

Sanford Health 2016 Community Benefit Annual Report

Sanford Health is an integrated health system headquartered in the Dakotas. It is one of the largest health systems in the nation with 45 hospitals and 289 clinics in 9 states and 3 countries. Sanford Health's 28,000 employees, including 1,400 physicians, make it the largest employer in the Dakotas.

Nearly \$1 billion in gifts from philanthropist Denny Sanford have allowed for several initiatives, including global children's clinics, genomic medicine, and specialized centers researching cures for Type 1 diabetes, breast cancer and other diseases.

Our Mission: Dedicated to the work of health and healing.

Our Vision: Improving the human condition through exceptional care, innovation and discovery.

Our Values

- **Courage**
The strength to persevere, use our voices and take action.
- **Passion**
The enthusiasm for patients and work commitment to the organization.
- **Resolve**
The adherence to the systems that align actions to excellence, efficiency and purpose.
- **Advancement**
The pursuit of individual and organizational growth and development.
- **Family**
The connection and commitment we have to each other through it all.

Sanford Health promise to patients and employees: Deliver a flawless experience that inspires.

Sanford Health Culture

Sanford Health is excited to be on a journey of tremendous growth and momentum. With our vast geography, cutting-edge medicine, sophisticated research, advanced education, and our own health plan, we are unique in what we do and how we do it. Through relationships built on trust and successful performance and a vision to improve the human condition, Sanford seeks to make a significant impact on health and healing. With a commitment to diversity and inclusion, our journey as an organization includes continually building on the diverse talents, experiences and beliefs of our employees, as well as the patients and communities we serve. We are proud to be from the Midwest and to impact the world. We look forward to joining with you in the journey.

Overview and Purpose for Sanford's Community Benefit

Sanford Health is a non-profit organization developed to provide the best care possible for patients at every stage of life, and to support healing and wholeness in body, mind and spirit. We are inspired by the communities that we serve and we strive to remain a diligent corporate citizen that meets the health needs of these communities. Sanford Health is a community asset. As a non-profit organization Sanford invests back into the medical institution to fund new research and education. During fiscal year (FY) 2016 Sanford Health contributed \$291,640,631.00 as community benefit. Support for our mission is demonstrated throughout our community benefit work.

Sanford Health follows the Internal Revenue guidelines and the recommendations of the Catholic Health Association for Community Benefit reporting. Community benefit includes activities that provide treatment or promote health and healing as a response to identified community needs and meet at least one of the following objectives:

- Improve access to health care services
- Enhance public health
- Advance increased general knowledge
- Relieve or reduce the burden of government to improve health

The formalized categories for reporting community benefit include financial assistance, Medicaid shortfall, community health improvement, education, research, subsidized health services, community building, and cash and in-kind contributions.

The purpose of this Community Benefit Annual Report is to communicate the work that has transpired during FY 2016. The reported work addresses the identified community needs from the 2013 community health needs assessment and the implementation strategies for the 2014-2016 reporting cycle.

During 2012-2013 Sanford conducted a community health needs assessment for each of our hospital facilities. During the assessment process Sanford collaborated with numerous community key stakeholders and community partners. The collaborative nature of this work proved to be a beneficial outcome of the process, and the collaboration continues among communities as the unmet needs are addressed. Findings from the assessment serve as a catalyst to align expertise and develop a community investment/community benefit plan of action. There is great intrinsic value in a community health needs assessment when it serves to validate, justify and defend not-for-profit status and create opportunity to identify and address public health issues from a broad perspective.

Implementation strategies have been adopted for each medical center within our organization and the reports and strategies are posted on our Sanford web site at:
<http://www.sanfordhealth.org/About/CHNA>

Throughout the CHNA process Sanford discovered that there were two unmet needs that consistently appeared for many of the communities within its footprint: mental/behavioral health services and services to address and prevent obesity. An enterprise approach to behavioral health and obesity is in play as we address those needs.

OBESITY

A key implementation strategy for Sanford during the 2014-2016 FY cycle is to provide continuing education curriculum across the enterprise for medical, nutrition, nursing and behavioral health professionals to advance knowledge and professional practice and improve the human condition through the prevention and management of obesity. Annual Obesity Symposia began in 2014. The Sanford Obesity Symposium focused on evidence-based guidelines was presented to nearly 300 health professionals in FY 2016. Miriam Vos, MD, Assistant Professor of Pediatrics, Emory University School of Medicine and Pediatrician, Children's Healthcare of Atlanta, GA provided the keynote address titled "Effective Approaches for Treating Obesity."

A second implementation strategy to address obesity is to provide community education programming to address wellness, fitness and healthy living. The following programs are a sample of community benefit contributions for community members.

1. Sanford *fit*, a health activation initiative from Sanford Health, continues to expand in the programs it offers, the locations where it is used and the impact it makes. Sanford *fit* offers many free resources and programs that are used regionally and nationally in homes, schools, daycares, after school programs, in youth sports, and throughout communities. These resources can be found at <http://www.sanfordfit.org/> and include:

- *fit4Schools* – uses weekly topics and challenges to teach children about the four key factors of healthy living: MOOD, RECHARGE, FOOD, and MOVE.

Educators can activate the students by using the:

- Daily *fit* Calendar that provides a simple message and activity that can be shared and used as a daily announcement to the entire school or a simple activity in the classroom
- *fitBoost* that activates three minutes of physical activity with fun and simple movements
- Weekly topics that are simple modules that take only 5-10 minutes a day and are designed to captivate, educate, and activate healthy behavior choices.

To date, *fit4schools* is used in all 50 states by over 20,000 educators and 500,000+ students.

- *fitClub* – an after-school recreational program that teaches girls and boys the importance of healthy lifestyle choices through energetic, interactive lessons and games. These 45-minute sessions combine intentional learning, physical activities and take-home challenges to engage and excite kids about making healthy choices.
- *fitCare* – provides training to teach early childhood caregivers why, what and how to educate young children about healthy choices as well as tips, tools, and resources for use in the child care setting to activate children and educate parents to make fit choices. To date, over 2,000 child care providers have been trained and use the program.

- *fit4* Youth Sports – a simple program that can be easily incorporated by leagues and coaches into their training sessions, in all kinds of youth sports, to engage kids in making healthy choices all season long.
- The *fit* websites for Juniors, Kids and Teens create an entertaining and interactive online environment where they can play games, watch videos and take daily challenges. Parents benefit from their own set of resources where they can find tips and tools on becoming healthy role models and raising fit kids. To date, the children's and parent's sites have received more than 200 million visitors. Over 900 pieces of content have been added to the sites, including videos, slide shows, games, articles, and even *fit* songs.
- The *fit* friends, Denny, Abby, Sam, Alex and Marty, along with the *fit* team, have been making a variety of appearances at events across the Sanford footprint. *fit* has been at over 2 dozen events interacting with more than 15,000 children and parents to spread the word about the *fit* platform and resources.
- Smartphone Apps – Through a series of fun and engaging apps, *fit* will continue to activate kids at the touch of a fingertip to live a fit and healthy lifestyle related to Mood, Recharge, Food and Move. MOVE2Draw is a simple and fun way for kids to move and create their own unique drawings. Once a drawing is completed, it can be stored on the MOVE2Draw website. eMOODicam is a photo application that allows the user to enhance a photo and bring the mood to life and share with others.
- Posters, songs, and other downloadable resources can all be found at <http://www.sanfordfit.org/>

Developed by the experts of Sanford Health, Sanford *fit* is a health activation initiative that empowers children and families to make healthy lifestyle choices that help prevent childhood obesity.

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). Being fit is not just about what you eat and drink or how you move, being fit is about having the right mindset and enough energy to be able to choose healthy foods and to be active.

Sanford's *fit* Initiative has come a long way since its inception in 2010. Through *fit* we are actively working to promote healthy lifestyles in homes, schools, daycares, our clinical settings, and throughout the community by way of technology, engaging programs, and utilizing key role models in a child's life.

Additional community benefit contributions addressing obesity:

2. Family Wellness Centers

- The Bismarck-Mandan Family Wellness Center opened in January 2017. The Family Wellness Centers in Fargo and Sioux Falls offer classes each week that address wellness for children and families in partnership with Sanford Health and the YMCA. Healthy nutrition and exercise classes geared for children and adults are offered regularly. The Family Wellness

Center is a place for the entire family with drop-in child care, a kid-friendly pool with waterslide, swimming lessons, and an open gym for free play.

3. Bemidji and Bagley

- Obesity is highly prevalent in Bemidji, Bagley and the surrounding area. The medical experts at Sanford have developed a bariatric approach to managing this concern through interdisciplinary programming. An intensive medical nutrition therapy/ behavioral therapy program has been developed for Medicare patients who work with the licensed registered dietitian team, and the nutritional counseling program is expanding to meet the needs of additional populations.
- Exercise programming for employees, past patients and the elderly is offered in the community.
- *Active Living in the City of Bemidji* continues to execute their strategic plan as a comprehensive model addressing childhood obesity and other health prevention programs. The community collaborative works to change social norms to improve activity and eating behavior.

