



2019 Community Health Status Report

Avera | Sanford | Live Well Sioux Falls

Project Partners	2
Welcome.....	3
Avera McKennan Hospital & University Health Center	4
Sanford USD Medical Center	6
City of Sioux Falls Health Department	8
Executive Summary	10
Process	11
Priority Health Issues & Collaborative Strategies	11
Information Gaps.....	12
Methodology	14
Resident Survey.....	14
Focus Groups & Key Informant Interviews	15
Community Sector Assessment	15
Secondary Data Review	15
Quality of Life	16
About Our Community	18
Access to Care.....	19
Education	20
Employment & Income.....	22
Housing.....	23
Safety.....	24
Support Services.....	24
Transportation.....	24
Health & Wellbeing	26
Chronic Disease Management.....	26
Cancer.....	27
Cardiovascular Disease	28
Diabetes.....	29
Mental Health & Substance Use.....	29
Alcohol Consumption & Drug Use	31
Obesity	34
Oral Health	36
Prevention & Health Promotion.....	36
Immunization	37
Nutrition	38
Food Security	38
Fruit & Vegetable Consumption.....	39
Physical Activity.....	40
Sexual Health	42
Tobacco Prevention	43
Workplace Wellbeing.....	45
Appendix	48
Community Assessment, Assets, & Needs.....	48
Acknowledgments	66
Definitions	67
Maps	68
Primary Care Access.....	68
Food Security	70
Food Access Sites.....	71
Low Income & Low Food Access.....	72



PROJECT PARTNERS

Dear Sioux Falls Residents,

The Sioux Falls Health Department, Avera McKennan Hospital and University Health Center, Avera Heart Hospital of South Dakota, and Sanford USD Medical Center are pleased to present this 2019 Community Health Status Report.

The places where we live, work, learn, and play can affect our mental and physical well-being. Rates of heart disease, obesity, diabetes, and other chronic diseases can be linked in many ways to the community environment, including an individual's access to healthy food, opportunities for physical activity, housing and transportation options, and available health care services.

We are grateful for the input we received from area residents and stakeholders during the comprehensive Community Health Needs Assessment (CHNA) process, which will help us identify, evaluate, prioritize, and address community health issues.

This report not only focuses on traditional health issues such as physical activity, nutrition, tobacco use, and chronic disease management, but also explores social determinants of health including education, employment, housing, and transportation.

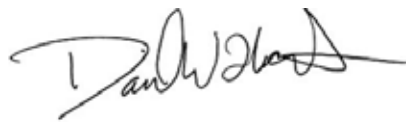
Everyone has a role to play in positively impacting our community's health. Neighborhoods, schools, churches, and worksites are intricately tied to our physical and mental well-being. It is essential to look at individual and community health through a prevention lens and actively pursue policies and practices that move us toward optimal health.

Together, we will create a healthier place to live, work, learn, and play.

Sincerely,



Jill Franken
Director
Sioux Falls Health Department



David Flicek
President & CEO
Avera McKennan Hospital & University Health Center



Paul Hanson
President
Sanford USD Medical Center



Avera McKennan Hospital & University Health Center and the Avera Heart Hospital of South Dakota



Avera McKennan Hospital & University Health Center is a 545-bed hospital in Sioux Falls. It is the flagship hospital of Avera Health, a system comprised of 330 locations in 100 communities across portions of five states in the Upper Midwest. Avera is home to innovative programs that include the world's most robust telemedicine program of its kind – Avera eCARE®, and the Avera Cancer Institute Center for Precision Oncology, which collaborates with partners across the nation and world to offer cutting-edge, personalized cancer care.

Avera McKennan provides a complete continuum of care in more than 60 medical specialties, including oncology, cardiology, critical care, emergency medicine and trauma, air transport, behavioral health, gastroenterology, endocrinology and diabetes care, hospice, imaging, medical education and research, brain and spine care, women's health care, pediatrics, neonatology, orthopedics, rehabilitation, and a full range of wellness services. Avera McKennan is home to the region's only bone marrow transplant program, longest-standing kidney transplant program, and region's only liver and pancreas transplant programs.

Avera, headquartered in Sioux Falls, SD, employs more than 18,000 individuals, which includes more than 7,000 in the Sioux Falls Metropolitan Statistical Area (MSA) and 950 physicians and advanced practice providers.

Avera McKennan is accredited by The Joint Commission, and has been designated as a Magnet® hospital by the American Nurses Credentialing Center since 2001.

Sponsored by the Benedictine and Presentation Sisters, Avera is distinguished by its mission. Avera Health is a health ministry rooted in the Gospel. Our mission is to make a positive impact in the lives and health of persons and communities by providing quality services guided by Christian values. Avera employees are guided by Avera's gospel values of compassion, hospitality, and stewardship. Avera McKennan, founded in 1911, has a century-long history of health ministry.

Avera Heart Hospital

Founded in 2001, Avera Heart Hospital in Sioux Falls is the region's first hospital dedicated to cardiac and vascular care and the state's first accredited Chest Pain Center. Services include 24-hour emergency care, Planet Heart screenings, cardiac catheterization, electrophysiology, surgery, and a full range of diagnostic and rehabilitation services.

Avera Behavioral Health Center

Avera is home to the region's largest team of behavioral health specialists and the region's largest private psychiatric inpatient care facility, with specialized units for children, adolescents, adults and seniors; outpatient care and counseling; and innovative technology that includes a state-of-the-art electroconvulsive therapy (ECT) suite, and transcranial magnetic stimulation (TMS). Behavioral health services include a 24-hour assessment phone line and center available to patients and referring providers to provide recommendations for the most appropriate level of care.

Avera Cancer Institute

Avera Cancer Institute offers comprehensive services through six regional centers. In Sioux Falls, Avera Cancer Institute is located in the iconic Prairie Center on Cliff Avenue. Cutting-edge technology includes the Elekta Versa HD™ linear accelerator, electron-based intraoperative radiation therapy (IORT), Gamma Knife™ and brachytherapy suite. Distinctives of Avera's cancer program include multidisciplinary case conferences, a dedicated breast surgery team, genomic medicine, patient navigation center, clinical trials and genetic testing. Patients benefit from amenities such as private chemotherapy suites and a patient-centered environment. Survivorship care, spiritual care, and integrative medicine are ways in which Avera cares for the whole person throughout the cancer care journey.



Avera eCARE

The most robust telemedicine program serving rural health care, Avera eCARE® extends specialty care across the miles, keeping patients closer to home. Through a full suite of applications that include eCARE Behavioral Health, Correctional Health, Emergency, Hospitalist, ICU, Pharmacy, School Health, Senior Care and Specialty Clinic, Avera eCARE is connected to over 400 locations in 18 states. This includes collaboration with Indian Health Service (IHS) to provide emergency support, behavioral health, and specialty appointments to reservation communities.

Avera Medical Group

Avera's 950 physicians and allied health professionals collaborate to deliver comprehensive, seamless care at over 200 locations. Avera Medical Group offers 45 clinics in Sioux Falls, and innovative options including 24/7 AveraNow virtual visits with a provider via smartphones, tablets, or laptops as well as clinics in Sioux Falls Hy-Vee grocery stores. Coordinated care is a successful Avera model being used to help patients with complex or multiple conditions overcome barriers to better management of their health.

Avera Health Insurance

Avera Health Plans, founded in 1999, serves people and communities by providing cost-effective, innovative health plans. Avera Health Plans serves individuals, families and employers. Avera Health Plans has participated in healthcare.gov since it began in 2013, after passage of the Affordable Care Act (ACA) in 2010.

DAKOTACARE offers a wide variety of employer plan options and benefits to both large and small employers. It also offers self-funded and third-party administration services. Together, Avera Health Plans and DAKOTACARE cover 130,000 lives.

Avera On Louise Health Campus

Avera has major projects underway to address the growth of Sioux Falls and improve access to care in all sectors in the city. This includes development of the new Avera on Louise Health Campus at 69th Street and Louise Avenue, opening in the fall of 2019. This facility includes:

- A 24-bed surgical hospital and medical office building complex, specializing in orthopedics, gastroenterology, rheumatology and internal medicine. This complex comprises 260,000 square feet.
- The Avera Addiction Care Center, a residential treatment facility with 32 private rooms.
- The Avera Human Performance Center, a 60,000-square-foot complex housing seven volleyball courts and designated areas for physical therapy and Athletic Republic acceleration. It is designed to serve athletes of all ages and ability levels and will promote overall health, wellness, and balance throughout a lifetime.

Avera

McKenna Hospital & University Health Center

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/AveraMcKenna



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Sanford USD Medical Center



Sanford USD Medical Center is a 545-bed tertiary medical center in Sioux Falls, SD, providing comprehensive, multi-specialty care for patients from across the Midwest. It is the largest hospital in South Dakota and a Level II Trauma Center serviced by AirMed air ambulance that extensively covers the vast geographic region and offers four specialized transport teams including adult, pediatric, neonatal, and maternal.

As a provider of highly specialized services, Sanford USD offers Centers of Excellence in heart and vascular, children's services, cancer, neuroscience, trauma, orthopedics and sports medicine, and women's services. It serves as the primary teaching hospital for the Sanford USD School of Medicine, located at the University of South Dakota in Vermillion, SD. Sanford employs more than 12,000 people in the Sioux Falls area, including 500 board-certified physicians and 350 advanced practice providers (APPs) in 80 medical specialties. Sanford USD Medical Center is accredited by The Joint Commission and is a designated Magnet hospital by the American Nurses' Credentialing Center.

Through its mission, dedicated to sharing God's love through the work of health, healing and comfort, and its vision of improving the human condition at every stage of life through exceptional care, spiritual enrichment, innovation and discovery, Sanford is making medical care accessible to the entire region.

Children's Castle

Sanford Children's Castle of Care serves pediatric patients in a five-state area and through Sanford World Clinics in Duncan, OK, Oceanside, CA, and Klamath Falls, OR. State-of-the-art neonatal intensive care and pediatric intensive care units offer 24/7 care by local specialists. This includes 135 pediatric specialists in 34 unique medical areas of expertise. The model of CARE focuses on excellence in clinical services, advocacy, research, and education.

Heart Hospital

Sanford Heart Hospital is a state-of-the-art hospital offering highly advanced, integrated and personalized heart care from experienced heart specialists. All services for heart patients – emergency care, outpatient testing, surgery, rehab, catheterization, consultation with specialists – are consolidated into one building attached to the medical center, allowing for easy access. Within Sanford Heart Hospital, patients receive personalized health care where comfort, well-being, compassion, communication, and empowered choices allow them to experience their healing journey in a positive, life-changing way.

Orthopedics and Sports

Sanford Orthopedic and Sports Medicine has depth of services and specialties to treat sprains, strains, tears, breaks, joint pain, and concussions. We offer expert physicians with years of experience in diagnosis, surgery, and nonsurgical treatments. Sanford is a regional leader in sports medicine and works with over 125 club, high school, collegiate, and semi-professional teams.

Cancer Center

Sanford's Cancer Center and Edith Sanford Breast Center combine to form a unique beacon of expert cancer and breast care throughout the region. Through the generosity of Denny Sanford, we have designed a space that supports advanced cancer care and breast care delivery models of the future, encompassing the whole person built on a foundation of distinguished research and supporting team-based care. Sanford participates in nationwide studies through the National Cancer Institute (NCI). One of the main objectives of the NCI Community Cancer Centers Program is to reduce cancer care disparities among underserved populations through education, prevention, screening, treatment, and patient-family support programs.



SANFORD[™]
HEALTH

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/SanfordHealth



@SanfordHealth

Ava's House

Ava's House is a 20-suite hospice facility for adult and pediatric patients. It offers 24-hour nursing care and is one of only four facilities in the nation with inpatient pediatric hospice services. The home-like environment provides a setting for patients to receive exceptional care while families and guest celebrate the life of their loved one. Ava's House was made possible through philanthropy and the Gift of Time charitable giving campaign. It opened in 2017.

Women's

Sanford Women's offers state-of-the-art obstetric and gynecological care for women of all ages in several locations throughout a four-state area. Care is provided by specialists in OB/GYN, maternal-fetal medicine, uro-gynecology, reproductive endocrinology, certified nurse midwives, and more. Sanford Women's Plaza is a unique destination that provides women with a variety of health options, all in one location.

Imagenetics

Sanford Health is embedding the latest in genomic medicine into primary care through Imagenetics. This program provides physicians with unprecedented patient-specific information to better identify effective medications and risk for inherited disease in order to design a care plan for the future. Sanford Imagenetics was established in 2014 thanks to a generous gift of \$125 million from philanthropist Denny Sanford.

Sanford Health Innovations

Combining an inventive spirit, multidisciplinary expertise and a comprehensive research infrastructure, Sanford Health Innovations develops and commercializes game-changing technologies to provide new solutions for improved patient care.

Sanford Health Plan

Sanford Health Plan is a community-based, non-profit health insurance company that offers product lines for individuals, families, and businesses in North Dakota, South Dakota, Minnesota, and Iowa. Sanford Health Plan's regional network of 18,000 providers includes Sanford Health practitioners and providers as well as those affiliated with other health systems or in independent practice. The Health Plan also maintains a nationwide network for members living or traveling outside of the service area. There are currently 175,000 enrolled Sanford Health Plan members.

City of Sioux Falls Health Department



The mission of the Sioux Falls Health Department is to improve the quality of life for the Sioux Falls community by preventing or controlling disease, mitigating adverse health threats, and by providing an open door for primary health services.

Falls Community Health

Falls Community Health is a non-profit clinic providing complete primary health care and dental care for all ages.

The clinic is a nationally-recognized Patient-Centered Medical Home, having received the highest level of recognition from the National Committee for Quality Assurance. This designation recognizes the clinic's commitment to six core health care standards, including:

- Patient-centered access to appointments and clinical advice
- Team-based health care
- Population health management
- Care management and support through evidence-based practices
- Coordinated health care
- Performance measurement and quality improvement

Falls Community Health offers care at its main location in downtown Sioux Falls, as well as at three school-based clinics at Hawthorne Elementary, Hayward Elementary and Terry Redlin Elementary. In addition to primary medical and dental care, the clinic also provides HIV/AIDS early intervention services and case management, behavioral health services, case management, medical nutrition therapy, and social services.

Emergency Medical Services

The Health Department works with the Sioux Falls Regional Emergency Medical Services Authority (REMSA) to provide guidance and recommendations to the Mayor and City Council on matters related to emergency medical services. This includes conducting quality assurance activities linking all the agencies that provide emergency medical services in Sioux Falls, including call taking, emergency medical dispatcher, law enforcement and fire first response, ambulance service, online medical control, and hospitals. Paramedics Plus (now Paramedics Logistics) has held the ground ambulance contract since 2015. The Health Department along with REMSA provides compliance monitoring for this extensive agreement.

Environmental Health

The Environmental Health division is committed to serving the people of Sioux Falls by providing high-quality health inspections and environmental sanitation. Areas addressed include:

- Family home day care registration and inspection
- Permits and inspections of food service establishments
- Food selling and processing permits and inspection



- Tattoo artist permits and tattoo establishment permits and inspection
- Sound permits
- Vector (mosquito) control

Public Health Preparedness

A key role of a public health department is ensuring the community is ready to respond in the event of a health emergency. The Health Department received a score of 100 percent during its last on-site federal review of work on the Community Readiness Initiative (CRI). This review evaluated the preparedness efforts, including planning, training, and exercising with community partners, with a benchmark of successfully providing mass prophylaxis medications to 200,000 people (the Sioux Falls MSA) within 48 hours of notification of a public health emergency. In addition, department staff assisting over 40 healthcare agencies, representing 17 healthcare provider types, meet compliance requirements for the new CMS Preparedness Rule. The Health Department continues to lead healthcare preparedness coalitions both in Sioux Falls and across the state.

Public Health Laboratory

The Public Health Laboratory provides environmental and clinical laboratory testing services. Environmental testing

serves the City of Sioux Falls, surrounding communities, agencies, commercial businesses, individuals, and the State of South Dakota. The laboratory also provides clinical laboratory and X-ray services for Falls Community Health patients at the main location downtown, as well as some clinical laboratory services at the three school-based locations. The Public Health Laboratory is certified by the Commission on Office Laboratory Accreditation (COLA) for its clinical work and by the South Dakota Department of Environment and Natural Resources for its environmental testing.

Live Well Sioux Falls

Live Well Sioux Falls is a community-based initiative designed to help improve the health and well-being of Sioux Falls residents by collaborating on projects to address health needs. The Live Well Sioux Falls Coalition, a group of diverse businesses, organizations, and individuals, is instrumental in guiding our efforts to improve community health and wellness. The vision of Live Well Sioux Falls is to transform the health of our community to create a more vibrant, active, and livable city. Community partners work together to develop strategies that will help residents Breathe Well, Eat Well, Feel Well, Move Well, and Work Well.



Live Well
Sioux Falls

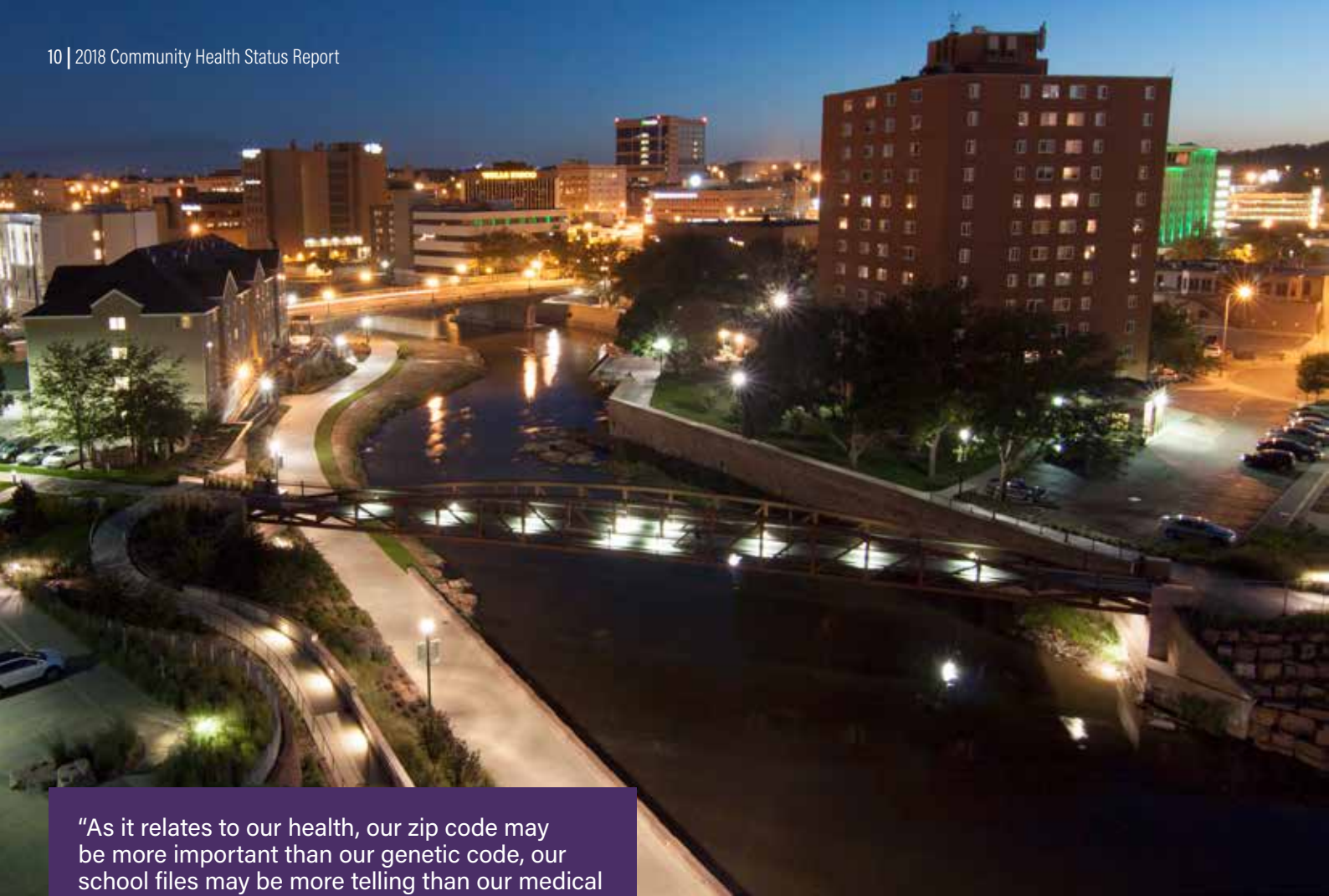
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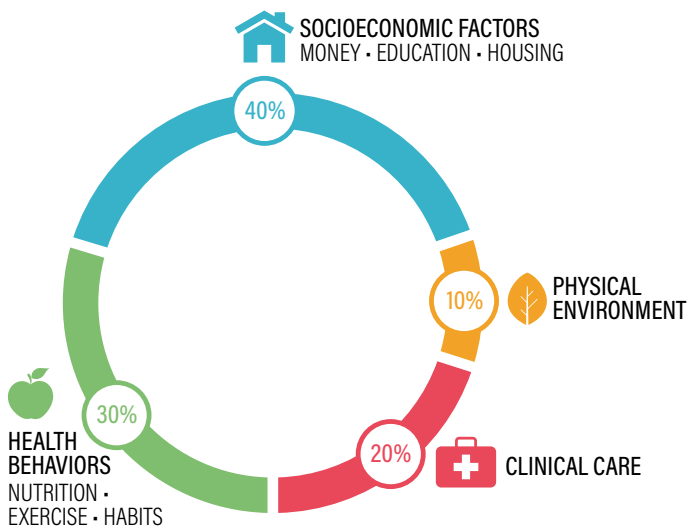
@LiveWellSF



"As it relates to our health, our zip code may be more important than our genetic code, our school files may be more telling than our medical files, the time spent in our office at work may be more relevant than the time spent at our doctor's office, and the places we play may be more crucial than those where we get treated... an apple a day may help keep the doctor away but that assumes you can find an apple in your neighborhood." – James S. Marks, Robert Wood Johnson Foundation Health Group

EXECUTIVE SUMMARY

WHAT MAKES US HEALTHY



Health starts where we live, learn, work and play.

As we explore what makes us healthy, it is necessary to look beyond our DNA or whether we have access to a health care provider.

In fact, most experts today agree that our zip code is a better predictor of health—and life expectancy—than our genetic code.

In communities across the United States, life expectancy can vary as much as 20-25 years in neighborhoods just miles apart from one another. That is because where we live impacts our access to healthy food, quality housing, schools, places to be physically active, social connections, and job opportunities.

These conditions in which we are born, live, work, and age are referred to as *social determinants of health*. Addressing these determinants as a community may help improve our residents' health status regardless of race, gender, or socioeconomic status.

PROCESS

The Community Health Needs Assessment (CHNA) process enables a community to support policy, systems, and environmental changes to positively impact community health. It involves collecting and analyzing data related to the health status of individuals, health needs in the community, and other information about community conditions that may impact residents' health.

While CHNAs are not required for the Sioux Falls Health Department, conducting a CHNA and developing implementation strategies are required of tax-exempt hospitals such as Avera McKennan Hospital & University Health Center (Avera) and Sanford USD Medical Center (Sanford). They must complete the process every three years, and the hospitals are also required to seek input from those who represent the broad interest of the community and who have special knowledge or expertise in public health.

After the completion of the 2016 CHNA, the report was posted on the health department, Avera, and Sanford websites and was available for public comment. No written comments regarding the 2016 CHNA process or their implementation plans were received.

To achieve the most comprehensive community assessment possible, the partners developed a multipronged process of data collection and analysis that included these quantitative and qualitative methods (see Methodology, page 14): a generalizable resident survey, an online key stakeholder survey, focus groups and key informant interviews, an assessment of community sectors, and secondary data review.

PRIORITY HEALTH ISSUES & COLLABORATIVE STRATEGIES

After compiling and reviewing the collected data, the partners created a list of 60 indicators that were ranked as top concerns in the resident and stakeholder surveys, were frequently mentioned during focus groups and key informant interviews, or significant indicators discovered during the secondary data review. The partners organized these 60 items within the following categories:

- Aging Population
- Children and Youth
- Economic Well-being
- Health Care Access
- Health and Wellness
- Mental Health and Substance Use
- Safety
- Transportation

A community stakeholder meeting took place in September 2018, with 30 individuals attending who represented all sectors of the community. The CHNA partners led a discussion about the preliminary data findings and utilized a three-round voting process during which the participants indicated the issues they felt were the most important to address as community partners.

Partners identified priorities using criteria such as size, urgency, economic feasibility, potential for impact, availability of community assets, and value to the community. After the final round of voting, the following issues emerged as those the group felt should be addressed through a community-wide effort:



Live Well
Sioux Falls

What We Have Learned

Live Well Sioux Falls

The Sioux Falls Health Department's Live Well Sioux Falls initiative continues to engage community partners in policy, systems, and environmental changes to improve the health and quality of life in Sioux Falls.

The 2016 CHNA was the first assessment completed collaboratively by the Sioux Falls Health Department, Avera McKennan Hospital & University Health Center, and Sanford Health.

While hospitals are *required* to complete a CHNA, public health departments are not. However, we believed it was essential to work as partners with a shared goal of improving the health of our residents and our community. This enabled us to engage in a respectful and rewarding exchange of ideas.

Notable achievements over the past three years include the passage of a local ordinance regulating smoking and tobacco use on City property (see page 45), the creation of a community stakeholder group to address behavioral health needs in the community, and the two-year Hayward Thrive project.

The goal of Hayward Thrive was to engage residents from that neighborhood in programs designed to improve and maintain good health, as well as overall quality of life, for themselves, their families, and their neighborhood. Strategies were focused on empowering residents to improve health and providing links to local area resources to achieve and sustain good health. More than 20 community partners participated in the project, with project ideas stemming from a series of neighborhood meetings and a summer social event. Project highlights include:

- Conducting walk audits to explore pedestrian and bicyclist safety.
- Holding a bike helmet giveaway and a bike rodeo for children.
- Implementing traffic calming elements on a busy neighborhood street.
- Partnering with Groundworks Midwest to expand the teaching garden at Hayward Elementary School.
- Providing water bottles for elementary students and teachers, and adding two water bottle fountains in the community center and gym.
- Providing physical activity equipment for use during physical education classes at the school and at the community center.
- Creating a Hayward Thrive Facebook page to connect neighbors with one another
- Distributing bright LED light bulbs for residents to use by outside doors to help improve neighborhood lighting and safety.
- Held free cooking classes at the community center attached to Hayward Elementary and connected residents to free grocery store tours to learn healthy shopping tips and how to eat healthy on a budget.

Live Well Sioux Falls projects completed over the past three years are all made possible through the generous support of our community partners.

1. Access to Care

Includes affordable care, patient navigation, health literacy, availability and affordability of long-term care, and transportation.

2. Behavioral Health and Substance Use

Includes access, cost, and stigma related to behavioral health; prescription and other drug use; and alcohol use and binge drinking.

3. Chronic Disease Prevention

Includes a focus on social determinants of health (e.g. housing, transportation, jobs/income, etc.), as well as on prevention strategies (e.g. fruit & vegetable consumption, physical activity, tobacco prevention, and screenings).

While each of the CHNA partners will develop implementation plans to address specific health issues within the Sioux Falls area, they also identified these collaborative strategies to address the identified priority health needs:

- Support the development of a community-based triage center to assist residents in accessing resources for addiction treatment, behavioral health, and other needs.
- Develop a community-wide awareness campaign to reduce behavioral health stigma and increase earlier access to care.
- Pursue policy, system and environmental changes to maintain or increase the percentage of people living at a healthy body weight.
- Address social determinants of health, seek opportunities to actively support the *One Sioux Falls* framework that includes accessible housing, engaging people, health and safety, and workforce development.

A copy of this report and related resources, as well as information about implementation of strategies will be available at www.livewellsiouxfalls.org, www.avera.org, and www.sanfordhealth.org.

**INFORMATION GAPS**

While this 2019 CHNA is comprehensive, it cannot measure all aspects of health in the Sioux Falls MSA, nor can it adequately represent all possible populations of interest. Because of these information gaps, the ability to assess all community health needs may be limited in some ways. Both the quantitative and qualitative data have limitations, and, as a result, should not be used to confirm or deny a specific health issue in Sioux Falls. Through this CHNA, the project partners attempted to survey key community leaders and stakeholders for the purpose of determining the needs of the community. While many individuals participated, there are community members who did not provide feedback through this assessment. The resident survey and focus groups asked for individual perceptions of community health issues and are subjective to individual experiences which may or may not be the current status of the community.

What We Have Learned

Avera McKennan Hospital & Avera Heart Hospital

The 2016 CHNA was a collaborative effort with Avera McKennan Hospital & University Health Center, The Avera Heart Hospital, Sioux Falls Public Health and Sanford Health. Collectively, we identified gaps in care to focus on to improve the health of our community. As part of the process, these gaps were prioritized and approved by each entity's Board of Trustees, and implementation plans were completed that identified both collaborative and independent initiatives.

The 2016 CHNA collaborative, with input from key community stakeholders, identified and prioritized the following health needs:

- Obesity
- Behavioral Health and Substance Abuse
- Access to Care

The following projects highlight Avera's focus on addressing identified health needs within our community:

River Cities Transit Pilot

Transportation has been a reoccurring area of need for the city of Sioux Falls, as mentioned in the 2013 and 2016 Community Health Needs Assessment (CHNA). The 2013 CHNA specifically mentioned Avera McKennan's responsibility to "explore helping individual public transportation users by supplementing fares through a fare card program" which was the exact goal kept in mind when Avera entered a nine month partnership with River Cities Transit (RCT) to provide transportation to patients in Avera's Coordinated Care program. Ultimately, after providing just over 600 rides, the pilot outcome showed a higher need for on-demand rides versus scheduled rides, and at the end of the pilot, Avera entered into an agreement with LYFT to provide more on-demand transportation.

LYFT Partnership

Avera McKennan implemented LYFT as a transportation alternative for patients in Avera's Coordinated Care program in July 2018. Since then, Avera McKennan has expanded the LYFT transportation program throughout Avera McKennan and it is now a primary transportation option for patients in the Coordinated Care program and for those receiving care at Avera Behavioral Health, the Avera Cancer Institute, Avera's Emergency Departments and for discharging in-patients identified by Case Management and Social Work. To date, Avera McKennan has funded over 1,500 rides at no cost to the patient.

