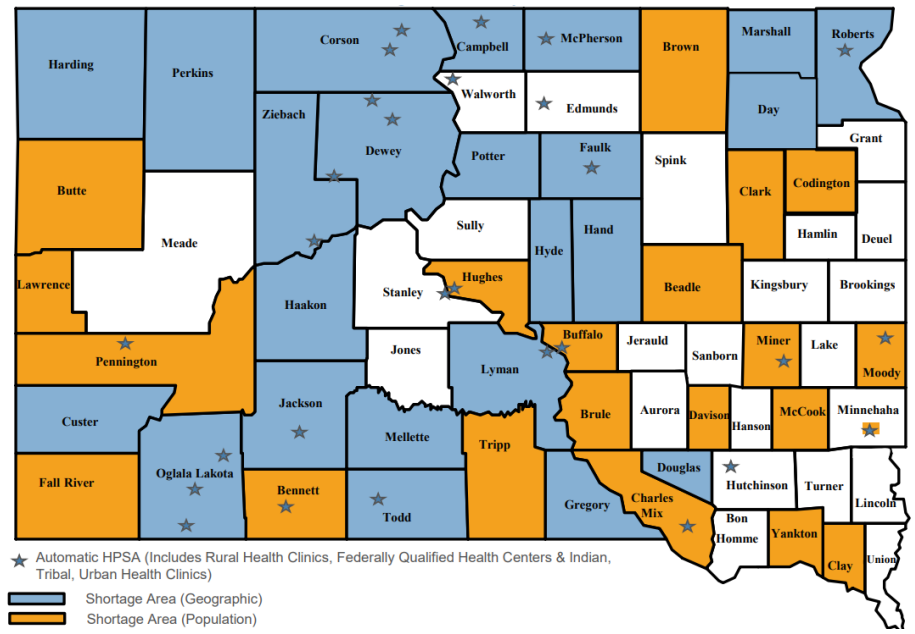
Source: South Dakota Medicaid

American Indian children make up 38% of the total eligible for Medicaid preventive oral health services.

Description	Eligible	Preventive Dental Services	Percent
Total	74,526	24,881	33.4%
Age Group			
3 to 5 years	14,938	4,916	32.9%
6 to 9 years	19,901	7,427	37.3%
10 to 14 years	23,335	7,970	34.2%
15 to 18 years	16,352	4,568	27.9%
Race/Ethnicity			
White	26,816	10,012	37.3%
American Indian	28,639	8,224	27.8%
Black	4,119	1,666	16.2%
Hispanic	3,461	1,328	38.4%
Asian/Pacific Islander/Hawaiian	1,599	454	28.4%

Source: South Dakota Medicaid

Health Professional Shortage Areas, Dental, December 2022



Source: Health Professional Shortage Areas - SD Dept. of Health

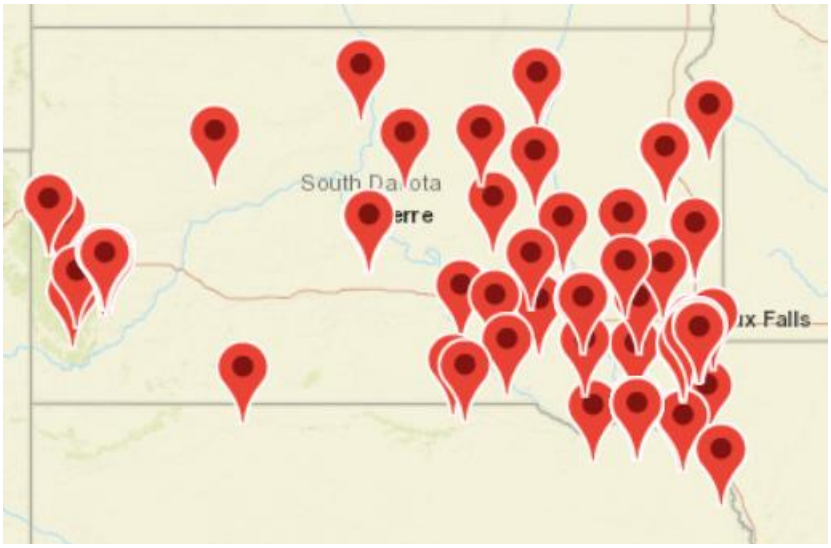
According to the American Dental Association, the rate of dentists in South Dakota was 52.8 in 2022 compared to the national rate of 60.8.

Access to oral health services can be limited in rural and isolated areas of the state.

A small collection of dental clinics provides free and low-cost oral care services throughout the state. There are permanent and mobile clinic options, including federally qualified health centers (11 dental clinics in rural communities), the St. Francis Mission Dental Clinic (Rosebud Sioux Tribe), and the Delta Dental Mobile Program. Delta Dental staffs two mobile units and travels the state providing oral health care services to approximately 3,000 children each year.

Medicaid and the Children's Health Insurance Program (CHIP) cover a wide range of dental services. The InsureKidsNow.gov website includes a dentist locator.

Dental Clinics accepting new Medicaid Patients, July 2023



Source: Medicaid CHIP Insure Kids Now

As of July 15, 2023, 118 of the 213 dental clinics on the list were accepting new Medicaid patients.

The western half of South Dakota, except for Rapid City, has a limited number of oral health care options.

Health Outcome Assets

State Agencies

- Department of Education
  - Child and Adult Nutrition Services, SD Department of Education
- Department of Health
  - Family & Child Development
    - Women, Infants, Children
  - Prevention and Healthy Living
  - Oral Health
  - Tobacco Prevention and Control Program
- SD Quitline
- Healthy SD

Community Resources

- Delta Dental Mobile Program
- St. Francis Mission Dental Clinic

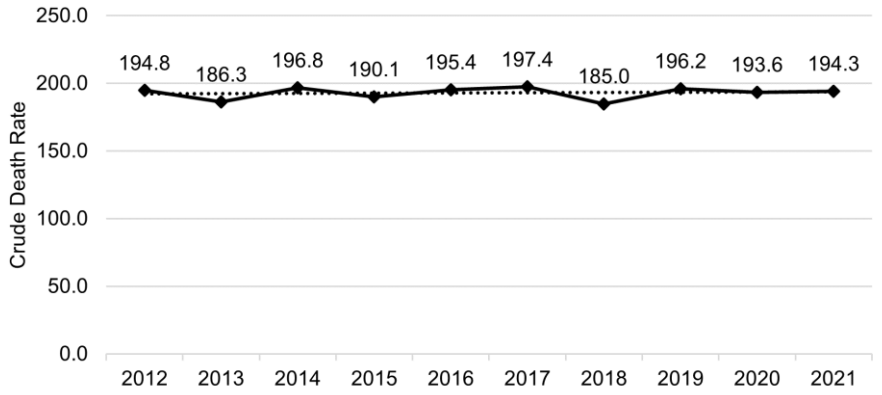
Professional Associations

- South Dakota Dental Association
- South Dakota Dental Hygienists' Association

Disease Burden: Cancer Overview

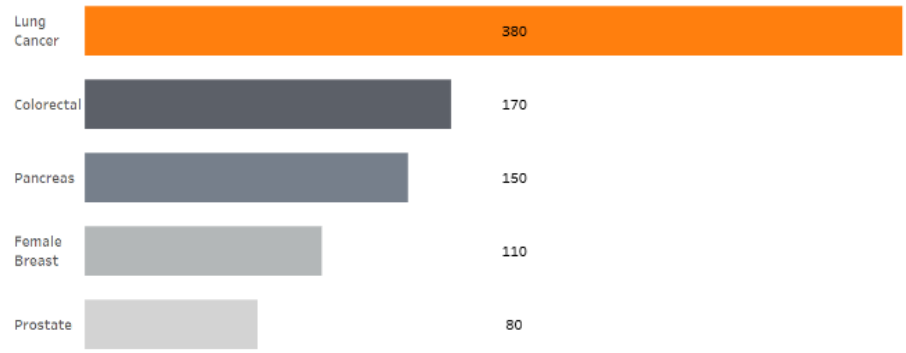
Cancer has been the second leading cause of death for South Dakotans throughout the past decade, accounting for around 1600 deaths each year. Early detection through cancer screening and reduction of risk factors is integral for slowing cancer rates in South Dakota.

South Dakota Resident Crude Death Rate Due to Cancer by Year of Death, 2012-2021



Source: South Dakota Department of Health, Office of Health Statistics

Estimated Number of Top Five Cancer Deaths, South Dakota 2023



Source: Lung Cancer Dashboard – Cancer SD

A staging system is used at the time of a cancer diagnosis to describe the extent of disease spread:

- in situ
- localized
- regional
- distant
- unknown

Detecting cancer in an earlier stage increases the chance for effective treatment and survival.

The National Cancer Institute lists the most-studied known or suspected risk factors for cancer, some of which are avoidable.

Age	Alcohol	Cancer-Causing Substances	Chronic Inflammation
Diet	Hormones	Immunosuppression	Infectious Agents
Obesity	Radiation	Sunlight	Tobacco

Data from the CDC United States Cancer Statistics website is referenced throughout this report and included the following disclaimer.

“Attention users: The COVID-19 pandemic disrupted health services, leading to delays and reductions in cancer screening, diagnosis, and reporting of data to some cancer registries. This

may have contributed to the decline in new cancer cases for many sites in 2020. To avoid incorrect interpretations, the 2020 data point is not connected in the incidence line chart."