4. Bismarck

- Sanford Health Bismarck sponsored more than 200 wellness-related events throughout Bismarck and Mandan touching more than 20,000 parents and children with fitness-related and active living opportunities and wellness education. By providing opportunities to learn about and practice healthy habits, Sanford Bismarck helped families make healthier eating and activity choices in their own homes.
- In addition to walk/run events, Sanford health care providers participated in and presented at education-based forums targeting families and children wellness. Sanford Bismarck providers presented more than 20 free education seminars to parent organizations and youth-based groups. Presentations included targeted, call-to-action messages. As an example, a presentation encouraging whole and natural foods included specific recommendations regarding energy drinks; participants later reported decreased consumption of high-sugar, caffeinated beverages.
- Youth Running Program: Sanford Bismarck partnered with community organizations (Bismarck Public Schools, Bismarck Parks and Recreation, CHI St. Alexius, Basin Electric, Dakota Girls and Boys Ranch and Missouri Valley YMCA) to establish a free, community-based youth running program. Established in February 2014, the program has mentored more than 200 at-risk children who have collectively trained for and run more than 100 five-kilometer races. The majority of the participants represent underserved youth populations, children who might not otherwise be targeted for healthy lifestyle choice education. The program teaches youth healthy lifestyle habits via a structured running program and guest speakers who share healthy eating, fitness and personal wellness information. Participants who complete the program learn to adopt running into their daily routine and experience improved outlook and mood, reduced stress, stronger muscles and bones, reduced risk for obesity and obesity-related diseases and friendship connections.
- Community Partnerships: In addition to the community-based running program, Sanford Bismarck in 2015 partnered with Missouri Valley YMCA and Mandan Parks and Recreation to begin work on a Family Wellness Center. The facility will provide much-needed access to children's activities to continue the community's goal of reducing pediatric obesity.

5. Canby

- The Sanford Canby Medical Center Wellness Center is open to community members 24/7.
- Sanford Canby sponsors an annual 5K event, and offers personalized programs and a variety of fitness classes each month. Sanford has appointed a planning committee to execute programs.
- Sanford Canby Medical Center is completing health and wellness campaigns including *Together Canby Can* which promotes educational events. Community education is offered at the elementary and high school level in areas of food and nutrition and physical activity and health.

6. Chamberlain

- Sanford Chamberlain works with the local Indian Health Services and community leadership to offer lunch and learn formatted presentations about healthy lifestyles. Free cholesterol checks are also provided at these events.
- Sanford Chamberlain provides a free three-day Kids Camp each summer to address healthy eating and physical activity. Sanford *fit* is offered to area students and their families.

7. Clear Lake

- Sanford Clear Lake offers BMI measurement to all students in grades 6-12 at Duel School District schools. Medical experts provide education on BMI and ways to manage a healthy lifestyle. The hospital-owned wellness center is open to the public 7 days a week, 24 hours a day for a small monthly fee.

8. Fargo

- The Family Wellness Center offers nutrition and fitness classes each month for community members. Cooking classes for children and parents and nutrition classes for the general public are offered independent of membership.
- Sanford's Eating Disorders specializes in diagnosing and treating eating disorders in adolescents and adults. Clinical services to treat anorexia nervosa, bulimia nervosa, binge eating disorder and related forms of disordered eating are available at Sanford. Treatment options include outpatient, partial hospital or full inpatient services. The goal is to help patients regain control of their lives and overcome the potentially life-threatening consequences of living with an eating disorder. Programs are open to adolescents and adults and family involvement is encouraged each step of the way.
- Profile by Sanford is a personalized retail weight loss program designed by Sanford Health physicians and scientists to be simple, effective and sustainable. With a certified Profile coach, personalized meal plans and smart technology to track progress, members see real results. Each weight loss plan is designed with a focus on nutrition, activity and lifestyle.
- Sanford's Weight Loss Surgery Program is designated as a national Bariatric Center of Excellence and has designated Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program Accreditation Centers.
- Sanford's Weight Loss Surgery Program emphasizes clinical research. Through Sanford's relationship with the Neuropsychiatric Research Institute, our program is one of only six clinical centers in the United States selected by the National Institutes of Health to participate in a bariatric research known as LABS – short for Longitudinal Assessment of Bariatric Surgery. The study brings together experts in weight loss surgery, obesity research,

internal medicine and other related fields to analyze the risks and benefits of weight loss surgery and its impact on patients' health and quality of life and to identify which patients would most likely benefit from weight loss surgery.

- The adult weight management program *Honor Your Health* is a comprehensive wellness program developed by Sanford Health Fargo Region which focuses on evidenced-based nutrition standards, physical activity and behavioral health. This class is offered for adults and provides a basis for young parents as well as all adults to learn about health and wellness. This program is a comprehensive approach to healthy lifestyle practices and may facilitate healthy behaviors for families.
- The Sanford athletic training coverage at high schools, colleges and local sporting events promotes wellness and fitness. During FY 2015 the Fargo athletic trainers contributed over \$1,316,000 in community benefit to local sports teams at sporting events.

9. Hillsboro

- Sanford Hillsboro Medical Center supports the Hillsboro and Buxton 5 K races.
- Sanford dietitians are available to provide 1:1 counseling and to provide presentations for community organizations and events.

10. Canton-Inwood

- The clinic has worked with the school to offer programs to students. The Sanford *fit* program has been offered to the school.

11. Westbrook

- With the addition of a certified Medical Home and Health Coach in Westbrook, efforts are ongoing to identify patients with obesity issues and to offer resources and monitoring to assist with health conditions.
- Sanford has ongoing efforts with the local wellness center to offer training for equipment and assistance for community members who want to use the facility.
- There is increased access to outreach dietitians.

12. Luverne

- The Sanford Luverne Medical Center dietitian conducts programs for intensive behavioral therapy for patients with an obesity diagnosis.
- The Wellness Department provides numerous wellness challenges throughout the year as a part of the wellness activities to promote health and wellness in the community and to address obesity issues.
- The Power Center Camp is designed for male and female athletes in grades 9-11, or 15 years of age, who are serious about improving their power, speed, agility and cardiovascular fitness. It is a seven-week camp consisting of two weekly one-and-a-half hour sessions packed with intensive exercise protocols that include stretching, plyometrics, trunk strengthening, speed, and agility training drills. The training camp, designed by a physical therapist, includes aspects of the expensive acceleration clinics.

13. Sanford USD

- Sanford USD has conducted *fit* care classes to child care providers in 29 counties in northeast and southeast South Dakota focusing on health and wellbeing relevant to pediatric obesity prevention.

- Sanford USD has conducted physical activity technical assistance to child care providers in 16 counties to help out more physical activity into a child's day in order to prevent pediatric obesity.
- Sanford conducted *fitClub4* Girls in 8 schools within the Sioux Falls School District focusing on health and wellbeing relevant to pediatric obesity prevention.
- Camp Fuel is offered to kids 9-12 years of age to teach them healthy eating and physical activity.
- Sanford is an active participant in *Live Well Sioux Falls*, a community collaborative to address tobacco-free living, healthy community design, clinical preventative services, and nutrition.
- Sanford USD offers a wide variety of healthy programs and services to address obesity in the community. Healthy nutrition cooking classes for kids, healthy family cooking classes, and baby nutrition cooking classes are offered frequently throughout the year.
- Sanford participates in the *Feeding South Dakota* backpack program to provide healthy and nutritious options for children who need help with adequate food supply during weekends and summers when school lunch is not an option. *Growing Up Healthy* classes are offered to hundreds of children each year.
- *Fuel Up to Play 60* is an in-school program that promotes healthy eating and physical activity. Sanford provides a coach for the Brandon Valley School District *FUTP 60*.
- Triathlon training, Zumba classes and a variety of fitness classes are just a sampling of the expansive offerings to promote healthy living to improve the human condition.

14. Sheldon

- Sanford Sheldon sponsors an athletic trainer and a *Live Healthy Sheldon* annual activity and weight loss program.
- Sanford Sheldon contributes to and supports the community wellness center to provide 24/7 access for the community members and to promote physical activity and healthy living.

15. Thief River Falls

- Sanford Thief River Falls Fitness Center offers numerous classes and programs for youth and adults. The Sanford *fit* program is available to all children and youth and their families.

16. Webster

- Sanford Webster is part of a new community initiative to build a walking/biking trail in Webster.
- Sanford Webster contracts with a clinical dietitian who provides medical nutrition therapy.
- Sanford Webster Medical Center offers a Power Program for sports acceleration, and provides obesity prevention services through the clinical dietitian and exercise specialists.

MENTAL AND BEHAVIORAL HEALTH/BEHAVIORAL HEALTH

The community health needs assessment findings from across the Sanford footprint indicate the need for mental health and behavioral health services are increasing. New concerns in the area of behavioral health include the presence of street drugs and narcotic opioid use among community members. Sanford is addressing the problem with new policies for pain management and prescriptions.