Responsible Prescribing – Opioid Stewardship

Avera implemented a Responsible Prescribing campaign promoting opioid stewardship. The Responsible Prescribing campaign includes opioid prescribing guidelines, controlled substance agreements for patients, promotion of alternative pain management treatments, and increased transparency to opioid prescribing patterns. Opioid prescriptions are continuously monitored and have decreased 35% since implementing the Responsible Prescribing campaign.

Medication Affordability

Avera is committed to supporting patients' access to affordable medications. Avera developed resources outlining local and federal medication assistance programs. Avera coordinated care teams staffed with registered nurses and social workers help patients connect with these resources and achieve their goals. The medication affordability resources are available in multiple languages. Since developing the medication assistance resources, patient experience surveys indicate that Avera has improved 50% in stewardship of patient resources.

Addressing Depression

Avera is committed to caring for persons' mind, body, and spirit. Depression weighs heavily on our community and is often a barrier to achieving a person's goals in care. Avera is working to remove stigmas associated with depression and improve access to care surrounding mental illnesses. To start, Avera improved screening for depression through new clinical processes. Previously, Avera depression screening rates measured < 30%, currently depression screening rates exceed 80% in select populations. Beyond identifying depression, Avera is supporting clinicians across the continuum of care ensuring they're resourced to address depression as it presents, regardless the setting. Avera's depression screening and management efforts are related to a greater system commitment to the Zero Suicide initiative.

Avera Healthy Weight - Improving Access to Weight-Management Resources

Avera is committed to addressing the obesity epidemic. Avera is working to improve access to local weight-loss programs including telehealth channels for those in rural areas. The Avera Healthy Weight initiative has streamlined the referral process to weight-loss programs, developed patient education material outlining local resources, improved access to education through an enhanced electronic patient portal (AveraChart), and added telehealth channels for those in rural areas or transportation barriers to access weight-loss programs. Since implementing the Avera Healthy Weight initiative, education about weight management has been accessed over 94,000 times through the electronic patient portal, AveraChart.

What We Have Learned

Sanford Health

Crime/Safety—Reduce Pharmaceutical Narcotics in the Community: Sanford Health developed a strategy to reduce narcotic use across the system by providing alternative pain management methods. Policies and procedures to address the prescription of narcotics have been standardized across the healthcare system. The measureable outcome for this implementation strategy is to track narcotic prescriptions and identify areas for improvement. Pain medication prescriptions are continuously tracked and studied to identify areas for improvement. There has been a 28 percent reduction in the prescription of narcotics since beginning this initiative in 2017.

Physical Health—Chronic Disease: Sanford has set strategy to improve the care of patients diagnosed as overweight or with obesity. Patients who are overweight will be referred to internal and external services including registered dietitians, exercise physiologists, and RN Health Coaches. The measureable outcome for this implementation strategy is to track the referrals. From 2017 through Q3 of 2018, the referrals for follow-up interventions have increased. The current rate of referral is 46.2 percent.

Sanford *fit*, <http://sanfordfit.org/>, a childhood obesity prevention initiative, continues to grow while refining the offerings and enabling broad replication and meaningful use. Supported by the clinical experts of Sanford, *fit* educates, empowers and motivates families to live a healthy lifestyle through a comprehensive suite of resources for children, parents, teachers and clinicians. *fit* is the only initiative focusing equally on the four key contributing factors to childhood obesity: Food (nutrition), Move (activity), Mood (behavioral health), and Recharge (sleep). Through *fit*, healthy lifestyles are actively being promoted in homes, schools, daycares, clinical settings, and throughout the community by way of technology, engaging programs, and utilizing key role models in a child's life. Since 2017, Sanford has presented the Sanford *fit* program to live audiences and has reached 5,075 individuals through interactive engagement. Sanford *fit* is available in classrooms across the Sioux Falls area with 8,179 students currently using the curriculum. The Sanford *fit* online program is available nationwide and has over 22 million views with 198,000 engagements.

Diabetes: Sanford has set a strategy to provide optimal diabetes care and to measure outcomes that are part of the optimal care recommendations for people living with diabetes. The measureable outcomes are systolic blood pressure of <140, diastolic blood pressure of <90, LDL per statin indication, HbA1C < 8, tobacco free, and a daily aspirin if ischemic vascular disease.

Hypertension: Sanford addresses hypertension through standardized protocol, frequent blood pressure monitoring, and referral. Outcome measures include a blood pressure of less than 140/90 for all ages 18–59, and for age 60+ with diabetes, vascular or renal disease. For patients 60 or older without diabetes, vascular or renal disease the goal is a blood pressure of 150/90.

Ischemic Vascular Disease: Sanford addresses ischemic vascular disease by standardizing protocols for optimal vascular care. Outcome measures include systolic blood pressure <140, diastolic blood pressure < 90, LDL statin indications, tobacco free recommendations, and a daily use of aspirin.

Additional needs identified through the CHNA include the social determinants of health, healthcare services for children and youth, workforce development, chronic disease, food insecurity and access to care.

Workforce is an example of Sanford's innovative approach to addressing the needs of communities throughout the Sanford footprint. Sanford has executed numerous workforce initiatives such as:

- Sanford Internships: Increase the investment in internship programs for clinical and nonclinical roles, providing interns the advantage toward gainful employment and contributing to economic well-being.
- LPN Sponsorship: Offered sponsorships for those who commit to work at Sanford after graduation.
- Heart of Tomorrow: Invested more than \$1.5M in the Heart of Tomorrow program to assist children of employees with post-secondary education expenses.
- Residency and Fellowship: Sanford's residency and fellowship programs consist of more than 300 medical professionals training in 19 programs.



METHODOLOGY

A Community Health Needs Assessment (CHNA) is a public health tool that aids in understanding the health within a defined area utilizing quantitative and qualitative methods, including collecting and analyzing the data and setting priorities based on the data for improving the health of the community. The Sioux Falls Health Department, along with Avera McKennan Hospital & University Health Center, the Avera Heart Hospital of South Dakota, and Sanford Health, utilized several data collection methods for this report.

Participants in the stakeholder survey, focus groups, key informant interviews, and community sector assessments are listed on page 66. These individuals were invited to participate because their organizations serve or represent the interests of medically underserved, low-income, and minority populations.

RESIDENT SURVEY

The resident survey tool included 108 questions about the respondent's personal health. An online survey was developed in partnership with public health experts from across the Sanford Health system. The Minnesota Health Department reviewed and advised Sanford about key questions that they request of the Statewide Health Improvement Partnership (SHIP) surveys, and those questions were included in the resident survey. The survey was sent to a representative sample of the Sioux Falls Metropolitan Statistical Area (MSA) population secured through Qualtrics, a qualified vendor. A total of 554 community residents participated in the survey. The survey results have a 95 percent confidence level.

Limitations of the Study

The findings in this study provide an overall snapshot of behaviors, attitudes, and perceptions of residents living in Minnehaha, Lincoln, Turner, and McCook counties in South Dakota. A good faith effort was made to secure input from a broad base of the community. When comparing certain demographic characteristics (e.g. age, gender, income, minority status) with the current population estimates from the U.S. Census Bureau, there was improvement over the last several CHNAs, but there is still a need to capture a demographic that better represents the community. This is part of our CHNA continuous improvement process.

The Internal Revenue Code 501 (r) statute requires that a broad base of key community stakeholders have input into the needs of the community. Those community members specified in the statute include: persons who represent the broad interests of the community served by the hospital facility including those with special expertise in public health; federal, tribal, regional, state, and/or local health or other departments or agencies with information relevant to the health needs of the community served; and leaders, representatives, or members of medically underserved, low income, and minority populations.

Sanford extended a good faith effort to engage all of the aforementioned community representatives in the survey process and worked closely with public health experts throughout the assessment process.

Stakeholder Survey

This report includes data from a non-generalizable, online survey of Sioux Falls-area leaders and key stakeholders identified by Sanford Sioux Falls Medical Center. This study was conducted through a partnership between the Community Health Collaborative and the Center for Social Research (CSR) at North Dakota State University. The CSR developed and maintained links to the online survey tool. Members of the Community Health Collaborative distributed the survey link via e-mail to stakeholders and key leaders, located within various agencies in the community, and asked them to complete the online survey. Therefore, it is important to note that the data in this report are not generalizable to the community. Data collection occurred during the months of November and December 2017 and January 2018. A total of 35 respondents participated in the online survey.

FOCUS GROUPS & KEY INFORMANT INTERVIEWS

Avera McKennan contracted with Maximizing Excellence, LLC (MELLC) to develop, facilitate, compile, and analyze focus group and key informant interview content for this needs assessment. References to Sioux Falls include the surrounding metro area. MELLC invited key informant candidates selected by Avera to participate in one-on-one interviews with MELLC.

Twenty-five non-profit and health care representatives took part in the focus group data collection process on March 27 and 29, 2018. Participants were sorted into groups based on their ability to participate, resulting in assorted community groups. Eleven people representing eight non-profit and health care entities completed the individual interview portion of the assessment between May and June 2018. This portion of the study was designed to validate the findings drawn from the focus group process. The protocol for the focus groups included the following concepts:

- Community Assets—What does Sioux Falls have going for it that helps citizens to grow up healthy and remain healthy?
- Existing Health Supports—What exists that participants want more of?
- Barriers—What stands in the way of citizens accessing resources to get healthy, remain healthy, and manage health conditions on an ongoing basis?
- Focus Areas—What is the most important local health or health care issue, need, or challenge facing Sioux Falls?
- Proposed Actions—What could hospitals and health systems do to meet the stated health care needs?
- Top Recommendations—What could stakeholders do to build a better community that promotes health and well-being?
- Implementation Advice—What needs to be understood and/or considered when developing and executing an implementation plan that will respond to the findings of the CHNA?

Key informants were asked to validate focus group conclusions on the subjects of community assets, barriers, and top recommendations. Validation was founded through consensus-building then prioritization. Key informants also came up with their own set of top recommendations and implementation advice.

Participant Overview Composition of Focus Groups and Key Informant Interviews

Group	Representation	Age Range	Other Factors		
Focus Group 1 March 27, 2018	(4) Non-profit (8) Health Care	(1) <35 (4) 36–50 (3) 51–65	(1) >65 (3) Did not disclose	Dominate female group (12); 3 males	
Focus Group 2 March 29, 2018	(4) Non-profit (4) Health Care	(2) <35 (4) 36–50 (1) 51–65	(0) >65 (1) Did not disclose	Dominate female group (8); 1 male	
Focus Group 3 March 29, 2018	(1) Non-profit (2) Health Care	(1) Health Insurance (1) Government	(0) <35 (3) 36–50 (0) 51–65	(0) >65 (2) Did not disclose	Dominate female group (5); 1 male
Individual Validation Interviews	(5) Non-profit (3) Health Care	(0) <35 (8) 36–50 (3) 51–65	(0) >65 (0) Did not disclose	Mixed genders (11); 6 female, 5 male	

COMMUNITY SECTOR ASSESSMENT

Community members in all sectors have a role to play in improving health. Similar to the 2016 CHNA process, the partners utilized the South Dakota Good & Healthy Community Checklist (Checklist), which is a valid and tested tool to help communities assess local policy, regulations, and environment, as well as education and awareness regarding physical activity, nutrition, tobacco use, chronic disease management.

The Checklist was developed and adapted from the Ohio Healthy Communities Checklist and with approval from the Primary Prevention Section and Creating Healthy Communities Program, Ohio Department of Health. The sectors included in this portion of the assessment include schools, worksites, health care, and community, which includes departments of city governments and community organizations.

The four primary health indicators—nutrition, physical activity, tobacco, and chronic disease management—were assessed for each sector, with the exception of the school health indicator that is exclusive to the school sector. Within each module, indicators are

scored to provide insight regarding the health of each sector in the community.

Each module (Policy/Regulations and Environmental Change, and Education and Awareness) located within each Health Indicator (physical activity, nutrition, tobacco, and chronic disease management) is scored based on a scale of zero to three, understanding that all strategies included in the module may not be applicable to each community. A total score of all the strategies scored within each module is calculated.

This assessment process identifies opportunities that cross all sectors and also those specific to a sector or health topic. Opportunities to improve exist where the environment or policy score is less than 60 percent.

SECONDARY DATA REVIEW

In addition to the primary data collection methods described in this section, the partners also compared Sioux Falls MSA public health data to secondary data sets to describe the community's health status.

The Sioux Falls Metropolitan Statistical Area Calculator is a tool that was developed to convert county level data into MSA data. The calculator takes, as input, data from all four counties as well as the start and end years for the statistic. It then uses the Census Bureau's population estimates for each of the years to average the population over the provided range and then multiply each county's rate by its average population. That number is then divided by the average MSA population over the same time period. This method provides a single MSA number for the city that reflects, proportionally, the makeup of the four counties.

This report also includes references to other data sources, such as the Behavioral Risk Factor Surveillance System (BRFS), the National Citizen Survey, the U.S. Census, and research studies cited in the references of each section of the report.



Many of the strongest predictors of health and well-being fall outside of the healthcare setting. Our housing, transportation, education, workplaces, and environment are major elements that impact the physical and mental health of Americans." – Regina Benjamin, former U.S. Surgeon General

QUALITY OF LIFE

Only about 20 percent of the factors that influence our health can be addressed by access to medical care and the remaining 80 percent reflect the impact of social determinants of health, which are defined as "the structural determinants and conditions in which people are born, grow, live, work, and age."¹

FIGURE 4-1: SOCIAL DETERMINANTS OF HEALTH²

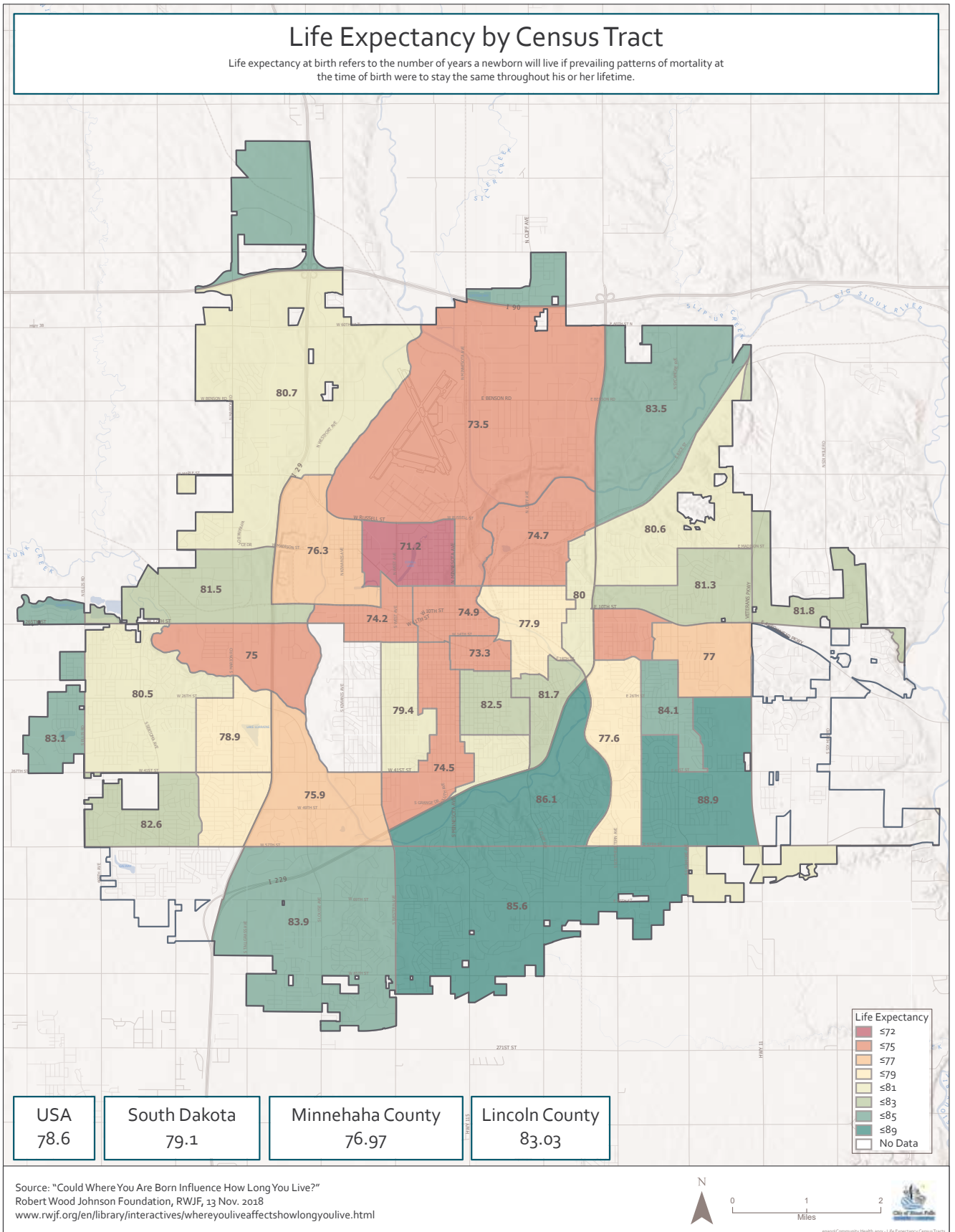
Economic Stability	Neighborhood & Physical Environment	Education	Food	Community & Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social Integration	Health Coverage
Income	Transportation	Language	Access to Healthy Options	Support Systems	Provider Availability
Expenses	Safety	Early Childhood Education		Community Engagement	Provider Linguistic & Cultural Competency
Debt	Parks	Vocational Training		Discrimination	Quality of Care
Medical Bills	Playgrounds	Higher Education			
Support	Walkability				
Health Outcomes					
Mortality	Morbidity	Life Expectancy	Health Care Expenditures	Health Status	Functional Limitations

In recent years, research has increasingly pointed to zip code as a better predictor of health than genetic code.

Improving quality of life begins by ensuring – at the neighborhood level – that people have access to healthy food, good schools, opportunities to be physically active, affordable housing, and jobs that enable them to care for themselves and their families. Neighborhoods with limited access to green spaces, healthy foods or transportation options often see higher rates of chronic diseases such as diabetes, heart disease, or obesity. Addressing these social determinants could prevent people from experiencing poor health by providing access to conditions and resources necessary for them to be healthier and to have healthy choices available.

Within the Sioux Falls city limits, life expectancy can vary more than 14 years between one neighborhood and another, with the lowest at 71.2 years and the highest at 85.6 years, and these are neighborhoods approximately five to six miles apart.

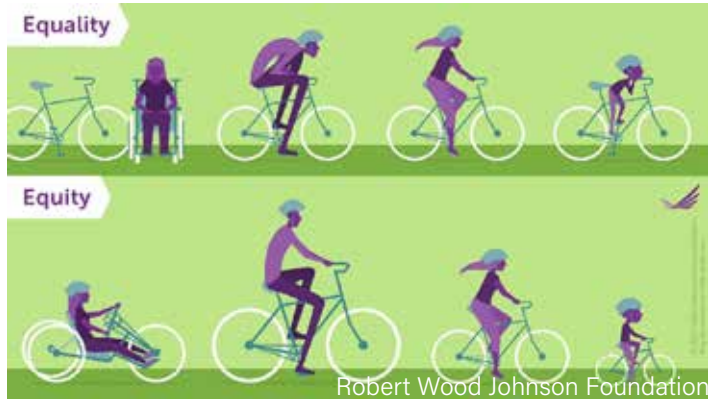
FIGURE 4-2: LIFE EXPECTANCY VARIATIONS IN THE SIOUX FALLS MSA³



Improving quality of life for all residents requires addressing social and environmental determinants of health both through broad, community-based approaches as well as targeted strategies focused on those experiencing the greatest disparities. The approach must be one of *equity*, rather than just equality.

In an equal situation, every person would receive the same resources. In this illustration below, that resource is a bicycle. As you can see, however, one size truly does not fit all needs.

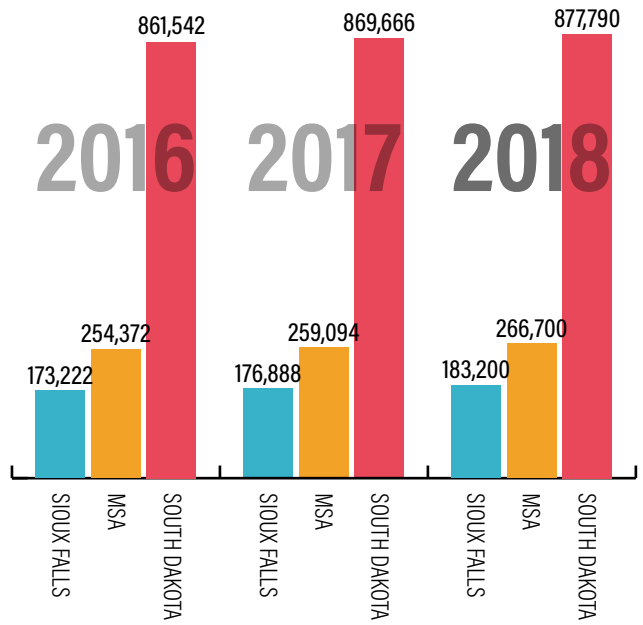
When applying an equity lens to decision-making, however, residents' unique needs are considered to determine the resources that would be most effective in helping them live the healthiest life possible.



ABOUT OUR COMMUNITY

For the purpose of this Community Health Status Report, the "community" was defined as the Sioux Falls Metropolitan Statistical Area (MSA), which includes the counties of Lincoln, McCook, Minnehaha, and Turner.

FIGURE 4-3: CITY OF SIOUX FALLS AND MSA POPULATION⁴



This area represents where 50 percent of the Sioux Falls hospital inpatient discharges originate. While South Dakota counties are predominantly rural, the majority of Minnehaha County, including the city of Sioux Falls, is classified as urban.

The population of Sioux Falls MSA and the state of South Dakota have grown since the 2016 Community Health Status Report. The city of Sioux Falls, covering 78.21 square miles, has been growing at an annual rate of approximately two to three percent, bringing an additional 3,000 to 4,000 new residents to the community each year.

FIGURE 4-4: GENDER COMPOSITION⁵

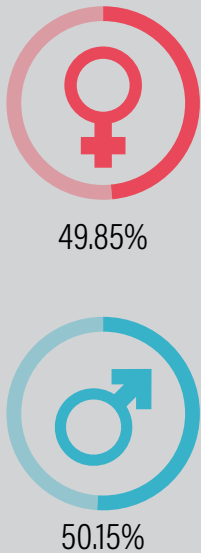
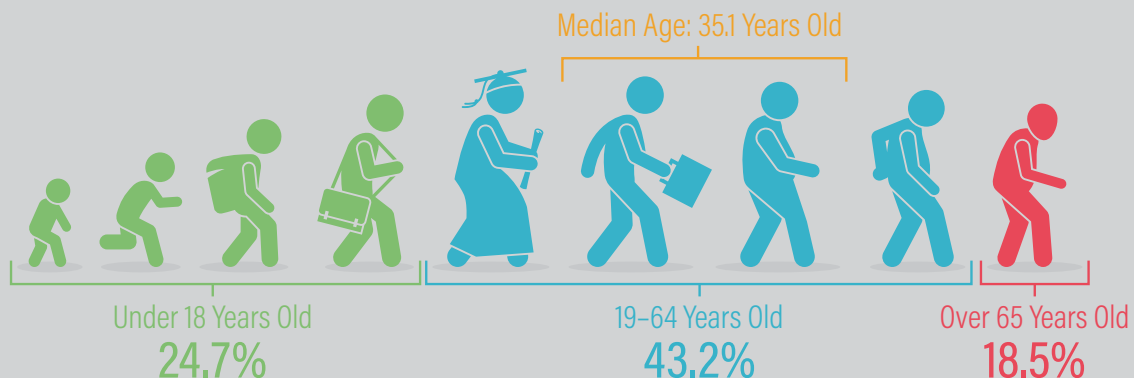


FIGURE 4-5: RACIAL COMPOSITION⁶



FIGURE 4-6: AGE COMPOSITION⁷



“ We are only as healthy as the least healthy member of our community, and their vulnerability makes us all more vulnerable. Each person has worth and value and deserves the opportunity to be healthy.

*Health, Safety, and Wellbeing for All.
Prevention Institute's Strategic Framework, 2018-2022* ”

ACCESS TO CARE

Access to comprehensive, quality health care services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity for all Americans.⁸

It is important to note that access can mean something different from one resident to the next in the same community.

In general, access includes the ability to understand what health resources are available within the community, to gain entry into the health care system at a location where needed services are provided, to find a trusted health care provider, and to have the ability to pay for needed services.

Unfortunately, disparities do exist in accessing care and can include age, sex, race, ethnicity, income, education, and geography. When barriers to accessing care exist, it can lead to unmet health needs, delays in receiving necessary care, or financial burdens.

Health Care Access

Sanford strives to provide care at just the right time and in the right place for community members in the neighborhoods that we serve, understanding that health care is local. Sanford provides access clinics at a downtown location and has recently added a new west side clinic. Sanford also provides walk in visits, video visits, e-visits, online scheduling, and same day access in all primary care locations.

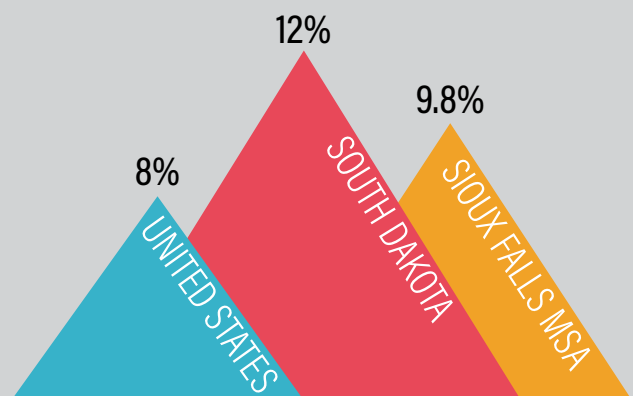
Sanford USD Medical Center provides nurse case managers in the emergency department to support complex patients who access care in this setting, working with the multidisciplinary team to support the needs of the individual. The nurse case manager is available to consult with patients who need additional support to manage complex social, health or chronic conditions and provides referrals to resources in the community as appropriate for the assessed needs. The nurse case manager is a broker of services, linking the individual to community based services including:

- Establishing a primary care provider
- Referrals to mental health and substance abuse resources
- Medication assistance

Sanford secured a Health Resources and Services Administration (HRSA) grant to address health care access. The HRSA grant increases access to inter-professional health care services by deploying these services further into the community and homes where daily self-care occurs. Co-Ops are held four times each week in four community settings. HRSA Co-Ops target those receiving Medicare, Medicaid or those who are uninsured. Early outcomes indicate potential reduced cost of health care.

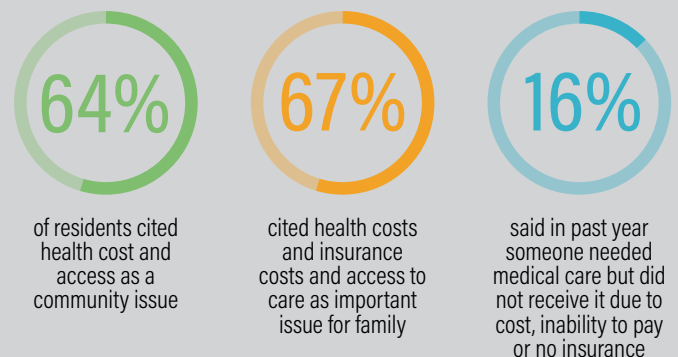
Sanford contributed nearly \$300 million in charity care during FY2017. Financial counselors are available to help patients who need free or discounted care.

FIGURE 4-7: UNINSURED ADULTS⁹



Income level can impact access to health care services, as lower-income workers are more likely to be employed by organizations that do not offer health benefits. Individuals without health insurance are less likely to have a regular health care provider and may be more likely to go without needed care because of cost concerns.

FIGURE 4-8: COST CONCERNS IN THE SIOUX FALLS AREA¹⁰



Assets and Needs in the Sioux Falls Area Related to Health Care Access

During the CHNA Focus Groups, participants highlighted the robust medical community as the city's number one health-related asset. In addition to having two comprehensive health systems, there are also a number of specialty clinics, integrative health clinics, and free or sliding-scale fee clinics to serve area residents. In addition to the presence of health services, focus group participants also cited the participation of other community sectors, such as businesses, non-profits and government entities, which work to meet affordability and access gaps.

Some of the gaps identified include:

- Inadequate access to behavioral health care
- Behavioral health workforce deficit
- Lack of Medicaid expansion in South Dakota
- Insufficient transportation options
- Lack of health care system navigation and case management
- Unequal access to health information and healthy lifestyle resources

Specific assets that exist in the community, according to focus group participants, include:

- Availability of comprehensive inpatient and outpatient health services
- Access to health insurance plans within the health care systems
- Availability of after-hours care and walk-in clinics, including free clinics or clinics with sliding fee scales
- Availability of school-based clinics
- 24-hour health information available through telephone or website services

As the community looks at both the assets and needs in health care access, focus groups highlighted three areas where conversations can begin:

1. *The community needs to come together to coordinate and provide needed community resources and programs.* By working together with the best interests of the community in mind over the interests of the market or industry, we can reduce duplication of services and better align our collective resources.
2. *Rethink and restructure how health care is provided.* This could include case managers focused on prevention and management of chronic conditions, navigators who guide patients through the system, having infrastructure in place to support the affordability of healthy decisions, incorporating the social determinants of health at all levels to understand the “whole” patient, promote routine preventive health screenings (including behavioral health), and bringing services to where people are through technology, mobile services, or a one-stop-shop concept like the proposed Minnehaha County Triage Center.
3. *Engage in political advocacy and use leverage to make proposed changes possible.* Health is influenced by factors beyond health care, including political, social, and economic factors, as well as the physical environment. Policy approaches can have positive impacts on the health of both individuals and communities.

Helpline Center’s Network of Care: Connecting Residents to Resources

The Helpline Center’s Network of Care was launched in 2016. This collaborative effort led by the Helpline Center brings multiple agencies together to coordinate basic need services for individuals and families in a more efficient, effective, and caring manner.