Priority Health Indicators

1	Rate of lung and bronchus cancer	48.1	2020 | 2020	47.1
		59.1*	2019 | 2019	54.3*
2	Rate of breast cancer in females	117.1	2020 | 2020	119.2
		131.9*	2019 | 2019	131.5*

SD | US: United States Cancer Statistics | CDC

**Rate prior to COVID-19 pandemic disruption referenced above*

3	Percent of 50–75-year-olds with recommended colorectal cancer screening	76.2%	2020 | 2020	74.3%

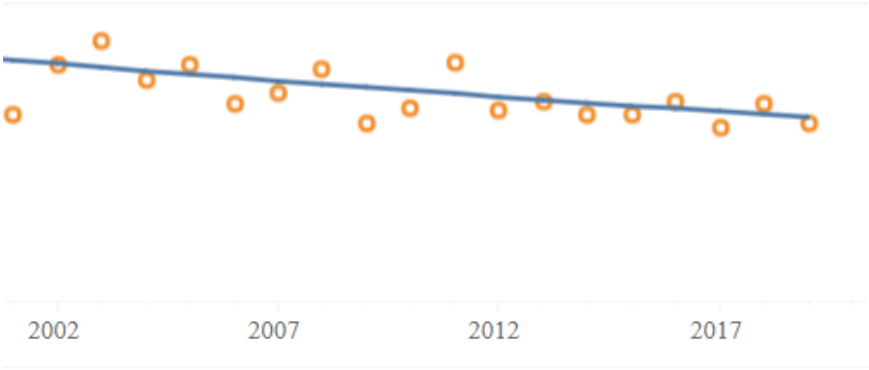
SD| US: Behavioral Risk Factor Surveillance System | CDC

Disparity Impact Populations

#	Age Group	Sex	Race/Ethnicity	High Impact Counties
1	50+	Male	American Indian	22 counties Tribal
2	45+	Female	American Indian	Ogalala, Todd, Dewey, Buffalo, Corson, Mellette, Bennett
3	45+		American Indian	

Mortality Impact

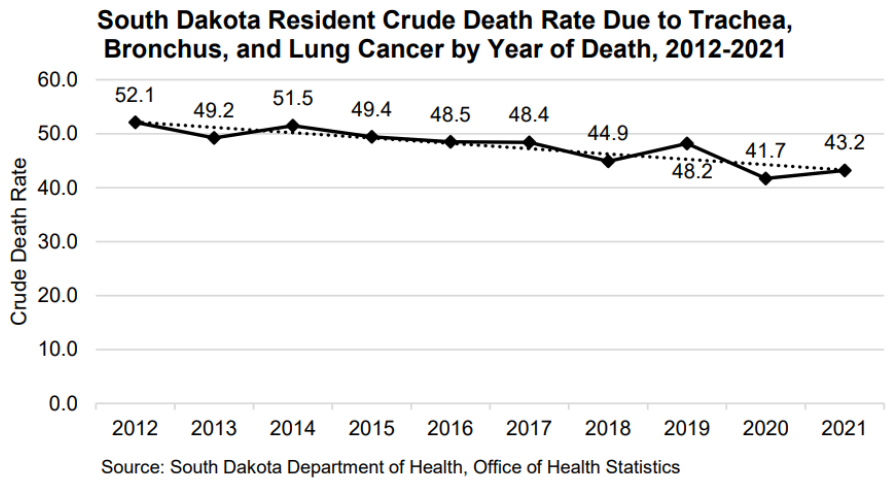
South Dakota Age-Adjusted Mortality Rate Due to Breast Cancer, 2000-2019



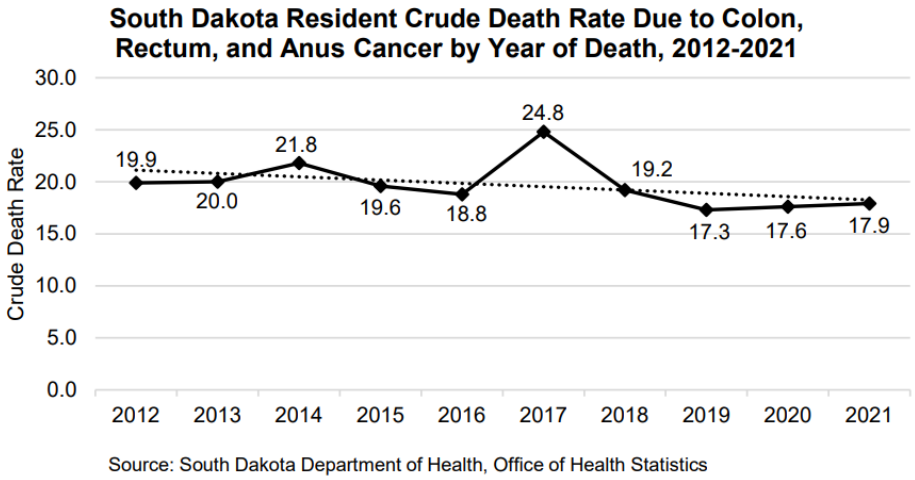
Source: Breast Cancer Dashboard – Cancer SD

The breast cancer mortality rate for South Dakota in 2020 was 18.

Mortality rates have been decreasing 1.5% annually.



Commercial tobacco use is the leading risk factor for lung cancer. Please reference the Risk Behavior, Emphasis on Youth section for detailed information.

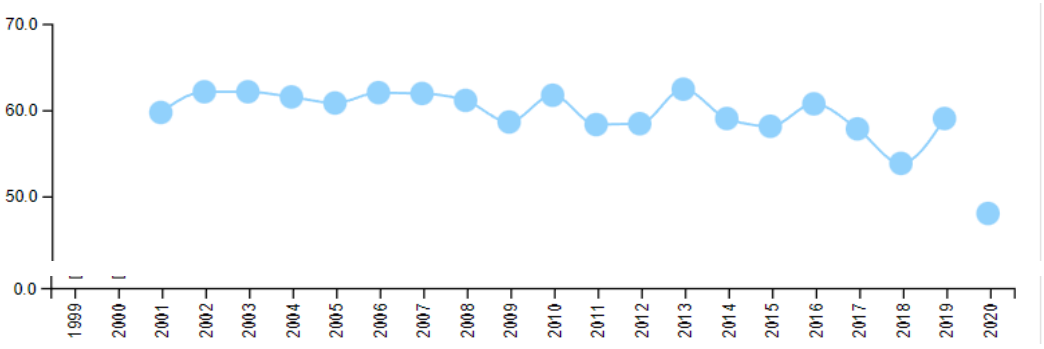


Impact Narrative

Lung Cancer: Steady

A significant drop occurred in new cancer rates for lung and bronchus cancer from 59.1 in 2019 to 48.1 in 2020. The 2020 rate is well below the 20-year trend. Delays in routine and preventive care during the COVID-19 pandemic may be a contributing factor for the reduced case rate.

Lung Cancer Cases in South Dakota, 2001-2020



SD | US: United States Cancer Statistics | CDC

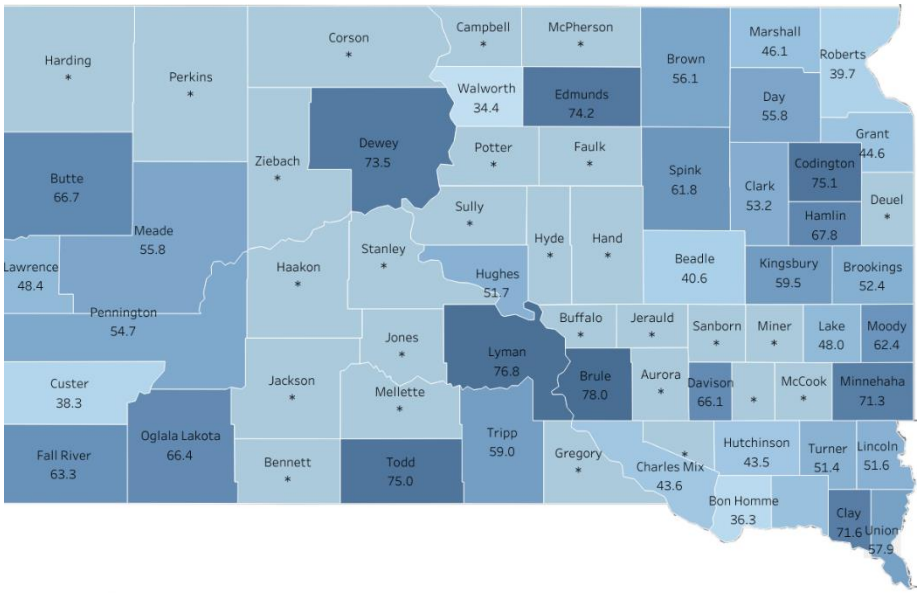
Screening for lung cancer with annual low-dose CT scans for high-risk individuals can reduce the lung cancer death rate by up to 20% by detecting tumors at early stages. South Dakota's high risk screening rate was 10%, ranking the state ninth in the nation.

Lung Cancer Stage	Localized	Regional	Distant	Unknown
US Total	30%	22.3%	43.1%	4.7%
SD Total	**31.8%**	21.4%	43.1%	3.7%
SD AI	22.3%	24%	49.7%	-
SD White	29.2%	20.8%	46.6%	3.3%

SD | US: United States Cancer Statistics | CDC

CDC Cancer Statistics for 2020 reflect males have a higher lung and bronchus cancer rate of 52.1 compared to females at 45.6. In addition, American Indians recorded a rate of 92.1, which is nearly twice the White rate of 46.3.