Sanford continues to address behavioral health needs throughout its large footprint with the integration of primary care and behavioral health. Sanford's approach to addressing behavioral health includes primary and specialty care clinics and medical centers. Sanford uses technology to conduct behavioral health screenings in order to identify behavioral health concerns as early as possible. Through deployment of the Medical Home with fully integrated behavioral health care services, Sanford is providing patient-centered care collaborative teams to meet the needs of Sanford patients.

The following programs are samples of mental health/behavioral health community benefit contributions for FY 2016:

- Aberdeen
 - Sanford Aberdeen established adolescent and adult mental health telemedicine services.
 - Sanford addresses depression diagnosis through the use of the PHQ-9 assessment tool.

- Sioux Falls
 - Sanford Sioux Falls USD is participating in the community initiative to address mental health issues. Sanford is incorporating peer support advocate (PSA) positions to enhance services for addiction. Additionally, the behavioral health triage therapists (BH TT) are patient-centered and focus on assisting the primary care medical team in identifying, triaging and effectively helping patients manage behavioral health problems or psychosocial comorbidities of their chronic medical disease.
 - Mindfulness based stress reduction (MBSR) courses are provided to the community, and specific sessions address breast cancer, neurological conditions and older adults.
 - Sanford 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. Referrals are made to mental health and substance abuse resources, medication assistance, and food and housing assistance.

- Bismarck
 - Sanford has partnered with law enforcement, social services providers, and other community care providers to develop a community-wide continuum of care to meet the behavioral health needs of the county.
 - Sanford Health Bismarck partnered with *Face It Together*, a non-profit addiction management organization to help provide substance abuse awareness, education and recovery resources.
 - Sanford Health Bismarck supports the Children's Advocacy Centers of ND and the Alliance for Children's Justice through board membership. Sanford also serves on the Child Protection Team, Crisis Team, National Children's Alliance Standards Committee, and the Prevent Child Abuse ND Committee.

- Thief River Falls
 - Sanford Health Thief River Falls has opened a Thief River Falls Behavioral Health Center to meet the behavioral health needs of the region and the state. A chemical dependency counselor has been hired to work in the outpatient clinic. Sanford Thief River Falls is working to establish a collaboration of partner organizations focused on behavioral health care to meet the needs of the regional community.

- Sanford implemented a new electronic medical record during February 2014 and has added e-prescribing. A chemical dependency counselor was hired for the outpatient clinic.
- Chamberlain
 - Sanford Health Chamberlain has added a social worker (MSW) for mental health and case management and a behavioral health triage therapist.
 - Chamberlain has implemented Medical Home, including a Health Coach to focus on measures that identify mental health needs.
- Sheldon
 - Sanford works with the schools to provide education about drugs and drinking abuses
 - Sanford provides dementia and Alzheimer's support groups at the senior care facility.
- Luverne
 - Sanford Luverne provides an outpatient chemical dependency program and works with surrounding county drug courts and various community groups to impact drug and alcohol use.
- Bemidji and Bagley
 - Behavioral health services have been integrated into primary care settings through behavioral health screenings, PHQ-9 screening, and behavioral health triage therapists. A peer support advocate is on staff to assist patients with substance addictions.
 - A grant was awarded to Bemidji Medical Center to develop a prevention and early intervention program for pregnant women who are opioid users. The impact of the grant has been to form collaborative relationships with the Red Lake Tribe and Beltrami County to help identify and intervene in order to minimize the impact on newborns.
 - Sanford Bemidji and Bagley are working with Beltrami County, Upper Mississippi Mental Health Center and several other community agencies to develop a county-wide continuum of care. Additionally, a high-risk case manager and emergency department care managers assist with the identification and referral of high-risk patients.
- Rock Rapids
 - Sanford Rock Rapids is part of the NWCC multidisciplinary group comprised of law enforcement, behavioral health, hospitals and providers. The group addresses mental and behavioral health concerns.
- Mayville
 - The mental health resource directory was updated and revised and has been made available to public health. Community members can obtain a copy at the hospital. Copies will also be distributed to area senior centers during 2016 and at the health fair/education blitz.
- Fargo
 - Behavioral health services have been integrated into primary care settings across clinics in the Fargo Region. Positive improvements have been measured in depression in teens, anxiety in teens, behavioral health disorder in teens, depression in adults, drug

abuse/dependence in adults, behavioral health disorder in adults, and patients encountering behavioral health providers.

- Sanford behavioral health experts are serving on the North Dakota Behavioral Health Stakeholders Advisory to the Department of Human Services Legislative Interim Committee to shape policy for the 2017 Legislative session.
- Tracy
 - Sanford Health Tracy has added a nurse practitioner specializing in behavioral health and has Medical Home certification and a Health Coach.
- Worthington
 - Sanford Worthington serves on the Nobles County Mental Health Advocacy Council and Adult and Child Protection teams, working in collaboration with community entities to address mental health needs.
- Vermillion
 - Sanford Vermillion has developed strategies to significantly increase the number of mental health patients seen by adding a mental health counselor, psychiatric clinic outreach, and Telehealth services. Leadership also serves on the USD Alcohol and Suicide Prevention Committee.
- Jackson
 - Sanford Sheldon Medical Center has implemented an integrated behavioral health triage therapist into the clinics in Jackson and Lakefield. Telemedicine is available for specialty services for behavioral health is on site several days each month.
- Wheaton
 - Wheaton Sanford Medical Center has implemented Telehealth psychiatry at the Medical Center to enhance patient services.
- Canby
 - Sanford Canby coordinates with area mental health services and counselors to perform outreach services within the care facility.
 - Quarterly support groups are led by Sanford in the areas of chronic disease, grief and loss, and drug and alcohol abuse.

AGING SERVICES

Services for the elderly are an area of high concern based on the findings from the 2013 community health needs assessment. Sanford is addressing the need for services through the following community benefit contributions:

- The Better Choices, Better Health program serves the aging population and helps them set chronic disease self-management goals. This program is offered in person in a classroom setting as well as online to assist community members throughout our footprint.
- Sanford Health's occupational therapy providers present the *Car Fit* program for the senior population on a regular basis throughout the year.

- At Sanford Medical Center Fargo, the parish nurse program continues to support the aging population in our region. The majority (68%) of the population served by parish nurses is 65 years or older, and the greatest number of contacts (40%) were made for those over the age of 80.
- At Sanford Medical Center USD, the Faith Community Nursing Center offers individual visits and phone follow-ups. There were 10,129 contacts including health education, screenings, support group and individual contacts. Of those contacts 1,075 were 1:1 visits with the FCN, 68% of who were over age 65. A new initiative was started in March to educate community-dwelling individuals about Advanced Directives and provide advance care planning sessions at local churches. Over 1,000 people have been reached through class sessions and health fairs. During FY 2015 the *Stepping into Good Health* program continued to provide free foot and nail care by a Certified Foot Care Nurse, as well as spiritual assessment, blood pressure and diabetes screening, health education, and referrals for 729 individuals. Concerns often presented at the free clinic including mental health and anxiety issues, stroke, orthopedic concerns, tobacco use, depression and obesity. This year the faith community nurse and community volunteer offered the Better Choices, Better Health (CDSMP) workshop twice, with 20 clients participating.

Additional Community Benefit Contributions

Sanford demonstrates its commitment to providing community benefit through the following specific accomplishments:

- The Joint Commission's Advanced Certification of Distinction for Primary Stroke Center (Sanford Bismarck and Fargo and Sioux Falls)
- The Joint Commission Certification of Distinction for Inpatient Diabetes Care (Sanford USD Medical Center Sioux Falls)
- The American Heart Association National Recognition for Stroke Care (Sanford Medical Center Fargo)
- The American Heart Association Gold Standard Award for EMS (FM Ambulance, Fargo)
- The Joint Commission's Advanced Certification of Distinction for Palliative Care (Sanford Medical Center Fargo)
- The Joint Commission Accreditation for Total Hip, Knee, Shoulder and Hip Fracture
- American College of Cardiology Foundation NCDR ACTION Registry - GWTG *Platinum Recognition Achievement Award* for high standard of care of heart attack patients (Sanford USD Medical Center, Sioux Falls and Sanford Bismarck Medical Center)
- American Heart Association gold standard in STEMI heart attack care and *Mission Lifeline Performance Achievement* for care of heart attack patients and STEMI (Sanford USD Medical Center, Sioux Falls)
- The Society of Cardiovascular Patient Care National Certification for Atrial Fibrillation (Sanford USD Medical Center, Sioux Falls)
- The Society of Cardiovascular Patient Care Accredited Chest Pain Center with Percutaneous Coronary Intervention (Sanford Medical Center Fargo)
- American Heart Association GWTG Silver Recognition for care of heart failure patients (Sanford USD Medical Center, Sioux Falls)
- The American Heart Association Mission Lifeline Heart Attack Receiving Center Accreditation (Sanford USD Medical Center, Sioux Falls, Sanford Medical Center Fargo)
- The American Academy of Sleep Medicine Center Accreditation (Sanford Medical Centers in Bismarck, Fargo and Sioux Falls)