At the end of 2018, the Helpline Center’s Network of Care has grown from 5 partner agencies to 14 partner agencies: St. Francis House, The Community Outreach, Helpline Center, Feeding South Dakota, Center of Hope, Dress for Success Sioux Falls, The Salvation Army, Furniture Mission, Bishop Dudley Hospitality House, The Ransom Church, Reach Literacy, Volunteers of America, First Lutheran Church, Mobile Food Pantry and Necessities for Neighbors. The Network of Care served over 15,000 clients and provided more than 55,000 services during the past two years.

The next steps for the Helpline Center’s Network of Care will be to 1) increase the capacity of the network by continuing to add more partner agencies and 2) partner with Augustana Research to provide an analysis of the current data in the system, producing a community report on lessons learned from the Network of Care in its first two years of existence.

“The Helpline Center’s Network of Care represents a tremendous opportunity for Sioux Falls. Not only will it allow non-profit organizations to more effectively coordinate the services they provide clients, it will give the community insight into how we can better meet the needs of our fellow citizens.”—Andy Patterson, President Sioux Falls Area Community Foundation

For more information, contact betsy@helplinecenter.org or call 211.

**Supporting the development of the Network of Care was a priority strategy highlighted in the 2016 Community Health Status Report. We are pleased to continue supporting this important effort.*

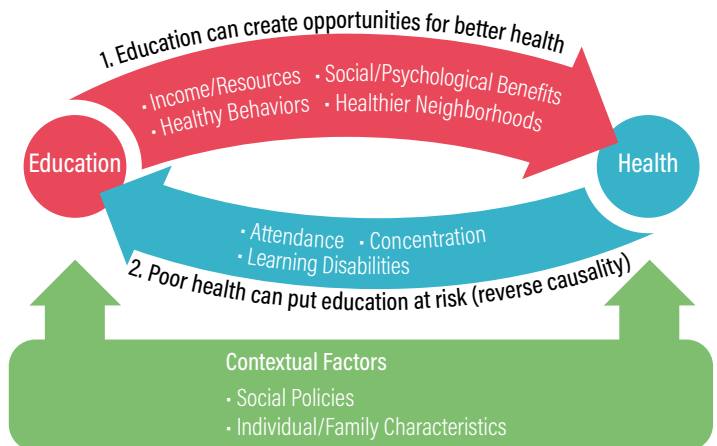
EDUCATION

Studies show that Americans with more education are likely to live longer, healthier lives. What is the connection between education and health? There appear to be three primary links:

- Achieving higher levels of education increases opportunities for better health.
- Individuals experiencing poor health are at risk for low educational attainment.
- Life experiences, beginning in childhood, can affect both health and education.

Individuals with more education have a greater chance of being employed at a job that provides health-promoting benefits such as health insurance, paid leave, and retirement. They are also more likely to learn about healthy behaviors and how to advocate for their health or the health of their families.¹¹

FIGURE 4-9: CORRELATION BETWEEN EDUCATION AND HEALTH¹²



3. Conditions throughout people’s lives can affect both education and health

While poor health can be a result of lower educational attainment, it can also cause challenges in the school setting. Children experiencing conditions such as asthma, tooth pain, poor nutrition, anxiety, or sleep disorders may be more likely to be absent from school or find it difficult to concentrate during class.

A child’s environment outside of school can also impact health and the ability to learn. Adverse Childhood Experiences (ACEs) are stressful or traumatic events that are the root cause of many serious academic, social and behavioral problems that can prevent a child from reaping the full benefits of education. Experiences such as poverty, discrimination, divorce, death of a family member, substance use, and violence can impair the development of the growing brain and body.¹³ This, in turn, affects a child’s memory system, as well as the ability to think, organize multiple priorities, regulate emotions, pay attention, follow directions, work with teachers, and make friends.¹⁴ Nationally, 45 percent of children have experienced at least one ACE, and one in ten has experienced three or more.

Three or more ACEs is significant, with a stronger correlation of increased risk for depression, severe obesity, drug abuse, lung disease, and liver disease. Having three or more ACEs also triples the risk of alcoholism, sexually transmitted diseases (STDs), and teen pregnancy. There is a five-fold increase in attempted suicide.¹⁶ It is important to note, however, that not all children who experience ACEs are negatively affected. Other factors must be considered, such as the context in which they occur or the existence of positive relationships in the child’s life.

FIGURE 4-10: ADVERSE CHILDHOOD EXPERIENCES (ACE) IN SOUTH DAKOTA¹⁵

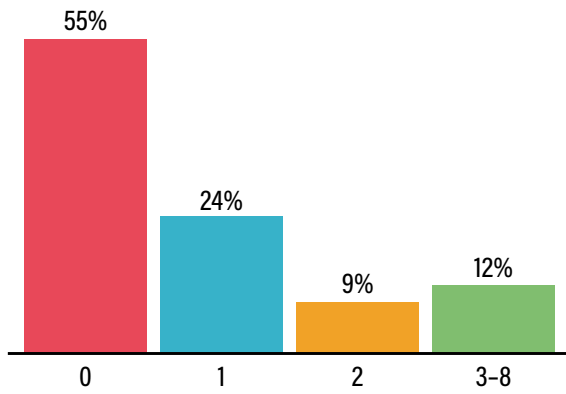
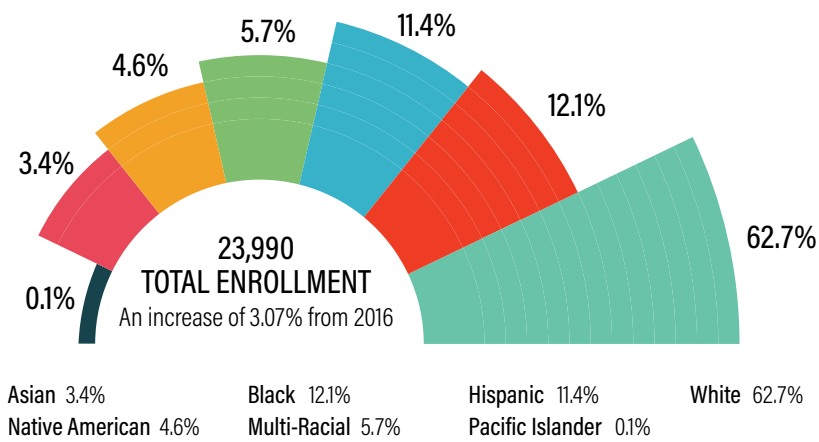
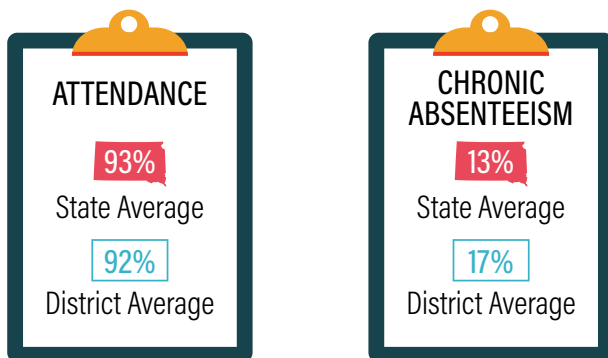


FIGURE 4-11: SIOUX FALLS SCHOOL DISTRICT K-12 ENROLLMENT (2018)¹⁷



There are approximately 2,300 English Language Learners (ELL) in the Sioux Falls School District who speak 90 different languages.

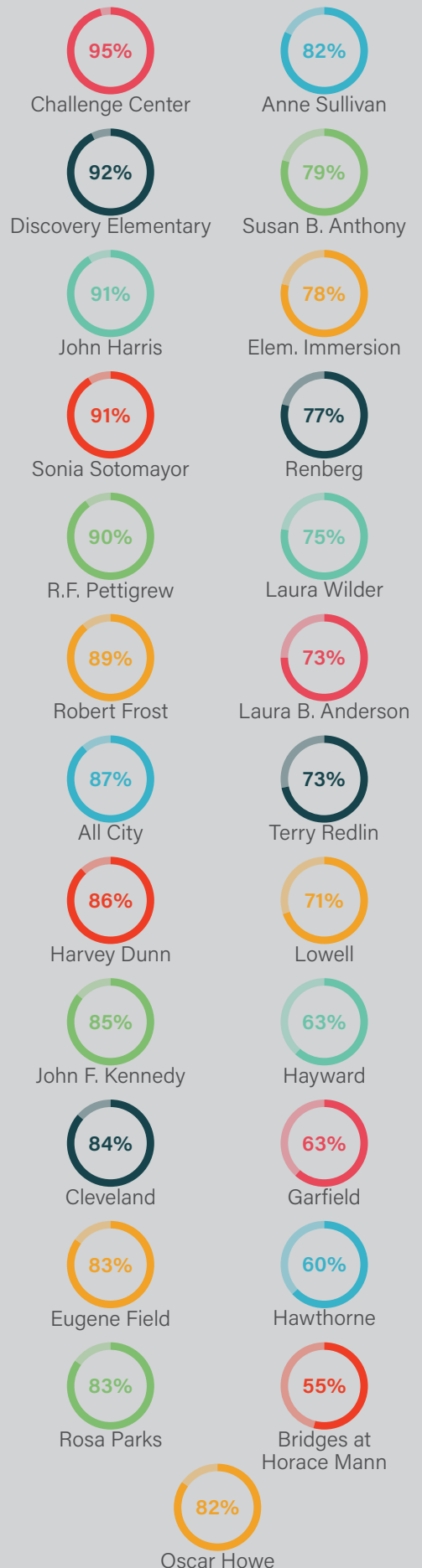
FIGURE 4-12: SCHOOL ATTENDANCE



In order for children to learn, they need to be present at school. School attendance is a priority for the Sioux Falls School District. Even after a state change in the 2017-18 school year to decrease the School Performance Index from a 94 percent benchmark to a 90 percent, the District kept the 94 percent to hold itself to a higher standard.

FIGURE 4-13: SIOUX FALLS SCHOOL DISTRICT ELEMENTARY ATTENDANCE (2018)

Among the elementary schools in the Sioux Falls school district, attendance rates varied by 40 percentage points.



Data source: Sioux Falls School District

Nutrition Support at Schools

Free and reduced-price meals are available to South Dakota children unable to pay the full price of meals or milk served under the National School Lunch, School Breakfast, and/or Special Milk Programs. Eligibility is determined by the USDA using U.S. Department of Health and Human Services federal income poverty guidelines. Among schools in the Sioux Falls MSA, the number of students eligible for free or reduced meals ranges from a low of 3.6 percent to a high of 85.7 percent. Interestingly, these two schools both fall within the Sioux Falls city limits and are just 16 miles apart.

According to Feeding South Dakota, 34 schools in the Sioux Falls area participate in the backpack program to provide food for students over the weekend. More than 3,000 backpacks on average, are distributed weekly during the school year. The program also offers backpacks in the summer months.

Community Organizations Working for Kids

Understanding the need to address conditions outside the classroom that impact a child's ability to grow, learn, and be healthy, two local organizations are working to help children Live Well in our community.

The Sioux Falls Hope Coalition started in 2015 as a broad community effort to address the needs of a growing number of children and families living in poverty. They saw a widening achievement gap between students who had attended preschool and those who had not. That gap continues well after children complete school—in choices of higher education and job training, careers, housing, parenting, and civic engagement.

With a goal of getting more kids into preschool programs, the Hope Coalition, in collaboration with the Sioux Falls School District, identified children on the Head Start waiting list in neighborhoods located in the west and southeast areas of Sioux Falls. The first classes began in fall 2017. All families qualifying within income guidelines were granted a scholarship to one of the partner programs at Compassion Childcare Preschool, Abiding Savior Academy, Peace Lutheran Preschool, and Christian Center Preschool.

The programs focused on social skills and expressive language, fostering creativity through art and music, counting and recognizing numbers and shapes, and name writing, as well as values such as patience, kindness, and truthfulness. For more information about the Sioux Falls Hope Coalition, call 605-610-9167, email info@sfohopecoalition.org or visit www.SFHopeCoalition.org.

Sioux Falls Thrive focuses on cradle to career initiatives by identifying situations that have a negative impact on a child's academic success and bringing action teams together to engage in complex, cross-sector problem-solving. Goals include increasing kindergarten readiness; promoting third-grade reading proficiency and eighth-grade mathematics proficiency; increasing high school graduation rates, post-secondary enrollment, and post-secondary completion; identifying obstacles to student success; bringing cross-sector teams together to eliminate or substantially reduce the impact of obstacles by realigning existing resources, and collaborating with other organizations addressing long- and mid-term workforce development needs.

For more information about Sioux Falls Thrive, call 605-334-5410, email chanson@siouxfallsthive.org or visit www.siouxfallsthive.org.

EMPLOYMENT & INCOME

An individual's socioeconomic status has long been recognized as a factor that impacts health and mortality, and there has been an increased focus in recent years on employment and income as social determinants of health. On average, American adults spend more than half of their waking hours at work. Having a job provides more than just a paycheck. It can also offer benefits and the stability needed to maintain proper health.¹⁸ Conversely, unemployment and loss of income are associated with a variety of negative health effects.

When looking at income-based health disparities, the United States has some of the largest disparities in the world. In our country, poor adults are five times as likely to report being in poor or fair health, and they have higher rates of chronic conditions such as diabetes, heart disease, and stroke compared to higher-income Americans.²⁰

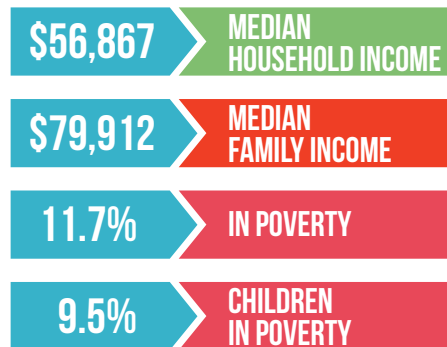
FIGURE 4-14: HOW JOBS IMPACT HEALTH¹⁹

A STABLE JOB WITH FAIR PAY LEADS TO BETTER HEALTH

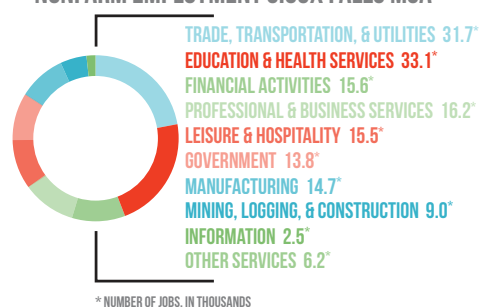
For most Americans, employment is the sole or primary source of income, which enables individuals to provide their families with:



FIGURE 4-15: SIOUX FALLS MSA EMPLOYMENT AND INCOME DATA²¹



NONFARM EMPLOYMENT SIOUX FALLS MSA



SIOUX FALLS METROPOLITAN STATISTICAL AREA



In addition to the incidence of chronic diseases, low-income Americans also have higher rates of behavioral risk factors such as obesity, tobacco use, substance use, and physical inactivity, all of which are influenced by an individual's income level and neighborhood environment.

Using tobacco use as an example, lower-income neighborhoods tend to have a higher density of tobacco retailers, and the tobacco industry has targeted low-income individuals through a variety of marketing strategies.²² More than a quarter of people living below the poverty line smoke, a rate that is twice that of those above the poverty line (about \$24,000 for a family of four).²³ Low-income individuals may not have the same access to resources that could help them quit smoking, such as pharmacotherapies and cessation counseling.

Just as unemployment or insufficient income can contribute to poor health outcomes, an individual who is experiencing poor health may have limited ability to seek work and improve their economic status, creating a negative loop that has been called "the twenty-first-century health-poverty trap."²⁴

HOUSING, INCLUDING SPECIALIZED HOUSING

During the data collection for the 2018 Community Health Needs Assessment (CHNA), respondents to the resident survey and stakeholder survey, as well as focus group participants identified housing as a top community concern.

Specifically, the survey respondents and focus group participants cited these top concerns:

- Availability of affordable housing
- Housing which accepts people with chemical dependency, mental health issues, criminal history or victims of domestic violence
- Homelessness
- Maintaining livable and energy efficient homes
- Availability of affordable housing and long-term care options for the aging population

Affordable housing typically means a person is paying no more than 30 percent of their income towards their monthly rent.

In South Dakota, the Fair Market Rent (FMR) for a two-bedroom apartment is \$734. In order to afford this level of rent and utilities—without paying more than 30 percent of income on housing—a household must earn \$2,447 monthly or \$29,363 annually. Assuming a 40-hour work week, 52 weeks per year, this level of income translates into an hourly housing wage of \$15.60.²⁵

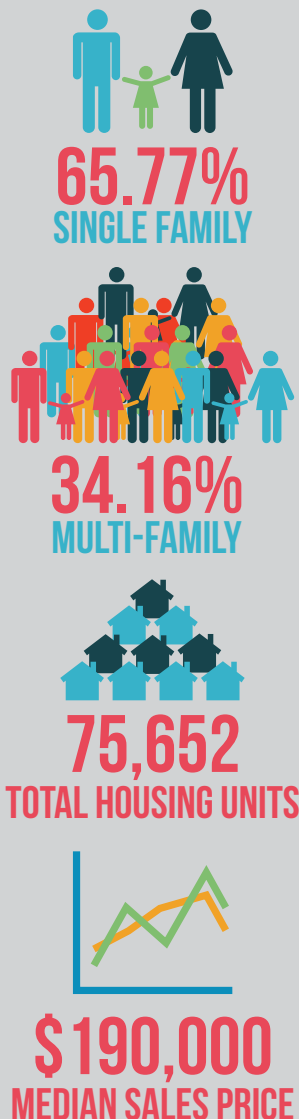
Across the U.S., more than seven million extremely low income families do not have an affordable place to call home. One in five renting families in the United States spends half of its income on housing, and half a million people are living on the street, in shelters, or in their cars on any given night.²⁷

With continued growth projected for the Sioux Falls area, this is a critical time to discuss housing issues and ensure we are considering the needs of all individuals and helping them find quality, accessible housing.

FIGURE 4-16: 2018 FAIR MARKET RENTS BY UNIT BEDROOMS²⁶

Year	Efficiency	One-Bedroom	Two-Bedroom	Three-Bedroom	Four-Bedroom
FY 2018 FMR	\$535	\$639	\$781	\$1,045	\$1,217
FY 2017 FMR	\$543	\$655	\$811	\$1,098	\$1,296

FIGURE 4-17: SIOUX FALLS MSA HOUSING DATA²⁸



Links Between Housing and Health

Housing quality

Housing that is safe, dry, clean, maintained, adequately ventilated, and free from pests and contaminants, such as lead, radon, and carbon monoxide, can reduce the incidence of negative health outcomes such as injuries, asthma, cancer, neurotoxicity, cardiovascular disease, and poor mental health.

Housing community

Neighborhoods free from segregation and concentrated poverty, and in which residents have close and supporting relationships with one another, can improve physical and mental health by reducing stress and exposure to violence and crime as well as improving school performance and civic engagement.

Housing affordability

Affordable housing enables people to pay for other basic needs such as utilities, food, and medical care, which can reduce the incidence of negative health outcomes such as malnutrition, diabetes, anxiety, and depression.

Housing location

Easy access to public transportation, parks and recreation, quality schools, good jobs, healthy foods, and medical care can help reduce the incidence of chronic disease, injury, respiratory disease, mortality, and poor mental health.

Source: Adapted from Human Impact Partners, 29th Street/San Pedro Street Area Health Impact Assessment (2009), accessed Jan.22, 2016, <http://www.humanimpact.org/downloads/san-pedro-st-area-hia-full-report>
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Homelessness in Sioux Falls²⁹

St. Francis House

319 guests (January-October 2017).
94 percent have chemical dependency issues and 49 percent report mental health issues (up from 250 guests in 2015)

Bishop Dudley Hospitality House

1,279 guests (Jan-Sept 2017)

Union Gospel Mission

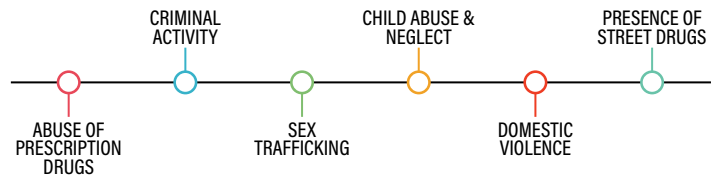
17,093 nights of lodging (Jan-Aug 2017) averaging about 70 guests per night and 62,357 meals during that time. (In 2015, the average was 56 guests per night).

SAFETY

Public safety, as a social determinant of health, can impact a wide range of health and quality of life issues. Factors that may influence a resident's perceptions of a safe environment include:

- Discrimination
- Exposure to crime and violence
- Feelings of safe (or unsafe) neighborhoods
- Ability to travel safely around the community
- Exposure to toxic substances or other physical hazards
- Safe, healthy relationships
- Safe worksites

FIGURE 4-18: COMMUNITY CONCERNS REGARDING SAFETY IN SIOUX FALLS³⁰



The 2017 National Citizen Survey included several questions related to safety. Sioux Falls residents were asked to rank several community characteristics. The Survey also asked residents about their own experience in emergency situations. Of residents responding to the 2017 survey, only 28 percent have supplies stocked for a community or weather emergency, 79 percent had never reported a crime, and 89 percent had never been the victim of a crime.

FIGURE 4-19 SIOUX FALLS SAFETY RATINGS³¹

	2008	2009	2013	2015	2017
Overall feeling of safety	N/A	N/A	N/A	79%	77%
Safe in neighborhood	95%	95%	97%	93%	95%
Safe downtown/commercial area	88%	89%	91%	85%	86%
Police	78%	83%	83%	83%	89%
Fire	93%	95%	96%	96%	97%
Crime prevention	69%	74%	71%	71%	71%
Emergency preparedness	N/A	70%	74%	72%	71%
Traffic Enforcement	33%	64%	60%	64%	65%
Street Lighting	62%	65%	64%	64%	68%

Percent rating positively (e.g. excellent/good, very/somewhat safe)

SUPPORT SERVICES

The Sioux Falls area benefits from a wide array of agencies and organizations providing services that help support residents' health and well-being.

- Strong Faith Community – Churches play an active role in helping those in need in the community, specifically parish nursing, outreach ministries, and support partnerships with many of the non-profit service sector agencies in the area.
- Specialized Support Services – Whether individuals in the community are struggling with relationships, medical issues, addictions, or other challenges, a number of agencies are available to provide assistance. Examples of these specialized services include:
 - o Helpline Center (211)
 - o Homeless Outreach
 - o Services for Refugees
 - o Child Care
 - o Veterans' Services
 - o Services for Individuals with Disabilities

TRANSPORTATION

Currently, nearly 85 percent of residents in the Sioux Falls MSA drive alone to work.³² As the community grows and becomes more diverse, however, individuals' transportation needs change. The availability and accessibility of transportation options affects access to employment, healthy foods, health care, and other important determinants of health and wellness.

According to the 2017 Helpline Center Community Trends Report, transportation was listed as one of the top three "unmet needs," which are defined as issues where a caller has exhausted known resources, the caller is ineligible, or there are no programs to meet the caller's need. Most often, callers inquiring about transportation were looking for assistance with bus tickets/fares, gas money, car repairs, or rides to appointments.

The Community Health Needs Assessment focus groups also identified transportation as a critical need in the Sioux Falls area. The majority of participants indicated that, while the Sioux Falls area is fortunate to have a public transit system, there are still some areas that would enhance the system, including evening and Sunday service and improving the timeliness of the service to help people travel to work, health care, shopping, or other services.

The 2018 CHNA community stakeholder and resident surveys identified several transportation concerns, including:

- Availability of door-to-door transportation services for those unable to drive (e.g. elderly, individuals with disabilities)
- Availability of public transportation
- Cost of door-to-door transportation services for those unable to drive (e.g. elderly, individuals with disabilities)
- Availability of walking and biking options
- Cost of public transportation
- Driving habits (e.g. speeding, road rage)

The National Citizen Survey asked residents to rank several characteristics related to transportation.

When asked the open-ended question, “What can City government do to improve Sioux Falls?” the top response on the National Citizen Survey was “Improve roads, transportation, mobility services and traffic.” Residents also provided specific responses related to suggested street improvements, from reconstruction and lighting to the addition of bike lanes or regulation of traffic speeds.

In addition to the practical aspects of transportation systems, which allow people to get to work, to school, to medical appointments or other key services, there are also safety considerations to consider as transportation relates to public health.

Motor vehicle crashes are the leading cause of death in the first three decades of Americans’ lives, taking the lives of about 96 people every day. And, injuries

from motor vehicle crashes send more than 2.3 million people to hospital emergency departments every year.³⁴ Crashes also impact individuals who are not in a motor vehicle.

In 2015, 5,376 pedestrians and 818 bicyclists were killed in crashes with motor vehicles.³⁵ These two modes accounted for 17.7 percent of the 35,092 total U.S. fatalities that year. In the same year, an estimated 70,000 pedestrians were injured in crashes, an increase of nearly 15 percent over ten years. And, those are just the injuries that were reported or recorded by law enforcement.³⁶

The good news is that policy makers, transportation engineers, city planners, law enforcement and public health officials have brought more attention to interventions that can reduce these injuries and fatalities, such as safer vehicles, improved traveler information systems, enforcement of speed limit and impaired driving laws, changes to driver

licensure, and the addition of “complete streets” elements to make the roads safer for pedestrians, bicyclists, children, persons with disabilities, and older adults.

A well-planned and maintained transportation system can enhance quality of life by offering a range of alternatives, so that people of all ages and abilities can safely and efficiently move throughout the community.

Quality of Life—Conclusion

Focusing on strategies to address both social and community conditions can enhance quality of life, improve health, and extend life expectancy, while at the same time reduce health care costs and workplace productivity losses. When communities invest in health and well-being, they are likely to also see a return on investment in the form of increased economic opportunity and prosperity for residents and for businesses.

FIGURE 4-20: SIOUX FALLS TRANSPORTATION RATINGS³³

	2008	2009	2013	2015	2017
Paths and walking trails	N/A	77%	76%	77%	79%
Ease of walking	71%	74%	72%	66%	68%
Travel by bicycle	68%	65%	63%	50%	59%
Travel by public transportation	N/A	N/A	N/A	45%	42%
Public parking	N/A	N/A	N/A	51%	51%
Overall ease of travel	N/A	N/A	N/A	73%	77%
Traffic flow	42%	41%	45%	46%	49%

Percent rating positively (e.g. excellent/good, very/somewhat safe)

Quality of Life References

- Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity. Harry J. Heiman and Samantha Artiga. November 2015.
- Ibid.
- “Could Where You Are Born Influence How Long You Live?” Robert Wood Johnson Foundation, RWJF, 13 Nov. 2018, www.rwjf.org/en/library/interactives/whereliveaffectshowlongyoulive.html.
- 2017 U.S. Census Annual Population Estimates.
- 2018 County Health Rankings.
- Ibid.
- Ibid.
- www.healthypeople.gov.
- U.S. Census.
- 2018 CHNA Resident Survey.
- Baum S, Ma J, Payea K. Education Pays 2013: The Benefits of Higher Education for Individuals and Society. College Board, 2013.
- Why Education Matters to Health: Exploring the Causes. Virginia Commonwealth University Center on Society and Health, 2014 Updated 10/08/2018.
- https://www.childwelfare.gov/pubPDFs/brain_development.pdf.
- Lucid Witness. Nowhere to Hide: The Elephant in the Classroom. (2016). Retrieved from <https://lucidwitness.com/2016/08/08/nowhere-to-hide-the-elephant-in-the-classroom/>.
- 2016 National Survey of Children’s Health.
- Ibid.
- Sioux Falls School District Data.
- How Does Employment—or Unemployment—Affect Health? Health Policy Snapshot Series. Robert Wood Johnson Foundation. March 12, 2013.
- Work Matters for America.
- Health, Income, & Poverty: Where We Are & What Could Help. Dhruv Khullar, Dave A. Chokshi. Health Affairs. October 4, 2018.
- U.S. Census. US Bureau of Labor Statistics. October 2018
- U.S. National Cancer Institute and World Health Organization. The Economics of Tobacco and Tobacco Control. National Cancer Institute Tobacco Control Monograph 21. NIH Publication No. 16-CA-8029A. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute; and Geneva, CH: World Health Organization; 2016.
- <https://www.cdc.gov/mmwr/volumes/65/wr/mm6544a2.htm>.
- The cost of economic inequality to the nation’s physical health. Jacob Bor and Sandro Galea. April 25, 2017.
- Out of Reach 2017. National Low Income Housing Coalition.
- Ibid.
- Ibid.
- City of Sioux Falls Planning Department.
- Minnehaha County Homeless Coalition.
- Sioux Falls CHNA Community Stakeholder Survey (2018).
- National Citizen Survey for Sioux Falls 2017.
- County Health Rankings 2016.
- National Citizen Survey for Sioux Falls 2017.
- <https://www.cdc.gov/winnablebattles/report/motor.html>.
- National Highway Traffic Safety Administration, Traffic Safety Facts.
- http://www.pedbikeinfo.org/data/factsheet_crash.cfm.



HEALTH & WELL-BEING

For more than 70 years, countries around the world have recognized the World Health Organization (WHO) definition of health, which states that it is the state of complete physical, mental, and social well-being and not merely an absence of disease and infirmity.¹

Researchers have changed the way they examine health, looking beyond causes of death and morbidity to examine the relationship of health to the quality of an individual's life. The nation's quality of life and prosperity, however, are being challenged by preventable chronic diseases and behavioral health issues.

Life expectancy at birth dropped in the United States for a second consecutive year in 2016. Preliminary data indicate that age-adjusted death rates continued to rise in 2017, which is likely to mark a third straight year of declining life expectancy. The U.S. lags behind comparable high-income countries on a range of health outcomes including life expectancy despite spending more on health care.²

FIGURE 5-1: AVERAGE LIFE EXPECTANCY³

Area	Life Expectancy
United States	78.6 years
South Dakota	79.1 years
Sioux Falls MSA	80.41 years
Lincoln County	83.03 years
McCook County	79.17 years
Minnehaha County	79.67 years
Turner County	80.2 years

Healthy People 2020, an initiative of the U.S. Department of Health and Human Services (HHS), outlines an agenda for improving the nation's health, focusing on these four overarching goals.⁴

- Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death.
- Achieve health equity, eliminate disparities, and improve the health of all groups.
- Create social and physical environments that promote good health for all.
- Promote quality of life, healthy development, and healthy behaviors across all life stages.