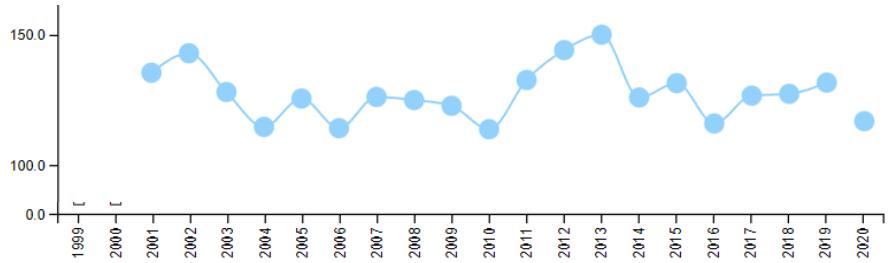
Lung and Bronchus Cancer Incidence by County, 2015-2019



Source: [Lung Cancer Dashboard – Cancer SD]

Female Breast Cancer: Steady

Female Breast Cancer Rates, 1999-2020



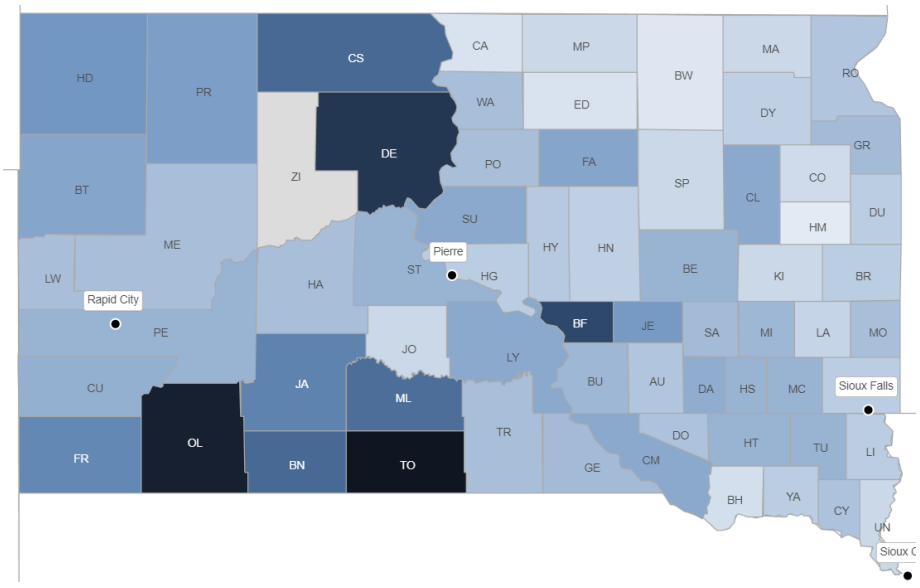
SD | US: United States Cancer Statistics | CDC

As a reminder, CDC Cancer Statistics noted the impact on data resulting from COVID-19. The 2020 rate of 117.1 is well below the 131.9 of 2019.

The risk factors for female breast cancer include advancing age and family history of breast cancer or inherited changes in BRCA1 or BRCA2 genes. The lifestyle factors contributing to increased risk include drinking alcohol, being overweight or obese, and being physically inactive.

Mammogram is the most important screening test for breast cancer. From January 2017 to December 2021 4,579 mammograms were performed in South Dakota through the support from the CDC's National Breast Cancer and Cervical Cancer Early Detection Program (NBCCEDP). Over 4,500 mammograms were provided, and 92 breast cancers were detected.

Mammography Screening in South Dakota, 2022



In 2020 the percentage of South Dakota Medicare female population aged 65-74 had a 46% rate of annual mammography screening. This ranged from 6% to 62% of female enrollees across the counties in South Dakota.

Source: Mammography Screening | County Health Rankings & Roadmaps

Prevention and early detection are the key to surviving breast cancer. In South Dakota American Indian women are diagnosed at a later stage than White women.

South Dakota Cancer Stage Diagnosis, 2016-2020

Breast Cancer Stage	Localized	Regional	Distant	Unknown
US Total	66.1%	25.5%	5.9%	2.5%
SD Total	**69.3%**	24.2%	4.7%	1.9%
SD AI	57.8%	35.5%	-	-
SD White	70.1%	23.4%	4.8%	1.7%

SD | US: United States Cancer Statistics | CDC

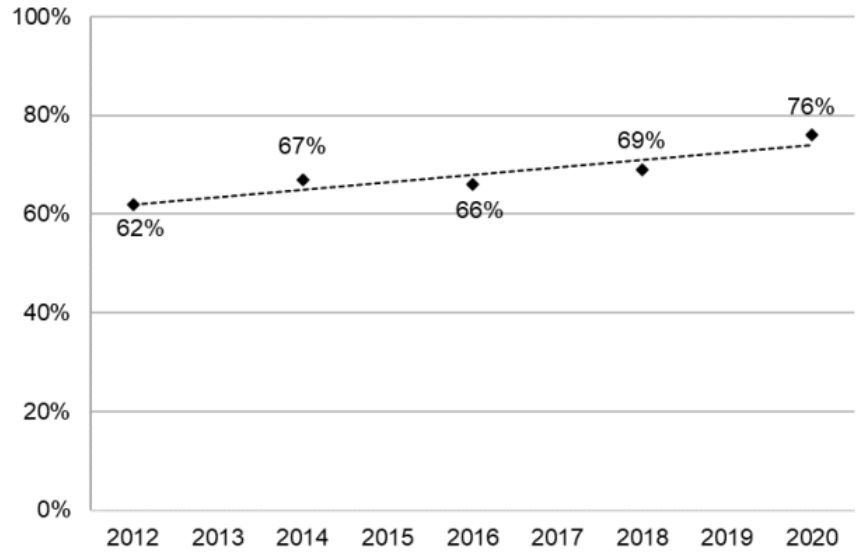
Colorectal Cancer Screening: Steady Improvement

A combination of stool testing methods is available in addition to colonoscopy to screen for colorectal cancer. The US Preventive Services Task Force recommends colorectal cancer screening for adults 45 to 75 years old.

Recommended screening strategies include:

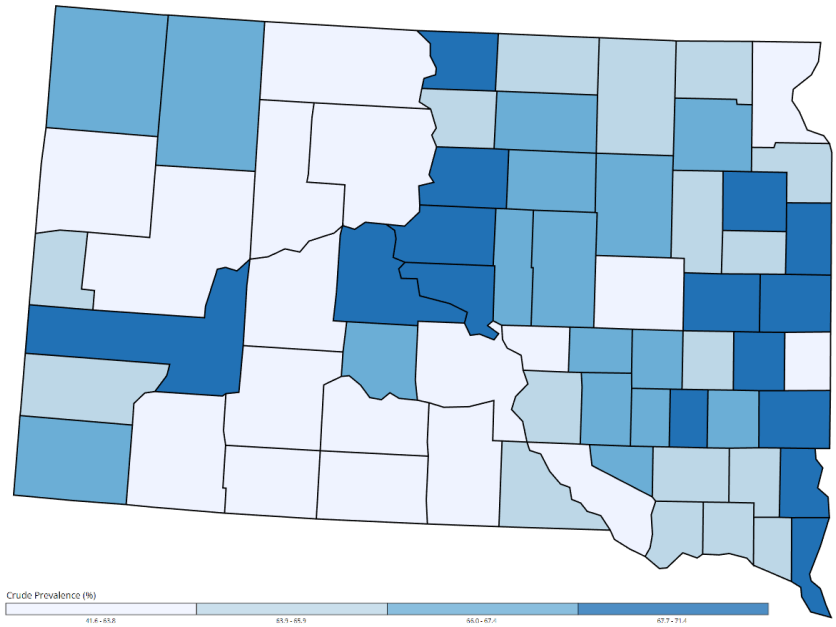
- High-sensitivity guaiac fecal occult blood test (HSgFOBT) or fecal immunochemical test (FIT) every year
- Stool DNA-FIT every 1 to 3 years
- Computed tomography colonography every 5 years
- Flexible sigmoidoscopy every 5 years
- Flexible sigmoidoscopy every 10 years + annual FIT
- Colonoscopy screening every 10 years

South Dakotans, Ages 50-75, Who Met Colorectal Cancer Screening Recommendations, 2016-2020



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2012-2020

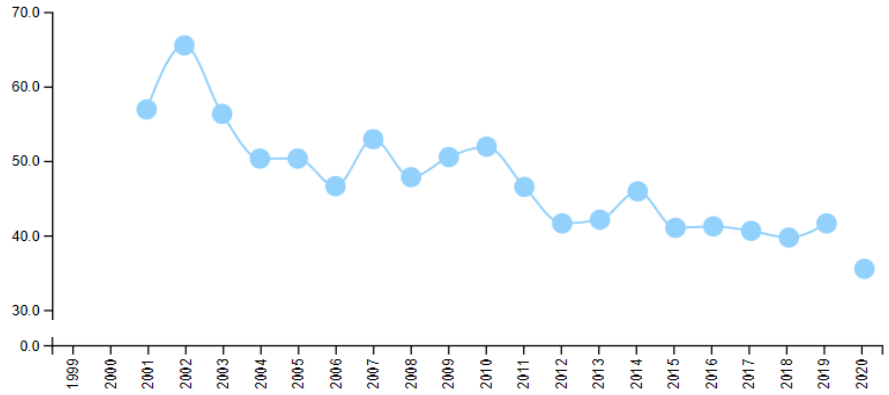
Colorectal Cancer Screening Up to Date, 50-75 years, BRFSS 2020



Source: USCS Data Visualizations - CDC

As illustrated by the light counties on the map, colorectal cancer screening is lower in the western and tribal counties of the state.

Colon Cancer Rates, 2001-2020



SD | US: United States Cancer Statistics | CDC

The CDC Cancer Statistics noted delay of health services, screening and cancer registry reporting resulting from COVID-19.

The 2020 colon cancer rate of 41.7 dips from the 2019 rate of 35.6.

As with other types of cancer, the state's American Indian population is diagnosed at a later stage than White South Dakotans.

South Dakota Cancer Stage Diagnosis, 2016-2020

Colon and Rectum Cancer	Localized	Regional	Distant	Unknown
US Total	33.3%	38.3%	21.8%	6.5%
SD Total	32.9%	40%	22.2%	4.9%
SD AI	19%	46%	27.7%	-
SD White	34%	39.7%	21.5%	4.8%

SD | US: United States Cancer Statistics | CDC

Health Outcome Assets

State Agencies

- Department of Health
  - Office of Chronic Disease Prevention and Health Promotion
- Get Screened SD
  - All Women Count!
  - SD Cancer Registry
- Healthy SD
- South Dakota Cancer Coalition

Community Resources

- American Cancer Society – South Dakota
- Susan G Komen

Chronic Disease Overview

Chronic disease impacts quality of life and increases financial burden for individuals, caregivers, and healthcare professionals. Lifestyle choices and behavior change can contribute to the prevention and management of a variety of chronic health conditions and diseases.