- The National Athletic Trainers Association 2017 Safe Sports Schools 1st Team Award
- The FBI 2016 Director’s Community Leadership Award – Sanford Health’s Dakota Children’s Advocacy Center (DCAC)
- Blue Cross Blue Shield of North Dakota – Blue Distinction Center for knee and hip replacement and spine surgery (Sanford Medical Center Bismarck)
- The American Nurses Credentialing Center’s Magnet Recognition for quality patient care, nursing excellence, and innovations in professional nursing practice (Sanford USD Medical Center, Sioux Falls; Sanford Medical Center, Bismarck)
- National Accreditation Program for Breast Centers (Sanford Medical Center Bemidji, Bismarck, Fargo and Sioux Falls)
- National Quality Measures for Breast Centers Program (Sanford Medical Center Fargo)
- American College of Radiology *Breast Imaging Center of Excellence* - Breast Ultrasound (Sanford Medical Center, Bemidji, Fargo and Sioux Falls)
- American College of Radiology Breast Imaging Center of Excellence – Mammography (Sanford Medical Center Fargo, Sioux Falls, Thief River Falls); American College of Radiology Breast Imaging Center of Excellence – Stereotactic Breast Biopsy (Sanford Medical Center Fargo and USD Medical Center, Sioux Falls)
- American College of Surgeons *Level II Trauma Center* (Sanford Medical Center, Bismarck, Fargo and Sioux Falls)
- American College of Surgeons *National Accreditation Program for Breast Centers*, three-year accreditation (Sanford Breast Health Institute, Sioux Falls; Sanford Breast Health, Fargo; Sanford Health, Bismarck)
- Becker’s Hospital Review “61 *Integrated Health Systems to Know*” recognition for achieving a high level of integration through strong physician alignment (Sanford Sioux Falls and Sanford Fargo)
- Blue Cross Blue Shield of North Dakota *2012 Bold Innovator Award* for achieving best results in diabetes care, vascular care and high blood pressure (Sanford Fargo)
- Commission on Accreditation of Ambulance Services (CAAS) three-year accreditation for F-M Ambulance, the only CAAS-accredited service in North Dakota and one of two in Minnesota (Sanford Health Fargo Region)
- Commission on Accreditation of Rehabilitation Facilities (CARF) three-year accreditation for inpatient rehabilitation and brain Injury programs for adults and children (Sanford Medical Center, Fargo)
- The Minnesota Department of Health Certified Health Care Home (Sanford Medical Center Fargo, Sioux Falls)
- Commission on Cancer of the American College of Surgeons three-year Accreditation with Commendation (Sanford Roger Maris Cancer Center, Fargo and Sanford Cancer Center, Sioux Falls)
- Lung Cancer Screening Center of Excellence (Sanford USD Medical Center Sioux Falls)
- National Accreditation Program for Nuclear Medicine (Sanford Medical Center Fargo)
- National Accreditation Program for computed tomography (Sanford Medical Center Fargo, Thief River Falls)
- National Accreditation Program for Breast MRI (Sanford Medical Center Fargo)
- National Accreditation Program for MRI (Sanford Medical Center Fargo, Thief River Falls)
- National Accreditation Program for Radiation Oncology (Sanford Medical Center Bemidji, Fargo, Sioux Falls)
- National Accreditation Program for Ultrasound (Sanford Medical Center Fargo)

- The American Society for Gastrointestinal Endoscopy Quality Star (Sioux Falls)
- Department of Health and Human Services awards:
 - *Bronze Award for Transplant Programs* – recognition for quality performance in transplant care - kidney transplants, quality, post-transplant survival rates, transplant rates on wait list patients and pre-transplant mortality rates (Sanford Fargo and Sanford Sioux Falls)
 - *Bronze Medal of Honor for Organ Donations* - achieving and sustaining national goals for collaborative conversion of organ donations, including a 75%+ donation rate of eligible donors (Sanford Fargo and Sanford Sioux Falls donation rates over 80%)
- Intersocietal Commission for the Accreditation of Echocardiography Laboratories three-year accreditation for fetal, pediatric transesophageal, and pediatric transthoracic echocardiograms (Sanford USD Medical Center, Sioux Falls)
- Intersocietal Commission for the Accreditation of Echocardiography Laboratories three-year accreditation for adult transthoracic, transesophageal, stress echocardiograms and pediatric transthoracic echocardiograms (Sanford Medical Center Fargo)
- Intersocietal Commission for the Accreditation of Echocardiography Laboratories three-year accreditation for adult transthoracic and stress echocardiograms. (Sanford Health Detroit Lakes, Jamestown, Valley City, Wahpeton, and Perham Health)
- Intersocietal Commission for the Accreditation of Echocardiography Laboratories three-year accreditation for adult transthoracic echocardiograms (Sanford Health East Grand Forks and Pelican Rapids)
- Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program Accredited Centers (Sanford Medical Center Bismarck, Fargo and Sioux Falls)
- Joint Commission *Gold Seal of Approval for Bariatric Surgery* (Sanford USD Medical Center Sioux Falls)
- Joint Commission *Gold Seal of Approval for Hip Fracture, Knee Replacement, Hip Replacement and Shoulder Replacement* programs (Sanford USD Medical Center, Sioux Falls, Sanford Medical Center Fargo)
- National Organization on Fetal Alcohol Syndrome recognition of H. Eugene Hoyme, MD with the *2012 Excellence Award* for commitment to understand, prevent and treat alcohol-related birth defects
- National Research Corporation (NCR) Healthcare Information and Management Systems Society (HIMSS) *Stage 6 Electronic Medical Record Adoption* recognition for implementation of technology to improve patient safety and care (Sanford USD Medical Center Sioux Falls; Sanford Medical Center Fargo; Sanford Medical Center Aberdeen)
- Accreditation by the American Institute of Ultrasound in Medicine (AIUM), Maternal-Fetal Medicine Ultrasound Department (Sanford Medical Center Fargo).
- American College of Radiology Diagnostic Imaging Center of Excellence (Sanford Medical Center Fargo)
- American College of Radiology Accreditation Ultrasound Modules: General, Gynecological, Obstetrical (Sanford Southpointe Clinic, Sanford South University, Sanford Health West Fargo, Sanford Health Moorhead, Sanford Health mobile ultrasound)
- American College of Radiology Accreditation Ultrasound Modules: General, Gynecological, Obstetrical Pediatric, Vascular-Abdominal, Vascular-Cerebrovascular, Vascular-Deep-Abdominal, Vascular-Peripheral (Sanford Medical Center Fargo)
- National Accreditation Program Level II Trauma Center (Sanford Medical Center Bismarck, Fargo, Sioux Falls)

- 2015 Platinum Workplace Partnership for Life Award Campaign from LifeSource (Sanford Fargo)
- The Sanford Health EMS Education / NDSCS Paramedic Technology Program located at F-M Ambulance is accredited by the Commission on Accreditation of Allied Health Education Programs / Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CAAHEP/CoAEMSP)
- F-M Ambulance Service, Inc., is accredited by the Commission on Accreditation of Ambulance Services (CAAS)
- Mission: *Lifeline EMS Gold Award* , F-M Ambulance Service, Inc. (Sanford Medical Center Fargo)
- Blue Cross Blue Shield Blue Distinction Center for Gastric Stapling Procedures (Sanford Medical Center Fargo)
- Blue Cross Blue Shield Blue Distinction PLUS for Gastric Banding Procedures (Sanford Medical Center Fargo)
- Clinic Sciences Institute (CSI) of Optum Bariatric Centers of Excellence (COE) network recertification (Sanford Medical Center Fargo)
- Commission on Accreditation of Medical Transport Systems (Sanford Health Enterprise)
- 2015 Listed in *100 Safe Care Hospitals*
- 2015 Community Partner LSS Mentoring Services
- 2015 MBSAQIP Bariatric Certification (12/30/2014 - 12/30/2017)
- 2015 CARF accreditation
- 2015 Commission on Cancer Accreditation
- 2015 Sioux Falls Dialysis CMS Certification
- 2015 Wagner Dialysis CMS Certification
- 2015 Transplant CMS Certification
- 2015 Child's Voice NCA Accreditation
- 2015 ACOG SCOPE Certification Female Pelvic Medicine
- 2015 Blue Cross Blue Shield Blue Distinction Center for Bariatric Surgery
- 2015 *US News & World Report* top performer for knee/hip replacement, cardiac bypass surgery, CHF, COPD
- 2015 *Friend of Science* from South Dakota Teacher's Association (Sanford Research)
- 2015 *HealthCare's Most Wired 2015 Award* (partnership with American Hospital Association, Chime, Hospitals & Health Network / sponsored by Cerner and VMWare)
- 2015 Becker's Hospital Review *Top 100 Hospitals with Great Orthopedic Programs*
- 2015 Blue Cross Blue Shield Blue Plus Distinction in Spine Surgery
- 2015 Humanitarian Award from Sioux Falls Human Relations Committee (Wellness Center)
- 2015 FDA Blood Bank Inspection
- 2015 SMC Pharmacy Inspection
- 2015 SMC 340B Audit by HRSA
- 2015 SMC *Governor's Award of Honor*
- 2015 Sanford Clinic *Award for Meritorious Achievement*

Sanford Clinic has 1,400 physicians representing 81 specialties. Supporting the five Centers of Excellence of the Sanford integrated health system, Sanford Clinic physicians and clinical teams provide services in Cancer, Women's, Heart and Vascular, Children's, Surgery and Trauma, Neuroscience/Orthopedics and Primary Care.