Every decade, the Healthy People initiative develops a new set of science-based, 10-year national objectives with the goal of improving the health of all Americans. Work has already begun on Healthy People 2030 goals.

Overall, residents in the Sioux Falls MSA rate themselves as healthy. Only 10 percent responding to the CHNA Resident Survey stated they are in "fair" or "poor" health (up slightly from 9.6 percent in 2015), while 59 percent rate their health as "very good" or "excellent."

CHRONIC DISEASE MANAGEMENT

About six in ten American adults have at least one chronic health condition, which is a condition that lasts a year or more and requires ongoing medical attention or that limits activities of daily living, and four in ten have more than one chronic condition.⁵ Approximately 71 percent of the total health care spending in the United States is associated with care for the Americans with more than one chronic condition.⁶

Six in ten adults in the US have a chronic disease and four in ten adults have two or more.



HEART DISEASE



CANCER



CHRONIC LUNG DISEASE



STROKE



ALZHEIMER'S DISEASE



DIABETES



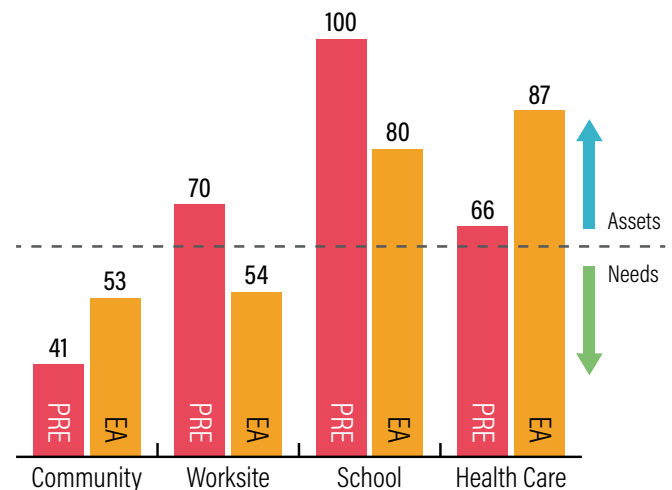
KIDNEY DISEASE

The assessment identified resources such as community-based health screenings, worksite health coverage for preventive screenings, and support groups for individuals living with chronic diseases as assets. An area of need identified is ensuring referral services are in place to help people access chronic disease management programs. Specific assets and needs identified for Chronic Disease Management are listed in the Appendix.

Strategies to Enhance Chronic Disease Management:

- Create a referral system to help residents, health care patients, and students access community-based resources and services for chronic disease management.
- Ensure regular counseling in the health care setting about the importance of lifestyle behavioral changes to control symptoms of chronic diseases.
- Promote, through worksites, the importance of healthy lifestyle behaviors to prevent or manage chronic disease.
- Train staff in all sectors of the community about proper responses to chronic disease related emergencies (e.g. heart attack, stroke, hypoglycemia, etc.), and use of equipment to support timely response (e.g. AED, etc.)

FIGURE 5-2: COMMUNITY CHRONIC DISEASE MANAGEMENT ASSESSMENT¹²



CANCER

Cancer is a collection of related diseases in which cells in the body divide without stopping and spread into surrounding tissues. Cancer is always named for the part of the body where it starts, even if it spreads to other body parts later. It can affect anyone, at any age.

Some types of cancer include:

- Breast Cancer
- Cervical Cancer
- Colorectal Cancer
- Lung Cancer
- Prostate Cancer
- Skin Cancer
- Cancers of the blood, such as leukemia

While chronic diseases affect all populations, they are not evenly distributed. Disease rates vary by race, ethnicity, education, geography, and income level, with the most disadvantaged Americans often suffering the highest burden of disease.

Modifiable health risk behaviors—lack of physical activity, poor nutrition, maintaining a healthy weight, tobacco use, and excessive alcohol consumption—are responsible for much of the illness, suffering, and early deaths related to chronic diseases.⁷

Some research estimates that if an individual is positively working at those risk factors, they typically spend 33 percent to 50 percent less on health care costs compared with people who have health risks. Currently, only 4 percent of Medicare beneficiaries possess these five health behaviors. If 75 percent of all Americans had these characteristics, more than \$600 billion and perhaps up to \$1 trillion per year could be saved.^{8,9,10,11}

The 2018 CHNA Resident Survey showed residents are living with chronic conditions such as depression, high cholesterol, hypertension (high blood pressure) asthma, arthritis, diabetes, or heart disease.

Community Assets and Needs Related to Chronic Disease Management

Using the South Dakota Good and Healthy Community Checklist, representatives from several sectors of the community rated Policy, Regulation, and Environment (PRE) and Education and Awareness (EA) efforts related to Chronic Disease Management. In the following chart, scores over 60 represent an indication of chronic disease management assets, while scores below 60 indicate needs in the area of chronic disease management.



Colorectal cancer is the third most commonly diagnosed cancer in both men and women and is the second leading cause of cancer death among men and women in the United States. While over 90 percent of colon and rectal cancers are found in people over the age of 50, anyone at any age can get colorectal cancer. The good news is that 60 percent of colorectal cancer deaths could be prevented with early screening like a colonoscopy.

For some individuals in our community, however, the cost may prevent them from having this potentially life-saving screening. That is why Falls Community Health (FCH) created The Blue Move 5K Run/Walk, held for the first time in August 2018. Partnering with Live Well Sioux Falls and its first-ever Move Well Sioux Falls event (see page 42), FCH created this fun event to help fund colonoscopies for underserved patients at the clinic.

Nearly 90 runners took part by running or walking a stretch of the beautiful Sioux Falls Bike Trail. They came dressed in blue, the color of colorectal cancer awareness, and learned important colorectal cancer facts at mile markers along the route. And, they all completed the event by passing through the large, inflatable colon at the finish line.

The second annual Blue Move 5K will take place on August 10, 2019. Learn more at www.livewellsiouxfalls.org.

According to the South Dakota Department of Health, there are an estimated 4,000 new cancer cases and 1,600 deaths annually in the state. Each day on average, 10–11 South Dakotans are diagnosed with cancer, and 4 die from the disease.¹³

In the 2018 CHNA Resident Survey, 8 percent of those responding have been diagnosed with cancer. Of those individuals, the top diagnoses were:

- Melanoma or other skin cancer—38%
- Prostate cancer—14%
- Cervical cancer—12%
- Breast cancer—12%

Screening for many types of cancer, such as mammograms, PAP tests, and prostate exams, can help diagnose the disease at an early stage when treatment works best. Vaccines also help lower cancer risk. The human papillomavirus (HPV) vaccine helps prevent most cervical cancers and several other kinds of cancer, and the hepatitis B vaccine can help lower liver cancer risk.

The All Women Count! program provides financial assistance for PAP tests and mammograms to women who meet income and age guidelines. Call 1-800-738-2301 (in South Dakota only), for more information.

The GetScreenedSD Program provides financial assistance for colorectal cancer screening to South Dakota residents over 50 years of age who do not have a payment source. Eligibility is based on income, age, and indication. More information is available at www.getscreened.sd.gov.

An individual can reduce the risk of cancer by making healthy choices like avoiding tobacco, limiting alcohol use, protecting skin from the sun and avoiding indoor tanning, eating a diet rich in fruits and vegetables, keeping a healthy weight, and being physically active.

CARDIOVASCULAR DISEASE

Cardiovascular disease refers to any disease of the heart or vascular system. This includes such conditions as heart attacks, coronary heart disease, atherosclerosis, hypertension, congestive heart failure, and stroke.

Heart disease and stroke continue to be leading causes of death and disability across the nation with one-quarter of U.S. deaths due to heart disease and one out

of 20 deaths due to stroke. Risk factors for cardiovascular disease include high blood pressure (hypertension), high cholesterol, smoking, inactivity, and being overweight or obese.

Hypertension

Hypertension is the term used to describe high blood pressure. Often there are no symptoms, which is why it is referred to as a “silent killer.” For most patients, high blood pressure is found when they visit their health care provider or have it checked elsewhere. Because there are no symptoms, people can develop heart disease or other serious health issues like kidney problems without knowing it.

Prior to 2017, the prevalence of high blood pressure was commonly known to affect one of every three adults. However, with the release of new guidelines from the American College of Cardiology (ACC) and the American Heart Association (AHA), the data now shows that nearly half of the U.S. adult population (46 percent) have high blood pressure.¹⁴

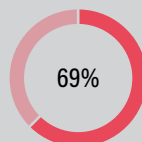
Planet Heart & Community Education
 Avera Heart Hospital has a strong commitment to helping individuals live heart healthy lives. The Planet Heart program, which includes both heart and vascular screening components, can identify areas where problems may already be apparent and educate people about improving lifestyles for a healthier future. Avera Heart Hospital also educates young people about healthy hearts through the touring Mega Heart—a huge inflatable heart model that helps children understand their heart. Mega Heart events often partner with Sioux Falls Fire and Rescue and other first responders in the community to teach children the basics of hands only CPR. For more information, visit www.avera.org.

FIGURE 5-3: NEW HYPERTENSION GUIDELINES (2017)¹⁵

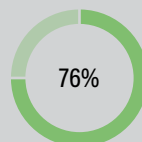
Blood Pressure Category	Systolic mm Hg (upper number)		Diastolic mm Hg (lower number)
Normal	Less than 120	and	Less than 80
Elevated	120–129	and	Less than 80
High Blood Pressure (Hypertension) Stage 1	130–139	or	80–89
High Blood Pressure (Hypertension) Stage 2	140 or Higher	or	90 or higher
Hypertensive Crisis (consult your doctor immediately)	Higher than 180	and/or	Higher than 120

Clinical preventive services, such as routine screenings for high blood pressure, are key to reducing death and disability. To facilitate ongoing awareness and education about high blood pressure, The Big Squeeze continues its annual efforts in the Sioux Falls area by promoting free screenings throughout the community.

During The Big Squeeze 2018, only one-third of residents screened had a normal blood pressure, meaning two-thirds of residents had elevated or high readings. However, 59 percent of males and 67 percent of females indicated they had never been told they have high blood pressure, which emphasizes the importance of getting regular screenings



of people who have a first heart attack also have high blood pressure



of people who have a first stroke also have high blood pressure



Your risk of stroke increases **4–6x** if you have high blood pressure



At age 50, total life expectancy is **five years longer** for those with normal blood pressure.

FIGURE 5-4: 2018 BIG SQUEEZE COMMUNITY BLOOD PRESSURE RESULTS¹⁶

	Normal	Elevated	Stage 1 High	Stage 2 High	Crisis
Male	22.3%	17.2%	33.1%	36.1%	1.3%
Female	36.1%	16.9%	29.4%	17.1%	0.5%
Total	31.8%	17%	30.5%	20.0%	0.7%

Of the individuals screened during the 2018 Big Squeeze who indicated they had previously been diagnosed with hypertension, approximately 75 percent stated they were prescribed medication. Of those, 96 percent of males and 98 percent of females indicated that they take the medication as prescribed. When comparing those numbers to the previous year's Big Squeeze, the percentage of people prescribed medications had decreased, and the percentage of adherences to prescriptions remained the same.

Over the past three years, the Sioux Falls area has seen increasing numbers of young adults (ages 18-24) with elevated blood pressure. More than half of young men and a third of young women are entering the workforce and starting their careers with early risk factors for chronic disease, such as elevated blood pressure or above-normal waist circumference.

Along with the new blood pressure guidelines released in 2017 came a renewed focus on various lifestyle factors that impact blood pressure, such as physical inactivity, poor nutrition, drinking alcohol, and using tobacco. The Big Squeeze will continue to focus on education around these lifestyle behaviors, particularly with young adults.

Behavioral Health Via Telemedicine

Thanks to a generous \$7.8 million grant from The Leona M. and Harry B. Helmsley Charitable Trust, Avera is building a 24-hour telemedicine behavioral health team as part of Avera eCARE®.

It will allow patients and providers in remote areas to access a full behavioral health team as though the experts were sitting in the room.

"At the Helmsley Charitable Trust, we recognize the shortage of mental health professionals that exists in rural areas. This project is a truly innovative and groundbreaking way to extend behavioral health care to where it's needed most," said Walter Panzire, a Trustee of the Helmsley Charitable Trust.

"Across the U.S., there is a growing shortage of psychiatric workforce. At the same time, we see the need for behavioral health care increasing," said Deanna Larson, CEO of Avera eCARE. A 2018 study published in the American Journal of Preventive Medicine finds that a majority of non-metropolitan counties – 65 percent – do not have a psychiatrist, and 47 percent – or almost half of non-metropolitan counties – do not have a psychologist.

With an initial focus on services for people in crisis, Avera eCARE will provide virtual behavioral health assessments as well as treatment for patients in local emergency departments and inpatient psychiatric hospitals.

In time, Avera eCARE will also provide mobile support to first responders encountering individuals in crisis.

"When someone in a rural area experiences a mental health crisis, often the only option for those around them is to call emergency services in the form of law enforcement, fire and rescue or ambulance. For first responders and local ERs, the need for additional mental health knowledge is great, but the available resources may be few," Larson said.

FIGURE 5-5: LIFESTYLE BEHAVIORS IMPACTING BLOOD PRESSURE

A diet rich in fruits & vegetables, whole grains, and low-fat dairy and skimps on saturated fat and cholesterol can lower BP by up to 14 mmHg. ¹⁷	Regular physical activity, defined as getting at least 30 minutes of activity on most days of the week, can lower BP by 4 to 9 mmHg. ¹⁸
Nicotine constricts blood vessels and raises blood pressure, and the carbon monoxide in cigarette smoke forces the heart to work harder. Quitting smoking can naturally lower BP by 5 to 10 points. ¹⁹	Excess sodium contributes to high blood pressure. The daily recommendation is 2,300 mg (about 1 teaspoon of salt), but the average American currently consumes more than 3,400 mg a day. If adults reduced sodium by just 400 mg a day, our nation could save 28,000 lives and \$7 billion in health care costs each year. ²⁰

Cholesterol

High blood cholesterol is also a significant contributing factor for cardiovascular disease. Cholesterol is a waxy substance found in the fats (lipids) in your blood. While your body needs cholesterol to continue building healthy cells, having high cholesterol can increase your risk of heart disease.

In the 2018 CHNA Resident Survey, 31 percent of Sioux Falls area adults reported having been told they have high cholesterol, up from 23.6 percent in 2015.

Similar to controlling high blood pressure, individuals can lower cholesterol and reduce risk of heart disease and stroke by eating a heart-healthy diet, getting at least 150 minutes a week of moderate-intensity physical activity, avoiding tobacco smoke, taking any medications as prescribed and participating in regular heart and vascular screenings.

DIABETES

Diabetes is a disease in which your blood glucose, or sugar levels, are too high. Glucose comes from the foods we consume. Insulin is a hormone that assists the glucose to get into our cells, providing the cells with an energy source. With type 1 diabetes, the body does not produce insulin. Type 2 diabetes, which is more common, is a condition in which the body does not use the insulin properly.

Diabetes contributes to an increase in cardiovascular disease risk by two to four times, as well as peripheral vascular disease and kidney disease. In the United States, diabetes is the leading cause of nontraumatic amputations, blindness among working-aged adults, and end-stage renal disease.

While the national diabetes rate has decreased slightly, the Centers for Disease Control and Prevention (CDC) estimates that nearly 29 million Americans have diabetes and 86 million have prediabetes. However, less than 10 percent of people with prediabetes are aware of their condition. Annual direct medical costs and lost productivity due to diabetes in the U.S. equal \$245 billion.²¹

The good news is that the South Dakota diabetes rate has decreased from 9.2 percent (2012) to 7.9 percent (2016), and the Sioux Falls MSA rate has decreased from 8.3 percent (2012) to 7.9 percent (2016).^{22,23}

There are several controllable factors that cause diabetes, such as diet and exercise, and individuals with prediabetes can take proactive steps to prevent further complications of type 2 diabetes such as heart attack and stroke.

MENTAL HEALTH AND SUBSTANCE USE

Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with challenges. Mental health is essential to personal well-being, family, and interpersonal relationships, and the ability to contribute to community or society.²⁴

The 2018 CHNA Resident Survey asked respondents a set of questions regarding their own mental health (see Figure 5-6).

FIGURE 5-6: RESIDENTS' MENTAL HEALTH STATUS²⁵

	Nearly Every Day	More than half the days	Several Days	Not at all
Little Interest or Pleasure in Doing things	6%	11%	25%	58%
Feeling Down, Depressed, or Hopeless	7%	9%	23%	61%

In addition, the survey showed that 37 percent of residents responding had a past diagnosis of depression, 37 percent had a past diagnosis of anxiety or stress, 12 percent had been diagnosed with panic attacks and six percent with other mental health issues.

According to the Helpline Center Community Trends Report (2017), the top issues for teens contacting the Helpline Center are suicidal thoughts, relationship conflicts, loneliness, academic struggles and pressure, and emotional support.

Total suicide-related contacts, according to the report, totaled 806 in 2017, which was a 34 percent increase from the year before.

Mental health and physical health are closely connected. Mental health plays a major role in people's ability to maintain good physical health. Mental illnesses, such as depression and anxiety, affect people's ability to participate in health-promoting behaviors. In turn, problems with physical health, such as chronic diseases, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery.

Depression is an illness that may coexist with other behavior factors, such as substance abuse. Excessive alcohol use worsens depression symptoms, thus increasing the severity of the already present depression. Substance abuse associated with depression can lead to treatment noncompliance and can complicate disease treatment.

According to the National Institute on Drug Abuse (NIDA), the abuse of tobacco, alcohol, and illicit drugs in the U.S. results in more than \$740 billion annually in costs related to crime, lost work productivity and health care.

Sanford Addresses Behavioral Health and Substance Use Needs

Behavioral health and substance abuse disorders continue to be the number one concern overall for community leaders and residents in the communities that Sanford serves. The need for providers who specialize in behavioral health is increasing in each community across the Sanford footprint. Drug issues such as alcohol and prescription drug abuse, accessibility to drugs, and the prevalence of teen substance abuse provide new challenges and the need for bold new strategies. The 2018 CHNA builds on Sanford's past findings while moving us forward to meet the newly identified needs. Sanford continues to build on its legacy and service to meet community needs through expansion of the following multifaceted strategies, including those listed below:

- ### Transformative Integration of Behavioral Health into Primary Care

Sanford's approach to addressing behavioral health includes primary and specialty care clinics and medical centers as well as deployment of Medical Home. Sanford received the Centers for Medicare and Medicaid Services (CMS) Healthcare Innovations award in the amount of \$12M in 2012 to develop an innovative and sustainable primary care delivery model for patients with chronic disease through workforce development, enhanced technology and the integration of behavioral health in primary care clinics. The CMS award supported the expansion and enhancement of a fully integrated primary care team to include a re-engineered workforce of Registered Nurses (RN) as Health Coaches, and Clinical Social Workers as Behavioral Health Triage Therapists, psychiatrists and psychologists as primary care partners.

- ### Behavioral Health Triage and Integrated Health Therapists

The Behavioral Health Triage Therapist (BH TT) serves as an integral core team member within the patient-centered medical home. The BH TT provides diagnostic assessments and determines disposition triage according to the level of clinical acuity and medical and psychosocial complexity. The BH TT provides on-site crisis assessment and crisis intervention, brief counseling, referrals, and education services across the continuum of care, and follow-up to ensure continuity of care and to assure that patients are receiving appropriate behavioral health. The Integrated Health Therapist (IHT) serves patients as an integral member of a Patient-Centered Medical Home or Primary Care Clinic and is dedicated to helping patients get well and stay well within an inter-professional environment. The IHT is an important resource for patients and team members for issues related to mental and behavioral health, chemical health, psychosocial aspects of health and disease, and lifestyle management to support optimal patient functioning.

- ### Depression Severity Assessments

Sanford performs a depression assessment at each primary care visit. Patients assessed with depression have a care plan for services. During each visit, the severity of depression is tracked through the assessment tool to determine improvement. If referral for specialty care is required, Sanford's team of psychiatrists, psychologists, counselors and psychiatric nurses works with patients in individual and group settings.

- ### Controlled Substance Stewardship Committee

The Sanford Quality Committee formed a Controlled Substance Stewardship Committee (CSSC) led by Douglas Griffin, MD. The goal is to ensure patients are safe and well-treated and that physicians are educated in how to treat patients while being good stewards of the use of opioids. Outcomes of this work have shown a significant reduction in both the number of pills prescribed and prescriptions written.

- ### Peer Support Advocate

Sanford Sioux Falls has added a Peer Support Advocate (PSA) position to enhance addiction services provided by Sanford. The primary role of the PSA is to assist and direct people in recovery from addiction to the proper resources for ongoing care, promoting accountability and mitigating relapse.

FIGURE 5-7: THE COST OF SUBSTANCE ABUSE IN THE U.S.

	Health Care	Overall
Tobacco ^{26, 27}	\$168 billion	\$300 billion
Alcohol ²⁸	\$27 billion	\$249 billion
Illicit Drugs ^{29, 30}	\$11 billion	\$193 billion
Prescription Opioids ³¹	\$26 billion	\$78.5 billion

To help our residents live well, we must treat addiction the same as any other chronic disease so they can seek help and get the quality, lifelong care they need to stay healthy.

The CHNA stakeholder survey asked several questions related to substance abuse. When asked to rank their level of concern about various issues on a scale of one to five, with one being “not at all” and five being “a great deal” of concern, residents responded as shown in Figure 5-8.

FIGURE 5-8: COMMUNITY CONCERNS RELATED TO SUBSTANCE ABUSE³²



FIGURE 5-9: SIOUX FALLS DRUG SEIZURES (2008-2018*)

*2018 Data for Meth, Marijuana and Heroin are through November 2018

	2013	2014	2015	2016	2017	2018*
Cocaine (grams)	320.42	138.29	326.13	1,384.56	461.66	517.09
Crack (grams)	0	1.4	50.76	21.61	377.91	
Meth (grams)	9,239.35	4,522.89	4,433.53	17,227.58	5,063.97	25,546.32 (56.32 lbs)
Marijuana (pounds)	112.41	237.57	475.11	114.79	284.88	91.42
Synthetic Marijuana (grams)	419.71	1,750.99	4,056.89	804.04	373.44	
Ecstasy (Tablets)	22	10	3	0	2	
Heroin (grams)	121.13	4.13	8.96	91.81	139.85 (0.3 lbs)	3,828 (8.44 lbs)
Meth Labs	20	15	3	4	0	

According to the Sioux Falls Police Department, the top drug seizures are 1) Marijuana, 2) Methamphetamine (Meth), and 3) Prescription Pills. From January through November 2018, the community saw significant increases in meth and heroin and a slight drop in marijuana. However, marijuana remained number one.

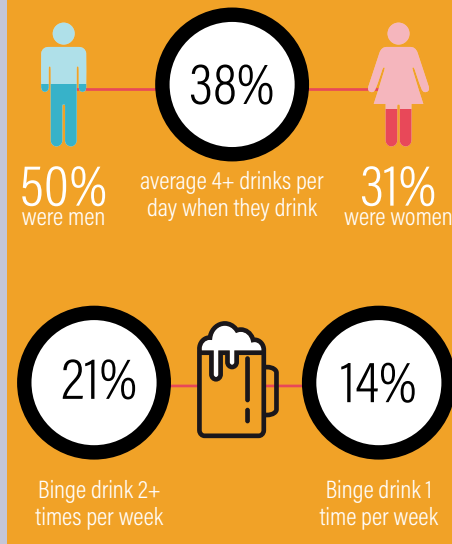
ALCOHOL CONSUMPTION

One measure of alcohol consumption in the U.S. is Excessive Alcohol Use, either in the form of binge drinking (5 or more drinks on an occasion for men, or 4 or more drinks on an occasion for women) or heavy drinking (15 or more drinks per week for men or eight or more drinks per week for women). Excessive alcohol use is associated with an increased risk of many health problems and unintentional injuries.

Looking at national data, South Dakota ranks 37th in the nation with an excessive drinking rate of 20.2 percent. The Sioux Falls MSA has a rate of 19.9 percent.³³ Although these numbers cannot be directly compared to those in the 2016 Community Health Needs Report*, there has not, unfortunately, been any significant change in the rates at the local or state level.

Rates of excessive alcohol use are slightly higher in the responses to the CHNA Resident Survey, and all adult age groups reported excessive alcohol use in the past 30 days.

FIGURE 5-10: SELF-REPORTED ALCOHOL USE IN THE SIOUX FALLS MSA³⁴



***Change in Binge Drinking Data**

Data in this report cannot be directly compared to the 2016 Community Health Status Report. Prior to the 2016 County Health Rankings, the CDC’s Behavioral Risk Factor Surveillance System (BRFSS) provided County Health Rankings with county-level estimates constructed from seven years of responses from participants who used a landline phone. However, even with multiple years of data, these did not provide reliable estimates for all counties, particularly those with smaller respondent samples. In 2016, the CDC began producing single-year estimates at the county level using a combination of BRFSS data and a multilevel modeling approach based on respondent answers and individual characteristics such as age, sex, and race/ethnicity, along with county-level poverty and county and state-level contextual effects.

Avera Addiction Care Center

An estimated 10 to 15 percent of people in the general population deal with chemical dependency, and Avera Behavioral Health Services has offered inpatient and intensive outpatient services for addiction care for many years. A new Avera Addiction Care Center on the Avera on Louise campus at 69th and Louise in Sioux Falls addresses this growing need.

This \$8 million project will consist of a main building with space for day treatment and group dining and a residential building with 32 private rooms. A fall 2019 opening is planned.

The architectural design will cultivate an environment of peace, serenity, and privacy. It will be a comfortable, home-like environment with an outdoor courtyard and walking trails. In planning for this facility, Avera assembled an advisory committee made up of experts in addiction, community members, and neighbors of the Avera on Louise campus.

Treatment at the center will typically be 28 days in length, and it is a voluntary program for adults who are seeking help to deal with addiction to alcohol or other substances. The center will provide several levels of residential care following criteria recognized by the American Society of Addiction Medicine (ASAM).

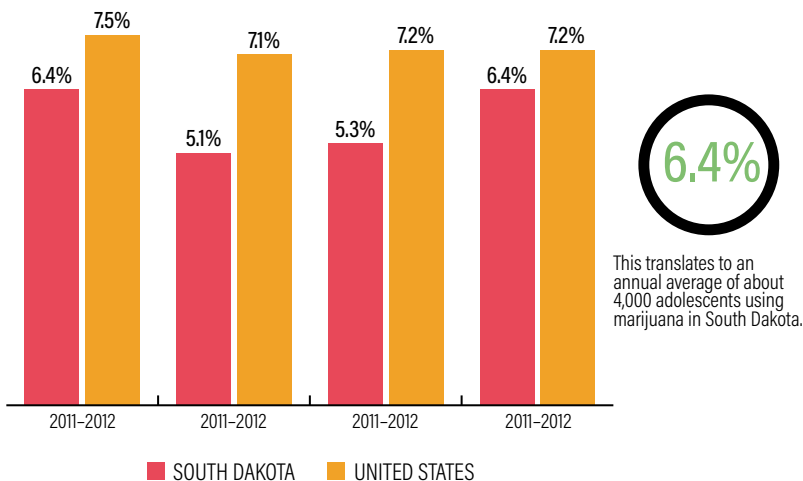
"Avera will be able to offer comprehensive care that's unmatched in our region. This includes our ability to treat dual behavioral health diagnoses, our high quality existing outpatient behavioral health program, and our use of genetics to identify the best psychiatric medications," said Matt Stanley, DO, Vice President of the Avera Behavioral Health Service Line and Avera Medical Group psychiatrist.

For more information about services at Avera, visit www.avera.org.

DRUG USE

Although the initial decision to take drugs is voluntary for most people, continued use can lead to brain changes that challenge an addicted person's ability to resist intense urges to take drugs. Addiction is a complex disease, but researchers continue to learn more about how drugs affect the brain and about treatments that can help people recover from drug addiction.³⁵

FIGURE 5-11: PAST MONTH MARIJUANA USE AMONG ADOLESCENTS AGED 12-17³⁶



Opioids are highly addictive narcotics commonly prescribed to treat pain. While they may provide relief for those struggling with chronic pain, opioids should be used only as directed by a prescriber. Here are some opioid facts³⁷:

- Fentanyl is a synthetic opioid often used to treat severe pain and is 50 to 100 times more potent than morphine. Prescription fentanyl is highly addictive. Most fentanyl related harm, overdose, and death is linked to illegally-made fentanyl, which is often mixed with heroin and/or cocaine.
- Heroin is an illegal and highly addictive opioid drug, and its use has increased dramatically in the United States among all age groups and income levels.
- Nearly all of the people who use heroin also use at least one other drug or alcohol, which is especially dangerous because it increases the risk of overdose.
- The opioid overdose mortality rate for South Dakota is six deaths per 100,000 (100K) population (ages 15–64). Minnehaha County's rate is 7.5 per 100K population, and the national rate is 14.1 per 100K population.

Falls Community Health: Helping Patients with Addiction

In October 2017, the acting secretary of the U.S. Department of Health & Human Services issued a well-founded public health warning regarding the opiate crisis. On an average day in the United States, 3,900 people initiate the use of prescription opiates for nonmedical uses and 580 people initiate the use of heroin. Every day, nearly 100 people die as a result of an opiate overdose. This is not just a Hollywood problem or a big city problem—South Dakota is also seeing an increased number of overdoses and deaths.

According to Dr. Jennifer Tinguely, Chief Medical Officer for Falls Community Health, it is important to recognize that addiction is a disease that can be treated and to be aware of available treatments. Medication assisted treatment (MAT) is a vital part of that treatment, and there is a growing body of evidence to show that it works and is saving lives. MAT is the use of FDA-approved medications, in combination with counseling and behavioral therapies, to help people treat their disease (addiction). These medications, which reduce cravings and lessen withdrawal symptoms, include methadone, naltrexone, and buprenorphine (Suboxone or Subutex). While some of the medications, specifically methadone, can only be provided by specialty clinics such as the Sioux Falls Treatment Center, a medication like naltrexone can be prescribed by any licensed medical professional (MD, DO, PA or NP) in any setting – including the patient's primary care clinic. Prescribing buprenorphine requires a special certification, but a growing number of primary care clinics are offering this to their patients. Falls Community Health, a primary care clinic in the heart of downtown Sioux Falls, has seven primary care providers who prescribe buprenorphine.