For this assessment, the term 'diabetes' refers to Type 2 diabetes. The following risk factors, provided by the CDC, contribute to diabetes: having prediabetes, being overweight, advancing age, immediate family history, physical inactivity, and individuals of African American, Hispanic or Latino, American Indian, or Alaska Native descent.

High blood pressure, also known as hypertension, is a common condition with potential for serious health consequences. Hypertension risk factors include having diabetes, a diet high in sodium, lack of physical activity, obesity, and consumption of alcohol.

Priority Health Indicators

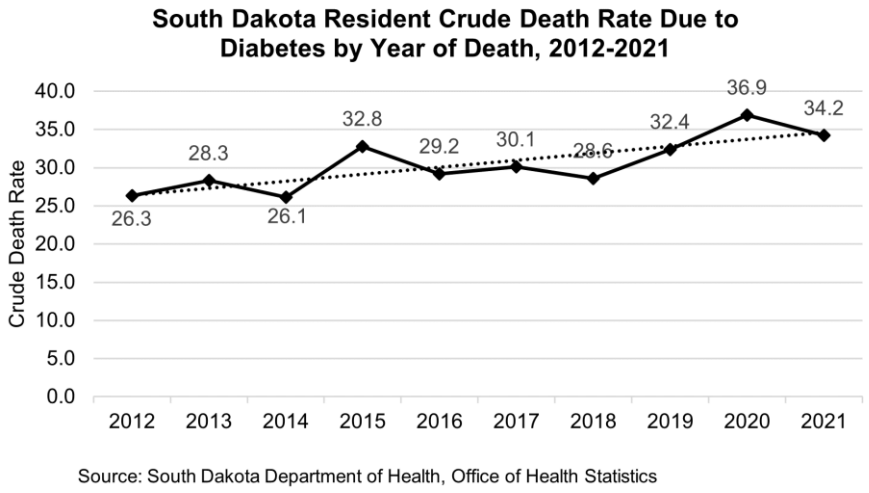
1	Percent of adults with diagnosed diabetes	10.8%	2021 | 2021	10.9%
2	Percent of adults with high blood pressure	33.5%	2021 | 2021	32.4%

SD | US: Behavioral Risk Factor Surveillance System | CDC

Disparity Impact Populations

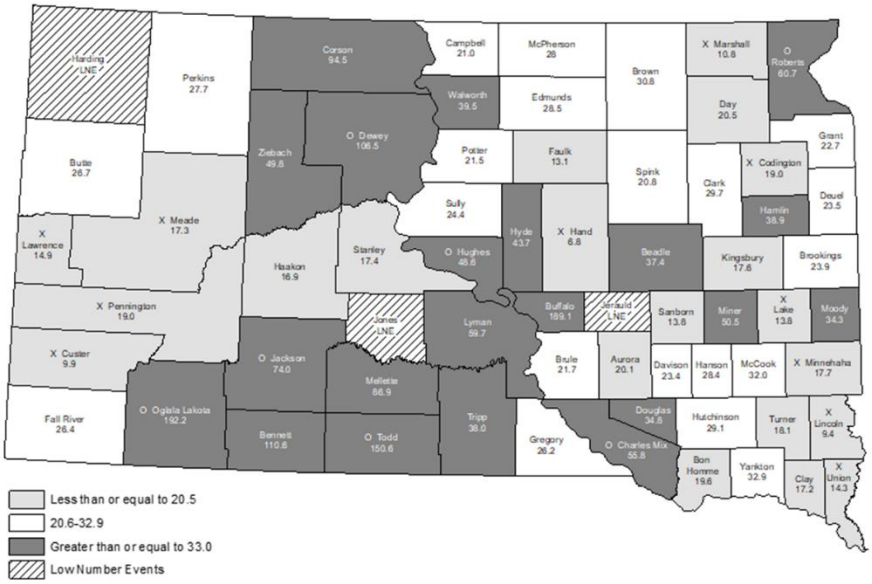
#	Age Group	Sex	Race/Ethnicity	High Impact Counties
1	50+ years		American Indian, Hispanic	21 counties Tribal
2			American Indian	Tribal

Mortality Impact



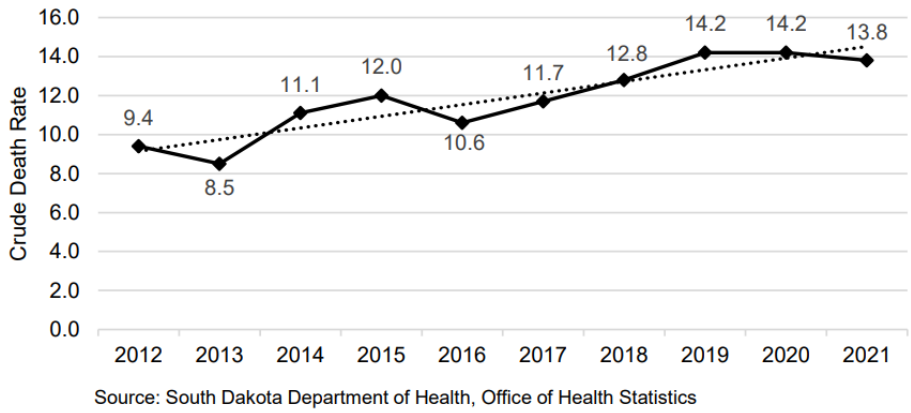
Source: South Dakota Department of Health, Office of Health Statistics

Death Rate Due to Diabetes by County, 2017-2021



Throughout the state, there are 21 counties with a diabetes death rate greater than or equal to 33 for the period of 2017-2021.

South Dakota Resident Crude Death Rate Due to Hypertension by Year of Death, 2012-2021



Source: South Dakota Department of Health, Office of Health Statistics

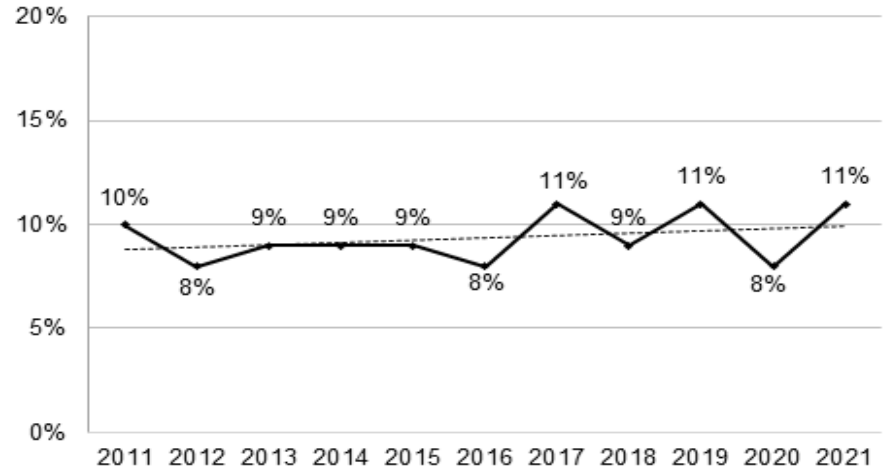
Source: [2021 SD Vital Statistics - Mortality]

Impact Narrative

Diabetes Trend:	Neutral

Diabetes is a chronic condition known to have impacts on physical, social, and mental well-being. The percentage of South Dakotans who are diagnosed with diabetes has stayed fairly level from 2011-2021, ranging from lows of 8% to the current high of 11%. Factors contributing to increased diagnosis relate to socioeconomic factors, including low-income and less education. The realities and added stress of financial hardship, limited time, and restricted access often induces a state of survival, reducing preventive behaviors such as healthy diet and regular exercise.

Percentage of South Dakotans Who were Diagnosed with Diabetes, 2011-2021



Source: Behavioral Risk Factor Surveillance System | CDC

South Dakotans with the following demographics have a higher risk of diabetes diagnosis.

- Least financial resources
- Less education
- Advancing age
- Race/ethnicity other than White, non-Hispanic
- Unmarried or widowed

Diabetes Prevalence by Race

White	American Indian, non-Hispanic	American Indian/ White, non-Hispanic	Hispanic
10%	18%	8%	9%

Source: Diabetes BRFSS, Office of Health Statistics

The following table illustrates the South Dakota counties with the highest diabetes prevalence in adults 18 and above (All); the South Dakota counties with the highest diabetes prevalence in the Medicare population, all eligibility types (Medicare); and the life expectancy of those same counties (Life Expectancy).

County	All	Medicare[23]	Life Expectancy
South Dakota	7%	23%	78.2 years
Oglala Lakota County	20%	44%	62.8 years
Todd County	20%	43%	64.6 years
Buffalo County	17%	47%	61.1 years
Mellette County	16%	27%	68.3 years
Ziebach County	16%	42%	76.9 years
Dewey County	16%	35%	65.3 years
Jackson County	15%	19%	75 years
Corson County	15%	33%	64.1 years

Source(s): Column “All” -County Health Rankings[24] ; Column “Medicare” – The Medicare Mapping Disparities (MMD) Tool[25]; Column “Life Expectancy”- National Center for Health Statistics, Mortality Files[26]

Preventive services for Medicare patients, such as diabetes screening, has increased in the majority of these counties and exceeded the State rate, with exceptions of Dewey, Corson, and Roberts.

Hypertension Trend:

Hypertension is a risk factor for a variety of other chronic conditions and health complications, including heart disease and stroke.