Sanford Clinic Cancer Services include a multidisciplinary team of experts and a pinnacle service in head and neck cancer with NIH-funded research in HPV.

Women's Services span the entire clinical services spectrum and integrated medicine services including a medical spa. The physician experts provide urogynecology, reproductive endocrinology, gynecology/oncology, genetic counseling, and maternal fetal medicine subspecialty care. Another pinnacle service is the regional Fetal Care Centers located in Fargo, ND and Sioux Falls, SD which include diagnostic services and fetal surgery.

The Heart and Vascular Service provides a strong clinical research program and preventive focus.

Surgical Care for the Sanford Clinic includes bariatric, trauma and general surgery as well as surgical oncology care, a strong breast cancer program, GI cancer program, and lung cancer program which all fall within this area of expertise.

General pediatric and subspecialty pediatric physicians support the Children's Hospital and regional outreach services and national pediatric care.

Additional growth continues in neuroscience and orthopedic clinical services, sports medicine, general and subspecialty care.

A majority of the rural clinics reside in counties designated by the Department of Health and Human Services as medically under-served areas. In each of its outlying locations, the clinic provides primary care services to the community. In many communities, the clinic is the sole provider of physician services. Additionally, in order to improve the breadth, access and integration of care available in these outlying rural communities, Sanford medical specialists reach out to provide part-time services which would not otherwise be available to regional clinics, other hospitals, Public Health Service, and Indian Health Service locations. The clinics offer a full range of medical specialties. Sanford operates 19 walk-in clinics, and also owns and operates the region's largest provider of home health care with over 63,000 skilled visits. Each year Sanford provides 6.8 million inpatient/outpatient visits and over 8,200 surgical procedures. There are over 200,800 ER visits annually and approximately 8,600 births.

The Medical Home model consists of RN Health Coaches and information technology to serve patients in their primary care location.

Sanford Health supports community health care facilities as they provide care close to home through 45 hospitals, 289 clinics and 48 senior living and care facilities. Sanford Health supports a network of owned, leased, managed and affiliated facilities to ensure that necessary health care services across a broad range of medical and surgical specialties are delivered locally to the broad service area.

Sanford Health Network's commitment to local health care delivery is clearly evident in its community-based leadership and local Board involvement. Additionally, our technology deployment in the form of our health system's fully integrated clinical and financial information system remains a priority.

Sanford Thief River Falls Behavioral Health Center is the first free-standing behavioral health center in the Sanford footprint and provides much needed services to the region.

In addition to family medicine, internal medicine, pediatrics, OB/GYN and general surgery services that Sanford Health currently provides in Dickinson, the new clinic houses a walk-in clinic, an ambulatory

surgery center, infusion services for cancer treatment, and space for mobile MRI and CT scans. The clinic has room for more than 20 physicians and provides accommodations for more opportunities for visiting specialists. Sanford Health is analyzing additional services and community needs for the clinic as well.

Sanford's new Fargo Medical Center will open in 2017 and will be a world-class facility equipped with the latest technology and staffed by leading medical professionals in the country. The center will bring unprecedented medical care to North Dakota and our neighbors in South Dakota and Minnesota. The \$494 million project is one of the largest private industry construction projects in the history of the Dakotas and one of the top 10 health care projects in the U.S.

The new Sanford Fargo Medical Center is a 380-bed, 11-story, 1 million square foot project located on the south side of I-94 at the intersection between Veteran's Boulevard and 51st Street in Fargo, ND. Some of the services that will initially be housed in the new building are Children's/Prenatal Intensive Care Unit (PICU), Trauma/Operating Rooms, Orthopedics/Neurosurgery, Heart Surgery/Interventional Cardiology and Emergency Services including the following:

- Children's/PICU
- 36 general pediatric beds
- 14 PICU beds
- Trauma/OR
- 18 ORs
- 4 angio suites
- Orthopedics/Neurosurgery
- 64 beds
- Emergency Services
- 51 treatment rooms

Sanford Home Health Fargo Region provides skilled nursing care, PT/OT/ST therapy services, home infusion therapy, pediatric care, medical social services, home health aides, homemaking, community foot care clinics, lab draws, Emergency Response System (Lifeline) and guidance allowing individuals to heal and recuperate in the comfort of their home. There were 52,941 skilled visits and 49,189 personal care hours during FY 2016.

Sanford Sioux Falls Home Health provided 13,688 skilled visits in FY 2016 to 836 unduplicated patients, including SN, HHA, PT, OT, and ST services. Sioux Falls Hospice provided 17,250 days of service to 538 unduplicated patients in FY 2016. There were an additional 11,168 visits to patients in the non-certified program through Sanford's agreement with the Department of Social Services ASA and the patients served through our agreement for public health services with Brule and Lincoln Counties.

Sanford Home Health and Hospice in Bismarck, ND provides skilled nursing care through various programs. The hospice program promotes and enhances the comfort and dignity of the terminally ill person, the family, and the primary caregivers in the home, and uses the skills of a multidisciplinary team. The skilled home health program provides care by nurses, physical, occupational and speech therapies, and certified care aides to homebound individuals. There were 3,630 hospice visits and 12,969 home care visits during FY 2015 at the Sanford Bismarck location.

Sanford USD Medical Center in Sioux Falls, SD is a 545-bed tertiary care regional medical center. 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 School of Medicine. 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.

Sanford Research

Sanford Health is the recipient of the Pontifical Key Innovation Award – 2016

Sanford Research is a non-profit research organization formed between Sanford Health and the University of South Dakota. A transformational gift of \$400 million given by Denny Sanford in 2007 has allowed for an expansion of current goals and will enable Sanford Research to become one of the premiere research institutions in the United States and the world. Sanford Health has over 150 open clinical trials and over 350 ongoing clinical studies.

The financial gift from by Denny Sanford has also provided for an expansion of children's and research initiatives, one of which was to find a cure for Type 1 diabetes, and has given Sanford Research significant momentum in its goal of becoming one of the premiere research institutions in the United States and the world.

Most recently, subsequent gifts of more than \$200 million by Mr. Sanford have paved the way to establish the Edith Sanford Breast Cancer Research and Sanford Imagenetics.

Sanford Imagenetics is a first-of-its-kind program in the country that integrates genomic medicine into primary care for adults. Sanford Imagenetics has developed initial partnerships with Augustana College and the University of South Dakota to develop new academic programs that train the next generation of doctors, nurses and scientists in genomic medicine.

Uniquely working to create recognized leadership in health research from the foundation of health care delivery, Sanford Health has demonstrated a significant commitment to the recruitment of research scientists and staff. By seeking to have \$100 million in annual research expenditures and more than 600 full-time staff by 2017, Sanford Research/USD will average 30-50 new staff each year. In 2010, the organization conducted \$27 million of activity and added 33 new staff. With a team of more than 200 researchers, Sanford Research is comprised of several research centers, including Children's Health Research, Edith Sanford Breast Cancer, Cancer Biology, Center for Health Outcomes and Prevention and Sanford's Sports Science Institute.

Children's Health Research Center

The Sanford Children's Health Research Center continued to grow at sites in Sioux Falls, South Dakota and La Jolla, California. The center will next include a Center for Rare Diseases.

In 2016, seeking partnerships toward discovery and cures, Sanford held the first annual Sanford Health – USD Biomedical Research Symposium, sharing new concepts and strategies with collaborators at the University of South Dakota. Similar enterprise-status relationships will receive great impetus in the future, as they have with organizations like Pfizer, Novo Nordisk and Medtronic, among many others. In

fact, Sanford has begun commercialization and business development activities to engage employed physicians and scientists toward discovery and entrepreneurship.

The mission of the Children's Health Research Center is to conduct basic, translational, and clinical pediatric research. Interdisciplinary approaches are used to understand the underlying basis of a wide array of congenital defects and childhood diseases. Areas of interest include rare diseases, pediatric cancers, neurological disorders, developmental disorders, and genetic and environmental effects on childhood health and disease. In addition, a major initiative within the center is the Sanford Project, which aims to better understand, treat and cure Type I diabetes. Researchers within the center have expertise in a wide range of disciplines, including molecular biology, cell biology, developmental biology, biochemistry, neuroscience, immunology and genetics.