If you or someone you know is struggling with opiate addiction, please reach out and talk to your primary care provider. Addiction is a disease that deserves treatment just like high blood pressure and diabetes. While lifestyle changes may help lower a person's blood pressure or bring down their blood sugar levels, medications are oftentimes needed as well. The same approach should be taken with addiction.

"There are medications available that work to treat the disease," says Dr. Tinguely. "These medications, used alongside chemical dependency counseling, are proven to work, which means more lives saved and fewer families devastated by the loss of their loved ones."

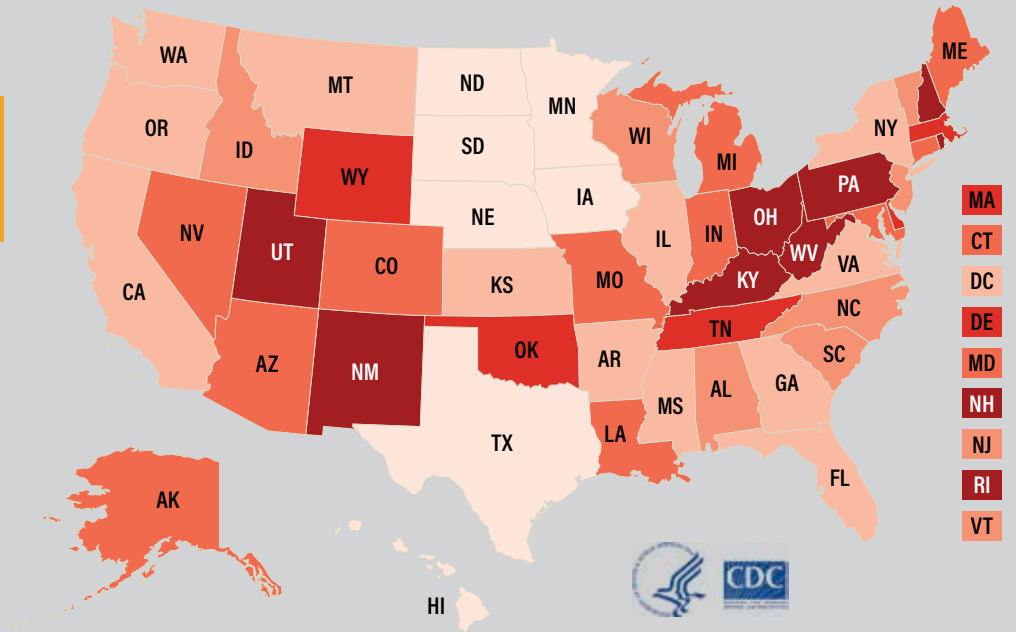
According to the Centers for Disease Control and Prevention (CDC), more than 140 Americans die each day from drug overdoses, 91 specifically due to opioids. In 2015, 52,404 Americans died from drug overdoses, and preliminary numbers indicate at least 64,000 died in 2016.³⁸

Because of the alarming increases in both the usage of opioids and in overdose deaths, the U.S. Department of Health and Human Services declared a public health emergency in 2017 and released its strategy to combat the opioid crisis. The primary focus areas are: better prevention,

FIGURE 5-12: INCREASES IN DRUG OVERDOSE DEATHS IN THE U.S.³⁹

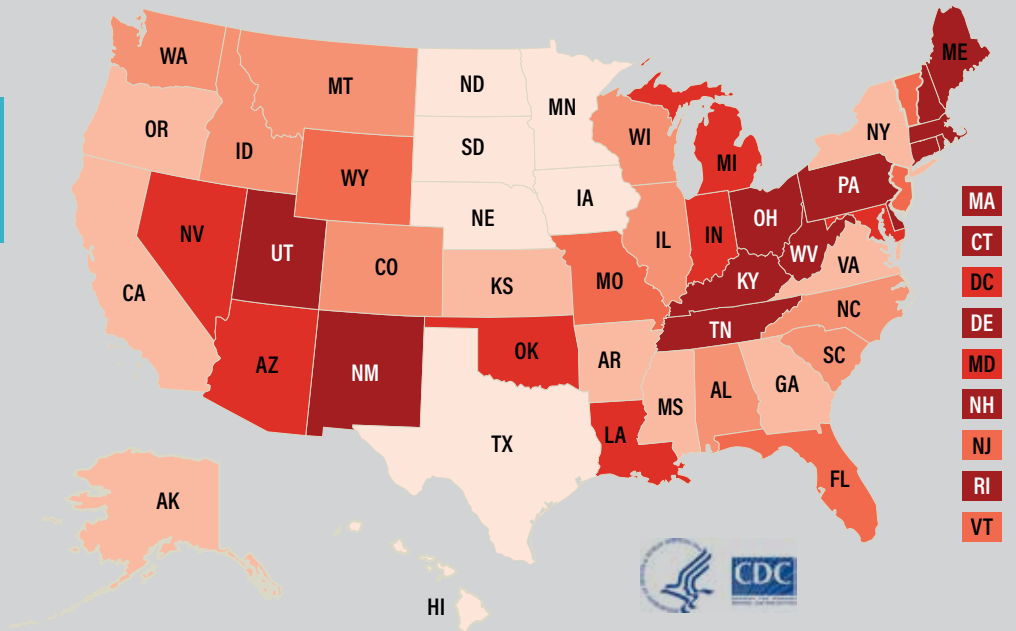
2014
NUMBER & AGE-ADJUSTED
RATES OF DRUG OVERDOSE
DEATHS BY STATE

- 6.3-11.0
- 11.1-13.5
- 13.6-16.0
- 16.1-18.5
- 18.6-21.0
- 21.0-35.5



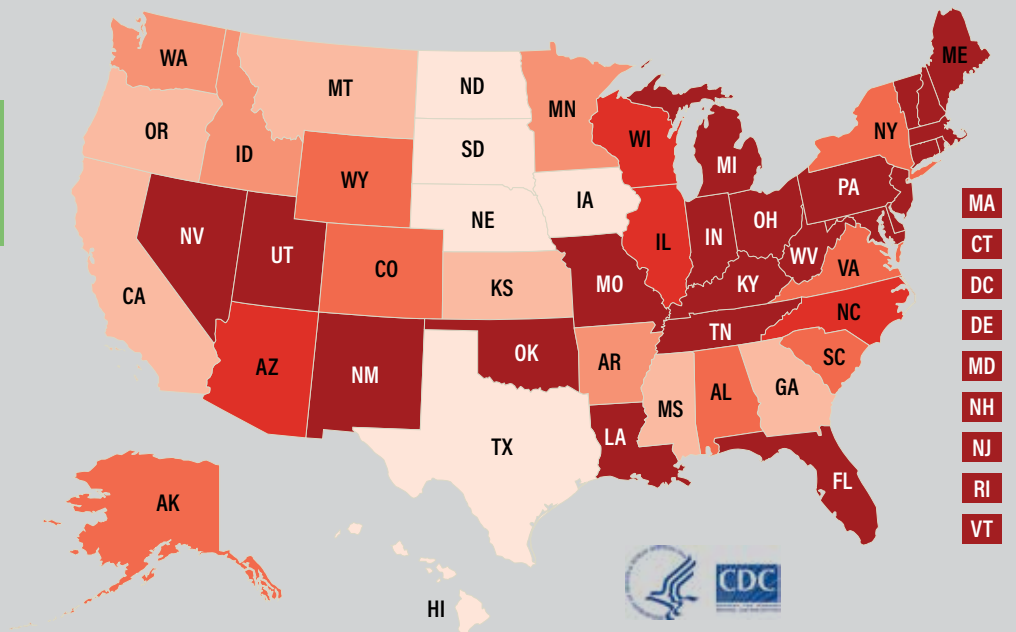
2015
NUMBER & AGE-ADJUSTED
RATES OF DRUG OVERDOSE
DEATHS BY STATE

- 6.9-11.0
- 11.1-13.5
- 13.6-16.0
- 16.1-18.5
- 18.6-21.0
- 21.0-41.5



2016
NUMBER & AGE-ADJUSTED
RATES OF DRUG OVERDOSE
DEATHS BY STATE

- 6.9-11.0
- 11.1-13.5
- 13.6-16.0
- 16.1-18.5
- 18.6-21.0
- 21.2-52.0



treatment, and recovery services; better data; better pain management; better targeting of overdose reversing drugs; and better research on pain and addiction.⁴⁰

Everyone has a role to play when it comes to preventing drug use and drug overdose, such as watching for warning signs that someone you know may be using harmful drugs.⁴¹ Some of these warning signs include:

- Neglecting responsibilities at work, school, or home because of drug use.
- Using drugs under dangerous conditions or taking risks such as driving while on drugs.
- Drug use that results in legal trouble such as stealing to support a drug habit.
- Drug use that causes problems in relationships such as arguments with family members and loss of friends.
- People affected by drug addiction may stop participating in activities they once enjoyed and may use drugs even when they realize the drugs could be causing problems.

Just like other chronic diseases such as diabetes or heart disease, addiction can be managed successfully over a lifetime. It is not uncommon for a person to suffer a recurrence of symptoms. That does not mean failure. It simply means that the current treatment and other supports should be evaluated or adjusted. Prevention programs that involve families, schools, communities, and the media can be effective in making people more aware about all types of addiction. Education is especially important to help youth and adults understand the dangers associated with alcohol and drug abuse and to overcome the stigma that may prevent them from getting help.

FIGURE 5-13: INDIVIDUALS ENROLLED IN SUBSTANCE USE TREATMENT IN SOUTH DAKOTA⁴² (Single-Day Counts)

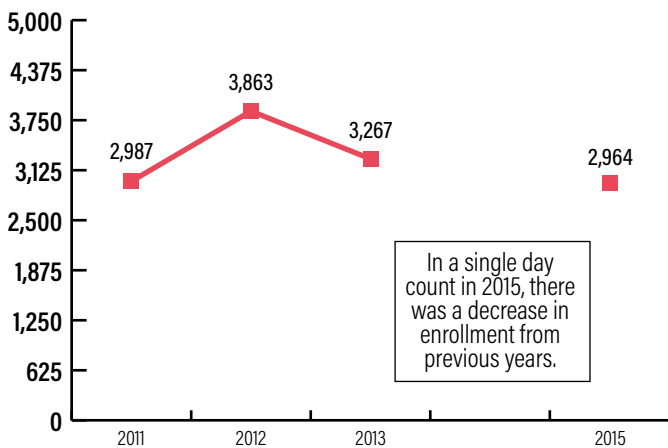
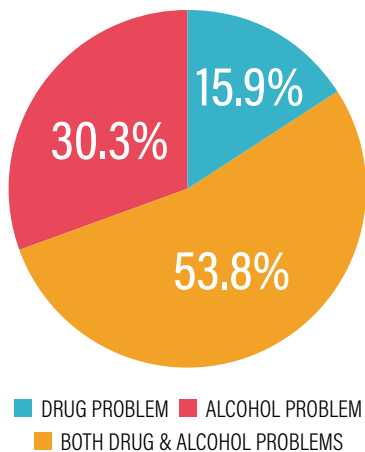


FIGURE 5-14: SUBSTANCE USE PROBLEMS AMONG INDIVIDUALS ENROLLED IN SUBSTANCE USE TREATMENT IN SOUTH DAKOTA⁴³



OBESITY

The prevalence of obesity in the U.S. population has increased steadily since the 1960s—from 3.4 percent of adults in 1962 to 39.8 percent in 2016, the year of the most recent Centers for Disease Control and Prevention data. In all, 180.5 million people—or 60.7 percent of the population ages two and over—were either obese or overweight.⁴⁴

FIGURE 5-15: TOTAL COSTS OF OBESITY AND OVERWEIGHT BY HEALTH CONDITION (2016)⁴⁵

	Cost (in \$ Millions)		
	Direct	Indirect	Total
Alzheimer's and Vascular Dementia	\$73,572	\$32,606	\$106,178
Asthma & COPD	\$10,564	\$16,234	\$26,798
Breast Cancer	\$5,900	\$3,669	\$9,569
Chronic Back Pain	\$38,476	\$217,291	\$255,768
Colorectal Cancer	\$6,151	\$5,425	\$11,576
Congestive Heart Failure	\$5,201	\$2,039	\$7,239
Coronary Heart Disease	\$22,700	\$39,315	\$62,015
Diabetes (Type 2)	\$120,707	\$214,500	\$335,208
Dyslipidemia	\$28,619	*	\$28,619
End Stage Renal Disease	\$3,716	**	\$3,716
Endometrial Cancer	\$189	\$158	\$347
Esophageal Adenocarcinoma	\$970	\$92	\$1,061
Gallbladder Cancer	\$22	\$17	\$39
Gallbladder Disease	\$26,863	\$27,401	\$54,264
Gastric Cardia Adenocarcinoma	\$1,433	\$136	\$1,568
Hypertension	\$29,323	\$432,230	\$461,553
Liver Cancer	\$87	\$67	\$154
Osteoarthritis	\$86,480	\$215,303	\$301,783
Ovarian Cancer	\$1,152	\$152	\$1,304
Pancreatic Cancer	\$146	\$738	\$884
Prostate Cancer	\$1,983	\$13,411	\$15,393
Renal Cancer	\$2,254	\$559	\$2,813
Stroke	\$14,148	\$14,527	\$28,674
	\$480,655	\$1,235,869	\$1,716,523

*Included in heart disease, diabetes, and stroke.

**Included in diabetes and hypertension.

FIGURE 5-16: PREVALENCE OF SELF-REPORTED OBESITY AMONG U.S. ADULTS.⁴⁶



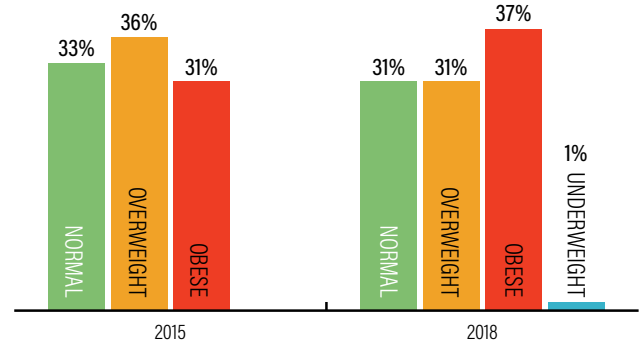
According to the State of Obesity 2018 report, no state in the U.S. had a significant improvement in its obesity rate over the previous year, no state has an obesity rate less than 20 percent, and 48 states have adult obesity rates exceeding 25 percent.⁴⁷

In addition, nearly one-third of young adults are too overweight to serve in the military.

In South Dakota, 31.9 percent of adults are obese (2017), an increase from 29.6 percent from the year prior.⁴⁸

Within the Sioux Falls MSA, the obesity rate has also increased. During the 2015 CHNA Resident Survey, 31 percent of adults were obese and 36 percent were overweight based on Body Mass Index (BMI). The 2018 survey found that 37 percent of adults are obese and 31 percent are overweight. This follows the national trend in which the number of obese adults now surpasses the number of overweight adults.

FIGURE 5-17: ADULT OBESITY IN THE SIOUX FALLS MSA⁴⁹



According to the S.T.O.P. Obesity Alliance at the George Washington University Milken Institute School of Public Health, there are more than 200 diseases associated with excess weight, impacting every single organ of the body.⁵⁰ Furthermore, these diseases are costly, with expenditures related to treating obesity-related illness in adults increasing 29 percent from 2001 to 2015.⁵¹

FIGURE 5-18: THE COST OF OBESITY AND OVERWEIGHT IN THE U.S.⁵²



When exploring various interventions designed to reduce obesity in adults, research found that for individuals with a BMI of 40 or greater, a 5 percent weight reduction would decrease annual medical costs by \$2,137. With the same percentage of weight reduction, individuals with a BMI between 35–40 would save \$528 annually.⁵³

Childhood Obesity

According to the South Dakota Department of Health, the state’s school-age obesity prevalence is currently lower than national trends. Approximately 17 percent of children and adolescents aged 2 to 19 years are obese in the United States. In comparison, 16.1 percent of South Dakota children and adolescents aged 5 to 19 years are obese.⁵⁴ Since 1980, however, the obesity prevalence for children and adolescents has nearly tripled.

FIGURE 5-19: OVERWEIGHT AND OBESITY IN SOUTH DAKOTA SCHOOLS⁵⁵

*Year represents the end of the school year.

Year	Total			Female			Male		
	# of Students	Overweight	Obese	# of Students	Overweight	Obese	# of Students	Overweight	Obese
2016	50,867	16.0%	16.1%	24,804	16.2%	15.1%	26,063	15.7%	17.0%
2015	54,363	16.2%	16.0%	26,371	16.4%	15.1%	27,992	15.9%	16.8%
2014	45,469	16.5%	15.8%	22,116	16.9%	14.9%	23,353	16.2%	16.7%
2013	50,845	16.6%	16.0%	24,726	17.0%	15.1%	26,119	16.2%	16.9%
2012	50,078	16.6%	15.9%	24,228	16.8%	14.9%	25,850	16.4%	16.8%
2011	49,146	16.1%	15.2%	23,721	16.0%	14.4%	25,425	16.1%	16.0%
2010	40,945	16.7%	16.0%	19,735	16.7%	14.6%	21,210	16.7%	17.3%
2009	40,202	17.0%	16.6%	19,412	17.1%	15.5%	20,790	17.0%	17.6%
2008	37,028	16.8%	16.3%	17,931	17.2%	14.5%	19,097	16.4%	17.9%
2007	41,579	16.6%	16.3%	20,359	16.9%	14.7%	21,220	16.3%	17.8%
2006	45,251	16.9%	16.9%	21,948	17.3%	15.3%	23,303	16.5%	18.3%
2005	35,489	16.6%	16.4%	17,295	16.7%	14.8%	18,194	16.6%	17.8%
2004	27,418	16.2%	15.8%	13,278	16.1%	14.3%	14,140	16.3%	17.2%

Other key findings from the South Dakota School Height and Weight Report (2015-2016) include:

- The percentage of American Indians in the overweight category increased from 19.4 percent in 2014–2015 to 20.2 percent in 2015-2016.
- The percentage of American Indians in the obese category increased from 28.0 percent in 2014–2015 to 28.9 percent in 2015-2016.
- South Dakota is still working toward the SD Department of Health 2020 goal of 14 percent overweight and obese in children and adolescents.
- In Education Service Agency (ESA) Region 2, which includes the counties of the Sioux Falls MSA (Lincoln, McCook, Minnehaha and Turner), 15 percent of students are overweight and 14.2 percent are obese.

Children who are obese are at higher risk of having other chronic health conditions and diseases that are more often seen in adults. These include asthma, sleep apnea, bone and joint problems, type 2 diabetes, and risk factors for heart disease.⁵⁶ Children may also experience mental health impacts as a result of being bullied and teased by peers, including social isolation, low self-esteem and depression.⁵⁷

There are multiple causes of childhood obesity, such as genetics, sleep, nutrition and physical activity levels. While we cannot change our genetics, there are steps all sectors of the community can take to help children prevent obesity and grow into healthy adults. Making it easier for children to choose healthy foods and to be active at home, at school, and throughout the community can positively influence the behaviors of children and adolescents.

ORAL HEALTH

According to the World Health Organization, oral diseases are the most common of the chronic diseases and are important public health problems because of their prevalence, their impact on individuals and society, and the expense of their treatment.⁵⁸ Health behaviors that can lead to poor oral health include tobacco use, excessive alcohol use, and poor dietary choices.

Oral health affects people physically and mentally, influencing everything from how they speak or taste food to how they sleep or socialize. Children are especially impacted by untreated tooth decay, which can lead to pain and infection, as well as trouble eating, talking, socializing, sleeping, and learning, all of which can impair school performance.⁵⁹

Cavities, also referred to as dental caries, are the most common chronic childhood disease, but they can be reduced through the use of topical fluoride varnish and sealants.

Of the Sioux Falls-area adults responding to the 2018 CHNA Resident Survey, 52 percent cite cost as the number one barrier to visiting the dentist, with lack of insurance and fear as the other top barriers. For nearly one-third of adults responding, it has been more than one year since they saw a dentist.

Pilot Project to Protect Young Teeth

Falls Community Health has three school-based clinics at Hawthorne, Hayward and Terry Redlin Elementary schools. To promote good oral health, the clinic piloted a dental sealant program for second grade students at Hawthorne and Terry Redlin—at no cost to families.

Children’s first permanent molars begin to erupt around six to seven years of age. Placing sealants on the chewing surface of back teeth is considered the best treatment for tooth decay prevention.

In 2017, the clinic saw a 50 percent return rate of consent forms at Terry Redlin and placed sealants on 20 students. Some children were ineligible to receive sealants due to the presence of existing sealants, fillings, or current decay.

During the 2018 pilot program at Hawthorne, 80 percent of students returned their consent forms.

FIGURE 5-20: EFFECTS OF POOR ORAL HEALTH ON SOUTH DAKOTANS⁶⁰

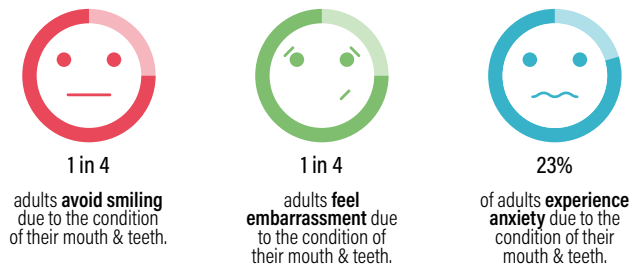
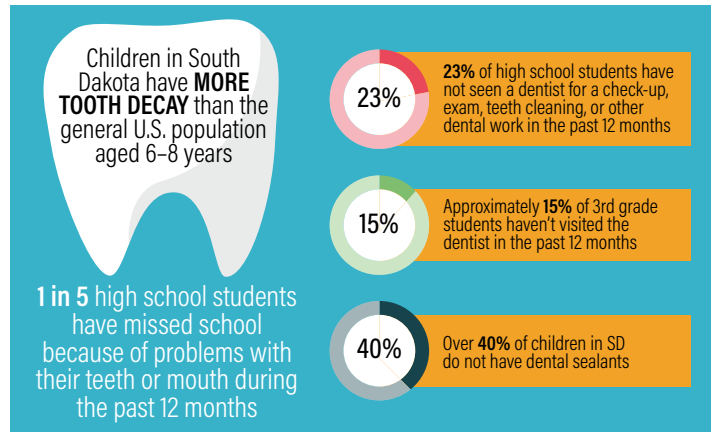


FIGURE 5-21: SOUTH DAKOTA CHILDREN’S DENTAL HEALTH STATISTICS⁶¹



While many improvements have occurred in the nation’s oral health care system, lack of access to dental care for all ages remains a challenge. Many communities and states across the country are exploring initiatives to expand access to dental care by integrating oral health with primary medical care and providing dental services in settings outside the dental office.

PREVENTION AND HEALTH PROMOTION

“The function of developing and protecting health must rank even above that of restoring it when it is impaired.”—Hippocrates

The concept of prevention has seemingly been around since the time of Hippocrates (c. 460 BC), who is known as the father of medicine. Even then, Hippocrates understood that it is better to be healthy than to be sick and in need of treatment.

With a focus on prevention, public health entities can improve the health of communities. Preventing illness and disease ensures children can attend school and improve academic performance, adults can work and be productive, and seniors can maintain their independence and enjoy a higher quality of life.

Released in 2011, The National Prevention Strategy elevated the conversation about public health prevention and the need for all sectors of a community to work together to improve health and quality of life for individuals at every stage of life.

FIGURE 5-22: A FOCUS ON PREVENTION TO IMPROVE INDIVIDUAL AND COMMUNITY HEALTH⁶²



Caring for Children: Delta Dental Mobile Services

Delta Dental takes services into communities with two trucks serving as mobile clinics. They provide preventive, diagnostic and restorative care for underserved children. Each truck travels with a dentist, hygienist, two dental assistants and a coordinator. They partner with communities to sponsor, schedule and promote the mobile visit.

Services are available for those up to age 21 who have not seen a dentist within the past two years or who live more than 85 miles from a dentist. The services are offered at no cost to the families of the children served. Medicaid and private insurance are accessed if available.

From January through December 2017, 438 children were served through mobile visits to Sioux Falls. Of those served, 24 reported missing school in the past year due to dental pain, 35 indicated they currently had a tooth ache, 72 had never seen a dentist before, and 13 had visited a hospital or emergency room because of dental pain in the past year.

In addition, 64 percent said they drink sweetened beverages daily and 68 percent had tooth decay.

Over the course of the year, these mobile visits provided more than \$400,000 in diagnostic procedures, preventive procedures and restorative procedures for children in the Sioux Falls area.



Health promotion and prevention activities offer proactive approaches to motivate individuals to adopt healthy behaviors for improving their health and preventing chronic disease. This approach involves not only empowering individuals to make healthy lifestyle choices, but also focusing on strategies that include appropriate use of screening for early detection of disease.

IMMUNIZATIONS

Immunizations during childhood are recognized as a major contributing factor to the increased lifespan today's Americans enjoy. Prior to vaccination, infectious diseases were widespread and caused considerable disability and death.

Immunizations have made measles and other once-common childhood diseases very rare in South Dakota. Vaccines have been so effective that some parents no longer see such diseases as a threat and choose to delay vaccination for their children, while some avoid it altogether. Fortunately, South Dakota's immunization laws are strong and effective, particularly for the school entry population. This strong support translates into very high coverage levels by the time kids enter kindergarten. Unfortunately, coverage is not as good for either preschoolers or adolescents.⁶³

According to the Healthy People 2020 initiative, vaccines are cost-effective and an essential component of preventive services, with childhood immunizations providing a significant "return on investment. For example, each birth cohort vaccinated with the routine immunization schedule saves 33,000 lives, prevents 14 million cases of disease, reduces direct health care costs by \$9.9 billion, and saves \$33.4 billion in indirect costs.⁶⁴

In addition to their success in preventing childhood disease, vaccines in adults have been highly effective in reducing morbidity and mortality from infectious diseases. There are many reasons to vaccinate adults. In some cases, immunity from childhood vaccinations lessens over the years and booster doses are needed to maintain immunity, as is the case for the combined tetanus, diphtheria and pertussis (Tdap) vaccine. In other cases, vaccine-preventable diseases affect adults but are less common in children or affect children in different ways, such as herpes zoster (shingles).

Unfortunately, large portions of the adult population do not receive recommended vaccinations. As a result, more adults die from vaccine-preventable diseases than die from motor vehicle accidents.⁶⁵

The 2018 CHNA Resident Survey asked questions of residents about preventive screenings. Among adults responding, 64 percent reported having had a flu shot in the past year (down from 72.6 percent in the 2015 survey), and 23 percent reported having other immunizations (same rate as the 2015 survey).

Public health places a high priority on maintaining a strong immunization program and the high vaccination coverage levels needed to protect our citizens from the threat of vaccine-preventable diseases.

School Immunization Requirements

South Dakota Department of Health (DOH) administrative rules require both the Tdap (Tetanus, Diphtheria, Pertussis) and MCV4 (Meningococcal ACYW) vaccines for 6th grade students. The requirement is a result of legislation passed in 2016 adding meningococcal infection to the list of diseases specified in South Dakota Codified Law 13-28-7.1 for which DOH can require vaccination for school entry in South Dakota.

School entry requirements for South Dakota 6th grade students include:

- One dose of Tdap vaccine (tetanus, diphtheria, pertussis)
- One dose of MCV4 vaccine (meningococcal ACYW)
- The requirements apply only for 6th grade entry and transfer students 6th–12th grade
- If a child is 10 years old when entering the 6th grade they have 45 days after their 11th birthday to be vaccinated

Parents are also encouraged to consider additional immunizations, including HPV (Human Papillomavirus) and Flu (Influenza).

The DOH utilizes the recommendations of the Advisory Committee on Immunization Practices (ACIP) and the Centers for Disease Control and Prevention (CDC) to determine which vaccines are necessary.

NUTRITION

About half of all American adults have one or more preventable, diet-related chronic diseases, including cardiovascular disease, type 2 diabetes, and overweight and obesity.⁶⁶ Eating healthy means consuming a variety of nutritious foods and beverages, especially vegetables, fruits, low-fat and fat-free dairy products, lean proteins, and whole grains; limiting intake of saturated fats, added sugars, and sodium; keeping trans fats as low as possible; and balancing caloric intake with calories burned to manage body weight.

Many factors influence the nutrition behaviors of individuals, including access to healthy and affordable foods; knowledge, beliefs, and attitudes about good nutrition; and social and cultural factors.

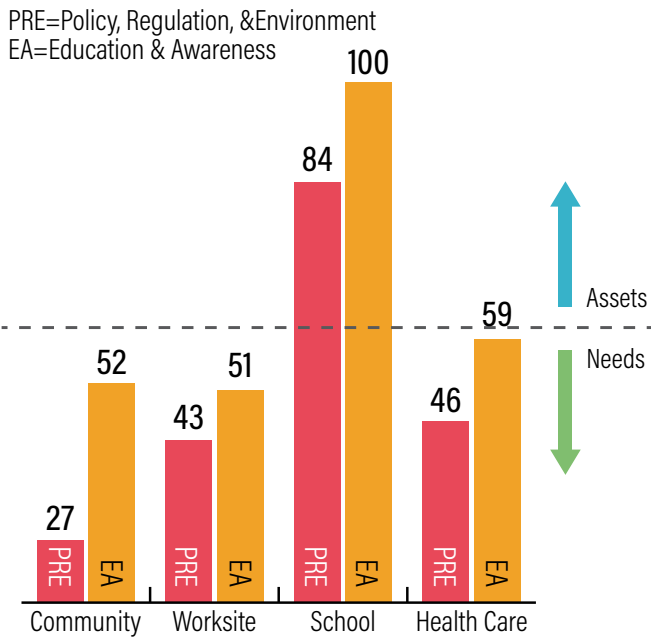
Community Assets and Needs Related to Nutrition

Using the South Dakota Good & Healthy Community Assessment, representatives from several sectors of the community rated Policy, Regulations, and Environment (PRE) efforts, along with Education and Awareness (EA) efforts related to nutrition.

In Figure 5-23, scores over 60 represent an indication of nutrition assets, while scores below 60 indicate areas of need.