Disparities in the diagnosis of hypertension are not as prominent. The common health factors for South Dakotans are being male, retired, unable to work, and widowed.

It is recommended that SDDOH adopt a more comprehensive priority health indicator for cardiovascular disease versus limiting hypertension. Based on 2017 BRFFS data, South Dakota has a rate of cardiovascular disease of 4.71 versus the US rate of 3.9.

Health Outcome Assets

State Agencies

- Department of Health
  - Disease and Conditions
    - Office of Chronic Disease and Health Promotion
    - Communicable and Infectious Diseases
- Good & Healthy SD
  - Better Choices Better Health
- SD Quitline
- Healthy SD

Community Resources

- South Dakota Diabetes Coalition

Professional Associations

- South Dakota Diabetes Educators

Infectious Disease Overview

South Dakota conducts infectious disease surveillance and provides near real-time tracking of cases within the state. Antibiotic treatments have been widely available since the 1940s, nearly eliminating these diseases. There has been a resurgence of sexually transmitted diseases across the country in recent years. South Dakota saw a dramatic increase in syphilis (primary and secondary) and gonorrhea from 2020-2021.

Infectious disease can touch every age, sex, and race. Following safe sex practices and receiving routine screening are key elements for reducing the spread of sexually transmitted disease. Early diagnosis and compliance with a treatment plan reduces negative health outcomes.

Priority Health Indicators

1	Rate of gonorrhea infection	**363.9**	2021 | 2021	214
		274*	2020 | 2020	206.5
2	Rate of syphilis infection	**48.7**	2021 | 2021	16.2
		7.5*	2020 | 2020	12.7

SD | US: Atlas Plus | CDC

**2020 data included to illustrate significant state rate increase*

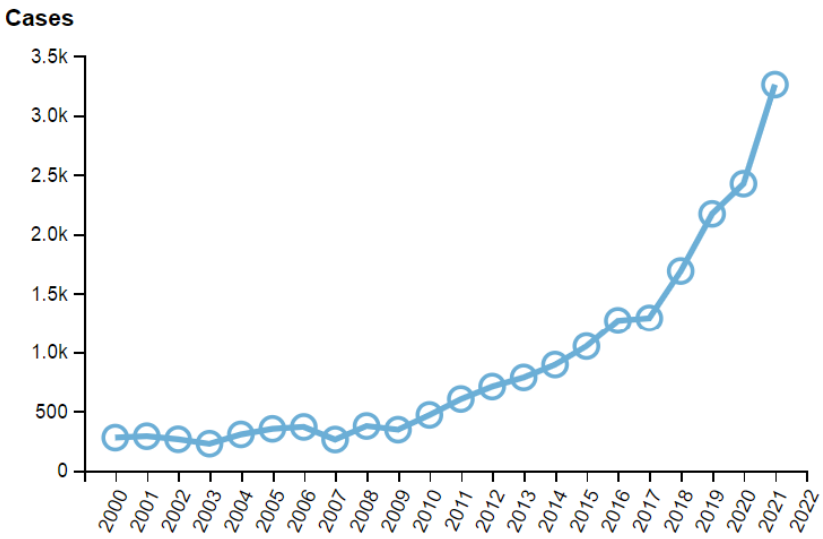
Disparity Impact Populations

#	Age Group	Sex	Race/Ethnicity	High Impact Counties
1	15-39 years	Female	Multi-race American Indian, Black	10 counties Tribal, Urban
2	20-39 years	Female	Multi-race American Indian, Black	6 counties Tribal, Urban

Impact Narrative

Gonorrhea Infection: Steady Incline

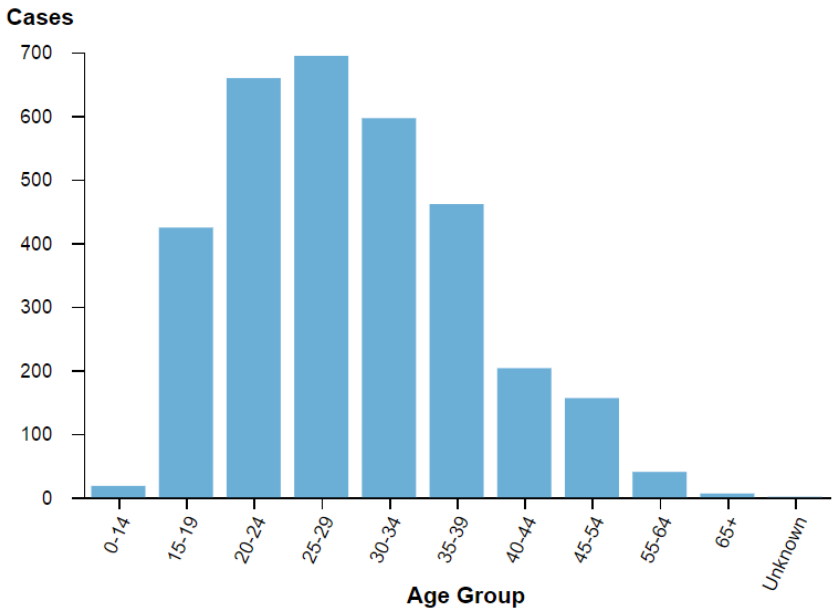
Gonorrhea | 2000-2021 | All age groups | All races/ethnicities | Both sexes | South Dakota



The number of gonorrhea cases in the state took a significant jump between 2020 and 2021.

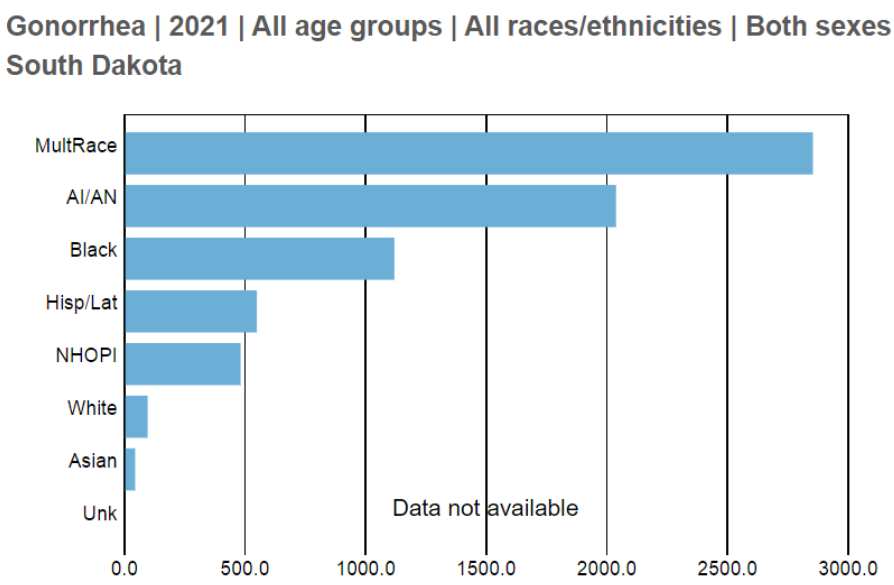
Source: AtlasPlus - Charts (cdc.gov)

Gonorrhea | 2021 | All age groups | All races/ethnicities | Both sexes | South Dakota



With thousands of cases in the state, female South Dakotans have an incidence rate of 417.9 compared to the male rate of 311.5.

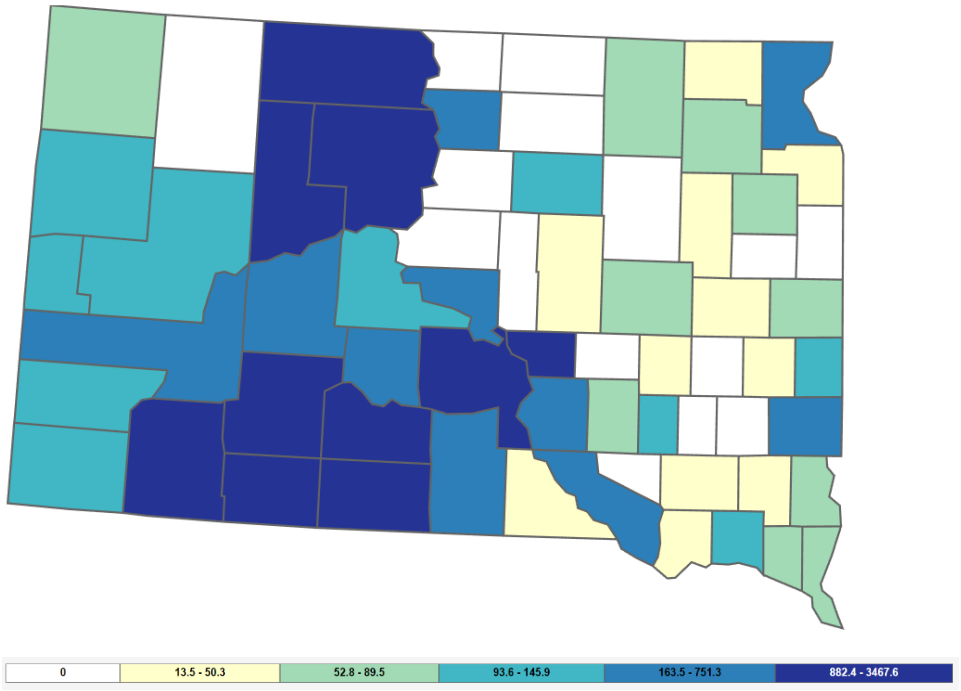
Source: AtlasPlus - Charts (cdc.gov)



Source: [AtlasPlus - Charts (cdc.gov)]

Minority populations have a significantly higher rate of infection than White South Dakotans.