The Children's Health Research Center is led by Kyle Roux, PhD and Jill Weiner, PhD. Research activities are heavily supported by the NIH-funded Center for Pediatric Research, which enables ongoing growth of basic and translational research within the Center. The Center has also formed collaborative relationships with other leading research and clinical institutions around the globe, including the Sanford-Burnham Medical Research Institute in La Jolla, CA. With a rich and dynamic research environment, the Children's Health Research Center is actively advancing toward its goal of understanding and treating pediatric disease.

Dr. Kevin Francis recently published his work focused on use of the stem cell model to study Smith-Lenli-Opitz in the journal *Nature Medicine*. His research includes using induced pluripotent stem cells to study rare neurological disorders.

Jill Weiner, PhD, director and scientist in the Children's Health Research Center, has received nearly \$440,000 to support her research of a rare neurodegenerative disease that affects mostly children. She is the recipient of a one-year grant from the Charlotte and Gwentyth Gray Foundation to Cure Batten Diseases, created by Kristen and Gordon Gray, whose two young daughters are battling Batten disease. Weiner's lab is among only a few in the world studying this form of Batten disease, a group of neurodegenerative diseases most commonly found in children that can cause seizures, blindness, motor and cognitive decline and premature death.

In August 2016, Drs. Michelle Baack and Peter Vitello and their lab members, Benjamin Forred, Tricia Larsen and Angela Wachal, published a study emphasizing the adverse developmental and long-term effects of a maternal high fat diet, alongside late gestational diabetes, on growth of lung vessels and alveoli. This study entitled "Consequences of a maternal high-fat diet and late gestational diabetes on the developing rat lung," was published in the journal *PLOS ONE*. This highlighted their collaborative work and showed that the in utero environment effects both lung maturation and pulmonary circulatory development and the effects persist beyond the newborn period.

In August 2016, at the Gordon Conference on Neural Development at Salve Regina College in Newport, RI, Drs. Jill Weimer and Kevin Francis as well as Jon Brudvig, a USD PhD candidate in the Weimer lab, presented research posters on their recent advances in developing a gene therapy for CLN6-Batten disease and their work on a scaffolding protein called MARCKS that is essential for formation of the cerebral cortex. Dr. Francis presented a poster on the role of lipid homeostasis and associated signaling pathways in neural development and stem cell biology.

March 2016, a delegation of scientists from Sanford including Drs. Jill Weimer, Davis Pearce,

Attila Kovacs and USD-SSOM MD PhD student Ryan Gerats presented on translational research on Batten disease at the Batten Disease: 2016 Update of Translational Research for Management of INCL/LINCL Conference.

Clinical Research Center

Sanford Health patients receive the most advanced care and treatment that today's medical research offers through over 350 clinical trials. As part of Sanford Health's legacy in clinical research, Sanford physician scientists lead National Cancer Institute and other nationally sponsored cooperative group study programs involving adult and pediatric oncology. Additionally, a growing variety of industry-sponsored and physician-investigator drug and device trials are conducted through the Sanford Clinical Research Center.

The Sanford Project

The Sanford Project is an emerging translational research center focused on targeted diabetes research. The Sanford Project has one goal: Curing Type 1 diabetes, and is designed for results focusing on one of the most promising, fast-moving fields of research – regenerative medicine. The initiative is directed by the Todd and Linda Broin Chair of The Sanford Project.

Edith Sanford Breast Cancer Research

Edith Sanford Breast Cancer Research is pursuing cutting edge genomic research to identify specific treatments that will work best for each woman, prevent the disease on an individual basis, and ultimately eradicate breast cancer. The initiative is directed by the Edith Sanford Breast Cancer Research Director.

Center for Pediatric Research (NIH COBRE)

The primary goal is to establish a foundation of basic scientists with translational research projects studying developmental mechanisms underlying children's disease by establishing the Center for Pediatric Research. The Center provides a formalized training program for young, independent scientists, as well as research, administrative, and career development resources for affiliated faculty members.

The origin of many pediatric diseases is altered developmental programming related to the processes of cell proliferation, morphogenesis, migration, differentiation, and programmed death. These developmental processes are at the root of pediatric disease and are disrupted through genetic disorders, aberrant fetal programming, altered growth and development, and environmental pressures. Researchers within the center utilize genetic, biochemical, cell and molecular approaches across several model organisms to characterize alterations during development as they pertain to pediatric diseases and disorders. As a result, the Center for Pediatric Research is developing a strong foundation in basic and translational research by fostering a collaborative environment for scientists and physicians in South Dakota.

Center for Genomic and Molecular Medicine

The Center for Genomic and Molecular Medicine at Sanford Research includes research teams focused on understanding the molecular, cellular and genetic basis of heart disease and cancer, including breast, head and neck, ovarian, colon, cervical and lymphoid. The Center includes a blood and tissue biobank and a molecular and cytogenetics laboratory, including on-site capabilities in exome and whole genome sequencing.

The Molecular Genetics Division of the Sanford Medical Genetics Laboratory is a clinical diagnosis laboratory with an ever-expanding menu of molecular testing for rare Mendelian disorders such as inborn errors of metabolism, inherited cancer syndromes, and pharmacogenetics.

Sanford Applied Biosciences

Sanford Applied Biosciences has developed the world's first large animal platform technology to produce fully human antibodies, both monoclonal and polyclonal, using the latest advances in gene engineering and transfer to produce new biopharmaceuticals that help fight disease. The antibodies generated in this unique system have been shown to have high diversity and affinity compared to other genetically engineered animal systems.

Sanford Sports Science Institute

The Sanford Sports Science Institute is internationally known for its research in exercise, heat stress, and athletic health and leadership in the sports medicine community. The Sports Science Institute focuses on new research to address training, competition, and rehabilitation challenges for youth and other populations. From this research, the Sports Science Institute partners with sport and sports medicine national governing bodies in developing new educational initiatives, guidelines, and policy for safe and appropriate exercise, training, and sports participation.

Center for Health Outcomes and Prevention Research (CHOPR)

The Center for Health Outcomes and Prevention Research (CHOPR) specializes in population, translational, and clinical research, as well as in the design and methodology surrounding such studies. Our primary research involves many different areas including infant mortality, childhood obesity, fetal alcohol spectrum disorders, childhood cancer, teen pregnancy, and infertility. Our faculty have a broad range of expertise, specializing in public health, medicine, psychology, reproductive endocrinology, pediatrics, epidemiology, nutrition and biostatistics. A number of our research studies involve engagement and partnerships with American Indian communities and community-based organizations. As a center, we are committed to improving health through education and research in prevention and health outcomes in our local communities and the population at large.

An Evaluation Core where staff are available to advise and manage evaluation requirements for research and service projects includes conducting process and outcome evaluations via qualitative and quantitative methods. There is a Community Initiatives Core which aims to support research collaborations, create a triage process for responding to requests from partnering organizations or communities, and initiating and following through with areas for future development and help from connections between communities and Sanford Research on common areas of interest.

Collaborative Research Center for American Indian Health

The Collaborative Research Center for American Indian Health (CRCAIH) is designed to create a platform to bring together tribal communities and health researchers, from multiple disciplines, to work together in the development of cutting-edge transdisciplinary research that will address the significant health disparities experienced by American Indians in South Dakota, North Dakota and Minnesota. All projects within the CRCAIH will embrace a "social determinants of health" theme. This theme was selected because of the needs of the region, the immediate applicability of many social determinants of health to public health intervention programming, and the existing strengths within the consortium of partners.

- The Collaborative Research Center for American Indian Health (CRCAIH) was formed in September 2012 on receipt of a grant from the National Institute for Minority Health and Health

Disparities. A central component of CRCAIH is the Community Engagement and Innovation Division. This division works directly with tribally-employed community liaisons to develop each tribe's research infrastructure according to specifications and requirements set forth by each tribal nation.