Of the four topics addressed through the Good & Healthy SD Assessment tool, nutrition has the most areas of need. All sectors, with the exception of schools, saw scores below 60 in both policy, regulation, and environment (PRE) strategies to improve nutrition and in education and awareness (EA) about nutrition. Specific assets and needs identified through the assessment process are listed in the Appendix.

FIGURE 5-23: COMMUNITY NUTRITION ASSESSMENT⁶⁷



FOOD SECURITY

The term food security is used to indicate having a reliable source of food and sufficient resources to purchase it, and it is one way to measure a person's risk of hunger. Currently in the United States, one in eight people struggle with hunger. While some populations, such as children or seniors, are often at greater risk, it can happen to anyone. A job loss, medical crisis or even unexpected car maintenance can place families in the position of choosing between paying other bills or paying for food.⁶⁸

When individuals are food insecure, they are more likely to experience diet-related health conditions such as diabetes or high blood pressure. For children who do not have enough healthy food, academic achievement and even their future economic prosperity are at risk. Food insecurity in children has been linked to delayed development, risk of chronic illnesses, and behavioral problems like hyperactivity, anxiety, or aggression.⁶⁹

Although Sioux Falls has many grocery stores, the community is also home to more than one food desert, which according to the US Department of Agriculture, is a defined area – oftentimes an impoverished area – with limited fresh fruit, vegetables, and other healthful whole foods. Food deserts largely exist due to a lack of grocery stores, farmers' markets, and healthy food providers.

In December 2018, Sioux Falls Thrive and the Augustana Research Institute released a report titled, Food Security & Food Systems in Sioux Falls. This report outlined three food desert areas that are underserved by retail and charitable food assets:

1. North Central Sioux Falls—east of the airport and including the Froehlich Addition and Norton Tracks neighborhoods. This area has among the highest rates of households receiving SNAP and of visits to the Feeding South Dakota food pantry.
2. Hayward—located between Skunk Creek and Madison Street (north/south) and between I-29 and Ellis Road (east/west). The area north of 12th Street has fewer assets.
3. Empire Mall—area near 49th Street and Louise Avenue has low access to charitable food assets and is home to a high proportion of low-income families and families without vehicle access.

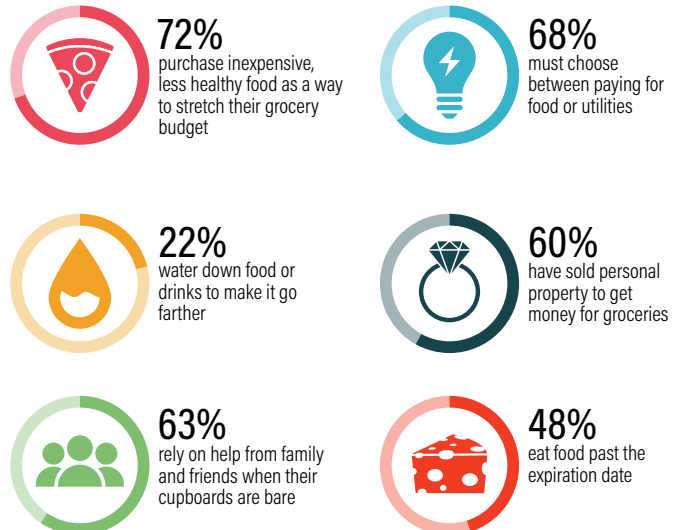
For more information on the food systems in Sioux Falls, see the Appendix for the following maps: Food Access Sites (charitable and non-charitable) and Low Income/Low Healthy Food Access Areas.

FIGURE 5-24: FOOD INSECURITY COMPARISON⁷⁰

	Food Insecure	Average Meal Cost	Food Budget Shortfall
U.S.	12.9% 41,204,000	\$3.00	\$21,122,544,000
SD	11.7% 100,990 people	\$3.01	\$51,929,000
Lincoln County	7% 3,620 people	\$3.43	\$2,120,000
McCook County	9.1% 510 people	\$2.99	\$260,000
Minnehaha County	11% 20,070 people	\$2.91	\$9,997,000
Turner County	9.4% 780 people	\$2.97	\$396,000

FIGURE 5-25: SOUTH DAKOTANS' CHOICES DUE TO LIMITED RESOURCES⁷¹

Every day, more than 100,000 people in South Dakota are at risk of going hungry. Of the families who rely on Feeding South Dakota:



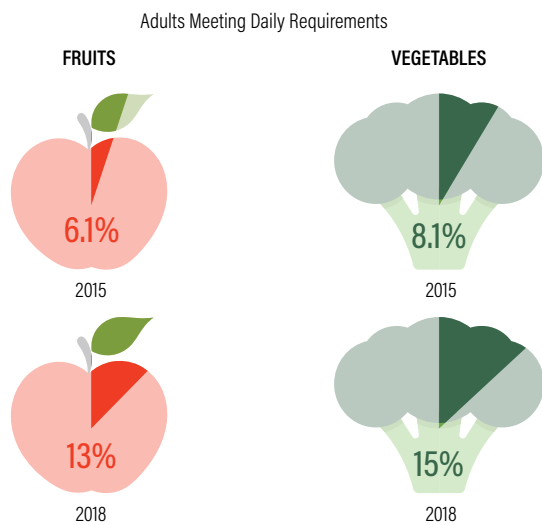
FRUIT & VEGETABLE CONSUMPTION

Eating more fruits and vegetables adds nutrients to diets, reduces the risk for heart disease, stroke, and some cancers, and helps manage body weight when consumed in place of more energy-dense foods.⁷²

According to the Centers for Disease Control and Prevention, just one in ten adults meets the federal fruit or vegetable recommendations. Depending on age and gender, federal guidelines recommend that adults eat at least 1½ to two cups per day of fruit and two to three cups per day of vegetables as part of a healthy eating pattern.

Questions about fruit and vegetable consumption were included in the 2015 and 2018 resident surveys completed as part of the Community Health Needs Assessment process. Rates have increased slightly over the past three years, but overall, adults in the Sioux Falls area still rank among the lowest in the nation for fruit and vegetable consumption.

FIGURE 5-26: FRUIT & VEGETABLE CONSUMPTION IN THE SIOUX FALLS MSA⁷³



Strategies to Increase Fruit and Vegetable Consumption

Because fruit and vegetable consumption affects multiple health outcomes and is currently low across the country, it is essential to continue focusing on increasing both demand for, and consumption of, healthy foods. Improving fruit and vegetable intake for adults might start with attention to intake during childhood, in hopes that better nutrition practices early in life will build healthier lifestyles later in life.

Strategies can be implemented in a variety of food environments such as child care, schools, communities, and worksites. Some examples include:

- Communities can focus on improving fruit and vegetable accessibility, placement, and promotion in grocery stores, restaurants, and other community settings.
- Schools and early child care settings can ensure current federal nutrition standards for fruits and vegetables in meals and snacks are met and exceeded, as well as provide training for staff to make fruit and vegetables more appealing and accessible.
- Worksites can provide incentives for employees to make healthy food choices and create social norms that support healthy eating. Employers can also explore policies to ensure fruits and vegetables are provided at the worksite (vending, cafeterias, etc.) and at worksite gatherings, including meetings, conferences and other events.



Feeding South Dakota and Siouxland Libraries Partner for Healthy After-School Snacks

Anne Sullivan Elementary's 2:45 p.m. dismissal triggers an influx of youngsters—on average 100 per day—to the Siouxland Libraries Oak View Branch, located just across the street.

The library offers programs that engage kids in a safe place while they wait for parents to pick them up after work. In addition, Food for All, a partnership with Feeding South Dakota, provides a daily healthy snack like crackers, cheese sticks, or fruit.

Food for All has shared 37,000 snacks since its 2015 launch, according to branch librarian James Borchert.

"When you eat lunch at 10:45 or 11 a.m., your blood sugar is likely to be low by the time school gets out for the day," he says. "It's hard to learn or behave appropriately on an empty stomach. Over time, as we've offered snacks, engaging programs and fellowship, kids' overall behavior has gotten better.

Learning curve elevated!

FIGURE 5-27: SIOUX FALLS MSA ACCESS TO EXERCISE OPPORTUNITIES*⁷⁷

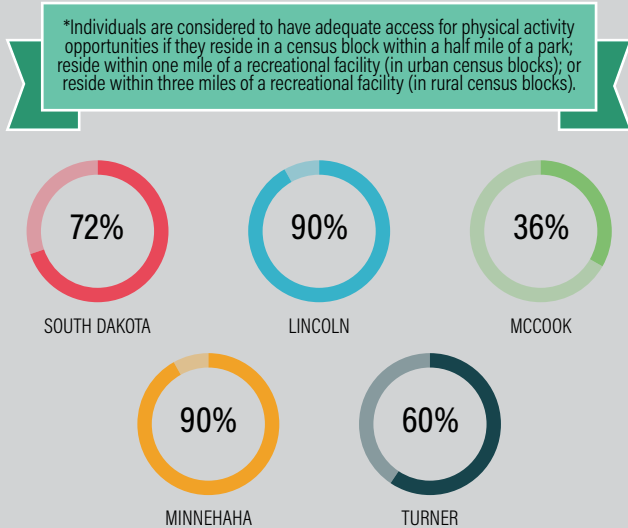
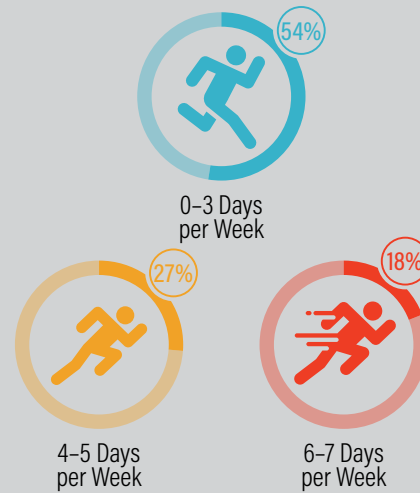


FIGURE 5-28: SIOUX FALLS MSA ADULT PHYSICAL ACTIVITY⁷⁸



New Physical Activity Guidelines for Americans

The latest evidence-based recommendations for physical activity include new guidelines for children (ages 3–5) and updated guidelines for youth (ages 6–17), adults, older adults, women during pregnancy and the postpartum period, adults with chronic health conditions, and adults with disabilities. Here is what you need to know:

- Children should be active throughout the day. Adults caring for children should encourage active play (light, moderate, or vigorous intensity) and aim for at least three hours per day.
- The recommended amount of physical activity for youth is the same—at least 60 minutes of moderate-to-vigorous activity daily.
- The first key guideline for adults is to move more and sit less. There is a strong relationship between increased sedentary behavior and increased risk of heart disease and high blood pressure.
- The recommended amount of physical activity for adults is the same—at least 150 minutes of moderate-intensity aerobic activity, such as brisk walking or fast dancing, each week. Adults also need muscle-strengthening activity, like lifting weights or doing push-ups, at least two days each week.
- Any amount of physical activity has some health benefits. Americans can benefit from small amounts of moderate-to-vigorous physical activity throughout the day. It no longer has to be in 10-minute increments, as stated in previous guidelines.
- Physical activity has immediate health benefits. It can reduce anxiety and blood pressure and improve quality of sleep and insulin sensitivity.
- Meeting the recommendations in the Physical Activity Guidelines for Americans consistently over time can lead to even more long-term health benefits.

PHYSICAL ACTIVITY

Physical activity, which has been defined as “any bodily movement produced by skeletal muscles that results in energy expenditure,”⁷⁴ provides important health benefits across the lifespan. Strong scientific evidence demonstrates that physical activity both reduces the risk of many chronic medical conditions and provides effective treatment for many diseases.

While the national rate of adults meeting federal physical activity guidelines has increased from 2008 to 2016, from 18.2 to 22.5 percent, that still leaves a large percentage of Americans who are not meeting current guidelines. This deficiency accounts for a sizeable population health burden.⁷⁵

In recent years, health professionals have started to use the term “sitting disease” to describe the negative health effects of long periods of physical inactivity, including links to obesity and heart disease. One study estimated that the

average American spends 55 percent of waking time, or 7.7 hours per day, in sedentary behaviors such as sitting.⁷⁶

However, among adults and older adults, physical activity can lower the risk of:

- o Early death
- o Coronary heart disease
- o Stroke
- o High blood pressure
- o Type 2 diabetes
- o Eight types of cancer (bladder, breast, colon, endometrium, esophagus, kidney, stomach and lung)
- o Falls
- o Depression
- o Dementia (including Alzheimer’s disease)
- o Excessive weight gain

Among children and adolescents, physical activity can:

- o Improve bone health.
- o Improve cardiorespiratory and muscular fitness.
- o Decrease levels of body fat.
- o Reduce symptoms of depression.
- o Enhance learning and academic performance.

For people who are inactive, even small increases in physical activity are associated with health benefits. While residents in the Sioux Falls MSA have access to opportunities to be physically active, responses to the 2018 CHNA Resident Survey reveal that not all adults are taking advantage of those opportunities.

Human Performance Center

Avera is building the Avera Human Performance Center on the Avera on Louise Health Campus at 69th and Louise in Sioux Falls to better serve athletes of all ages and ability levels, and promote overall health and wellness throughout a lifetime.

“The Avera Human Performance Center focuses on the needs of people who want to improve their health, strength, power, speed and stability or overall physical performance,” said Jonathan Buchanan, MD, sports medicine specialist with Avera Orthopedics in Sioux Falls. “Orthopedics and sports medicine are all about helping people move – pain free – from prevention to intervention to recovery and getting back into action after an injury.”

Programs will be offered within an environment of respect, integrity, perseverance, inclusion, balance and enjoyment.

The 60,000-square-foot facility will house a sports medicine clinic. A therapy gym will feature an anti-gravity treadmill, Pilates equipment, isokinetic balance equipment, a gait-analysis treadmill with 3-D motion capture system, as well as an underwater treadmill and an aquatic therapy pool. A nutrition bar will be open to anyone who enters the facility.

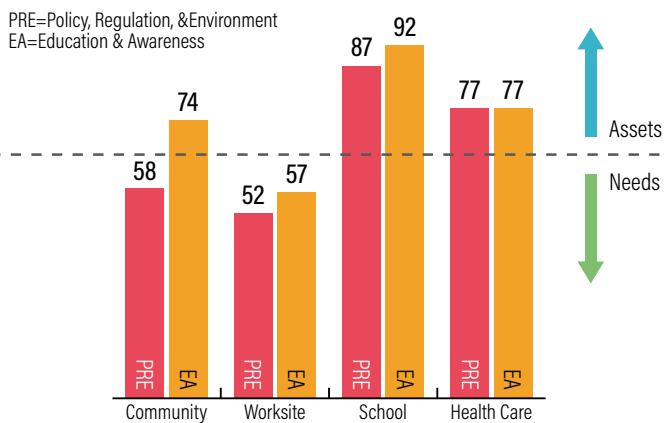
The center will feature seven volleyball courts and a future phase will include new basketball courts. The complex will also be home to Athletic Republic, Avera’s sports performance training program. This area includes a biomechanics lab, cardio equipment room, performance weight room, cycling room, turf and plyometrics floor. A movement classroom will allow the center to host classes such as yoga, Pilates, tai chi and more. It will be home to AR-FIT classes for active adults of all ages.

The Avera Human Performance Center will open in December of 2019. For more information, visit www.avera.org.

Community Assets and Needs Related to Physical Activity

Using the South Dakota Good and Healthy Community Checklist, representatives from several sectors of the community rated Policy, Regulation, and Environment (PRE) and Education and Awareness (EA) efforts related to physical activity. In the following chart, scores over 60 represent an indication of nutrition assets, while scores below 60 indicate needs in the area of physical activity.

FIGURE 5-29: COMMUNITY PHYSICAL ACTIVITY ASSESSMENT⁷⁹



Understanding the factors that influence an individual’s physical activity behaviors is important to ensure the effectiveness of strategies to improve physical activity levels for all residents.

Move Well with Active Transportation

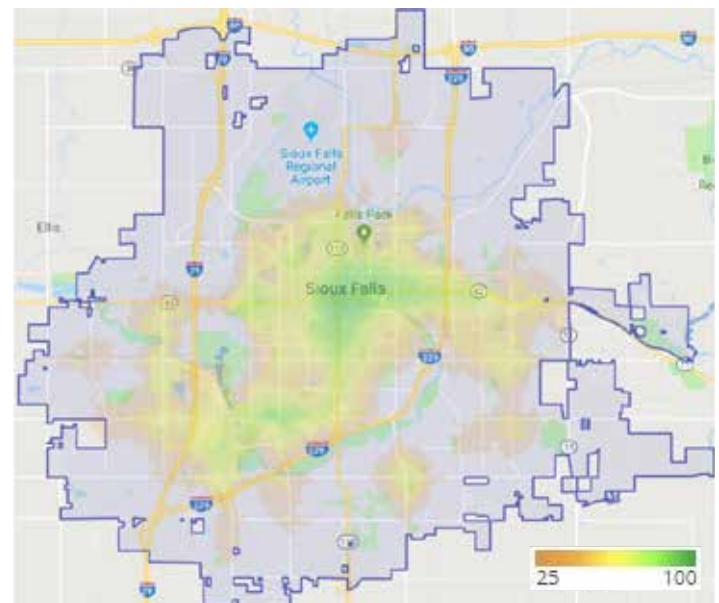
Making changes to a community’s physical environment can foster more active transportation, which is any human-powered means of travel, such as walking, biking, or wheelchair rolling. Public transportation is also a form of active transportation because it involves walking or bicycling at the beginning and end of most trips.

Community design strategies include locating residences within short walking distance of stores, workplaces, public transportation, and schools. Street design can enhance the traveling experience for pedestrians and bicyclists by providing sidewalks, paths, safe crossings, and reduced traffic speeds. The goal is simply to make physical activity easier for people to incorporate into their everyday lives.

One measure of community walkability is to look at the WalkScore, which measures the walkability of any address based on the distance to nearby places and pedestrian friendliness. Sioux Falls scores a 37 out of 100, classifying the community as “car dependent.”

Distance to destinations is not the only measure of walkability, however. You can live close enough to your workplace so you could walk, but if there are no sidewalks or traffic speeds are high, you may be less likely to walk. Factors such as safety, accessibility, attractiveness of the environment and personal comfort are also important aspects of walkability.

FIGURE 5-30: SIOUX FALLS COMMUNITY WALK SCORE⁸⁰



37
WALK SCORE



17
TRANSIT SCORE



42
BIKE SCORE

Why should communities explore more fully the needs of pedestrians, bicyclists and public transit users? Most importantly, because a majority of them want walkable communities.

According to the 2017 National Community and Transportation Preference Survey by the National Association of Realtors, the majority of Americans (53 percent) would rather live in houses with small yards but within easy walking distance of community amenities, as opposed to living in houses with large yards but then needing to drive to all amenities. This up from 48 percent in 2015. Looking at two specific age groups, 62 percent of millennials and 55 percent of the “silent generation” (those born before 1944) prefer walkable communities and short commutes.⁸¹

Healthy People 2020 reflects a collaborative approach to promoting physical activity. This approach brings about traditional partnerships, such as education and health care, with nontraditional partners representing public health, transportation, urban planning, recreation, worksites, and churches. These partnerships acknowledge that personal, social, economic, and environmental factors all play a role in physical activity levels among youth, adults, and older adults.

Helping Sioux Falls Move Well

According to the CHNA Resident Survey (2018), less than half of adults are meeting daily physical activity recommendations. These findings spurred the creation of a community-wide initiative to increase physical activity. The Sioux Falls Parks & Recreation system features 80 parks, three golf courses, swimming pools and a 30-mile bike trail system that circles the city. In addition, there are a variety of specialty gyms and fitness studios throughout the community. Understanding the need to increase physical activity levels, and realizing the wealth of physical activity assets available, Live Well Sioux Falls, in collaboration with a number of partners, created Move Well Sioux Falls, a community fitness festival.

The unique event featured 27 different vendors who offered more than 80 free classes on a Saturday morning at Riverdale Park in Sioux Falls. The wide range of classes included chair yoga, gymnastics, dance, Pilates, boot camp and more. Mayor Paul TenHaken proclaimed August 11, 2018, as "Move Well Day" in Sioux Falls, and over 300 people from the community attended this first-ever event. Over the course of the morning, people from all walks of life, ages, abilities and fitness levels were able to try fifteen-minute classes and decide what types of activity they enjoyed. The event brought the public and private sectors together to focus on an important health issue and to show that everyone can work together to help our residents be physically active.

The event was incredibly successful, and the second annual Move Well Sioux Falls event is already being planned for 2019.

SEXUAL HEALTH

Sexual health is a state of physical, emotional, mental, and social well-being in relation to sexuality. It requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence. Love, affection, and sexual intimacy are all part of healthy relationships, which contributes to our sense of well-being. Our sexuality affects who we are and how we express ourselves.

Factors that can affect sexual health include:

- Sexual orientation and gender identity.
- Concerns about family planning, unplanned pregnancy, or infertility.
- Sexually transmitted diseases (also referred to as sexually transmitted infections).
- Intimate partner and sexual violence.
- Physical, mental, and emotional health.
- Media, culture, religion, family, friends, and individual experiences.

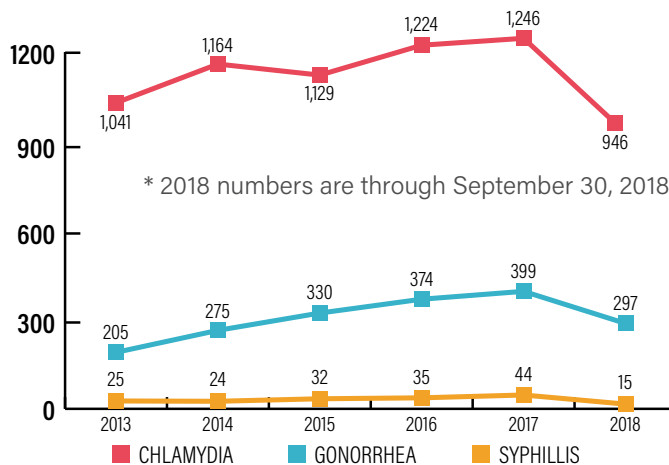
According to the Centers for Disease Control and Prevention (CDC), the rates of chlamydia, gonorrhea, and syphilis increased four years in a row, with gonorrhea and syphilis rates being the highest since the early 1990s.⁸²

FIGURE 5-31: STD RATES FOR THE U.S.⁸³

1.7 MILLION CHLAMYDIA CASES	22% INCREASE SINCE 2013
555,608 THOUSAND GONORRHEA CASES	67% INCREASE SINCE 2013
30,644 THOUSAND PRIMARY & SECONDARY SYPHILIS CASES	76% INCREASE SINCE 2013
918 CASES OF CONGENITAL SYPHILIS	154% INCREASE SINCE 2013

According to the South Dakota Department of Health, South Dakota infection rates mirror national data. According to state STD reporting, gonorrhea cases have increased fivefold over the past decade, chlamydia cases have doubled since 2003, and the incidence of syphilis has increased sharply in recent years. The rate of new HIV/AIDS cases had been holding steady prior to 2012, but the number nearly doubled from 2015 to 2016 to a high of 47 cases.

FIGURE 5-32: STD RATES FOR THE SIOUX FALLS MSA⁸⁴



The Centers for Disease Control and Prevention estimates that youth ages 15–24 make up just over one-quarter of the sexually active population, but account for half of the 20 million new sexually transmitted infections that occur in the United States each year.⁸⁵

In South Dakota, the largest number of cases reported is among those between the ages of 15 and 24 and in Sioux Falls, approximately 54 percent of STD cases are individuals between 20–29 years of age.

The challenge with STDs is that they are easy to spread, yet hard to detect. Many young people may not even know they have been infected because STDs do not always have immediate symptoms. However, by not getting screened, people are at risk for serious health problems, such as HIV, cervical cancer, or infertility.

There are a number of factors that put younger people at risk, including not getting screened or having limited access to screenings, concerns about confidentiality, thinking they are not at risk, having multiple partners, and even social media and the Internet, which have made it easier for people to find anonymous sex partners.

Avera and Catholic Teaching

As ministries of the Catholic Church, Avera McKennan and the Avera Heart Hospital promote and uphold Catholic teaching regarding the dignity of the human person; profound respect for human life from the moment of conception until natural death; a commitment to provide holistic care of body, mind, and spirit; the sanctity of marriage; the dignity of conjugal love through which human life is transmitted; and respect for the family. Avera McKennan and Avera Heart Hospital operate in accordance with the Ethical and Religious Directives for Catholic Health Care Services.

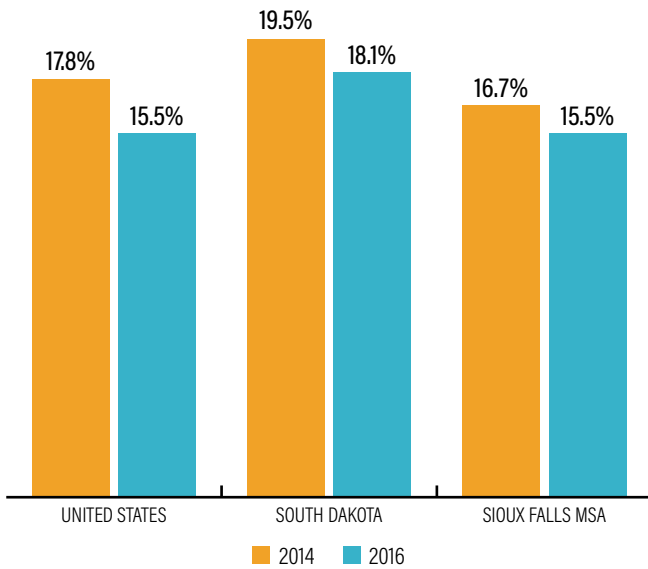
TOBACCO PREVENTION

Tobacco remains the single most preventable cause of disease, disability, and death in the United States. Smoking harms nearly every organ in the body and causes cancer, heart disease, stroke, respiratory illness, and many other health problems.⁸⁶

While nationwide efforts to curb tobacco use has cut the smoking rate in half since the first U.S. Surgeon General’s report on tobacco over 50 years ago (which is one of the great public health successes of the 20th Century), cigarette smoking still accounts for more than 480,000 deaths every year, or one of every five deaths.⁸⁷

In South Dakota, 19.3 percent of adults still smoke cigarettes, which is higher than the national average and higher than our neighboring states. That is nearly one in five adults in South Dakota who smoke, and the rate increases to one in four adults when combining cigarettes and spit tobacco use. Cigarette smoking causes approximately 1,000 deaths in South Dakota each year—nearly three people each day.⁸⁸

FIGURE 5-33: SIOUX FALLS MSA ADULT SMOKING RATE⁸⁹



Not only is tobacco use the most preventable cause of disease, disability and death in the United States, it is also one of the nation’s most costly public health challenges.

Smoking and exposure to secondhand smoke result in \$96 billion in medical expenditures and \$97 billion in lost productivity annually in the United States. In South Dakota, tobacco use costs \$373 million in health care expenditures and another \$282.5 million in lost productivity each year. The portion of this cost covered by the state Medicaid program is \$70.2 million. These amounts do not include health costs caused by exposure to secondhand smoke, smoking-caused fires, smokeless tobacco use, or cigar/pipe smoking.⁹⁰

The personal costs for a pack-a-day smoker add up, not just in terms of health and risk of lung cancer. On average, people who smoke spend about \$2,000 each year on tobacco products. In addition, employees who smoke cost their employers nearly \$6,000 in health costs, loss of productivity and absenteeism.⁹² Research continues to demonstrate that employees who smoke are not as productive as employees who do not. Because nicotine addiction is so powerful, smokers can experience both physical and psychological withdrawal within 30 minutes after finishing a cigarette. The studies showed that prolonged withdrawals diminished a smoker’s productivity as withdrawals take away employees’ focus on their tasks.⁹³

Youth Tobacco Use

Tobacco use is started and established primarily during adolescence. Nearly nine out of ten cigarette smokers first tried smoking by age 18, and 99 percent first tried smoking by age 26.

Each day in the United States, more than 3,800 youth aged 18 years or younger smoke their first cigarette, and an additional 2,100 youth and young adults become daily cigarette smokers. At least 5.6 million kids alive today will die prematurely from smoking if current rates continue.⁹⁴

The addiction rate for smoking is higher than the addiction rates for marijuana, alcohol, or cocaine; and symptoms of serious nicotine addiction often occur only weeks or even just days after youth “experimentation” with smoking first begins.⁹⁵ Because adolescence is a critical period of growth and development, exposure to nicotine may have lasting, adverse consequences on brain development.⁹⁶ The good news is that youth smoking rates have been on the decline across the country.

Among South Dakota middle school students, the smoking rate has decreased from 3.5 percent to 2 percent since 2013, and approximately 10 percent of high school students are smokers, which is an all-time low. However, there is still work to be done.

According to the South Dakota Department of Health:

- 33.3 percent of high school students have tried cigarette smoking
- 11.7 percent of high school students use spit (chewing) tobacco
- 26.9 percent of high school students believe smokeless tobacco is safer than cigarettes
- 17.3 percent of high school students use electronic vapor products, and as many as 41 percent have tried an electronic vapor product
- 30.3 percent of high school students currently use some form of tobacco product (cigarette, smokeless tobacco, cigar, or electronic vapor product)

In addition to already-known facts about the harmful effects of smoking the United States Surgeon General has stated there is already enough evidence to warn pregnant women, women of reproductive age, and adolescents about the use of nicotine-containing products such as smokeless tobacco, dissolvable nicotine products, and e-cigarettes.

FIGURE 5-34: POPULATIONS HIGHLY IMPACTED BY TOBACCO USE⁹¹



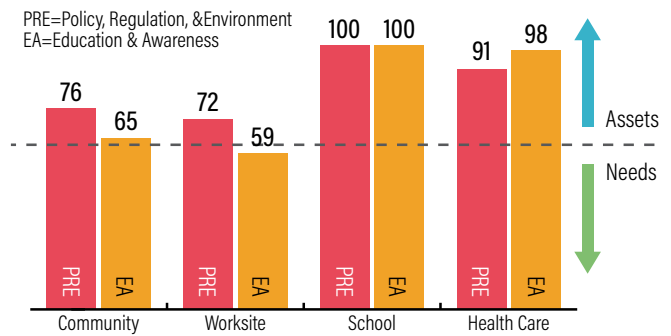
Community Assets and Needs Related to Tobacco

Using the South Dakota Good & Healthy Community Assessment, representatives from several sectors of the community rated Policy, Regulations, and Environment (PRE) efforts, along with Education and Awareness (EA) efforts related to tobacco prevention.