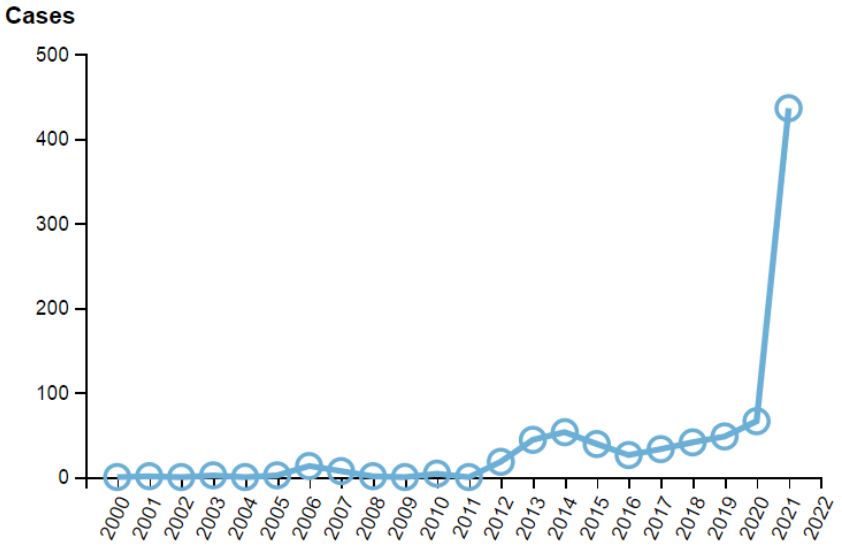
Gonorrhea South Dakota County-Level Rates 2021



Source: [AtlasPlus - Charts (cdc.gov)]

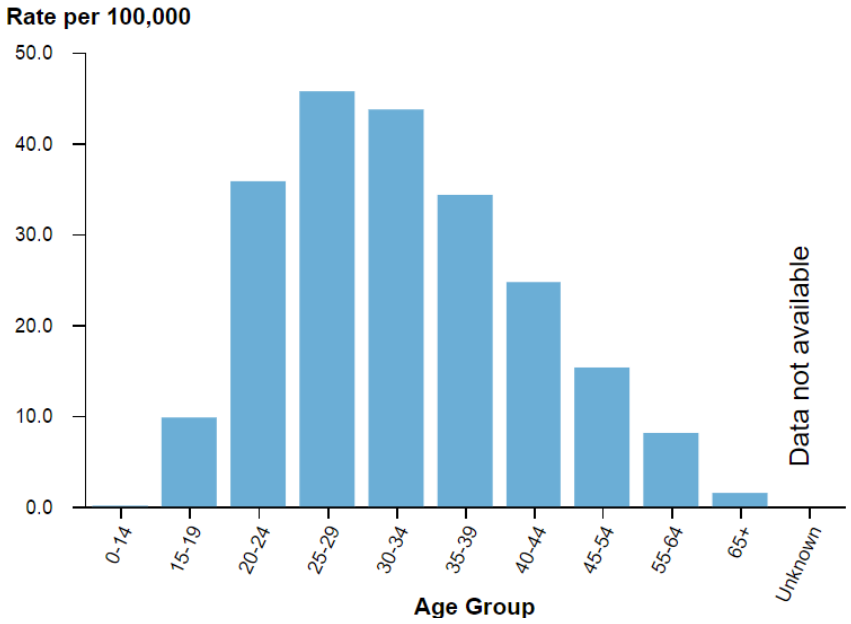
Syphilis Infection Trend: Getting Worse

Primary and Secondary Syphilis | 2000-2021 | All age groups | All races/ethnicities | Both sexes | South Dakota



Source: AtlasPlus - Charts (cdc.gov)

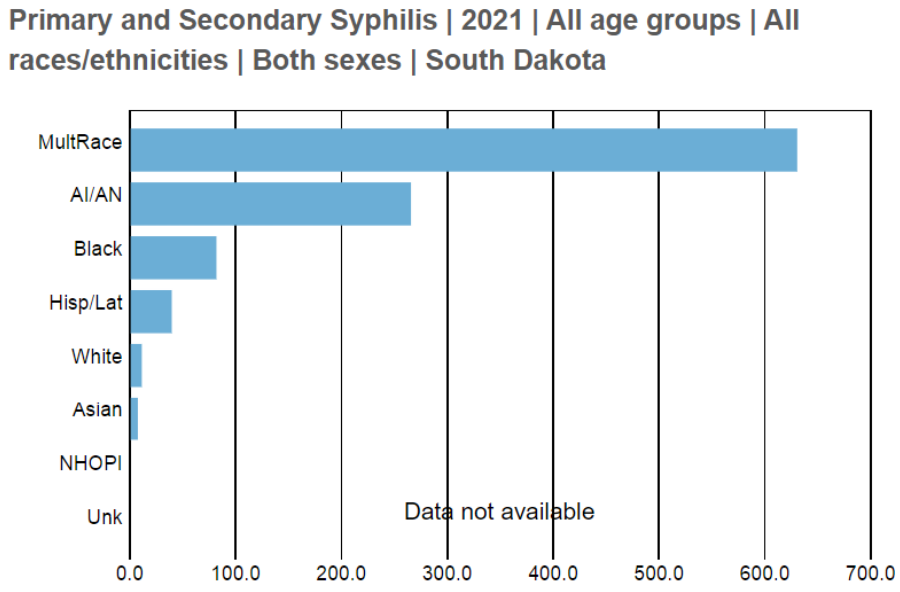
Primary and Secondary Syphilis | 2021 | All age groups | All races/ethnicities | Both sexes | United States



Source: AtlasPlus - Charts (cdc.gov)

Syphilis can complicate a pregnancy and become life-threatening for the woman and the baby. Women who are or become infected may spread the disease to their unborn babies. Screening is recommened for pregnant women to improve health outcomes.

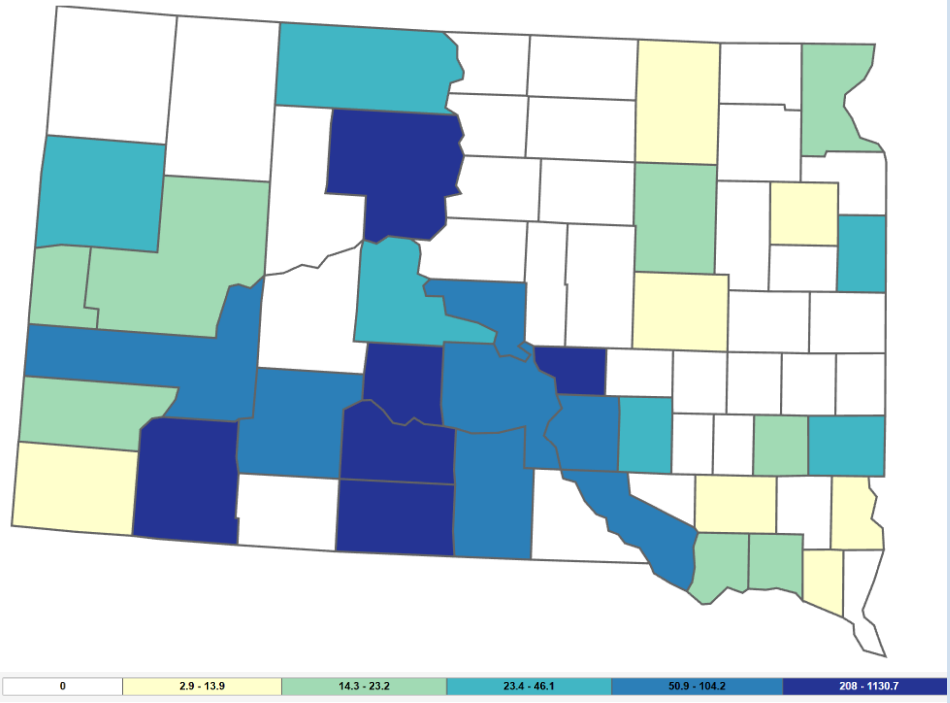
Source: STD Facts - STDs & Pregnancy (cdc.gov)



Minority populations across the state have a higher incidence of syphilis.

Source: AtlasPlus - Charts (cdc.gov)

Syphilis South Dakota County-Level Rates 2021



The western and central portion of the state has a higher rate of infection, with counties surrounding tribal lands in that region reporting the highest incidence.

Source: AtlasPlus - Charts (cdc.gov)

Health Outcome Assets

State Agencies

- Department of Health
  - Disease and Conditions
    - Communicable and Infectious Diseases

Maternal Health Overview

Ensuring the health of pregnant women and infants is a significant parameter for measuring the health of a population. The SDDOH has established two Infant Death Review teams to understand the circumstances of each death and act to prevent other deaths. Data is tracked through an infant mortality dashboard. While the data indicates the infant death rate has declined in the past decade, it continues to fluctuate and has remained above the national trend for the past five years.

Prenatal care is received in the first trimester by three of four women throughout the state. Given the increases of sexually transmitted disease (syphilis and gonorrhea) throughout the state, early screening and detection is important for maintaining the health of the woman and her baby.