The CRCAIH is a transdisciplinary center and serves to advance research through three research projects in pediatric asthma self-management, kidney transplant donation education, and emergency room utilization. In conjunction, the Center offers pilot grants and other resources/curriculum or education in research culture/bioethics, regulation and methodology. These studies, along with the pilot projects, will serve as models and demonstrations of the high quality research that is possible through the partnerships of the CRCAIH. The CRCAIH was created through the vision and collective expertise of numerous partners. Collaborators on the grant include: Cheyenne River Sioux Tribe, Oglala Sioux Tribe (Pine Ridge), South Dakota State University, University of South Dakota, University of North Dakota, North Dakota State University, Turtle Mountain Community College, Missouri Breaks Industries Research, Medicine Wheel Inc., Rapid City Regional, Children's Hospitals and Clinics of Minnesota, and KAT Communications. (Elliott – PI – funded by NIMHD)

Diabetes and Obesity Prevention

- Sanford has been involved in a series of community needs assessment and health promotion activities related to health promotion and prevention of childhood obesity. Using a community-based participatory research model, where communities are involved in each step of the development, implementation and analysis of projects, three tribal communities completed needs assessments involving 90 participants. The health promotion and prevention activities included separate interventions with 2 tribal partners and included 93 children plus parents. This model will be used with four additional tribal communities in the upcoming years. (Grey Owl, PI - funded through NIMHD)
- A project for the prevention of childhood obesity using the community-based participatory research model involving a community needs assessment and an intervention will be involved with two tribes over the next five years to implement interventions and health promotion activities to their respective communities on their reservation. This intervention project is funded by the CDC Community Transformation Grant through the SD Department of Health to the Great Plains Tribal Chairmen's Health Board and Sanford Research. (Grey Owl, Co Project Director)
- Pilot Study: Fit-Care Curriculum's Impact on Children's and Parent's Health Habits: Sanford Children's Health and Fitness Initiative and Sanford Research are partnering to conduct a year-long pilot study to measure the impact of the Fit-Care curriculum and the Fit-Care website (alone and in combination) on the health behaviors of children and their parents. (Hanson-PI, funded internally through Sanford Health)
- Rosebud Native American Diabetes Initiative with Novo Nordisk: The Sanford Research Center for Health Outcomes and Prevention Research will provide evaluation services for Novo Nordisk during the implementation of their Native American Diabetes Initiative. Novo Nordisk is partnering with the Rosebud Sioux Tribe to establish a diabetes awareness and education program, build a new wellness center, provide diabetes education to community health representatives and medical providers, and implement a mobile health unit. Sanford Research was awarded a subcontract to

monitor and evaluate the process, implementation, and effectiveness of the diabetes initiative program. (Hanson/Baete, funded through Novo Nordisk)

Fetal/Infant Mortality and Morbidity

- **Safe Passage Study:** In a prospective study to investigate the role of prenatal alcohol exposure in stillbirth and sudden infant death syndrome, the Northern Plains collaborates with two American Indian tribal communities and two urban locations. In total, over 12,000 women and infant pairs from South Africa and the Northern Plains will be enrolled in this study. (Elliott – PI, funded by NICHD)
- **Validation of the Northern Plains Diet Screener:** This ancillary study to the Safe Passage Study protocol is designed to determine the relative validity of the PASS Northern Plains Diet Screener to multiple 24-hour dietary recalls in pregnant American Indian women. (funded by NIAAA)
- **3-D Imaging of Facial Characteristics in the South African PASS cohort:** This ancillary study to the Safe Passage Study protocol is designed to improve understanding of the dysmorphic features in Fetal Alcohol Syndrome through collection of 3D facial imaging data and analysis of the 3D facial images using novel analytic techniques to test whether there are unique facial features in infancy that best discriminate alcohol exposed from control subjects.
- **Effects of Prenatal Environment on Brain Development:** This is a longitudinal study in preterm infants. The project involves EEG studies in premature infants and is looking at how prenatal alcohol exposure affects brain development. The overall goal of the study is to determine early in life which exposed infants are at risk for developing cognitive defects. (Fifer/Myers – PI; Elliott – Co-PI, funded by NICHD)

Pediatric Health Disparities

- **Emergency Department Use and Care in American Indian Children:** This study will assess use and care patterns of pediatric patients presenting to the emergency department. To study these patterns we will collect data from multiple sources including medical records, community engagement, and emergency room providers. Once we obtain the data, we will work on possible interventions to improve emergency room care specifically for American Indian Children. (Puumala-PI, funded through NIMHD as a component of 1U54MD008164 “Collaborative Research Center for American Indian Health” (Elliott-PI)
- **Understanding the Context of Northern Plains American Indian Teen Pregnancy:** The purpose of this project is to better understand the context in which American Indian teen pregnancy occurs in the Northern Plains. Bronfenbrenner’s Ecological Framework informs the study’s methodology and analysis. The needs assessment aims to uncover social norms and unique cultural factors that account for the high rates of teenage pregnancy in Northern Plains American Indian communities. We will also examine how factors may differ for reservation and urban youth. Using community-based participatory research methodology, we are using the data collected to develop culturally-based curricula for middle school youth. Finally, we will implement and evaluate a multi-site, culturally-sensitive teen pregnancy prevention program for reservation and urban Northern Plains American Indian teens. (Kenyon, PI – funded through NIMHD)

- STI and Teen Pregnancy Prevention Initiative: The purpose of this project is to implement an evidence-based STI/teen pregnancy prevention curriculum that also promotes adulthood preparation. A qualitative and quantitative needs assessment was implemented to help modify existing curriculum being implemented in three tribal communities in SD, NE, and IA. (Kenyon, Co-PI – funded through DHHS)

Reproductive Medicine

- Lifestyle Influence on Fertility Evaluation (LIFE) study: Male factor infertility affects about half of all couples presenting for infertility treatment, yet its causes remain largely unknown. In South Dakota, some potential risk factors are more prevalent, including smokeless tobacco use and pesticide exposure. This study will explore the possible relationship between risk factors and infertility treatment outcomes in a variety of ways to sort out these complications through the use of additional semen analysis and statistical modeling. The clinical sperm sample will also be used to assess DNA methylation as a tool to further link environmental exposures to treatment outcome. This study will provide insight into how environmental factors affect sperm function and, ultimately, infertility treatment success. (Puumala/Hansen- Co- PI, funded through a Sanford Health Seed Grant)

Student Training

- Health Care Career Day: Approximately 100-150 middle and high school students surrounding a tribal community participate in an educational day focused on health care careers in partnership with a tribal college. (Yutrzenka/Kenyon, Co-PI's – funded through NIMHD)
- Summer Undergraduate Research Experience: Across 3 summers, 24 American Indian undergraduate students have worked with research mentors at Sanford Research, USD, and the VA to receive hands-on experience in public health, applied and basic science projects. (Kenyon, Program Director – funded through NIMHD)

Urinary Incontinence

- Urinary incontinence is the involuntary loss of bladder control, an issue that impacts nearly 25 million people/women. The Incontinence Inventory in Native Americans (IINA) project is focused on helping the women in a Northern Plains tribe who have suffered silently with this condition. This is a two-phase study with the initial phase (Phase I) evaluating the prevalence rate of stress urinary incontinence among women from a Northern Plains tribe. Using a validated survey, these women are assessed using their results of the Urinary Distress Inventory (UDI) which is embedded in the phase I survey. If the women score positive on the UDI, they are eligible for Phase II.
- Phase II of IINA examines the feasibility of conducting individualized interventions in a rural setting. A physical exam is given by the project's nurse navigator. This exam takes place at the project's outreach clinic within the community's local IHS facility. Based upon this initial assessment with the nurse, a treatment plan is discussed with the participant's primary care provider and the participant. The participant will choose the best intervention for them at that time (behavioral or surgical). Following their chosen intervention, the participants are evaluated using a series of surveys throughout a 12-15 month time period. (Benson/Fiegen-Co-PI's-funded through NIMHD)

Vitamin B12 Deficiencies

- From newborns to elders, vitamin B12 deficiency is known to cause permanent neurologic deficits. There is no consensus on how to make the diagnosis early enough to prevent this damage, since clinically the early signs are too vague and the serum testing has significant technical challenges impacting accuracy. The research at Sanford is aimed at improving the diagnostic process to prevent debilitating neurologic deficits. (Wescott-PI)

The Sanford PROMISE

With the goal of growing and nurturing the Midwest's science-based economy, The Sanford PROMISE provides education and outreach programs for students, educators, and science-minded people within the communities that Sanford Health serves. K-12 students have the opportunity to participate in research at Sanford through a variety of ways, including the Life Science Discovery Program, Research Shadowing Program, PROMISE Summer Scholars Program, or through programming at The Sanford PROMISE community lab located at Sanford Health's headquarters in Sioux Falls, SD.

Undergraduates can participate in the Research Shadowing Program, the National Science Foundation Research Experiences for Undergraduates (NSF REU) Sites in Cell and Molecular Biology at Sanford Research and Augustana College, the Sanford Program for Undergraduate Research (SPUR), or the Summer Undergraduate Research Experience (SURE) for Native American students.

Educators can participate in the PROMISE Educator Enrichment Workshop and Science Educator Research Fellowship programs.

Sanford Research continues to lead the way in education, innovation and discovery. Most recently, a partnership with the PAST Foundation has allowed for the development of the South Dakota Innovation Lab, which is dedicated to improving education by promoting trans-disciplinary, problem-based learning in an integrated STEM approach.

Cancer Research Biology Center

The Cancer Biology Research Center features basic and translational research with strengths in breast, head and neck, ovarian, colon, cervical and lymphoid cancers. The Center is directed by Keith Miskimins, PhD. Research teams are working on projects aimed at understanding the molecular, cellular and genetic basis of cancer that can lead to the discovery of new biomarkers, drug targets and novel therapies which will improve the health and survival of cancer patients.

Analysis of the 2016 Fiscal Year Community Benefit Inventory Data

Sanford Health contributed **\$291,640,631.00** in community benefit during FY 2016.

The annual community benefit report is divided into two sections. The first section captures the losses incurred through the provision of traditional medical care and the second section captures expenditures in community benefit programmatic categories. An explanation of the FY 2016 data follows.