In Figure 5–35, scores over 60 represent an indication of positive steps, or assets, in tobacco prevention, while scores below 60 indicate areas of need.

With a statewide law in place since 2010 regulating indoor smoking, the policy scores are higher for tobacco prevention than for other categories of the assessment (nutrition, physical activity and chronic disease management). Other identified assets include enforcing laws prohibiting the sale of tobacco products to minors, cessation resources such as the South Dakota QuitLine, and a 24/7 tobacco-free school policy prohibiting use of tobacco on school grounds. Education and awareness efforts related to tobacco use and tobacco prevention were identified as a need. Specific assets and needs identified through the assessment process are listed in the Appendix.

FIGURE 5–35: COMMUNITY TOBACCO ASSESSMENT⁹⁷



What Can Community Members Do to Reduce Tobacco Use?

- Provide employees and their dependents with access to free or reduced-cost cessation supports, such as those available through the South Dakota QuitLine, and encourage utilization of these services.
- Make worksites, including conferences and meetings, tobacco free and support smoke free policies.
- Provide smoke-free multi-unit housing units using guidelines available at www.livewellsiouxfalls.org.
- Implement evidence-based recommendations for tobacco cessation in health care settings and provide information to patients on the health effects of tobacco use and secondhand smoke exposure.
- Promote tobacco free outdoor environments.
- Implement sustained and effective media campaigns, including raising awareness of tobacco cessation resources.

Vaping: A Youth Epidemic?

During the fall of 2018, the Food and Drug Administration (FDA) declared that rates of youth using e-cigarettes had reached an epidemic proportion of growth.

Even though it is illegal to sell nicotine-containing e-cigarettes, hookah pens or vape pens, to children under age 18, e-cigarettes have surpassed combustible cigarettes as the most commonly used tobacco product among U.S. middle and high school students, according to the Centers for Disease Control and Prevention (CDC). By 2017, 2.1 million middle and high school students reported they currently use e-cigarettes.

Increases in adolescent vaping from 2017 to 2018 were the largest ever recorded in the past 43 years for any adolescent substance use outcome in the U.S. For students in grades nine through 12, increases in vaping translate to at least 1.3 million more young nicotine vapers in 2018 compared to 2017.⁹⁸

One specific device that is receiving national attention is JUUL. Research indicates that teens are not just experimenting with the device, but regularly using JUUL, which now comprises nearly three-fourths of the e-cigarette market. One standard JUUL cartridge, or JUUL pod, contains the nicotine content of nearly 20 cigarettes. And, the device is about twice as fast in delivering the nicotine, which increases the likelihood of addiction.

According to a recent study published by the Truth Initiative (www.truthinitiative.org, October 2018), 15- to 17-year olds are 16 times more likely to use JUUL than older age groups. In addition to being exposed to dangers from the e-cigarettes themselves, such as the harmful substances in the aerosol or dangers from exploding batteries, youth who use electronic devices are more than four times as likely to begin smoking tobacco cigarettes.

The South Dakota Quitline offers free services to help individuals quit all forms of tobacco, including vaping. Simply call 1-866 SD QUILTS (1-866-737-8487) or visit sdquitline.com.

Creating a Breath of Fresh Air in Multi-unit Housing

It has been well-documented that secondhand smoke exposure poses serious health threats to individuals of all ages. For residents of multi-unit housing (e.g. apartments and condominiums), secondhand smoke can be a serious concern. Smoke can migrate from one unit to the next, through common areas and through doorways, cracks in walls and even through plumbing and ventilation systems.

Public and private multi-unit housing properties across the country have been moving toward becoming smoke-free properties. Simply stated, this not only protects residents and staff from exposure to secondhand smoke, but also saves properties money on costs to turnover units and significantly reduces fire risk for buildings.

In Sioux Falls, the SET-Free Coalition, a partnership of organizations including Live Well Sioux Falls that focus on tobacco prevention, has organized an annual workshop for multi-unit housing representatives with a goal of encouraging them to adopt smoke-free policies.

At this workshop, participants learn how to:

- Communicate the health and economic impact of secondhand smoke in multi-unit housing.
- Engage with building managers, property owners, policymakers, residents and other stakeholders to adopt smokefree multi-unit housing policies.
- Plan and implement a successful smokefree multi-unit housing policy.
- Identify resident rights and responsibilities, as well as options for providing services to help residents quit tobacco.

Based on the number of housing policies submitted to the SET-Free Coalition, nearly 3,800 housing units have gone smoke-free since 2013. For more information, visit www.livewellsiouxfalls.org and click on "Breathe Well."

Community Approaches to Reduce Tobacco Use

Since its inception in 2012, Live Well Sioux Falls has been working to reduce tobacco use in the community. Changes at the community level in policy and in creating smoke-free environments can make an impact in reducing the number of adults and youth who are using tobacco.

City Ordinance

In 2017, the Sioux Falls City Council unanimously approved an ordinance regulating smoking and the use of tobacco on City property. The ordinance creates a 25-foot smoke-free zone around entrances to all City buildings, creates tobacco-free environments when youth activities are taking place and specifies that all special events on City property, including parks, are smoke-free unless a designated area is requested by event organizers. Since passage of the ordinance, only 1 out of 135 special events held on City properties requested a designated smoking area. All other special events, including large events like JazzFest, were smoke-free.

Quitline Promotion

South Dakota has one of the most successful state Quitline services in the nation, and a local goal is to promote the free services available to residents wishing to quit tobacco. Live Well Sioux Falls created a flyer to post in Sioux Area Metro (SAM) buses and a multi-language flyer for use at Falls Community Health to encourage residents to call the Quitline at 1-866-SD QUILTS.

Over the past year, the adult smoking rate for the Sioux Falls MSA decreased from 16.7 to 15.5 percent.



WORKPLACE WELL-BEING

According to the Centers for Disease Control and Prevention (CDC), Americans working full-time spend an average of more than one-third of their day, five days per week at the workplace. Therefore, employers can play an important role in building healthier communities by supporting a healthy workplace.

Chronic diseases and related lifestyle risk factors are the leading drivers of health care costs for employers.⁹⁹

- Four of the ten most costly health conditions for U.S. employers—angina pectoris (chest pain), high blood pressure, diabetes, and heart attack—are related to heart disease and stroke.
- Work-related stress is the leading workplace health problem and a major occupational health risk, ranking above physical inactivity and obesity.

- Productivity losses from missed work cost employers \$225.8 billion, or \$1,685 per employee, each year.
- Full-time workers who are overweight or obese and have other chronic health problems miss about 450 million more days of work each year than healthy workers. The result is an estimated cost of more than \$153 billion in lost productivity each year.
- A 1 percent annual reduction in the level of four health risks—weight, blood pressure, glucose, and cholesterol—has been shown to save \$83 to \$103 annually in medical costs per person.

Maintaining a healthier workforce can lower direct costs such as insurance premiums and worker's compensation claims. It will also positively impact many indirect costs such as absenteeism and worker productivity.¹⁰⁰ In fact, one group of researchers found that using evidence-based strategies produced a return on investment (ROI) between \$2 and \$3.60.¹⁰¹

Examples of workplace health program components and strategies include:

- Health education classes
- Access to local fitness facilities
- Company policies that promote healthy behaviors such as a tobacco-free campus policy
- Employee health insurance coverage for appropriate preventive screenings
- A healthy work environment created through actions such as making healthy foods available and accessible through vending machines or cafeterias
- A work environment free of recognized health and safety threats with procedures in place to identify and address health and safety issues.

Workplace well-being programs are a win-win for employers and employees, especially when they include dimensions beyond physical health, including financial, spiritual, and emotional health.

Career satisfaction and feelings of happiness can help individuals achieve financial success, emotional health, meaningful relationships, effective coping skills, and improved physical health and longevity.¹⁰²

Conclusion

By 2033, for the first time in U.S. history, the number of adults 65 and older will outnumber those 18 and younger.¹⁰³ Addressing the health needs of an aging population must be a priority for all sectors of the community.

As stated throughout this 2019 Community Health Status Report, health is influenced by a range of factors – from genetics and individual lifestyle choices to the environment around us. Having a community with good schools, safe neighborhoods, stable jobs, and accessible housing and transportation options can make it easier for residents to access healthy foods, be physically active and receive the medical services and other social supports they need.

Which factor is most important to individual or community health? It is hard to say. After all, when you take your car out on the road, can you choose which tire is most important? You need them all.

Certainly, no single entity can address all of the factors that impact health. But, a community can.

Collaboration, cooperation, communication....all of these can lead to meaningful change. Partnerships that reflect the diverse needs of our community help to identify challenges and create solutions to help all residents live their healthiest life possible.

Live Well, Sioux Falls!

Health and Well-being References

1. World Health Organization. WHO Definition of Health. Preamble to the Constitution of the WHO as adopted by the International Health Conference, New York. June 1946.
2. National Center for Health Statistics. <https://www.cdc.gov/nchs/2017>.
3. "Could Where You Are Born Influence How Long You Live?" Robert Wood Johnson Foundation, RWJF, 13 Nov. 2018, www.rwjf.org/en/library/interactives/whereliveaffectshowlongyoulive.html.
4. www.healthypeople.gov.
5. Multiple Chronic Conditions—A Strategic Framework: Optimum Health and Quality of Life for Individuals with Multiple Chronic Conditions. Washington, DC: US Dept. of Health and Human Services; 2010. Accessed November 18, 2014.
6. Gerteis J, Izrael D, Deitz D, LeRoy L, Ricciardi R, Miller T, Basu J. Multiple Chronic Conditions Chartbook.[PDF – 10.62 MB] AHRQ Publications No. Q14-0038. Rockville, MD: Agency for Healthcare Research and Quality; 2014. Accessed November 18, 2014.
7. Centers for Disease Control and Prevention. <https://www.cdc.gov/chronicdisease/about/index.htm>.
8. Michael F. Roizen, M.D., and Ted Spiker, *This Is Your Do-Over: The 7 Secrets to Losing Weight, Living Longer, and Getting a Second Chance at the Life You Want* (New York, NY: Scribner, 2015), introduction, xxiii.
9. Agneta Åkesson et al., "Low-Risk Diet and Lifestyle Habits in the Primary Prevention of Myocardial Infarction in Men: A Population-Based Prospective Cohort Study," *Journal of the American College of Cardiology* 64 (13) (2014): 1,299–1,306.
10. Andrea K. Chomistek et al., "Healthy Lifestyle in the Primordial Prevention of Cardiovascular Disease Among Young Women," *Journal of the American College of Cardiology* 65 (1) (2015): 43–51.
11. Meir J. Stampfer et al., "Primary Prevention of Coronary Heart Disease in Women through Diet and Lifestyle," *The New England Journal of Medicine* 343 (2000): 16–22.
12. 2018 Good and Healthy SD Community Assessment.
13. <https://getscreened.sd.gov/registry/data/>.
14. www.heart.org/bloodpressure.
15. American Heart Association.
16. The Big Squeeze 2018. Sioux Falls Blood Pressure Awareness Project.
17. Mayo Clinic.
18. Physical activity and the prevention of hypertension. Diaz KM, Shimbo D *Curr. Hypertens Rep.* 2013; 15(6):659.
19. American Cancer Society.
20. *New England Journal of Medicine*, August 11, 2018.
21. Centers for Disease Control and Prevention, "More Than 29 Million Americans Have Diabetes, 1 in 4 Doesn't Know." <http://www.cdc.gov/media/releases/2014/p0610-diabetes-report.html>.
22. <https://www.cdc.gov/diabetes/atlas>
23. <https://www.cdc.gov/diabetes/atlas>
24. www.nimh.nih.gov
25. 2018 CHNA Resident Survey
26. U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress. A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2014. www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf (PDF, 38MB)
27. Xu X, Bishop EE, Kennedy SM, Simpson SA, Pechacek TF. Annual Healthcare Spending Attributable to Cigarette Smoking: An Update. *American Journal of Preventive Medicine* 2014;48(3):326–33 [accessed 2017 Feb 28].
28. Centers for Disease Control and Prevention. Excessive Drinking is Draining the U.S. Economy. <https://www.cdc.gov/features/costsofdrinking/> Updated January 2016. Accessed April 21, 2017.
29. National Drug Intelligence Center. National Drug Threat Assessment. Washington, DC: United States Department of Justice; 2011. www.justice.gov/archive/ndic/pubs44/44849/44849p.pdf (PDF, 8MB)
30. Birnbaum, HG. et al. Societal Costs of Prescription Opioid Abuse, Dependence, and Misuse in the United States. *Pain Medicine* 2011; 12: 657-667.
31. Florence, CS et al. The Economic Burden of Prescription Opioid Overdose, Abuse, and Dependence in the United States, 2013; *Medical Care*. Volume 54, Number 10, October 2016.
32. 2018 CHNA Stakeholder Survey
33. County Health Rankings 2017
34. 2018 CHNA Resident Survey
35. <https://www.drugabuse.gov/publications/drugfacts/understanding-drug-use-addiction>
36. Substance Abuse and Mental Health Services Administration. Behavioral Health Barometer: South Dakota, Volume 4: Indicators as measured through the 2015 National Survey on Drug Use and Health, the National Survey of Substance Abuse Treatment Services, and the Uniform Reporting System. HHS Publication No. SMA– 17–Baro–16–States–SD. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2017.
37. avoidopioids.com
38. <https://www.hhs.gov/opioids/>
39. <https://www.cdc.gov/drugoverdose/data/statedeaths.html>
40. <https://www.hhs.gov/opioids/>
41. avoidopioids.com
42. Substance Abuse and Mental Health Services Administration. Behavioral Health Barometer: South Dakota, Volume 4: Indicators as measured through the 2015 National Survey on Drug Use and Health, the National Survey of Substance Abuse Treatment Services, and the Uniform Reporting System. HHS Publication No. SMA– 17–Baro–16–States–SD. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2017.
43. Ibid.
44. Waters, H. and Graf, M. *America's Obesity Crisis: The Health and Economic Costs of Excess Weight.* The Milken Institute Oct 26, 2018
45. Total Costs of Obesity and Overweight by Health Condition (2016). Milken Institute.
46. <https://www.cdc.gov/obesity/data/prevalence-maps.html>
47. State of Obesity 2018: Better Policies for a Healthier America report released today by Trust for America's Health (TFAH) and the Robert Wood Johnson Foundation (RWJF) stateofobesity.org
48. Behavioral Risk Factor Surveillance System 2016-2017.
49. 2015 and 2018 CHNA Resident Survey
50. <http://stopobesityalliance.org/facts-and-resources/>
51. Biener A, Cawley J, Meyerhoefer C. The Impact of Obesity on Medical Care Costs and Labor Market Outcomes in the US. *Clin Chem.* 2018 Jan;64(1):108-117. doi: 10.1373/clinchem.2017.272450. Epub 2017 Nov 2.
52. Waters, H. and Graf, M. *America's Obesity Crisis: The Health and Economic Costs of Excess Weight.* The Milken Institute Oct 26, 2018
53. John Cawley, Chad Meyerhoefer, Adam Biener, Mette Hammer, and Neil Wintfeld, "Savings in Medical Expenditures Associated with Reductions in Body Mass Index Among US Adults with Obesity, by Diabetes Status," *Pharmacoeconomics* 33, no. 7 (2015): 707-722.

54. School Height and Weight Report South Dakota Students 2015–2016 School Year.
55. South Dakota Department of Health.
56. May AL, Kuklina EV, Yoon PW. Prevalence of cardiovascular disease risk factors among US adolescents, 1999–2008. *Pediatrics*. 2012;129(6):1035–1041. Lloyd LJ, Langley-Evans SC, McMullen S. Childhood obesity and risk of the adult metabolic syndrome: a systematic review. *Int J Obes (Lond)*. 2012;36(1):1–11. Haflon NH, Larson K, Slusser W. Associations between obesity and comorbid mental health, developmental and physical health conditions in a nationally representative sample of US children aged 10 to 17. *Acad Pediatr*. 2013; 13(1):6–13.
57. van Geel M, Vedder P, Tanilon J. Are overweight and obese youths more often bullied by their peers? A meta-analysis on the correlation between weight status and bullying. *Int J Obes (Lond)*. 2014;38(10):1263–1267. Griffiths LJ, Parsons TJ, Hill AJ. Self-esteem and quality of life in obese children and adolescents: a systematic review. *Int J Pediatr Obes*. 2010;5(4):282–304.
58. (Sheiham, A. Oral health, general health and quality of life. *Bulletin of the World Health Organization*. Volume 83: 2005)
59. Katrina Holt and Ruth Barzel, "Oral Health and Learning: When Children's Health Suffers, So Does Their Ability to Learn" (3rd ed.), National Maternal and Child Oral Health Resource Center 2013 and <http://www.mchoralhealth.org/PDFs/learningfactsheet.pdf>.
60. Oral Health and Well-Being in South Dakota. Health Policy Institute. American Dental Association
61. Youth Risk Behavior Survey; BSS Oral Health Survey.
62. National Prevention Strategy.
63. The Story of Immunizations, South Dakota Medicine, Special Edition 2013.
64. www.healthypeople2020.gov
65. Vaccinating Through a Lifetime: Adult Priorities. Mary D. Nettleman, MD, MS, MACP, and Vanessa Garcia-Chen, MD, South Dakota Medicine Special Edition 2013.
66. (US Department of Agriculture, US Department of Health and Human Services. *Dietary Guidelines for Americans*.2018)
67. 2018 CHNA Good & Healthy Community Assessment
68. www.feedingamerica.org
69. Ibid.
70. Map the Meal Gap 2016. Feeding America.
71. www.feedingsouthdakota.org
72. US Department of Agriculture, US Department of Health and Human Services. *Dietary Guidelines for Americans*.2018.
73. 2018 CHNA Resident Survey
74. Caspersen, C. J., K. E. Powell, and G. M. Christenson. 1985. Physical activity, exercise, and physical fitness: Definitions and distinctions for health-related research. *Public Health Reports* 100(2):126-131.
75. www.healthypeople.gov.
76. Charles E. Matthews, Kong Y. Chen, Patty S. Freedson, Maciej S. Buchowski, Bettina M. Beech, Russell R. Pate, Richard P. Troiano; Amount of Time Spent in Sedentary Behaviors in the United States. *American Journal of Epidemiology*, Volume 167, Issue 7, 1 April 2008. <https://doi.org/10.1093/aje/kwm390>.
77. County Health Rankings 2016.
78. 2018 CHNA Resident Survey.
79. 2018 CHNA Good & Healthy Community Assessment.
80. Walkscore.com.
81. www.nar.realtor/reports/nar-2017-community-preference-survey
82. Sexually Transmitted Disease Surveillance, 2017 Report. Centers for Disease Control and Prevention.
83. Ibid.
84. South Dakota Department of Health.
85. www.cdc.gov/std.
86. US Surgeon General's Report, 2010.
87. U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. 2014.
88. SD Department of Health Tobacco Control Program.
89. Centers for Disease Control and Prevention. 2016 Behavioral Risk Factor Surveillance System (BRFSS).
90. SD Department of Health Tobacco Control Program.
91. Centers for Disease Control and Prevention.
92. Berman, M, Crane, R, Seiber E, et al. (2013). Estimating the cost of a smoking employee. *BMJ Publishing Group Ltd*. Retrieved from <http://ucanr.edu/sites/tobaccofree/files/175136.pdf>.
93. Halpern MT, Shikiar R, Rentz AM, et al. (2001). Impact of smoking status on workplace absenteeism and productivity. *Tobacco Control*. Retrieved from <http://tobaccocontrol.bmj.com/content/tobaccocontrol/10/3/233.full.pdf>.
94. U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014 [accessed 2018 Feb 22].
95. U.S. Centers for Disease Control and Prevention (CDC), "Symptoms of Substance Dependence Associated with Use of Cigarettes, Alcohol, and Illicit Drugs—United States 1991-1992," *Morbidity and Mortality Weekly Report (MMWR)* 44(44):830-831,837-839, November 10, 1995, <http://www.cdc.gov/mmwr/preview/mmwrhtml/00039501.htm>. DiFranza, JR, et al., "Initial Symptoms of Nicotine Dependence in Adolescents," *Tobacco Control* 9:313-19, September 2000. Campaign for Tobacco-Free Kids (TFK) factsheet, *The Path to Smoking Addiction Starts at Very Young Ages*, <http://tobaccofreekids.org/research/factsheets/pdf/0127.pdf>.
96. U.S. Department of Health and Human Services (HHS), *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*, 2014, <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/>. See also, HHS, *Prevention Tobacco Use Among Youth and Young Adults, A Report of the Surgeon General*, 2012, <http://www.surgeongeneral.gov/library/reports/preventing-youth-tobaccouse/index.html>.
97. 2018 CHNA Good & Healthy Community Assessment
98. Miech, R.A., Schulenberg, J.E., Johnston, L.D., Bachman, J.G., O'Malley, P.M., and Patrick, M.E. (December 17, 2018). "National Adolescent Drug Trends in 2018." *Monitoring the Future: Ann Arbor, MI*. Retrieved 12/18/2018 from <http://www.monitoringthefuture.org>.
99. At A Glance 2016 Workplace Health Promotion. National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health.
100. <https://www.cdc.gov/workplacehealthpromotion/model/index.html>
101. Goetzel et al., "Do Workplace Health Promotion (Wellness) Programs Work?"
102. Michael A. Cohn et al., "Happiness Unpacked: Positive Emotions Increase Life Satisfaction by Building Resilience," *Emotion* 9 (3) (2009): 361–368.
103. Investing in the Future: An NACDD White Paper. "Why Preventing Chronic Disease is Essential—Prevention Works." November 2018.



COMMUNITY ASSESSMENT ASSETS & NEEDS

These are the results from the Community Sector Assessment (see Methodology section, page 14). Areas scoring 60 or better are noted as assets, and those scoring below 60 are needs. They are presented on the following pages by sector.



Asset









Need



















COMMUNITY

CHRONIC DISEASE MANAGEMENT

POLICY, REGULATION, AND ENVIRONMENT



























	2016	2019
Faith communities offering a network of health professionals trained to provide chronic disease management support for members of their congregations.		
Community-based health screenings, referral and follow-up is offered to residents which meet current clinical guidelines for measurement and addresses chronic diseases and related risk factors.		
A coalition is established that is focused on promoting health/preventing chronic disease.		

EDUCATION AND AWARENESS







Accessible and affordable chronic disease self-management programs (diabetes, obesity, arthritis, etc.) for all community residents.		
Reports from media outlets focus on the importance of the detection of risk factors for positive lifestyle modification.		
Strategies for providing community residents with information about high blood pressure and appropriate preparation for measurements of blood pressure and how the results should be provided and interpreted.		
Strategies for providing community residents with information about high cholesterol and appropriate preparation for measurements of blood cholesterol and how the results should be provided and interpreted.		
Strategies for providing community residents information about pre-diabetes and appropriate preparation for measurements of blood glucose and how the results should be provided and interpreted.		
Referral services are in place and are promoted for persons with chronic disease risk factors.		
Support groups are available for residents with chronic diseases.		
Community has an advisory group or action team working to increase and improve active living, healthy eating, tobacco-free living, chronic disease self-management, etc.		

NUTRITION

POLICY, REGULATION, AND ENVIRONMENT

	2016	2019
Institute strategies to increase the availability of healthier food and beverage choices in locations controlled by local, city or county government (i.e., city buildings, county parks, recreation centers).		
Institute pricing strategies that support reduced cost of healthier foods and beverages relative to the cost of less healthy foods sold in public service venues (i.e. vending machines, cafeterias, and concession stands in local city facilities).		
A policy to support an increase in the number of full-service grocery stores and supermarkets in underserved areas.		
Regulation for improved availability for purchasing food from farms (i.e. farmers markets, farm stands, community-supported agriculture (CSA), pick your own, and farm-to-school initiatives).		
Local government incentives for new and/or existing food retailers for offering healthier foods and beverages in underserved areas.		
Provide access to farmers' markets in underserved areas.		
Provide smaller portion sizes at local restaurants and food venues.		
Policy for limiting the advertising and promotion of unhealthy foods and beverages in locations controlled by local, city, or county government buildings, parks, recreation centers.		
Policy for licensed day care facilities to serve two or more vegetables per day.		
Policy for licensed day care facilities to ban sugar-sweetened beverages and limit portion size of 100 percent juice.		
Farmers' Markets and farm stands that accept Women Infant and Children (WIC) Farmer Market Nutrition Vouchers and/or Food Stamp Benefits and/or Senior Citizen Farm Market Coupons are established and promoted.		
Transportation options to supermarkets and other food outlets established for senior citizens and low-income populations.		
Institute strategies to connect locally grown foods to local restaurants and food venues.		





















EDUCATION AND AWARENESS

Promotion of point-of-purchase nutrition information (menu labeling) in local restaurants and/or retail establishments, and promotion of the South Dakota Department of Health Munch Code at recreation centers, community parks, faith-based organizations, etc.		
Promotion of locally grown foods, community gardens, and agriculture initiatives.		
Healthy nutrition practices promoted in day care facilities, government, and faith-based organizations.		

Physical Activity

Policy, Regulation, and Environment	2016	2019
Create access to recreation facilities for people of all ages and abilities, such as joint-use agreements with schools.		
Access to public recreation facilities (i.e., parks, play areas, community and wellness centers) for people of all abilities.		
Community-wide and neighborhood specific urban/community planning and policy development interventions that increase opportunities for physical activity.		
Master plan for walking and biking in the community that enhances infrastructure to support walking and biking and encourage active transportation.		
A maintained network of parks with improved access to outdoor recreational facilities (establish a program to repair and upgrade existing parks and playgrounds).		
Trails, parks, shared paths and/or open spaces that are within walking distance of residential areas, especially public housing areas.		
Policy for 5-foot sidewalks to be built with street infrastructure enhancements such as lighting, traffic signals, and crosswalk counters.		
Policy for traffic-calming measures such as road narrowing, center islands, roundabouts, speed bumps, and/or crosswalk counters with timer countdowns at major intersections to make neighborhoods safer to walk and bike.		
Strategies to enhance infrastructure to support walking and biking (sidewalks, benches, shade, bike lanes, shared road signs, bike racks, etc.).		
Strategies for creating and maintaining crime prevention/safety measures for outdoor activity and recreation, such as adequate lighting, neighborhood watch associations, increased police presence, etc.		
Access to public transportation for community residents to access public facilities, parks, etc., so they can engage in physical activity.		
Child care facilities have a written policy for children in their care to engage in organized physical activity.		
Child care centers in the community have implemented fitCare® to address nutrition and physical activity policy and environment.		
Adopt and support “complete streets” ordinances, which ensure that streets are designed and operated to enable safe access for all users.		
Education and Awareness		
Events used to motivate community residents to engage in physical activity (i.e., challenges, community races/walks, group hikes, etc.).		
Reports from media outlets focus on the promotion of physical activity guidelines, resources, and events in the community.		
Community-wide campaigns to encourage community residents to engage in physical activity (i.e., social support through buddy system, “contracts”; risk factor screenings; health education; address other cardiovascular risk factors, including nutrition/tobacco use).		
Promotion of places to be physically active (i.e., trails signage, maps, play areas, recreational facilities).		

Tobacco

Policy, Regulation, and Environment	2016	2019
Policies/programs for creating tobacco-free environments in the community, such as parks, faith-based organizations, recreation and cultural arts centers, multifamily homes, etc.		
Community enforcement of the law which prohibits the sale of tobacco products to minors.		
Policies that prohibit tobacco advertisement near schools and/or places where youth gather.		
Restrict the placement of tobacco vending machines (including self-service displays).		
Enforce the ban of selling single cigarettes.		
Provide promotion and access to a referral system for tobacco cessation resources and services, such as the SD QuitLine (1-866-SD-QUITS).		
Education and Awareness		
Promote a referral system to help community members to access tobacco cessation resources or services, such as the SD QuitLine (1-866-SD-QUITS).		
Community-wide intervention program(s) for restricting minors' access to tobacco products.		
Community promotes tobacco-free programs through local media outlets.		
South Dakota Department of Health Regional Tobacco Prevention Coordinators are utilized to support community tobacco prevention/cessation activities through the provision of technical assistance (i.e., improving local tobacco-free policy) and resources (i.e., educational materials).		





















HEALTH CARE

Chronic Disease Management











Policy, Regulation, and Environment	2016	2019
Medical services provided outside of regular working hours (i.e., late evenings, weekends) to increase access to care for all community residents.		
Health care providers partner with community agencies to offer free/low-cost chronic disease health screenings (i.e., assessing body mass index, blood pressure) and education events for the public with follow-up counseling for those at-risk.		
Participation in community coalitions and partnerships to address chronic diseases and associated risk factors.		
Regular counseling on the importance of lifestyle behavior changes in preventing and controlling symptoms from chronic diseases is provided at all routine office visits.		
Referral system to help patient's access community-based resources and services for chronic disease management.		
Chronic disease risk factor counseling in accordance with current clinical guidelines is provided.		
Provide screening for chronic diseases in adults with modifiable risk factors.		
Policy that adopts current emergency heart disease and stroke treatment guidelines (i.e., Joint National Committee 7, American Heart Association).		
Policy to provide access to resources and training for using a stroke rating scale.		
Policy to measure weight and height and calculate BMI for adults at each office visit and review results with patient.		
Policy to assure that adult patients receive screenings for chronic diseases at intervals recommended by the U.S. Clinical Preventive Services Task Force, (i.e., colonoscopy, mammography, LDL measurements).		
Education and Awareness		
Multiple communication channels (i.e., public service announcement, print posters/brochures, social media) promote healthy lifestyle messages throughout the health care facility/system.		
Patients are educated on the signs and symptoms of heart attack and stroke through multiple communication channels (i.e., email, print brochures, social media, interpersonal communication).		
Health care providers offer educational information to patients through multiple communication channels (i.e., email, print brochures, social media, interpersonal communication) regarding the importance of chronic disease prevention as determined necessary by the health care provider.		
Annual cultural competency training for all health care employees for optimal care of all patients regardless of their race/ethnicity and/or culture/background.		
Continuing educational opportunities for all health care providers on current chronic disease prevention and management guidelines.		