Priority Health Indicators

1	Rate of infant deaths (death before the infant's first birthday)	**6.3***	2021 | 2020	5.4*
2	Percent of pregnant women receiving early prenatal care	76.2%	2021 | 2020	77.7%

SD: Office of Health Statistics | SD DOH *US: National Center for Health Statistics | CDC*

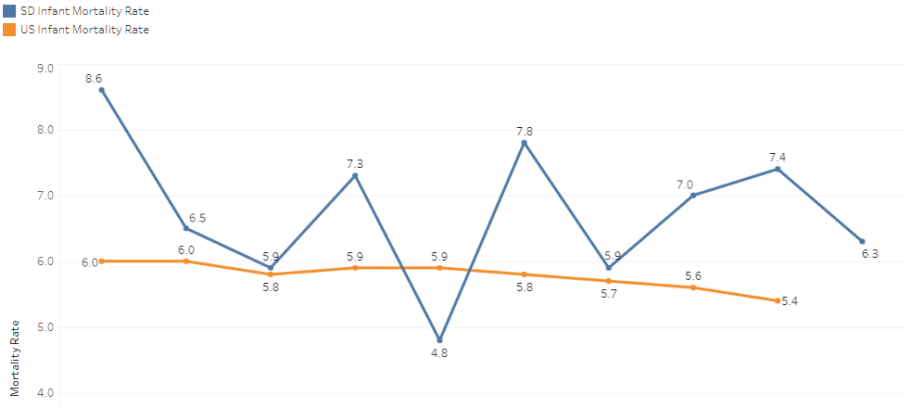
**Rate per 1000 live births*

Disparity Impact Populations

#	Age Group	Sex	Race/Ethnicity	High Impact Counties
1	Birth to 1 year		American Indian	
2	20-39 years	Female	American Indian	22 counties Central, Tribal

Mortality Impact

South Dakota Infant Mortality Death Rate, 2012-2021



Source: *Infant Mortality - Infant Death Review (sd.gov)*
*Rate is per 1,000 live births

Infant mortality rates have stayed above the national average for all but one year since 2012.

Impact Narrative

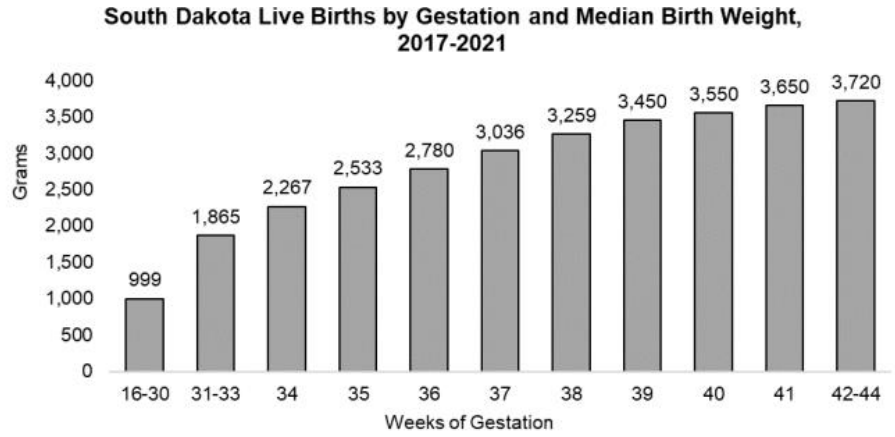
Infant Death: Getting Worse

The number of births in South Dakota has been gradually declining since 2016, according to 2021 vital statistics data. The average number of males (52%) born is slightly higher than females and the race/ethnicity is relatively aligned with the overall population percentages.

Count	White	American Indian	Hispanic	Black	Multi-race
886,667 people *2020*	80.7%	8.8%	4.4%	2.0%	-
11,304 births *2021*	71.4%	13.4%	6.1%	3.4%	3.8%

Of the 4,065 (36%) infants born to single mothers in 2021, a clear majority (87.6%) were of American Indian descent. Low birth weight can be a consequence of tobacco use. The percent of women who smoked throughout pregnancy has continually declined across the state and reached a current low of 9.2% in 2021.

Risk Factor	Count	White	American Indian	Hispanic	Black	Multi-race
Single Mothers	4,065	23.2%	**87.6%**	57.2%	40.2%	63.4%
Low Birth Weight	802	6.6%	8.5%	5.9%	**10.6%**	8.4%



Source: Office of Health Statistics, Vital Statistics 2021

Research from the American College of Obstetrics and Gynecologists found births occurring before week 26 account for the majority of neonatal deaths and more than 40% of infant deaths.

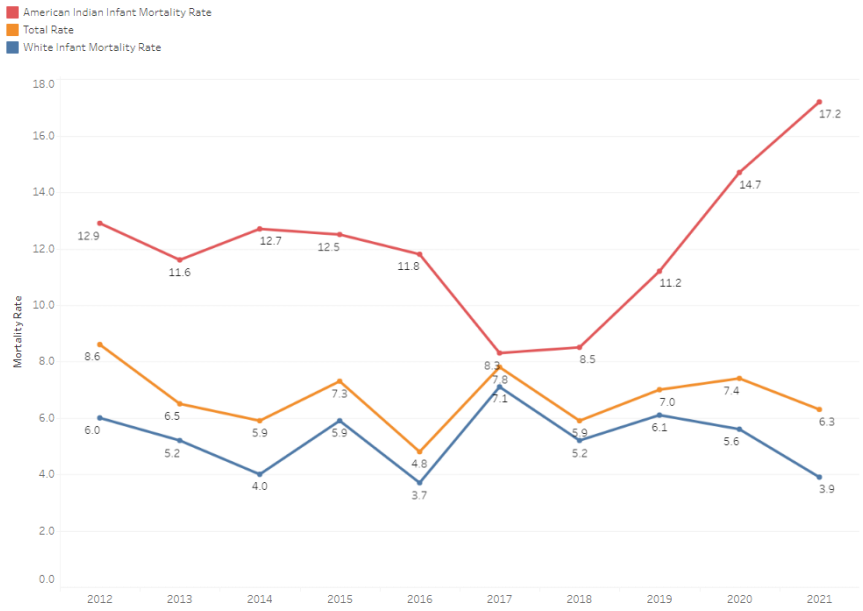
Age is also a contributing factor. While most mothers are between 20 and 39 years old, births to women under 20 are highest in the American Indian (12.2%) and Hispanic (10.7%) population. Births to women over 40 years were highest in the Black population at 4.2%.

South Dakota Resident Live Births by Mother's Age and Race, 2021

Age of Mother	Total		Race of Mother											
			White, non-Hispanic		American Indian, non-Hispanic		Hispanic		Black, non-Hispanic		Multi-racial, non-Hispanic		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Less than 18	159	1.4	43	0.5	68	4.5	24	3.5	7	1.8	12	2.8	4	1.9
18-19 Years	347	3.1	149	1.9	118	7.8	50	7.2	8	2.1	19	4.5	0	-
20-24 Years	2,100	18.6	1,236	15.4	476	31.4	178	25.8	58	15.1	129	30.4	20	9.3
25-29 Years	3,704	32.8	2,782	34.6	409	27.0	201	29.1	103	26.9	135	31.8	68	31.8
30-34 Years	3,336	29.5	2,622	32.6	274	18.1	146	21.1	118	30.8	91	21.4	74	34.6
35-39 Years	1,413	12.5	1,033	12.8	154	10.2	75	10.9	73	19.1	32	7.5	44	20.6
40 & over	245	2.2	184	2.3	15	1.0	17	2.5	16	4.2	7	1.6	4	1.9
Total	**11,304**	**100**	**8,049**	**100**	**1,514**	**100**	**691**	**100**	**383**	**100**	**425**	**100**	**214**	**100**

Note: Failure of the races to add to the total is due to unknown races included in the total.
Source: South Dakota Department of Health, Office of Health Statistics

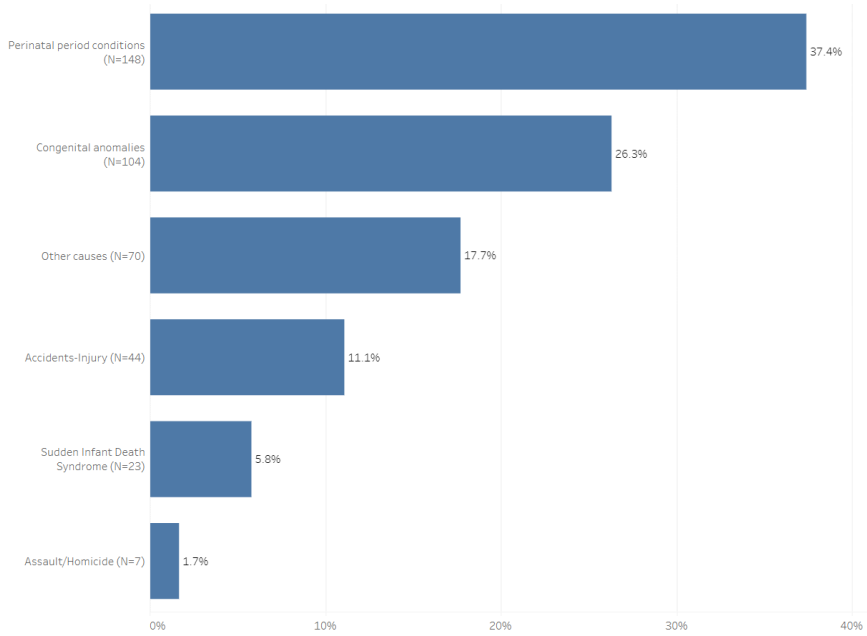
Infant Mortality Rates by Race and Hispanic Origin, 2012-2021



Source: *Infant Mortality - Infant Death Review (sd.gov)*

As illustrated by the graph, the infant mortality rate is signicantly higher than other populations groups in the state and has been steadily increasing.

Leading Causes of Infant Death, 2017-2021



Source: *Infant Mortality - Infant Death Review (sd.gov)*

The SD Infant Mortality Dashboard provideds a comprehensive data set to track infant mortality and causes of death.