Charity Care and Other Means-Tested Government Programs

Charity Care is free or reduced health services provided to persons who cannot afford to pay and who meet the organization's financial assistance policy criteria. Charity Care is reported in terms of cost, not charges, and does not include bad debt. Government-sponsored means-tested health care community benefit includes unpaid costs of public programs for low income persons. This reflects the shortfall that is created when the facility receives payments that are less than the cost of caring for public program beneficiaries. This payment is not the same as contractual allowance, which is the full difference between charges and government payments. The unpaid cost of public programs (Medicaid) and Sanford Health's contribution for Charity Care for FY 2016 was **\$192,377,668.00**. At Sanford, the Charity Care program is known as the Community Care Program.

Community Health Improvement Services

Community Health Improvement Services are activities that are carried out to improve community health, extend beyond patient care activities, and are usually subsidized by the health care organization. These services do not generate patient care bills.

Sanford contributed **\$6,935,625.00** for Community Health Improvement Services which include community health education and community-based clinical services.

Community health education includes lectures, presentations, and other group programs and activities apart from clinical or diagnostic services. Key components of this category include the following community health education services which detail just some of the programs contributed by Sanford Health Fargo during FY 2015:

- The My Sanford Nurse Program (formerly called Ask-A-Nurse) served over 80,000 individuals from throughout the footprint and nation during FY 2016 and provided a community benefit of **\$974,527.00** with more than 29,000 nursing staff hours.
- Community-based licensed registered dietitians provided community benefit contributions through nutrition presentations.
- Cancer education for 5,900 patients and cancer survivors.
- Better Choices, Better Health impacted individuals who live with a chronic illness.
- Car Fit services for seniors where senior patients are evaluated by an occupational therapist to make certain that the car is adjusted to the patient's needs and assuring that every effort is made to improve safe driving conditions.
- Sanford diabetes education classes for patients and families across the enterprise.
- The Diabetes Advisory Board is part of the national certification as an American Diabetes Association Program. This Advisory Board is comprised of health care professionals and patients who work to improve the care and outcomes for patients with diabetes.

- Family parenting and sibling classes, birthing classes, breastfeeding classes, and caring for your newborn class.
- The Workforce Development K-12 contributions include the Adopt-a-School Program with Horace Mann and Roosevelt Elementary Schools, Career Days, Youth Medical Experience, and SCRUBS Camp.

Community-based clinical services are services and screenings provided on a one-time basis or as a special event in the community. These services are designed to meet identified community needs or improve community health. Key components of Sanford community-based clinical services for FY 2016 include the following:

- The FM Faith Community nurses and shelter nurses have 24 engaged congregations and community sites. Eight of those sites are Sanford affiliate sites.
- Biomed outreach is provided to the Family HealthCare Center, a federally-funded clinic. The physics team assures quality standards are met.
- Support services for the homeless population in our area, including the Cooper House, the Coalition for Homeless, the Community of Care Task Force, Churches United for the Homeless, and Gourmet Soup Kitchen.
- Foot Care Clinic.
- Screenings for cholesterol, school-based sports physicals, and comprehensive physicals.

Health Professionals Education

Sanford Health is committed to investing in education. Each day, medical students, dietitians, pharmacists, respiratory therapists, occupational therapists, nuclear medicine, nursing students and other health care workers receive training at Sanford and stay to begin their careers with us or move on to other organizations where their Sanford training will be a benefit far beyond our walls. Sanford also hosted many professional development symposiums during FY 2016, including the annual Cardiovascular Symposium, the Diabetes Symposium, and the Sanford Obesity Symposium. These workshops and symposiums are attended by hundreds of health care providers. The contribution for health professional education during FY 2016 was **\$11,319,584.00**.

Subsidized Health Services

Subsidized Health Services are clinical programs that are provided despite a financial loss so significant that negative margins remain after removing the bad debt, charity care, and Medicaid shortfalls. The service is provided because it meets an identified community need and if it were not offered by Sanford, it would either be unavailable or fall to the responsibility of government or another not-for-profit organization. Examples from our work include the renal dialysis services and radiology screenings during the Legs for Life event. During FY 2016 **\$48,554,680.00** was contributed to subsidizing health services.

Research

Contributions to research include clinical and community health research as well as studies on health care delivery that are generalizable, shared with the public and funded by a tax-exempt entity, the government or by our own organization. We do not count research that is used only internally or is proprietary. Research in this category may involve research papers prepared by staff for professional journals or presentations, or it may be a study of community health and the incidence rates of conditions for special populations. Sanford contributed **\$16,547,656.00** to research during FY 2016.

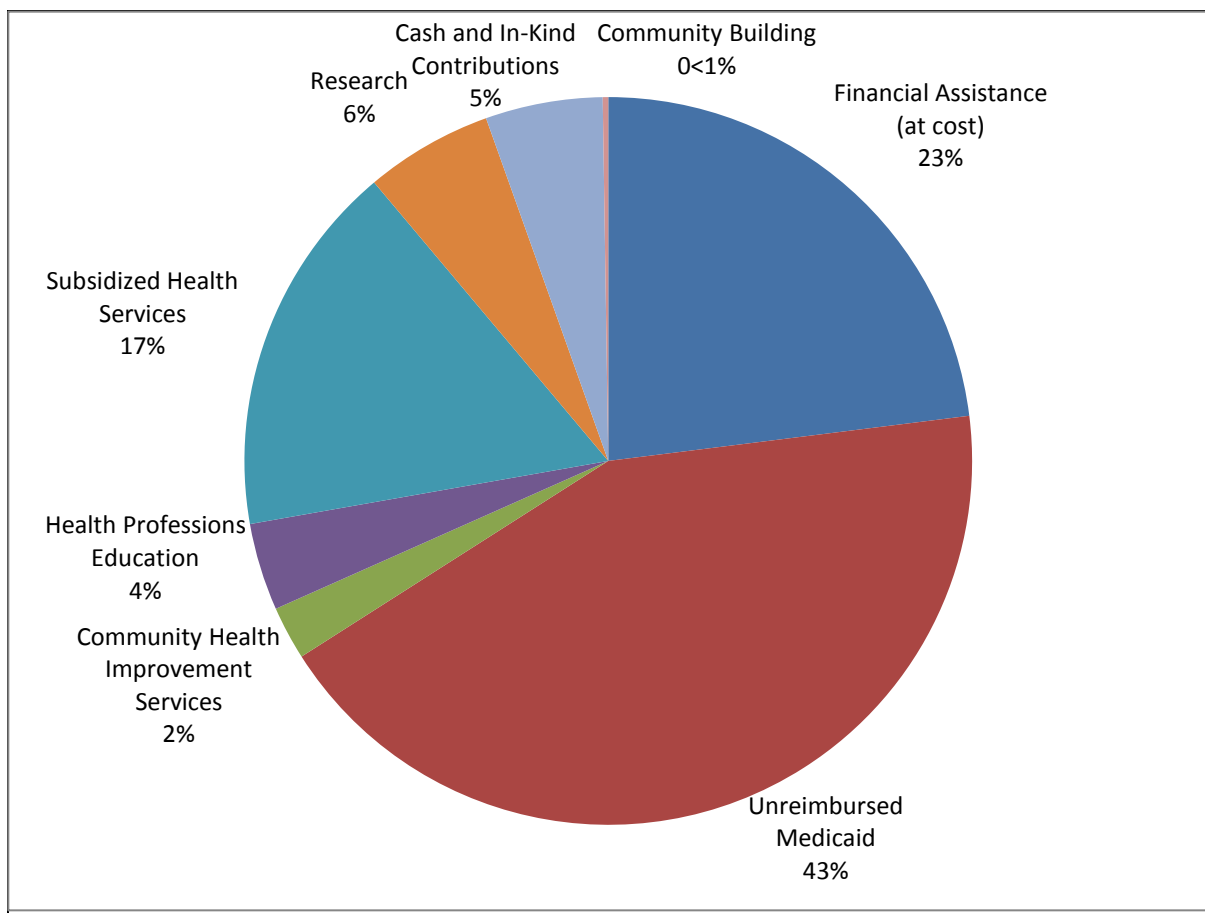
Cash and In-Kind Contributions to Community Groups

In-kind services include hours contributed by staff to the community while on work time. This category may also include overhead expenses and the donation of equipment and supplies. Cash donations are provided to other not-for-profit community organizations, and are aligned with the mission and strategic priorities to meet the community needs. During FY 2016 Sanford contributed **\$15,194,941.00** in cash and in-kind to other not-for-profit organizations.

Community Building Activities

Community Building Activities include programs and services that address the cause of health problems such as poverty, homelessness, and environmental problems. Key components of this category include physical improvements and housing, economic development, community support, environmental improvements, coalition building, leadership training for community members, workforce development, and advocacy for health care improvements. Several examples of Sanford's Community Building Activities include the Community of Care Task Force, and leadership participation in the Chamber of Commerce and the Economic Development Council. Sanford contributed **\$710,477.00** in Community Building Activities during FY 2016.

Community Benefit Contributions for Fiscal Year 2016



5/4/17