Nutrition

Policy, Regulation, and Environment









	2016	2019
Health care providers assess patients' nutrition habits as part of a written checklist/ screening at office visits.		
Health care providers counsel about the importance of good nutrition during office visits and provide ongoing reinforcements in follow-up visits on interventions involving behavior change.		
Health care providers use a referral system to help patients access community-based resources and services for nutrition/nutrition education.		
Patient access to dietitian to help assess nutrition needs, prescribe personalized meal plan, and support long-term healthy nutrition behaviors.		
Policy for healthy eating and beverage options in on-site cafeteria and food venues.		
Policy for healthy food and beverage options in vending machines.		
Policy for pricing strategies that encourage the purchase of health food and beverage options.		
Healthy food purchasing (i.e. to reduce the caloric, sodium, and fat content of foods offered) is instituted in on-site cafeteria and food venues.		
Policy for healthy food preparation and practices (i.e., steaming, low fat, low salt, limiting frying, reduced calorie) in on-site cafeteria and food venues throughout health care facility.		
Health care providers adopt Breastfeeding Friendly Initiative and refer mothers to the program.		

Education and Awareness









Health care professionals (i.e. physicians, specialists) receive regular updates on nutrition guidelines for chronic disease management (i.e. CDC Morbidity and Mortality Weekly Report, Public Health Bulletin, American Dietary Guidelines).		
Health care providers assess and receive current guidelines for nutrition assessment and counseling.		
Health care providers increase social support for healthy eating behaviors by including families and parents.		
Health care professionals (i.e. nurses, lactation consultants) educate mothers about Baby-Friendly Initiative regarding breastfeeding and its benefits in improving breastfeeding related outcomes.		
Health care providers trained in use of <i>Obesity in South Dakota, A Clinical Toolkit for Health care Providers</i> as a resource for chronic disease management.		

Physical Activity























Policy, Regulation, and Environment

	2016	2019
Health care providers routinely assess patients' physical activity as part of a written checklist/ screening at office visits.		
Referral system available to help at-risk patients access community-based resources/services for physical activity.		
Health care facility/building is physical activity friendly with sidewalks, bike racks, well-lit stairwells.		
Health care providers ensure high risk groups for chronic disease and inactivity have equal or better access to physical activity services (individual health coaching, referral to outreach programs), than the general population.		

Education and Awareness

Health care providers routinely counsel patients about the importance of regular physical activity and track the prevalence of physical inactivity during office visits.		
Health care providers offer educational information to patients through multiple communication channels (e.g. email, print brochures, social media, interpersonal) about interventions to encourage physical activity.		
Health care providers support community physical activity advocacy (e.g. financial support, help with planning, implementing and/or promoting events, participating in events, serving on local physical activity committees).		
Continuing education is provided for Health care providers regarding risk factor management (i.e. physical inactivity), intervention, and treatment.		











Tobacco

Policy, Regulation, and Environment	2016	2019
Health care providers utilize EHR to identify and intervene with patients who use tobacco.		
Health care providers assess patient's willingness to quit and uses the 2 A+R method (A-Ask, A-Advise and R-Refer).		
Health care providers advocate for free or low-cost pharmacological quitting aids with insurance companies and/or the SD QuitLine.		
Health care providers utilize secondhand smoke (i.e., environmental tobacco smoke) education for tobacco using patients who are pregnant or have families.		
A provider-reminder system is in place to assess, advise, track, and monitor tobacco use.		
Tobacco-free policy 24/7 for indoor and outdoor public places.		
Smoke-free policy 24/7 for indoor and outdoor public places.		
Education and Awareness		
Professional development for health care providers regarding counseling and intervention techniques to promote tobacco cessation in patients using tobacco.		
Culturally appropriate tobacco cessation materials are provided to tobacco using patients.		
Promote a referral system to help employees to access tobacco cessation resources or services, such as the SD QuitLine (1-866-SD-QUITS).		
South Dakota Department of Health Regional Tobacco Prevention Coordinators are utilized to support health care tobacco prevention/cessation activities through the provision of technical assistance (i.e., improving tobacco-free policy) and resources (i.e., educational materials).		











SCHOOLS

Chronic Disease Management

Policy, Regulation, and Environment

	2016	2019
Access to a school/community nurse.		
Students with health problems associated with sedentary lifestyle and unhealthy diet are identified and referred to appropriate medical care/community resources.		
Policy to meet the nutritional needs of students with special health care or dietary requirements (allergies, diabetes, physical disabilities) as required by the school.		
Policy to provide immediate and reliable access to student medications for chronic disease management throughout the school day.		
School management protocols (i.e., school diabetes management plans) are developed in consultation with their families, medical providers, and school staff to manage students with chronic diseases or conditions (i.e., asthma, diabetes, epilepsy).		

Education and Awareness













Professional development is offered to faculty and staff on chronic disease prevention and management.		
School-based educational materials provide information about the signs and symptoms of heart attack and stroke; risk factors for hypertension, high blood cholesterol, cancer, respiratory conditions, arthritis, obesity, and diabetes; and calling 911.		
Rewards and/or incentives (i.e., extra free class time, field trips, gift certificate) are offered and promoted to motivate students, faculty, and staff members to practice healthy behaviors.		
Health screenings are accessible and free (or affordable), and referrals are offered to faculty and staff members at least once a year.		
Annual training is provided to all staff on CPR (Cardio-Pulmonary Resuscitation) and use of an AED.		

Nutrition

Policy, Regulation, and Environment

	2016	2019
Policy that requires nutrition standards for all food sold on school grounds (a la carte, school stores, concession stands, vending machines, and sporting events).		
Point-of-purchase labeling is displayed for healthy foods.		
Pricing policies for reduced prices for healthier food items.		
Fundraising policy that supports healthy eating through the sale of healthy foods as well as nonfood products and services.		
Policy that supports healthy snacks for classroom celebrations.		
Policy that limits the sale and distribution of less nutritional foods on school grounds.		
Regulations in place for a nutritious breakfast program that meets USDA standards and is fully accessible to all students.		
Regulations in place for a nutritious lunch program that meets USDA standards and is fully accessible to all students.		
School food services uses healthy food preparation practices such as steaming, low-fat and low-salt preparation with on-site food venues.		
Policy that establishes recess is provided before lunch for elementary students.		
Adequate time is provided for students to eat school meals (10 minutes for breakfast/20 minutes for lunch from the time students are seated).		
Policy that encourages nonfood rewards for academic work.		
Policy that prohibits withholding food as punishment.		
Policy that limits advertising and promotion of less healthy foods and beverages on school campus.		
Local farmer partnerships and/or community gardens are used for fresh produce/fruits for student meals and snacks when available.		
Access to healthy foods is provided through increasing availability of and variety of healthy food.		
Policy that adopts the South Dakota Harvest of the Month curriculum.		



















Education and Awareness

Age appropriate nutrition education is part of the district curricula.		
School food services promote healthy food and beverage purchases (i.e., highlighting healthy food in menus, displaying nutrition information about foods, taste testing opportunities, etc.).		
The cafeteria is utilized as a learning lab for good nutrition.		
Educational materials on healthy eating topics (portion control, fruits/vegetables, snacking, reading food labels, Harvest of the Month materials, etc.) are reinforced through school-based communication channels.		
Food service managers/staff attend annual professional development/ continuing education trainings regarding nutrition, healthy food preparation and health promotion.		
School provides information on strategies that focus on families/parents as an important component of interventions for healthy eating behaviors.		

Physical Activity

Policy, Regulation, and Environment	2016	2019
Policy that requires all physical education classes to be taught by qualified, certified physical educators.		
Policies offering non-competitive physical activity programs before and after the school day.		
Facilities and space that support physical activity for students and staff on school grounds (bike racks, walking paths, fitness room).		
Policy (i.e. Joint Use Agreements) for use of school grounds and facilities for physical activity outside the school day for students, school faculty & staff, parents, and community members.		
Daily recess breaks for elementary students.		
Policy that prohibits the use of physical education class or recess as punishment.		
Policy that prohibits the use of excessive or physical activity as punishment.		
Policy that provides equal and appropriate opportunity for all students to participate in physical activity regardless of mental or physical disabilities.		
Policy that requires at least 30 minutes of moderate to vigorous physical activity in physical education curricula at least three days per week during the school year.		
Transportation policies in place that encourage physical activity (Safe-Routes-to-School and Walking School Buses), and events to support those policies.		
Education and Awareness		
Age appropriate quality, daily, evidence-based physical education is part of the district curricula.		
Physical education classes teach lifetime physical activity skills such as jogging, tennis, and basketball.		
Instruction on health related fitness (i.e. cardiovascular endurance, flexibility, muscular strength, muscular endurance and body composition) is provided during physical education and health education class.		
Promotion of student participation in extracurricular physical activities (i.e. athletics, community walks/races, activity clubs).		
School environment supports and encourages physical activity throughout the day (posters, newsletters, announcements, library displays).		
Behavioral interventions (i.e. TV Turnoff challenge) are implemented to reduce out-of-school screen time (TV, video game, computer, etc.) aimed at improving children's' and parents' knowledge, attitudes, or skills.		
Professional development is provided to school staff on incorporating physical activity into the classroom, recess, out-of-school time, and Safe Routes to School programs.		
Professional development opportunities offered for physical education and health education teachers on the National Health Education Standards, the National Physical Education Standards, and/or the Physical Activity Guidelines for Americans.		















Tobacco

Policy, Regulation, and Environment	2016	2019
24/7 tobacco-free school policy which prohibits all tobacco use on school grounds and school-sponsored activities by everyone—staff, students, faculty, visitors and guests.		
Policy for cessation/education classes such as the American Lung Association's Not on Tobacco (NOT) program offered in school setting.		
Referral for students who use tobacco to cessation resources (i.e. NOT program, SD QuitLine).		
Education & Awareness		
Evidence-based tobacco prevention programs, such as LifeSkills, are part of the district's curriculum.		
Professional development opportunities on tobacco prevention and cessation are offered/ promoted to staff teaching tobacco prevention and cessation.		
Educational opportunities for smoking cessation are provided rather than punitive measures for students caught using tobacco products.		
Educational materials on the harmful consequences of tobacco use and exposure are included in school-based communication channels (e.g. email, poster, newsletters, public address system announcements, and social media).		
South Dakota Department of Health Regional Tobacco Prevention Coordinators are utilized to support school tobacco prevention/cessation activities through the provision of technical assistance (i.e. improving school tobacco-free policy) and resources (i.e. educational materials).		
Promote tobacco prevention and cessation through education programs, such as the American Lung Association's Not on Tobacco (NOT) program and Teens Against Tobacco Use (TATU).		













WORKSITES

Chronic Disease Management



























Policy, Regulation, and Environment

	2016	2019
Local employers participate in Department of Health worksite wellness program, WORKWell.		
Policy to provide affordable, accessible, annual quality health screenings, including chronic disease screening, health coaching, and referral.		
Provide follow-up counseling and education for employees at high risk for developing chronic diseases and related risk factors.		
Adopt an emergency response plan (e.g., an Automatic External Defibrillator, instruction and training for CPR, choking).		
Worksite offers health care coverage for preventive services and quality medical care for employees.		
Policy that health insurance discounts are offered to employees who adopt healthier lifestyles, decrease their chronic disease risk factors, or improve their health screening score.		
Policy to provide employee access to qualified occupational health staff.		

Education and Awareness



















Worksite communication channels (email, posters, newsletters, public address system announcements, social media, group education sessions) that promote the importance of healthy lifestyle behaviors in preventing and/or managing chronic diseases.		
Promote affordable and accessible chronic disease self-management programs and/or community resources for employees and their families.		
Promote community resources available to employees with risk factors for chronic diseases.		
Events, classes, and incentives are offered for the prevention of and/or management of chronic diseases.		
Training for management and employees on proper response to chronic disease related emergencies (heart attack, stroke, hypoglycemia, etc.) and use of equipment to support timely response (e.g. AED).		
Support groups for employees with chronic diseases such as obesity, arthritis, and diabetes.		

Nutrition







Policy, Regulation, and Environment	2016	2019
Policy for healthy guidelines for all foods and beverages provided at worksite, such as vending machine products, snacks, and cafeteria food.		
Worksite-sponsored wellness committee which plans and promotes policies and environmental changes for healthy nutrition behaviors of employees.		
Policy for healthy foods and beverages to be served at employee meetings, trainings, and celebrations.		
Partnerships with community organizations for employee access to affordable fresh fruits and vegetables, (i.e. farmers' markets, community gardens, co-ops).		
Provide employee access to refrigerator, microwave, and sink.		
Opportunities are available to employees at the workplace or through outside community-based individually adapted behavior change programs (i.e. weight loss programs that offer counseling and education).		
Policy which promotes individual behavior change through worksite-sponsored challenges (i.e. Eat 5 servings per day of fruits and/or vegetables).		
Policy for providing breastfeeding accommodations for employees that include both time and private space for breastfeeding during working hours.		
Policies for reduced prices for healthy food items in cafeterias and vending machines.		
Point-of- decision labeling (i.e. "low fat," "light," "heart health," "no trans fat") for healthy food items in cafeteria, break rooms, and vending areas.		
Education and Awareness		
Worksite-sponsored events and incentives promote nutrition education and healthy nutrition behaviors.		
Professional development for foodservice staff on healthy food preparation techniques, portion sizes, and healthy menu choices.		
Worksite communication channels (e.g. email, posters, newsletters, public address system announcements, social media, group education sessions) promote the importance of healthy nutrition behaviors in preventing and/or managing chronic diseases.		

Physical Activity

Policy, Regulation, and Environment

	2016	2019
Free or reduced cost memberships to community physical activity/fitness centers for employees.		
Policy supporting physical activity on breaks/lunch.		
Policy providing flexible work schedule and/or break times for employees to be active during the day.		
A worksite-sponsored wellness committee plans physical activity opportunities for employees.		
Financial/benefit incentives promote/reward employee participation in regular physical activity.		
Policy which promotes individual behavior change through worksite-sponsored challenges (i.e. 10,000 Steps a day, workplace physical activity program).		
Policy for structuring the Built Environment to support physical activity opportunities for employees at or near worksite (i.e. bike racks, walking paths, sidewalks, fitness equipment, etc.).		
Point-of-decision prompts (i.e. motivational signs) located by stairwells, when possible.		
Policy supporting strategies to reach and motivate highly sedentary workforce.		

Education and Awareness

Worksite communication channels (i.e., email, posters, newsletters, public address system announcements, social media, group education sessions) promote the benefits of regular physical activity, the physical activity guidelines, and the opportunities for activity and recreation at or near the worksite.		
Worksite sponsored events and incentives for increasing and maintaining physical activity for employees.		
Promotion of stairwell use (i.e. Motivational Signs, Music, Art, etc.).		

Tobacco

Policy, Regulation, and Environment

2016

2019

Worksite Insurance coverage of nicotine replacement therapy.



Reduced cost insurance premiums for employees who do not use tobacco.



Tobacco-free policy 24/7 for indoor and outdoor buildings and grounds.



Smoke-free policy 24/7 for indoor and outdoor buildings and grounds.



Education and Awareness

Promote a referral system to help employees access tobacco cessation resources or services, such as the SD QuitLine (1-866-SD-QUITS).



Worksite communication channels (email, posters, newsletters, public address system announcements, Social media, group education sessions) support a tobacco-free environment and tobacco cessation for employees.



South Dakota Department of Health Regional Tobacco Prevention Coordinators are utilized to support tobacco prevention and/or cessation through technical assistance (i.e. improving worksite tobacco-free policy) and resources (i.e. educational materials).



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		Jenny McDonald Sanford Health	

DEFINITIONS

BRFSS: Behavior Risk Factor Surveillance System. The Behavioral Risk Factor Surveillance System (BRFSS) is the premier system of health-related telephone surveys through which the Centers for Disease Control and Prevention (CDC) collect state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services. Established in 1984 with 15 states, BRFSS now collects data in all 50 states as well as the District of Columbia and three U.S. territories. BRFSS completes more than 400,000 adult interviews each year, making it the largest continuously conducted health survey system in the world.

CHNA: Community Health Needs Assessment. This refers to a state, tribal, local, or territorial health assessment that identifies key health needs and issues through systematic, comprehensive data collection and analysis.

Chronic Disease: A chronic disease is defined by the U.S. National Center for Health Statistics as one lasting three months or more. Chronic diseases generally cannot be prevented by vaccines or cured by medication, nor do they just disappear. Chronic diseases are greatly influenced by socioeconomic status, education, employment, and environment.

Environmental Change: Environmental change is transformation to the environment that influences practices and behaviors. Examples of changes to the environment may be physical, social, or economic. Examples include:

- **Physical:** Structural changes such as incorporating sidewalks, paths, pedestrian friendly intersections, and recreation areas into community design (complete streets policy) or ensuring availability of healthy food choices in restaurants or cafeterias.
- **Social:** A positive change in attitudes or behavior about health policies or practices, such as increasing favorable attitudes of community decision makers about the importance of nonsmoking policies.
- **Economic:** The presence of financial disincentives or incentives to encourage a desired behavior, such as charging higher prices for sugar sweetened beverages and non-healthy food items to decrease their use.

Health Equity: Health equity means that everyone has a fair and just opportunity to be healthier. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care.

Healthy People 2020: Healthy People provides science-based, 10-year national objectives for improving the health of all Americans. For three decades, Healthy People has established benchmarks and monitored progress over time in order to encourage community collaborations, empower individuals to make informed health decisions, and measure the impact of prevention activities.

Metropolitan Statistical Area: In the United States, a metropolitan statistical area (MSA) is a geographical region with a relatively high population density at its core and close economic ties throughout the area. MSAs are defined by the Office of Management and Budget (OMB) and used by the Census Bureau and other federal government agencies for statistical purposes. The Sioux Falls MSA includes Lincoln, McCook, Minnehaha, and Turner Counties.

Patient Protection and Affordable Care Act: The Patient Protection and Affordable Care Act (PPACA) – also known as the Affordable Care Act or ACA – is the health reform legislation passed by the 111th Congress and signed into law by President Barack Obama in March 2010.

Policy Change: Policy change includes the passing of laws, ordinances, resolutions, mandates, regulations, rules, protocols, and/or procedures that are designed to guide or influence positive behavior change and the choices we make in our lives. Examples of legislative policies include clean indoor air laws, national school lunch program regulations or policies that provide time off during work hours for physical activity.

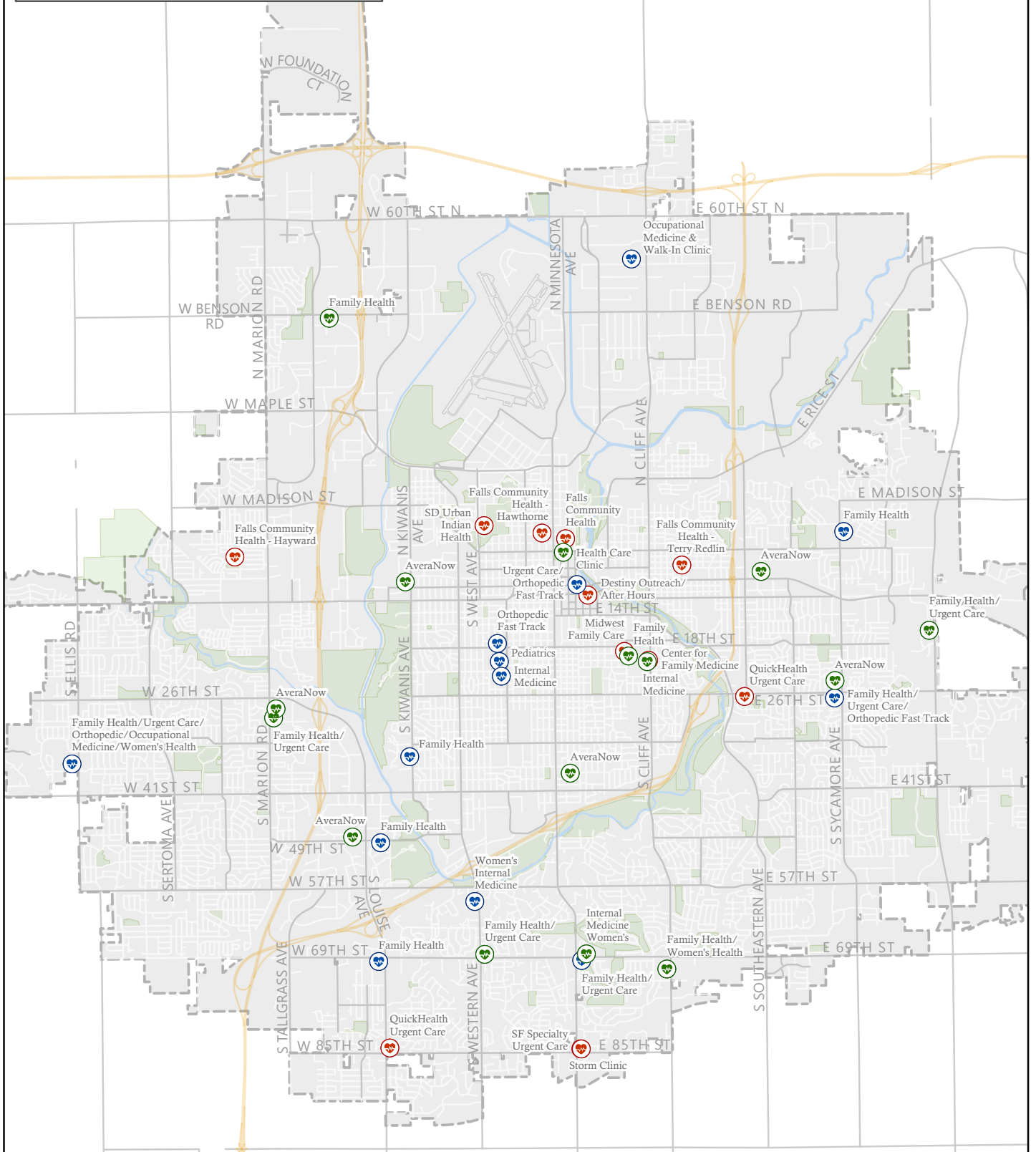
Population Health: The health outcomes of a group of individuals, including the distribution of such outcomes within the group. Groups are often geographic populations such as nations, states, or communities, but they can also be groups such as employees, ethnic groups, disabled persons, or any other defined group.

Poverty: The Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically, but they are updated for inflation using Consumer Price Index (CPI-U). The official poverty definition uses money income before taxes and does not include capital gains or noncash benefits (such as public housing, Medicaid, and food stamps).

Social Determinants of Health: The conditions in which people are born, grow, live, work, and age. These circumstances are shaped by the distribution of money, power and resources at global, national, state, and local levels. Examples of social determinants of health include safe and affordable housing; access to educational, economic, and job opportunities; access to health care services, public safety, availability of healthy foods, transportation options, and environments free of life-threatening toxins.

Systems Change: Systems change involves modifications made to the rules within an organization (school, a parks and recreation department, transportation department, business, etc.). Systems change and policy change often work hand-in-hand. Systems change often focuses on changing infrastructure within a school, park, worksite, or health setting. Examples are implementing the national school lunch program across state school systems or ensuring a hospital system goes tobacco free.

Primary Care Access



Group	
	Avera
	Other
	Sanford

N
1
Miles
enapp/Community Health/Health Access.aprx

RESOURCES

PRIMARY CARE ACCESS IN SIOUX FALLS

AVERA CLINICS

AveraNow | 4101 South Louise Avenue
AveraNow | 1900 South Marion Road
AveraNow | 2700 West 10th Street
AveraNow | 3020 East 10th Street
AveraNow | 1601 South Sycamore Avenue
AveraNow Clinic | 3000 South Minnesota Avenue
Family Health | 4011 West Benson Road
Family Health | 6215 South Cliff Avenue
Family Health | 1200 South 7th Avenue
Family Health/Urgent Care | 2100 South Marion Road
Family Health/Urgent Care | 116 West 69th Street
Family Health/Urgent Care | 1910 West 69th Street
Family Health/Urgent Care | 1035 South Highline Place
Health Care Clinic | 300 North Dakota Avenue, Suite 117
Internal Medicine | 1301 South Cliff Avenue
Internal Medicine/Women's | 116 West 69th Street

OTHER CLINICS

Center for Family Medicine | 1115 East 20th Street
Destiny Outreach/After Hours (at Sioux Falls Ministry Center) | 225 East 11th Street
Falls Community Health | 521 North Main Avenue
Falls Community Health at Hawthorne Elementary | 601 North Spring Avenue
Falls Community Health at Hayward Elementary | 410 North Valley View Road
Falls Community Health at Terry Redlin Elementary | 1722 East 8th Street
Midwest Family Care | 716 East 19th Street
QuickHealth Urgent Care | 2709 East 26th Street
QuickHealth Urgent Care | 7600 South Louise Avenue, Suite 150
SD Urban Indian Health Clinic | 711 North Lake Avenue
SF Specialty Urgent Care | 7600 South Minnesota Avenue
Storm Clinic | 7600 South Minnesota Avenue

SANFORD CLINICS

Family Medicine | 6101 South Louise Avenue
Family Health | 600 North Sycamore Avenue
Family Health/Urgent Care/Orthopedic Fast Track | 4405 East 26th Street
Family Health | 2701 South Kiwanis Avenue
Family Health | 3401 West 49th Street
Family Health/Urgent Care/Orthopedic/Occupational Medicine/Women's Health | 2601 South Ellis Road
Internal Medicine | 1321 West 22nd Street
Occupational Medicine/Walk-In Clinic | 900 East 54th Street North
Pediatrics | 1205 South Grange Avenue
Women's Internal Medicine | 5019 South Western Avenue
Orthopedic Fast Track | 1210 West 18th Street
Urgent Care/Orthopedic Fast Track | 136 South Phillips Avenue

OTHER COMMUNITY RESOURCES

For any of the resources listed below, call the Helpline Center at 211. Someone is available 24 hours a day.

- **Sioux Falls Basic Needs Resource Guide:** programs and services for needs such as food, shelter, clothing, medical care, financial services, and employment.
- **Sioux Falls Helping Hands Emergency Resource Guide:** quick reference guide for basic needs and services.
- **Sioux Falls Mental Health Guide:** information about professionals and agencies that provide a variety of mental health services.
- **Transportation Services:** listing of public transportation and specialized transportation services.

Links to this report and associated resources can be found online at www.livewellsiouxfalls.org/about-us.






Sioux Falls Food Security (2017)

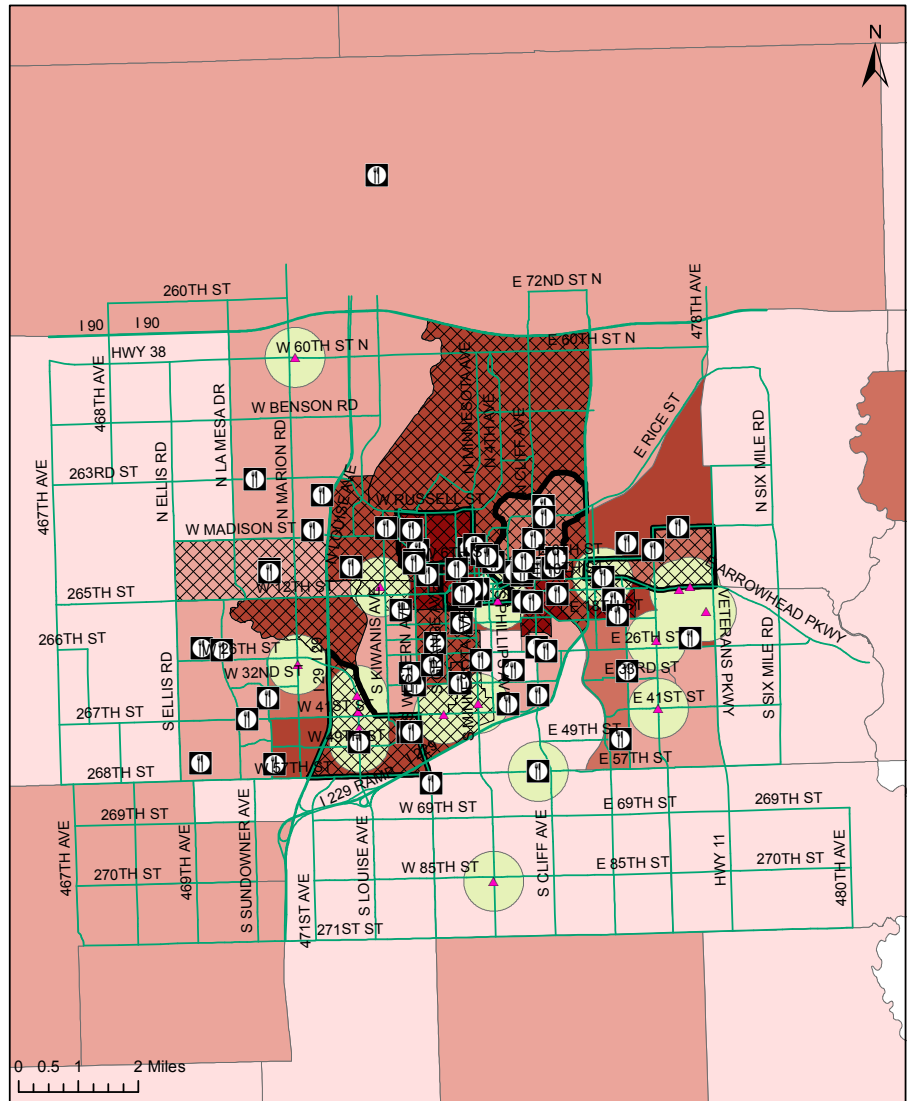
Source: Augustana Research Institute, Food Security & Food Systems in Sioux Falls, SD, December 2018. Full report available online at siouxfallsthive.org.

Poverty and Charitable Meals

-  Charitable Meals
-  Supermarkets
-  Major Streets
-  Food Desert
-  Low Vehicle Access
-  Supermarkets Half Mile Buffer

Poverty Rate (ACS 2016 5-year)

-  Less than 5%
-  5% - 10%
-  10% - 15%
-  15% - 20%
-  Over 20%



This map is part of the "Food Security & Food Systems in Sioux Falls, SD" report released in December 2018. It was completed by the Augustana Research Institute for Sioux Falls Thrive.

Food Access Sites