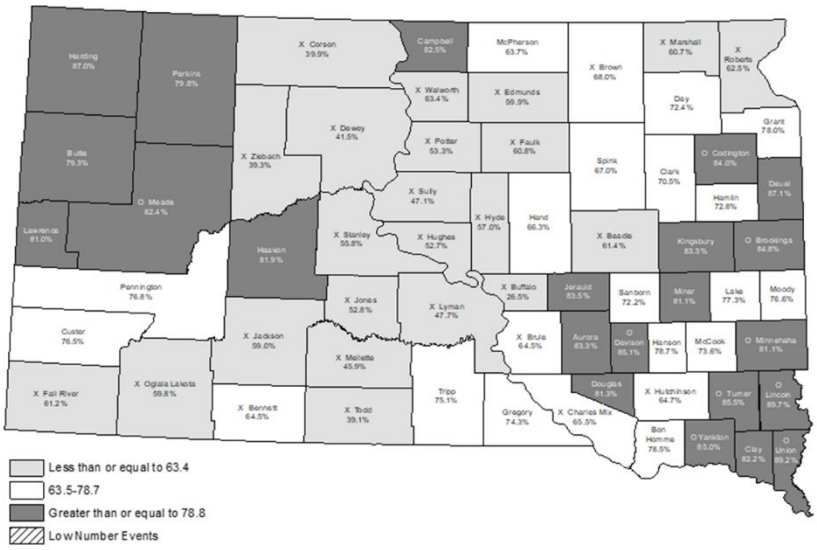
Prenatal Care Trend: Gradual Improvement

The number of women who access prenatal care in the first trimester has been gradually improving over the past decade from 72.8% in 2012 to 76.2% in 2021. Private insurance covers prenatal care for 62.8% and Medicaid is the payer for 28.3%.

Early screening and treatment for sexually transmitted diseases, such as syphilis, can help reduce harm to a baby. The number of women presenting with and/or treated for syphilis infection during pregnancy more than doubled from19 mothers in 2020 to 48 in 2021. Beyond syphilis, the following sexually transmitted diseases were identified in pregnant women in the state: chlamydia (332), genital herpes (185), gonorrhea (118), hepatitis C (92), hepatitis B (3), and toxoplasmosis (2).

Prenatal Care	Count	White	American Indian	Hispanic	Black	Multi-race
First Trimester	8,530	83.7%	**48.4%**	65.9%	63.9%	64.1%
Second	1,913	13.2%	**29.9%**	23.4%	27.4%	22%
Third	587	2.8%	**15.1%**	9.7%	7.7%	9.3%
None	165	.4%	**6.7%**	1%	1.1%	4.5%

Percent of Mothers Receiving Prenatal Care in the 1st Trimester by County, 2017-2021



The average for the five-year period from 2017-2021 in South Dakota is steady with the national percentage.

US: 77.7%

SD: 75.5%

Counties in central South Dakota and near tribal lands have the lowest first trimester prenatal care rate.

Health Outcome Assets

State Agencies

- Department of Health
  - Family and Child Development
    - Pregnancy
      - Bright Start
      - South Dakota Pregnancy Care Program
- Strong Families
- Office of Health Data and Statistics
  - Infant Mortality
  - Maternal Mortality

Community Resources

- South Dakota Parent Connection
- Teddy Bear Den

Immunization Overview

Vaccination reduced the threat of potentially life-threatening disease by helping the body develop immunity. Proper immunization can protect against life-threatening cancer and a collection of infectious diseases. The South Dakota Immunization Program aims to protect all South Dakotans against vaccine preventable disease by increasing immunization coverage levels of children and adults.

Priority Health Indicator

#	Outcome Measures:	SD	Data Year	US
1	Percent of children with the combined 7 series vaccination coverage by 24 months	61.4%	2021 | 2021	**70.1%**
2	Percent of adolescents aged 13-17 years with HPV vaccination coverage	**74.7%**	2021 | 2021	61.7%
3	Percent of persons aged 6 months or older with seasonal influenza vaccination coverage	**55.1%**	21-22 Season	51.4%

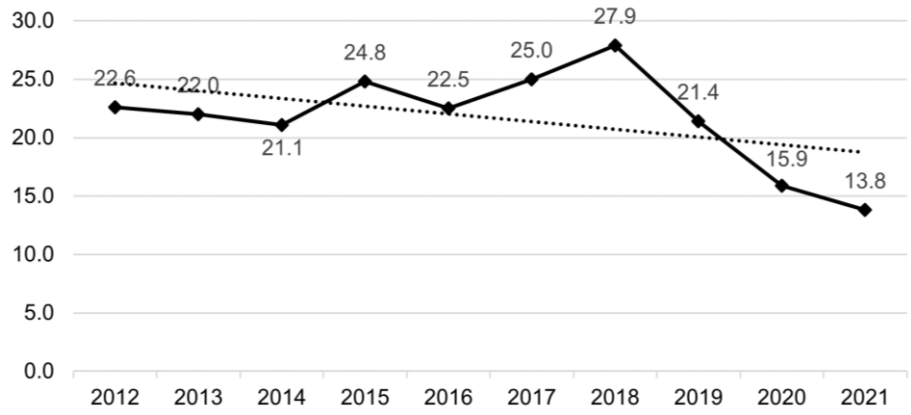
Outcomes Source: *Centers for Disease Control and Prevention (CDC) VaxView Vaccination Coverage, 2021*

Disparity Impact Populations:

#	Age Group	Sex	Race/Ethnicity	High Impact Counties
1	Birth to 3 years		Multi-race	
2	13-17 years		Hispanic	
3	6 months – 64 years		Black, Non-Hispanic	19 counties Tribal

Mortality Impact

Influenza and Pneumonia Crude Death Rate By Year of Death

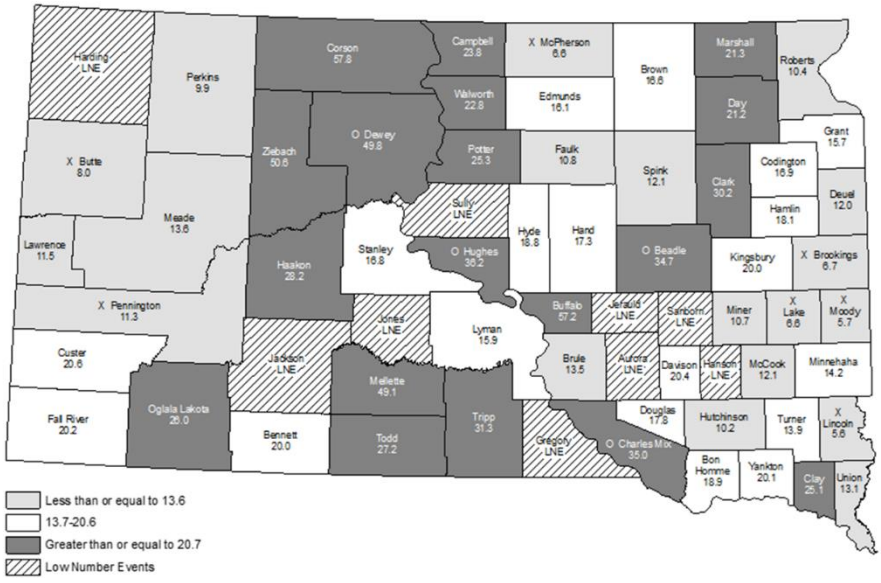


Source: 2021 SD Vital Statistics – Mortality

COVID-19 was the third leading cause of death for South Dakotans from 2019-2021. Pneumonia was a contributing health complication.

The South Dakota COVID-19 Dashboard provides detailed mortality and vaccination data.

Influenza and Pneumonia Crude Death Rate By County, 2017-2021



Immunizations for adults utilizing Indian Health Service facilities for their primary care needs **are excluded** from the state data, which impacts the representation of geographic disparity in counties with tribal reservation land.

Childhood immunization are included for all populatioins.

Impact Narrative

Child 7 Series: Recent Decline

The state child immunization trends were consistent with national trends for children born before 2018. A significant drop from 80.4% to 65.4% was reported for South Dakota children born in 2019. Vaccination coverage decreased to around 60% for children with any of the following factors: Medicaid coverage, multiple race status, living at less than 133% of the poverty level (FPL).

Source: *CDC VaxView, Child Vax*

Teen Series: Steady Increase

Immunization among teens has seen a steady increase, with five of the seven vaccinations reporting coverage rates of 95% or higher. Hepatitis A sits at 87.2%, just above the national rate of 85%. With the lowest coverage of the group, HPV was singled out for improvement. Still, the 74.7% coverage exceeds the national mark of 61.7%.

Black, Non-Hispanic teens led the coverage with 56.8% and **Hispanic** teens had the lowest coverage of 35.4%. Just over 50% of teens living in urban areas were vaccinated compared to 40% from **rural** locations.

Source: CDC VaxView, Teen Vax

Seasonal Influenza: Recent Decline

Historically South Dakota has maintained an influenza coverage rate just above the national trendline. The 2021-2022 season dipped 3% from the previous season, reducing the gap from 6% to just under 4%.

The number of older South Dakotans seeking seasonal influenza has seen a steady incline in the past five years, which is a direct contrast to the decline in all other age groups. Coverage for South Dakotans under 17 years old dropped over 12% from the 2019-2020 to the 2021-2022 season. During the same period, the Black, Non-Hispanic population coverage fell from a respectable 64.9% to an alarming 41%.

Source: CDC Flu Vax

Health Outcome Assets

State Agencies

- Department of Health
  - Child and Family Services
  - Childhood
    - Immunization Program
    - Childhood Vaccine Providers

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[1] SAMSHA, "Behavioral Health Barometer, South Dakota, Volume 6": Indicators as measured through the 2019 National Survey on Drug Use and Health and the National Survey of Substance Abuse Treatment Service. HHS Publication No. SMA-20-Baro-19-SD. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2020.; https://www.samhsa.gov/data/sites/default/files/reports/rpt32858/SouthDakota-BH-Barometer_Volume6.pdf ; accessed 20230613 1049

[2] "Results from the South Dakota Health Survey", Oregon Health & Science University, The Leona M. and Harry B Helmsley Charitable Trust; https://www.sdstate.edu/sites/default/files/soc/rlcdc/i-o/upload/Schultz-Survey-Results-Slides-w-all-extra-maps-for-SD-demographic-conf-May-2016.pdf ; accessed 2023 0612

[3] County Health Rankings, South Dakota, Mental Health Provider Ratio; https://www.countyhealthrankings.org/explore-health-rankings/county-health-rankings-model/health-

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